



# Chino Basin Watermaster Guidance Documents

2025 Version

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19. 2020 SAFE YIELD RESET

20. 2022 SAFE YIELD RESET METHODOLOGY

# **RESTATED JUDGMENT**

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FOR THE COUNTY OF SAN BERNARDINO  
10

11 CHINO BASIN MUNICIPAL WATER

12 DISTRICT,

13 Plaintiff,

No. RCV 51010<sup>1</sup>

14 v.

15 CITY OF CHINO, et al.

16 Defendants  
17

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20 RESTATED JUDGMENT  
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27 <sup>1</sup> Original Judgment signed January 27, 1978, Case # 164327 by Judge Howard B. Weiner. File transferred August 1989, by order  
28 of the Court and assigned new case number RCV 51010.

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FOR THE COUNTY OF SAN BERNARDINO  
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11 CHINO BASIN MUNICIPAL WATER  
12 DISTRICT,

13 Plaintiff,

No. RCV 51010<sup>2</sup>

14 v.

15 CITY OF CHINO, et al.

16 Defendants

JUDGMENT

17  
18  
19 I. INTRODUCTION

20 1. Pleadings, Parties and Jurisdiction. The complaint herein was filed on January 2, 1975,  
21 seeking an adjudication of water rights, injunctive relief and the imposition of a physical solution. A first  
22 amended complaint was filed on July 16, 1976. The defaults of certain defendants have been entered,  
23 and certain other defendants dismissed. Other than defendants who have been dismissed or whose  
24 defaults have been entered, all defendants have appeared herein. By answers and order of this Court,  
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26  
27 <sup>2</sup> Original Judgment signed January 27, 1978, Case # 164327 by Judge Howard B. Weiner. File transferred August 1989, by order  
of the Court and assigned new case number RCV 51010.  
28



1 the issues have been made those of a full inter se adjudication between the parties. This Court has  
2 jurisdiction of the subject matter of this action and of the parties herein.

3 2. Stipulation For Judgment. Stipulation for entry of judgment has been filed by and on  
4 behalf of a majority of the parties, representing a majority of the quantitative rights herein adjudicated.

5 3. Trial; Findings and Conclusions. Trial was commenced on December 16, 1977, as to the  
6 non-stipulating parties, and findings of fact and conclusions of law have been entered disposing of the  
7 issues in the case.

8 4. Definitions. As used in this Judgment, the following terms shall have the meanings  
9 herein set forth:

10 (a) Active Parties. All parties other than those who have filed with Watermaster a  
11 written waiver of service of notices, pursuant to Paragraph 58.

12 (b) Annual or Year — A fiscal year, July 1 through June 30, following, unless the  
13 context shall clearly indicate a contrary meaning.

14 (c) Appropriative Right — The annual production right of a producer from the Chino  
15 Basin other than pursuant to an overlying right.

16 (d) Basin Water — Ground water within Chino Basin which is part of the Safe Yield,  
17 Operating Safe Yield, or replenishment water in the Basin as a result of operations under the  
18 Physical Solution decreed herein. Said term does not include Stored Water.

19 (e) CBMWD — Plaintiff Chino Basin Municipal Water District.

20 (f) Chino Basin or Basin — The ground water basin underlying the area shown as  
21 such on Exhibit "B" and within the boundaries described in Exhibit "K".

22 (g) Chino Basin Watershed — The surface drainage area tributary to and overlying  
23 Chino Basin.

24 (h) Ground Water — Water beneath the surface of the ground and within the zone of  
25 saturation, i.e., below the existing water table.  
26  
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1 (i) Ground Water Basin — An area underlain by one or more permeable formations  
2 capable of furnishing substantial water storage.

3 (j) Minimal Producer — Any producer whose production does not exceed **ten** acre-  
4 feet per year.<sup>3</sup>

5 (k) MWD — The Metropolitan Water District of Southern California.

6 (l) Operating Safe Yield — The annual amount of ground water which Watermaster  
7 shall determine, pursuant to criteria specified in Exhibit "I", can be produced from Chino Basin by  
8 the Appropriative Pool parties free of replenishment obligation under the Physical Solution herein.

9 (m) Overdraft — A condition wherein the total annual production from the Basin  
10 exceeds the Safe Yield thereof.

11 (n) Overlying Right — The appurtenant right of an owner of lands overlying Chino  
12 Basin to produce water from the Basin for overlying beneficial use on such lands.

13 (o) Person. -- Any individual, partnership, association, corporation, governmental  
14 entity or agency, or other organization.

15 (p) PVMWD — Defendant Pomona Valley Municipal Water District.

16 (q) Produce or Produced — To pump or extract ground water from Chino Basin.

17 (r) Producer — Any person who produces water from Chino Basin.

18 (s) Production — Annual quantity, stated in acre feet, of water produced.

19 (t) Public Hearing — A hearing after notice to all parties and to any other person  
20 legally entitled to notice.

21 (u) Reclaimed Water — Water which, as a result of processing of waste water, is  
22 suitable for a controlled use.

23 (v) Replenishment Water — Supplemental water used to recharge the Basin  
24 pursuant to the Physical Solution, either directly by percolating the water into the Basin or  
25

26  
27 <sup>3</sup> Order dated September 27, 2001.  
28

1 indirectly by delivering the water for use in lieu of production and use of safe yield or Operating  
2 Safe Yield.

3 (w) Responsible Party — The owner, co-owner, lessee or other person designated by  
4 multiple parties interested in a well as the person responsible for purposes of filing reports  
5 hereunder.

6 (x) Safe Yield — The long-term average annual quantity of ground water (excluding  
7 replenishment or stored water but including return flow to the Basin from use of replenishment or  
8 stored water) which can be produced from the Basin under cultural conditions of a particular year  
9 without causing an undesirable result.

10 (y) SBVMWD — San Bernardino Valley Municipal Water District.

11 (z) State Water — Supplemental Water imported through the State Water Resources  
12 Development System, pursuant to Chapter 8, Division 6, Part 6 of the Water Code.

13 (aa) Stored Water — Supplemental water held in storage, as a result of direct  
14 spreading, in lieu delivery, or otherwise, for subsequent withdrawal and use pursuant to  
15 agreement with Watermaster.

16 (bb) Supplemental Water — Includes both water imported to Chino Basin from outside  
17 Chino Basin Watershed, and reclaimed water.

18 (cc) WMWD — Defendant Western Municipal Water District of Riverside County.

19 5. List of Exhibits. The following exhibits are attached to this Judgment and made a part  
20 hereof:  
21

22 "A" -- "Location Map of Chino Basin" showing boundaries of Chino Basin Municipal Water  
23 District, and other geographic and political features of Chino Basin.

24 "B" -- "Hydrologic Map of Chino Basin" showing hydrologic features of Chino Basin.

25 "C" -- Table Showing Parties in Overlying (Agricultural) Pool.

26 "D" -- Table Showing Parties in Overlying (Non-agricultural Pool and Their Rights.

27 "E" -- Table Showing Appropriators and Their Rights.  
28

1 "F" -- Overlying (Agricultural) Pool Pooling Plan.

2 "G" -- Overlying (Non-agricultural) Pool Pooling Plan.

3 "H" -- Appropriative Pool Pooling Plan.

4 "I" -- Engineering Appendix.

5 "J" -- Map of In Lieu Area No. 1.

6 "K" -- Legal Description of Chino Basin.

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9 II. DECLARATION OF RIGHTS

10 A. HYDROLOGY

11  
12 6. Safe Yield. The Safe Yield of Chino Basin is 140,000 acre feet per year.

13 7. Overdraft and Prescriptive Circumstances. In each year for a period in excess of five  
14 years prior to filing of the First Amended Complaint herein, the Safe Yield of the Basin has been  
15 exceeded by the annual production therefrom, and Chino Basin is and has been for more than five years  
16 in a continuous state of over draft. The production constituting said overdraft has been open, notorious,  
17 continuous, adverse, hostile and under claim of right. The circumstances of said overdraft have given  
18 notice to all parties of the adverse nature of such aggregate over-production.

19 B. WATER RIGHTS IN SAFE YIELD

20  
21 8. Overlying Rights. The parties listed in Exhibits "C" and "D", are the owners or in  
22 possession of lands which overlie Chino Basin. As such, said parties have exercised overlying water  
23 rights in Chino Basin. All overlying rights owned or exercised by parties listed in Exhibits "C" and "D",  
24 have, in the aggregate, been limited by prescription except to the extent such rights have been preserved  
25 by self-help by said parties. Aggregate preserved overlying rights in the Safe Yield for agricultural pool  
26 use, including the rights of the State of California, total 82,800 acre feet per year. Overlying rights for  
27 non-agricultural pool use total 7,366 acre feet per year and are individually decreed for each affected  
28

1 party in Exhibit "D". No portion of the Safe Yield of Chino Basin exists to satisfy unexercised overlying  
2 rights, and such rights have all been lost by prescription. However, uses may be made of Basin Water on  
3 overlying lands which have no preserved overlying rights pursuant to the Physical Solution herein. All  
4 overlying rights are appurtenant to the land and cannot be assigned or conveyed separate or apart  
5 therefrom ***for the term of the Peace Agreement except that the members of the Overlying (Non-***  
6 ***Agricultural) Pool shall have the right to Transfer or lease their quantified Production rights (i)***  
7 ***within the Overlying (Non-Agricultural) Pool; (ii) to Watermaster in conformance with the***  
8 ***procedures described in the Peace Agreement between the Parties therein, dated June 29, 2000;***  
9 ***or (iii) in accordance with the Overlying (Non-Agricultural) Pool Pooling Plan set forth in Exhibit***  
10 ***"G."***<sup>4</sup>

11 9. Appropriative Rights. The parties listed in Exhibit "E" are the owners of appropriative  
12 rights, including rights by prescription, in the unadjusted amounts therein set forth, and by reason thereof  
13 are entitled under the Physical Solution to share in the remaining Safe Yield, after satisfaction of overlying  
14 rights and rights of the State of California, and in the Operating Safe Yield in Chino Basin, in the annual  
15 shares set forth in Exhibit "E".

16 (a) Loss of Priorities. By reason of the long continued overdraft in Chino Basin, and  
17 in light of the complexity of determining appropriative priorities and the need for conserving and  
18 making maximum beneficial use of the water resources of the State, each and all of the parties  
19 listed in Exhibit "E" are estopped and barred from asserting special priorities or preferences, inter  
20 se. All of said appropriative rights are accordingly deemed and considered of equal priority.

21 (b) Nature and Quantity. All rights listed in Exhibit "E" are appropriative and  
22 prescriptive in nature. By reason of the status of the parties, and the provisions of Section 1007  
23 of the Civil Code, said rights are immune from reduction or limitation by prescription.  
24  
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27 <sup>4</sup> Order dated September 28, 2000 and Order dated April 19, 2001 further modified by Order dated December 21, 2007.  
28

1           10.     Rights of the State of California. The State of California, by and through its Department  
2 of Corrections, Youth Authority and Department of Fish and Game, is a significant producer of ground  
3 water from and the State is the largest owner of land overlying Chino Basin. The precise nature and  
4 scope of the claims and rights of the State need not be, and are not, defined herein. The State, through  
5 said departments, has accepted the Physical Solution herein decreed, in the interests of implementing the  
6 mandate of Section 2 of Article X of the California Constitution. For all purposes of this Judgment, all  
7 future production by the State or its departments or agencies for overlying use on State-owned lands shall  
8 be considered as agricultural pool use.

9  
10                   C. RIGHTS TO AVAILABLE GROUND WATER STORAGE CAPACITY

11           11.     Available Ground Water Storage Capacity. There exists in Chino Basin a substantial  
12 amount of available ground water storage capacity which is not utilized for storage or regulation of Basin  
13 Waters. Said reservoir capacity can appropriately be utilized for storage and conjunctive use of  
14 supplemental water with Basin Waters. It is essential that said reservoir capacity utilization for storage  
15 and conjunctive use of supplemental water be undertaken only under Watermaster control and regulation,  
16 in order to protect the integrity of both such Stored Water and Basin Water in storage and the Safe Yield  
17 of Chino Basin.

18  
19           12.     Utilization of Available Ground Water Capacity. Any person or public entity, whether a  
20 party to this action or not, may make reasonable beneficial use of the available ground water storage  
21 capacity of Chino Basin for storage of supplemental water; provided that no such use shall be made  
22 except pursuant to written agreement with Watermaster, as authorized by Paragraph 28. In the allocation  
23 of such storage capacity, the needs and requirements of lands overlying Chino Basin and the owners of  
24 rights in the Safe Yield or Operating Safe Yield of the Basin shall have priority and preference over  
25 storage for export.  
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1 III. INJUNCTION

2 13. Injunction Against Unauthorized Production of Basin Water. Each party in each of the  
3 respective pools is enjoined, as follows:  
4

5 (a) Overlying Agricultural Pool. Each party in the Overlying (Agricultural) Pool, its  
6 officers, agents, employees, successors and assigns, is and they each are ENJOINED AND  
7 RESTRAINED from producing ground water from Chino Basin in any year hereafter in excess of  
8 such party's correlative share of the aggregate of 82,800 acre feet allocated to said Pool, except  
9 pursuant to the Physical Solution or a storage water agreement.

10 (b) Overlying Non-Agricultural Pool. Each party in the Overlying Non-Agricultural  
11 Pool, its officers, agents, employees, successors and assigns, is and they each are ENJOINED  
12 AND RESTRAINED from producing ground water of Chino Basin in any year hereafter in excess  
13 of such party's decreed rights in the Safe Yield, except pursuant to the provisions of the Physical  
14 Solution or a storage water agreement.

15 (c) Appropriative Pool. Each party in the Appropriative Pool, its officers, agents,  
16 employees, successors and assigns, is and they are each ENJOINED AND RESTRAINED from  
17 producing ground water of Chino Basin in any year hereafter in excess of such party's decreed  
18 share of Operating Safe Yield, except pursuant to the provisions of the Physical Solution or a  
19 storage water agreement.

20 14. Injunction Against Unauthorized Storage or Withdrawal of Stored Water. Each party, its  
21 officers, agents, employees, successors and assigns is and they each are ENJOINED AND  
22 RESTRAINED from storing supplemental water in Chino Basin for withdrawal, or causing withdrawal of,  
23 water stored by that party, except pursuant to the terms of a written agreement with Watermaster and in  
24 accordance with Watermaster regulations. Any supplemental water stored or recharged in the Basin,  
25 except pursuant to such a Watermaster agreement, shall be deemed abandoned and not classified as  
26 Stored Water. This paragraph has no application, as such, to supplemental water spread or provided in  
27 lieu by Watermaster pursuant to the Physical Solution.  
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#### IV. CONTINUING JURISDICTION

15. Continuing Jurisdiction. Full jurisdiction, power and authority are retained and reserved to the Court as to all matters contained in this judgment, except:

(a) The redetermination of Safe Yield, as set forth in Paragraph 6, during the first ten (10) years of operation of the Physical Solution;

(b) The allocation of Safe Yield as between the several pools as set forth in Paragraph 44 of the Physical Solution;

(c) The determination of specific quantitative rights and shares in the declared Safe Yield or Operating Safe Yield herein declared in Exhibits "D" and "E"; and

(d) The amendment or modification of Paragraphs 7 (a) and (b) of Exhibit "H", during the first ten (10) years of operation of the Physical Solution, and thereafter only upon affirmative recommendation of at least 67% of the voting power (determined pursuant to the formula described in Paragraph 3 of Exhibit "H"), but not less than one-third of the members of the Appropriative Pool Committee representatives of parties who produce water within IEUA or WMWD; after said tenth year the formula set forth in said Paragraph 7 (a) and 7 (b) of Exhibit "H" for payment of the costs of replenishment water may be changed to 100% gross or net, or any percentage split thereof, but only in response to recommendation to the Court by affirmative vote of at least 67% of said voting power of the Appropriative Pool representatives of parties who produce ground water within IEUA or WMWD, but not less than one-third of their number. In such event, the Court shall act in conformance with such recommendation unless there are compelling reasons to the contrary; and provided, further, that the fact that the allocation of Safe Yield or Operating Safe Yield shares may be rendered moot by a recommended change in the formula for replenishment assessments shall not be deemed to be such a "compelling reason."



1 Said continuing jurisdiction is provided for the purpose of enabling the Court, upon application of any  
2 party, the Watermaster, the Advisory Committee or any Pool Committee, by motion and, upon at least 30  
3 days' notice thereof, and after hearing thereon, to make such further or supplemental orders or directions  
4 as may be necessary or appropriate for interpretation, enforcement or carrying out of this Judgment, and  
5 to modify, amend or amplify any of the provisions of this Judgment.

## 6 7 V. WATERMASTER

### 8 9 A. APPOINTMENT

10 16. Watermaster Appointment. CBMWD, acting by and through a majority of its board of  
11 directors, is hereby appointed Watermaster, to administer and enforce the provisions of this Judgment  
12 and any subsequent instructions or orders of the Court hereunder. The term of appointment of  
13 Watermaster shall be for five (5) years. The Court will by subsequent orders provide for successive terms  
14 or for a successor Watermaster. Watermaster may be changed at any time by subsequent order of the  
15 Court, on its own motion, or on the motion of any party after notice and hearing. Unless there are  
16 compelling reasons to the contrary, the Court shall act in conformance with a motion requesting the  
17 Watermaster be changed if such motion is supported by a majority of the voting power of the Advisory  
18 Committee.

### 19 20 B. POWERS AND DUTIES

21 17. Powers and Duties. Subject to the continuing supervision and control of the Court,  
22 Watermaster shall have and may exercise the express powers, and shall perform the duties, as provided  
23 in this Judgment or hereafter ordered or authorized by the Court in the exercise of the Court's continuing  
24 jurisdiction.

1           18.    Rules and Regulations.<sup>5</sup>

2                   (a) Upon recommendation by the Advisory Committee, Watermaster shall make  
3 and adopt, after public hearing, appropriate rules and regulations for conduct of Watermaster  
4 affairs, including, meeting schedules and procedures, and compensation of members of  
5 Watermaster. Thereafter, Watermaster may amend the rules from time to time upon  
6 recommendation, or with approval of the Advisory Committee after hearing noticed to active  
7 parties, except that compensation of Watermaster members shall be subject to Court Approval. A  
8 copy of the rules and regulations, and of amendments, shall be mailed to each active party.  
9

10                   (b) Under the rules, Watermaster members shall be paid up to \$125 for each day's  
11 attendance at meetings at the direction of the board, not to exceed eight meetings in each month.  
12 Compensation shall not be paid for junkets or attendance at conferences, seminars, or retreats at  
13 locations other than Watermaster headquarters. Members shall not be compensated for more than  
14 one meeting each day.  
15

16                   (c) Under the rules, Watermaster members may be reimbursed for reasonable and  
17 necessary travel, meals, lodging and registration expenses incurred on Watermaster business.  
18 Mileage shall not be paid for travel to or from Watermaster meetings unless the individual must  
19 travel more than 50 miles per month. The Watermaster's budget shall include an appropriation for  
20 expense reimbursement. The Watermaster shall file a report on the expense reimbursement with  
21 the court as part of the Annual Report. The Report shall disclose total expense reimbursements  
22 and single expenditures for items of \$125.00 or more.

23           19.    Acquisition of Facilities. Watermaster may purchase, lease, acquire and hold all  
24 necessary facilities and equipment; provided, that it is not the intent of the Court that Watermaster acquire  
25 any interest in real property or substantial capital assets.  
26

---

27   <sup>5</sup> Order dated March 31, 1999.  
28

1           20.     Employment of Experts and Agents. Watermaster may employ or retain such  
2 administrative, engineering, geologic, accounting, legal or other specialized personnel and consultants as  
3 may be deemed appropriate in the carrying out of its powers and shall require appropriate bonds from all  
4 officers and employees handling Watermaster funds. Watermaster shall maintain records for purposes of  
5 allocation of costs of such services as well as of all other expenses of Watermaster administration as  
6 between the several pools established by the Physical Solution.

7  
8           21.     Measuring Devices. Watermaster shall cause parties, pursuant to uniform rules, to install  
9 and maintain in good operating condition, at the cost of each party, such necessary measuring devices or  
10 meters as Watermaster may deem appropriate. Such measuring devices shall be inspected and tested  
11 as deemed necessary by Watermaster, and the cost thereof shall constitute an expense of Watermaster.

12           22.     Assessments. Watermaster is empowered to levy and collect all assessments provided  
13 for in the pooling plans and Physical Solution.

14  
15           23.     Investment of Funds. Watermaster may hold and invest any and all Watermaster funds  
16 in investments authorized from time to time for public agencies of the State of California.

17           24.     Borrowing. Watermaster may borrow from time to time amounts not exceeding the  
18 annual anticipated receipts of Watermaster during such year.

19  
20           25.     Contracts. Watermaster may enter into contracts for the performance of any powers  
21 herein granted; provided, however, that Watermaster may not contract with or purchase materials,  
22 supplies or services from IEUA, except upon the prior recommendation and approval of the Advisory  
23 Committee and pursuant to written order of the Court.

24           26.     Cooperation With Other Agencies. Subject to prior recommendation or approval of the  
25 Advisory Committee, Watermaster may act jointly or cooperate with agencies of the United States and the  
26 State of California or any political subdivisions, municipalities or districts or any person to the end that the  
27 purpose of the Physical Solution may be fully and economically carried out.  
28

1           27.     Studies. Watermaster may, with concurrence of the Advisory Committee or affected Pool  
2 Committee and in accordance with Paragraph 54 (b), undertake relevant studies of hydrologic conditions,  
3 both quantitative and qualitative, and operating aspects of implementation of the management program  
4 for Chino Basin.

5           28.     Ground Water Storage Agreements. Watermaster shall adopt, with the approval of the  
6 Advisory Committee, uniformly applicable rules and a standard form of agreement for storage of  
7 supplemental water, pursuant to criteria therefore set forth in Exhibit "I". Upon appropriate application by  
8 any person, Watermaster shall enter into such a storage agreement; provided that all such storage  
9 agreements shall first be approved by written order of the Court, and shall by their terms preclude  
10 operations which will have a substantial adverse impact on other producers.

11           29.     Accounting for Stored Water. Watermaster shall calculate additions, extractions and  
12 losses and maintain an annual account of all Stored Water in Chino Basin, and any losses of water  
13 supplies or Safe Yield of Chino Basin resulting from such Stored Water.

14           30.     Annual Administrative Budget. Watermaster shall submit to Advisory Committee an  
15 administrative budget and recommendation for each fiscal year on or before March 1. The Advisory  
16 Committee shall review and submit said budget and their recommendations to Watermaster on or before  
17 April 1, following. Watermaster shall hold a public hearing on said budget at its April quarterly meeting  
18 and adopt the annual administrative budget which shall include the administrative items for each pool  
19 committee. The administrative budget shall set forth budgeted items in sufficient detail as necessary to  
20 make a proper allocation of the expense among the several pools, together with Watermaster's proposed  
21 allocation. The budget shall contain such additional comparative information or explanation as the  
22 Advisory Committee may recommend from time to time. Expenditures within budgeted items may  
23 thereafter be made by Watermaster in the exercise of powers herein granted, as a matter of course. Any  
24 budget transfer in excess of 20% of a budget category during any budget year or modification of such  
25 administrative budget during any year shall be first submitted to the Advisory Committee for review and  
26 recommendation.

1           31.     Review Procedures. All actions, decisions or rules of Watermaster shall be subject to  
2 review by the Court on its own motion or on timely motion by any party, the Watermaster (in the case of a  
3 mandated action), the Advisory Committee, or any Pool Committee, as follows:

4                   (a)     Effective Date of Watermaster Action. Any action, decision or rule of  
5 Watermaster shall be deemed to have occurred or been enacted on the date on which written  
6 notice thereof is mailed. Mailing of copies of approved Watermaster minutes to the active parties  
7 shall constitute such notice to all parties.

8                   (b)     Noticed Motion. Any party, the Watermaster (as to any mandated action), the  
9 Advisory Committee, or any Pool Committee may, by a regularly noticed motion, apply to the  
10 Court for review of any Watermaster's action, decision or rule. Notice of such motion shall be  
11 served personally or mailed to Watermaster and to all active parties. Unless otherwise ordered  
12 by the Court, such motion shall not operate to stay the effect of such Watermaster action,  
13 decision or rule.

14                   (c)     Time for Motion. Notice of motion to review any Watermaster action, decision or  
15 rule shall be served and filed within ninety (90) days after such Watermaster action, decision or  
16 rule, except for budget actions, in which event said notice period shall be sixty (60) days.

17                   (d)     De Novo Nature of Proceedings. Upon the filing of any such motion, the Court  
18 shall require the moving party to notify the active parties, the Watermaster, the Advisory  
19 Committee, and each Pool Committee, of a date for taking evidence and argument, and on the  
20 date so designated shall review de novo the question at issue. Watermaster's findings or  
21 decision, if any, may be received in evidence at said hearing, but shall not constitute presumptive  
22 or prima facie proof of any fact in issue.

23                   (e)     Decision. The decision of the Court in such proceeding shall be an appealable  
24 supplemental order in this case. When the same is final, it shall be binding upon the  
25 Watermaster and all parties.  
26  
27  
28

1  
2  
3 C. ADVISORY AND POOL COMMITTEES

4 32. Authorization. Watermaster is authorized and directed to cause committees of producer  
5 representatives to be organized to act as Pool Committees for each of the several pools created under  
6 the Physical solution. Said Pool Committees shall, in turn, jointly form an Advisory Committee to assist  
7 Watermaster in performance of its functions under this judgment. Pool Committees shall be composed as  
8 specified in the respective pooling plans, and the Advisory Committee shall be composed of ten (10)  
9 voting representatives from each pool, as designated by the respective Pool Committee<sup>6</sup> **in accordance**  
10 **with each pool's pooling plan. WMWD, Three Valleys Municipal Water District (Successor to**  
11 **PVMWD)** and SBVMWD shall each be entitled to one non-voting representative on said Advisory  
12 Committee.

13  
14 33. Term and Vacancies. Members of any Pool Committee, shall serve for the term, and  
15 vacancies shall be filled, as specified in the respective pooling plan. Members of the Advisory Committee  
16 shall serve at the will of their respective Pool Committee.

17 34. Voting Power. The voting power on each Pool Committee shall be allocated as provided  
18 in the respective pooling plan. The voting power on the Advisory Committee shall be one hundred (100)  
19 votes allocated among the three pools in proportion to the total assessments paid to Watermaster during  
20 the preceding year; provided, that the minimum voting power of each pool shall be

- 21  
22 (a) Overlying Agricultural Pool 20,  
23 (b) Overlying Non-Agricultural Pool 5, and  
24 (c) Appropriative Pool 20.  
25  
26

27 <sup>6</sup> Order dated September 18, 1996.  
28

1 In the event any pool is reduced to its said minimum vote, the remaining votes shall be allocated between  
2 the remaining pools on said basis of assessments paid to Watermaster by each such remaining pool  
3 during the preceding year. The method of exercise of each pool's voting power on the Advisory  
4 Committee shall be as determined by the respective pool committees.

5  
6 35. Quorum. A majority of the voting power of the Advisory Committee or any Pool  
7 Committee shall constitute a quorum for the transaction of affairs of such Advisory or Pool Committee;  
8 provided, that at least one representative of each Pool Committee shall be required to constitute a  
9 quorum of the Advisory Committee. No Pool Committee representative may purposely absent himself or  
10 herself, without good cause, from an Advisory Committee meeting to deprive it of a quorum. Action by  
11 affirmative vote of a majority of the entire voting power of any Pool Committee or the Advisory Committee  
12 shall constitute action by such committee. Any action or recommendation of a Pool Committee or the  
13 Advisory Committee shall be transmitted to Watermaster in writing, together with a report of any  
14 dissenting vote or opinion.

15 36. Compensation. Pool or Advisory Committee members may receive compensation, to be  
16 established by the respective pooling plan, but not to exceed twenty-five dollars (\$25.00) for each  
17 meeting of such Pool or Advisory Committee attended, and provided that no member of a Pool or  
18 Advisory Committee shall receive compensation of more than three hundred (\$300.00) dollars for service  
19 on any such committee during any one year. All such compensation shall be a part of Watermaster  
20 administrative expense. No member of any Pool or Advisory Committee shall be employed by  
21 Watermaster or compensated by Watermaster for professional or other services rendered to such Pool or  
22 Advisory Committee or to Watermaster, other than the fee for attendance at meetings herein provided,  
23 plus reimbursement of reasonable expenses related to activities within the Basin.

24  
25 37. Organization.

26 (a) Organizational Meeting. At its first meeting in each year, each Pool Committee  
27 and the Advisory Committee shall elect a chairperson and a vice chairperson from its  
28

1 membership. It shall also select a secretary, a treasurer and such assistant secretaries and  
2 treasurers as may be appropriate, any of whom may, but need not, be members of such Pool or  
3 Advisory Committee.

4 (b) Regular Meetings. All Pool Committees and the Advisory Committee shall hold  
5 regular meetings at a place and time to be specified in the rules to be adopted by each Pool and  
6 Advisory Committee. Notice of regular meetings of any Pool or Advisory Committee, and of any  
7 change in time or place thereof, shall be mailed to all active parties in said pool or pools.  
8

9 (c) Special Meetings. Special meetings of any Pool or Advisory Committee may be  
10 called at any time by the Chairperson or by any three (3) members of such Pool or Advisory  
11 Committee by delivering notice personally or by mail to each member of such Pool or Advisory  
12 Committee and to each active party at least 24 hours before the time of each such meeting in the  
13 case of personal delivery, and 96 hours in the case of mail. The calling notice shall specify the  
14 time and place of the special meeting and the business to be transacted. No other business shall  
15 be considered at such meeting.

16 (d) Minutes. Minutes of all Pool Committee, Advisory Committee and Watermaster  
17 meetings shall be kept at Watermaster's offices. Copies thereof shall be mailed or otherwise  
18 furnished to all active parties in the pool or pools concerned. Said copies of minutes shall  
19 constitute notice of any Pool or Advisory Committee action therein reported, and shall be  
20 available for inspection by any party.

21 (e) Adjournments. Any meeting of any Pool or Advisory Committee may be  
22 adjourned to a time and place specified in the order of adjournment. Less than a quorum may so  
23 adjourn from time to time. A copy of the order or notice of adjournment shall be conspicuously  
24 posted forthwith on or near the door of the place where the meeting was held.  
25

26 38. Powers and Functions. The powers and functions of the respective Pool Committees  
27 and the Advisory Committee shall be as follows:  
28



1 (a) Pool Committees. Each Pool Committee shall have the power and responsibility  
2 for developing policy recommendations for administration of its particular pool, as created under  
3 the Physical Solution. All actions and recommendations of any Pool Committee which require  
4 Watermaster implementation shall first be noticed to the other two pools. If no objection is  
5 received in writing within thirty (30) days, such action or recommendation shall be transmitted  
6 directly to Watermaster for action. If any such objection is received, such action or  
7 recommendation shall be reported to the Advisory Committee before being transmitted to  
8 Watermaster.

9 (b) Advisory Committee. The Advisory Committee shall have the duty to study, and  
10 the power to recommend, review and act upon all discretionary determinations made or to be  
11 made hereunder by Watermaster.

12  
13 [1] Committee Initiative. When any recommendation or advice of the  
14 Advisory Committee is received by Watermaster, action consistent therewith may be  
15 taken by Watermaster; provided, that any recommendation approved by 80 votes or more  
16 in the Advisory Committee shall constitute a mandate for action by Watermaster  
17 consistent therewith. If Watermaster is unwilling or unable to act pursuant to  
18 recommendation or advice from the Advisory Committee (other than such mandatory  
19 recommendations), Watermaster shall hold a public hearing, which shall be followed by  
20 written findings and decision. Thereafter, Watermaster may act in accordance with said  
21 decision, whether consistent with or contrary to said Advisory Committee  
22 recommendation. Such action shall be subject to review by the Court, as in the case of  
23 all other Watermaster determinations.

24  
25 [2] Committee Review. In the event Watermaster proposes to take  
26 discretionary action, other than approval or disapproval of a Pool Committee action or  
27 recommendation properly transmitted, or execute any agreement not theretofore within  
28 the scope of an Advisory Committee recommendation, notice of such intended action

1 shall be served on the Advisory Committee and its members at least thirty (30) days  
2 before the Watermaster meeting at which such action is finally authorized.

3 (c) Review of Watermaster Actions. Watermaster (as to mandated action), the  
4 Advisory Committee or any Pool Committee shall be entitled to employ counsel and expert  
5 assistance in the event Watermaster or such Pool or Advisory Committee seeks Court review of  
6 any Watermaster action or failure to act. The cost of such counsel and expert assistance shall be  
7 Watermaster expense to be allocated to the affected pool or pools.  
8

## 9 VI. PHYSICAL SOLUTION

### 10 A. GENERAL

11  
12 39. Purpose and Objective. Pursuant to the mandate of Section 2 of Article X of the  
13 California Constitution, the Court hereby adopts and orders the parties to comply with a Physical Solution.  
14 The purpose of these provisions is to establish a legal and practical means for making the maximum  
15 reasonable beneficial use of the waters of Chino Basin by providing the optimum economic, long-term,  
16 conjunctive utilization of surface waters, ground waters and supplemental water, to meet the  
17 requirements of water users having rights in or dependent upon Chino Basin.  
18

19 40. Need for Flexibility. It is essential that this Physical solution provide maximum flexibility  
20 and adaptability in order that Watermaster and the Court may be free to use existing and future  
21 technological, social, institutional and economic options, in order to maximize beneficial use of the waters  
22 of Chino Basin. To that end, the Court's retained jurisdiction will be utilized, where appropriate, to  
23 supplement the discretion herein granted to the Watermaster.  
24

25 41. Watermaster Control. Watermaster, with the advice of the Advisory and Pool  
26 Committees, is granted discretionary powers in order to develop an optimum basin management program  
27 for Chino Basin, including both water quantity and quality considerations. Withdrawals and supplemental  
28 water replenishment of Basin Water, and the full utilization of the water resources of Chino Basin, must

1 be subject to procedures established by and administered through Watermaster with the advice and  
2 assistance of the Advisory and Pool Committees composed of the affected producers. Both the quantity  
3 and quality of said water resources may thereby be preserved and the beneficial utilization of the Basin  
4 maximized.

5  
6 42. General Pattern of Operations. It is contemplated that the rights herein decreed will be  
7 divided into three (3) operating pools for purposes of Watermaster administration. A fundamental  
8 premise of the Physical Solution is that all water users dependent upon Chino Basin will be allowed to  
9 pump sufficient waters from the Basin to meet their requirements. To the extent that pumping exceeds  
10 the share of the Safe Yield assigned to the Overlying Pools, or the Operating Safe Yield in the case of the  
11 Appropriative Pool, each pool will provide funds to enable Watermaster to replace such overproduction.  
12 The method of assessment in each pool shall be as set forth in the applicable pooling plan.

#### 13 B. POOLING

14  
15 43. Multiple Pools Established. There are hereby established three (3) pools for  
16 Watermaster administration of, and for the allocation of responsibility for, and payment of, costs of  
17 replenishment water and other aspects of this Physical Solution.

18 (a) Overlying (Agricultural) Pool. The first pool shall consist of the State of California  
19 and all overlying producers who produce water for other than industrial or commercial purposes.  
20 The initial members of the pool are listed in Exhibit "C".  
21

22 (b) Overlying (Non-agricultural) Pool. The second pool shall consist of overlying  
23 producers who produce water for industrial or commercial purposes. The initial members of this  
24 pool are listed in Exhibit "D".

25 (c) Appropriative Pool. A third and separate pool shall consist of owners of  
26 appropriative rights. The initial members of the pool are listed in Exhibit "E".  
27  
28

1 Any party who changes the character of his use may, by subsequent order of the Court, be  
2 reassigned to the proper pool; but the allocation of Safe Yield under Paragraph 44 hereof shall not be  
3 changed. Any non-party producer or any person who may hereafter commence production of water from  
4 Chino Basin, and who may become a party to this physical solution by intervention, shall be assigned to  
5 the proper pool by the order of the Court authorizing such intervention.

6 44. Determination and Allocation of Rights to Safe Yield of Chino Basin. The declared Safe  
7 Yield of Chino Basin is hereby allocated as follows:

<u>Pool</u>	<u>Allocation</u>
Overlying (Agricultural) Pool	414,000 acre-feet in any five (5) consecutive years.
Overlying (Non-agricultural) Pool	7,366 acre-feet per year.
Appropriative Pool	49,834 acre-feet per year.

13 The foregoing acre foot allocations to the overlying pools are fixed. Any subsequent change in  
14 the Safe Yield shall be debited or credited to the Appropriative Pool. Basin Water available to the  
15 Appropriative Pool without replenishment obligation may vary from year to year as the Operating Safe  
16 Yield is determined by Watermaster pursuant to the criteria set forth in Exhibit "I".

18 45. Annual Replenishment. Watermaster shall levy and collect assessments in each year,  
19 pursuant to the respective pooling plans, in amounts sufficient to purchase replenishment water to  
20 replace production by any pool during the preceding year which exceeds that pool's allocated share of  
21 Safe Yield in the case of the overlying pools, or Operating Safe Yield in the case of the Appropriative  
22 Pool. It is anticipated that supplemental water for replenishment of Chino Basin may be available at  
23 different rates to the various pools to meet their replenishment obligations. If such is the case, each pool  
24 will be assessed only that amount necessary for the cost of replenishment water to that pool, at the rate  
25 available to the pool, to meet its replenishment obligation.

1           46.     Initial Pooling Plans. The initial pooling plans, which are hereby adopted, are set forth in  
2 Exhibits "F", "G" and "H", respectively. Unless and until modified by amendment of the judgment pursuant  
3 to the Court's continuing jurisdiction, each such plan shall control operation of the subject pool.

4  
5                                   C. REPORTS AND ACCOUNTING

6           47.     Production Reports. Each party or responsible party shall file periodically with  
7 Watermaster, pursuant to Watermaster rules, a report on a form to be prescribed by Watermaster  
8 showing the total production of such party during the preceding reportage period, and such additional  
9 information as Watermaster may require, including any information specified by the affected Pool  
10 Committee.

11  
12           48.     Watermaster Report and Accounting. **Watermaster's Annual Report shall be filed by**  
13 **January 31 of each year. The Report shall apply to the preceding fiscal years' operation. The**  
14 **Report shall contain details as to operation of the Pools. A certified audit of assessments and**  
15 **expenditures pursuant to this Physical Solution, and a review of Watermaster activity.<sup>7</sup>**

16                                   D. REPLENISHMENT

17  
18           49.     Sources of Supplemental Water. Supplemental water may be obtained by Watermaster  
19 from any available source. Watermaster shall seek to obtain the best available quality of supplemental  
20 water at the most reasonable cost for recharge in the Basin. To the extent that costs of replenishment  
21 water may vary between pools, each pool shall be liable only for the costs attributable to its required  
22 replenishment. Available sources may include, but are not limited to:

23                   (a)     Reclaimed Water. There exist a series of agreements generally denominated the  
24                   Regional Waste Water Agreements between IEUA and owners of the major municipal sewer  
25

26  
27                   \_\_\_\_\_  
28                   <sup>7</sup> Order dated March 31, 1999.

1 systems within the basin. Under those agreements, which are recognized hereby but shall be  
2 unaffected and unimpaired by this judgment, substantial quantities of reclaimed water may be  
3 made available for replenishment purposes. There are additional sources of reclaimed water  
4 which are, or may become, available to Watermaster for said purposes. Maximum beneficial use  
5 of reclaimed water shall be given high priority by Watermaster.

6 (b) State Water. State water constitutes a major available supply of supplemental  
7 water. In the case of State Water, Watermaster purchases shall comply with the water service  
8 provisions of the State's water service contracts. More specifically, Watermaster shall purchase  
9 State Water from MWD for replenishment of excess production within IEUA, WMWD and  
10 TVMWD, and from SBVMWD to replenish excess production within SBVMWD's boundaries in  
11 Chino Basin, except to the extent that MWD and SBVMWD give their consent as required by  
12 such State water service contracts.

13 (c) Local Import. There exist facilities and methods for importation of surface and  
14 ground water supplies from adjacent basins and watersheds.

15 (d) Colorado River Supplies. MWD has water supplies available from its Colorado  
16 River Aqueduct.

17 50. Methods of Replenishment. Watermaster may accomplish replenishment of  
18 overproduction from the Basin by any reasonable method, including:  
19

20 (a) Spreading and percolation or Injection of water in existing or new facilities,  
21 subject to the provisions of Paragraphs 19, 25 and 26 hereof.

22 (b) In Lieu Procedures. Watermaster may make, or cause to be made, deliveries of  
23 water for direct surface use, in lieu of ground water production.  
24

## 25 E. REVENUES 26 27 28

1           51.     Production Assessment. Production assessments, on whatever basis, may be levied by  
2 Watermaster pursuant to the pooling plan adopted for the applicable pool.

3           52.     Minimal Producers. Minimal Producers shall be exempted from payment of production  
4 assessments, upon filing of production reports as provided in Paragraph 47 of this Judgment, and  
5 payment of an annual five dollar (\$5.00) administrative fee as specified by Watermaster rules.  
6

7           53.     Assessment Proceeds — Purposes. Watermaster shall have the power to levy  
8 assessments against the parties (other than minimal pumpers) based upon production during the  
9 preceding period of assessable production, whether quarterly, semi-annually or annually, as may be  
10 determined most practical by Watermaster or the affected Pool Committee.

11           54.     Administrative Expenses. The expenses of administration of this Physical Solution shall  
12 be categorized as either (a) general Watermaster administrative expense, or (b) special project expense.  
13

14                 (a)     General Watermaster Administrative Expense shall include office rental, general  
15 personnel expense, supplies and office equipment, and related incidental expense and general  
16 overhead.  
17

18                 (b)     Special Project Expense shall consist of special engineering, economic or other  
19 studies, litigation expense, meter testing or other major operating expenses. Each such project  
20 shall be assigned a Task Order number and shall be separately budgeted and accounted for.  
21 General Watermaster administrative expense shall be allocated and assessed against the  
22 respective pools based upon allocations made by the Watermaster, who shall make such  
23 allocations based upon generally accepted cost accounting methods. Special Project Expense  
24 shall be allocated to a specific pool, or any portion thereof, only upon the basis of prior express  
25 assent and finding of benefit by the Pool Committee, or pursuant to written order of the Court.  
26

27           55.     Assessments -- Procedure. Assessments herein provided for shall be levied and  
28 collected as follows:

1 (a) Notice of Assessment. Watermaster shall give written notice of all applicable  
2 assessments to each party on or before ninety (90) days after the end of the production period to  
3 which such assessment is applicable.

4 (b) Payment. Each assessment shall be payable on or before thirty (30) days after  
5 notice, and shall be the obligation of the party or successor owning the water production facility at  
6 the time written notice of assessment is given, unless prior arrangement for payment by others  
7 has been made in writing and filed with Watermaster.  
8

9 (c) Delinquency. Any delinquent assessment shall bear interest at 10% per annum  
10 (or such greater rate as shall equal the average current cost of borrowed funds to the  
11 Watermaster) from the due date thereof. Such delinquent assessment and interest may be  
12 collected in a show-cause proceeding herein instituted by the Watermaster, in which case the  
13 Court may allow Watermaster its reasonable costs of collection, including attorney's fees.  
14

15 56. Accumulation of Replenishment Water Assessment Proceeds. In order to minimize  
16 fluctuation in assessment and to give Watermaster flexibility in purchase and spreading of replenishment  
17 water, Watermaster may make reasonable accumulations of replenishment water assessment proceeds.  
18 Interest earned on such retained funds shall be added to the account of the pool from which the funds  
19 were collected and shall be applied only to the purchase of replenishment water.

20 57. Effective Date. The effective date for accounting and operation under this Physical  
21 Solution shall be July 1, 1977, and the first production assessments hereunder shall be due after July 1,  
22 1978. Watermaster shall, however, require installation of meters or measuring devices and establish  
23 operating procedures immediately, and the cost of such Watermaster activity (not including the cost of  
24 such meters and measuring devices) may be recovered in the first administrative assessment in 1978.  
25  
26  
27  
28



VII. MISCELLANEOUS PROVISIONS

58. Designation of Address for Notice and Service. Each party shall designate the name and address to be used for purposes of all subsequent notices and service herein, either by its endorsement on the Stipulation for Judgment or by a separate designation to be filed within thirty (30) days after Judgment has been served. Said designation may be changed from time to time by filing a written notice of such change with the Watermaster. Any party desiring to be relieved of receiving notices of Watermaster or committee activity may file a waiver of notice on a form to be provided by Watermaster. Thereafter such party shall be removed from the Active Party list. Watermaster shall maintain at all times a current list of all active parties and their addresses for purposes of service. Watermaster shall also maintain a full current list of names and addresses of all parties or their successors, as filed herein. Copies of such lists shall be available, without cost, to any party, the Advisory Committee or any Pool Committee upon written request therefor.

59. Service of Documents. Delivery to or service upon any party or active party by the Watermaster, by any other party, or by the Court, of any item required to be served upon or delivered to such party or active party under or pursuant to the Judgment shall be made personally or by deposit in the United States mail, first class, postage prepaid, addressed to the designee and at the address in the latest designation filed by such party or active party.

60. Intervention After Judgment. Any non-party assignee of the adjudicated appropriative rights of any appropriator, or any other person newly proposing to produce water from Chino Basin, may become a party to this Judgment upon filing a petition in intervention. Said intervention must be confirmed by order of this Court. Such intervenor shall thereafter be a party bound by this judgment and entitled to the rights and privileges accorded under the Physical Solution herein, through the pool to which the Court shall assign such intervenor.

61. Loss of Rights. Loss, whether by abandonment, forfeiture or otherwise, of any right herein adjudicated shall be accomplished only (1) by a written election by the owner of the right filed with Watermaster, or (2) by order of the Court upon noticed motion and after hearing.

62. Scope of Judgment. Nothing in this Judgment shall be deemed to preclude or limit any party in the assertion against a neighboring party of any cause of action now existing or hereafter arising based upon injury, damage or depletion of water supply available to such party, proximately caused by nearby pumping which constitutes an unreasonable interference with such complaining party's ability to extract ground water.

63. Judgment Binding on Successors. This Judgment and all provisions thereof are applicable to and binding upon not only the parties to this action, but also upon their respective heirs, executors, administrators, successors, assigns, lessees and licensees and upon the agents, employees and attorneys in fact of all such persons.

64. Costs. No party shall recover any costs in this proceeding from any other party.

Dated: January 1, 1978

**Howard B. Weiner**

Howard B. Weiner



0 1 2 3 4 Kilometers  
0 1 2 3 Miles



**Exhibit A**  
**Location Map of Chino Basin**



Adjudicated Boundary  
of the Chino Basin



Map prepared by:  
**WILDERMUTH**  
**ENVIRONMENTAL, INC.**



**Exhibit B**  
**Hydrologic Map of Chino Basin**

**Fault**

(Solid where known; dashed where approximate;  
dotted where concealed; queried where unknown;  
big dots where barrier to groundwater flow)

**Groundwater Divide**



Map prepared by:  
**WE** WILDERMUTH  
ENVIRONMENTAL, INC.

EXHIBIT 'C' -- Parties With Overlying Agricultural Rights

EXHIBIT 'D' -- Parties With Overlying Non-Agricultural Rights

EXHIBIT 'E' -- Appropriative Rights

**AVAILABLE UPON REQUEST**

**AND/OR ON WEBSITE**

**EXHIBIT "F"**  
**OVERLYING (AGRICULTURAL) POOL**  
**POOLING PLAN**

1. Membership in Pool. The State of California and all producers listed in Exhibit "C" shall be the initial members of this pool, which shall include all producers of water for overlying uses other than industrial or commercial purposes.

2. Pool Meetings. The members of the pool shall meet annually, in person or by proxy, at a place and time to be designated by Watermaster for purposes of electing members of the Pool Committee and conducting any other business of the pool. Special meetings of the membership of the pool may be called and held as provided in the rules of the pool.

3. Voting. All voting at meetings of pool members shall be on the basis of one vote for each 100 acre feet or any portion thereof of production from Chino Basin during the preceding year, as shown by the records of Watermaster.

4. Pool Committee. The Pool Committee for this pool shall consist of not less than nine (9) representatives selected at large by members of the pool. The exact number of members of the Pool Committee in any year shall be as determined by majority vote of the voting power of members of the pool in attendance at the annual pool meeting. Each member of the Pool Committee shall have one vote and shall serve for a two-year term. The members first elected shall classify themselves by lot so that approximately one-half serve an initial one-year term. Vacancies during any term shall be filled by a majority of the remaining members of the Pool Committee.

5. Advisory Committee Representatives. The number of representatives of the Pool Committee on the Advisory Committee shall be as provided in the rules of the pool from time to time but not exceeding ten (10). The voting power of the pool on the Advisory Committee shall be apportioned and exercised as determined from time to time by the Pool Committee.

6. Replenishment Obligation. The pool shall provide funds for replenishment of any production by persons other than members of the Overlying Non-Agricultural Pool or Appropriator Pool,

in excess of the pool's share of Safe Yield. During the first five (5) years of operations of the Physical Solution, reasonable efforts shall be made by the Pool Committee to equalize annual assessments.

7. Assessments. All assessments in this pool (whether for replenishment water cost or for pool administration or the allocated share of Watermaster administration) shall be in an amount uniformly applicable to all production in the pool during the preceding year or calendar quarter. Provided, however, that the Agricultural Pool Committee, may recommend to the Court modification of the method of assessing pool members, inter se, if the same is necessary to attain legitimate basin management objectives, including water conservation and avoidance of undesirable socio-economic consequences. Any such modification shall be initiated and ratified by one of the following methods:

(a) Excess Production. - In the event total pool production exceeds 100,000 acre feet in any year, the Pool Committee shall call and hold a meeting, after notice to all pool members, to consider remedial modification of the assessment formula.

(b) Producer Petition. - At any time after the fifth full year of operation under the Physical Solution, a petition by ten percent (10%) of the voting power or membership of the Pool shall compel the holding of a noticed meeting to consider revision of said formula of assessment for replenishment water.

In either event, a majority action of the voting power in attendance at such pool members' meeting shall be binding on the Pool Committee.

8. Rules. - The Pool Committee shall adopt rules for conducting meetings and affairs of the committee and for administering its program and in amplification of the provisions, but not inconsistent with, this pooling plan.

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**EXHIBIT "G"**

**OVERLYING (NON-AGRICULTURAL) POOL**

**POOLING PLAN**

1. **Membership in Pool.** The initial members of the pool, together with the decreed share of the Safe Yield of each, are listed in Exhibit "D". Said pool includes producers of water for overlying industrial or commercial non-agricultural purposes, or such producers within the Pool who may hereafter take water pursuant to Paragraph 8 hereof.

2. **Pool Committee.** The Pool Committee for this pool shall consist of one representative designated by each member of the pool. Voting on the committee shall be on the basis of one vote for each member, unless a volume vote is demanded, in which case votes shall be allocated as follows:

The volume voting power on the Pool Committee shall be 1,484 votes. Of these, 742 votes shall be allocated on the basis of one vote for each ten (10) acre feet or fraction thereof of decreed shares in Safe Yield. (See Exhibit "D"). The remaining 742 votes shall be allocated proportionally on the basis of assessments paid to Watermaster during the preceding year.<sup>8</sup>

**Affirmative action of the Committee shall require a majority of the voting power of the members in attendance, provided that it includes concurrence by at least one-third of its total members.<sup>9</sup>**

3. **Advisory Committee Representatives.** At least three (3) members of the Pool Committee shall be designated by said committee to serve on the Advisory Committee. The exact number of such representatives at any time shall be as determined by the Pool Committee. The voting power of the pool shall be exercised in the Advisory Committee as a unit, based upon the vote of a majority of said representatives.

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<sup>8</sup> Or production assessments paid under Water Code Section 72140 et seq., as to years prior to the second year of operation under the Physical Solution hereunder.

<sup>9</sup> Order dated October 8, 2010.



4. Replenishment Obligation. The pool shall provide funds for replenishment of any production in excess of the pool's share of Safe Yield in the preceding year.

5. Assessments.<sup>10</sup>

(a) Replenishment Assessments. Each member of this pool shall pay an assessment equal to the cost of replenishment water times the number of acre feet of production by such producer during the preceding year in excess of (a) his decreed share of the Safe Yield, plus (b) any carry-over credit under Paragraph 7 hereof.

(b) Administrative Assessments. In addition, the cost of the allocated share of Watermaster administration expense shall be recovered on an equal assessment against each acre foot of production in the pool during such preceding fiscal year or calendar quarter; and in the case of Pool members who take substitute ground water as set forth in Paragraph 8 hereof, such producer shall be liable for its share of administration assessment, as if the water so taken were produced, up to the limit of its decreed share of Safe Yield.

(c) Special Project OBMP Assessment. Each year, every member of this Pool will dedicate ten (10) percent of their annual share of Operating Safe Yield to Watermaster or in lieu thereof Watermaster will levy a Special Project OBMP Assessment in an amount equal to ten percent of the Pool member's respective share of Safe Yield times the then-prevailing MWD Replenishment Rate.

6. Assignment. Rights herein decreed are appurtenant to *that* land and are only assignable with the land for overlying use thereon; provided, however, (a) that any appropriator who may, directly or indirectly, undertake to provide water service to such overlying lands may, by an appropriate agency agreement on a form approved by Watermaster, exercise said overlying right to the extent, but only to the extent necessary to provide water service to said overlying lands, and (b) *the members of the pool shall have the right to Transfer or lease their quantified production rights within the pool or to*

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<sup>10</sup> Order dated December 21, 2007.

***Watermaster in conformance with the procedures described in the Peace Agreement between the Parties therein, dated June 29, 2000 for the term of the Peace Agreement.***<sup>11</sup>

7. Carry-over. Any member of the pool who produces less than its assigned water share of Safe Yield may carry such unexercised right forward for exercise in subsequent years. The first water produced during any such subsequent year shall be deemed to be an exercise of such carry-over right. In the event the aggregate carry-over by any pool member exceeds its share of Safe Yield, such member shall, as a condition of preserving such surplus carryover, execute a storage agreement with Watermaster.

8. Substitute Supplies. To the extent that any Pool member, at the request of Watermaster and with the consent of the Advisory Committee, takes substitute surface water in lieu of producing ground water otherwise subject to production as an allocated share of Safe Yield, said party shall nonetheless remain a member of this Pool.

9. Physical Solution Transfers. All overlying rights are appurtenant to the land and cannot be assigned or conveyed separate or apart therefrom except that for the term of the Peace Agreement the members of the Overlying (Non-Agricultural) Pool shall have the discretionary right to Transfer or lease their quantified Production rights and carry-over water held in storage accounts in quantities that each member may from time to time individually determine as Transfers in furtherance of the Physical Solution: (i) within the Overlying (Non-Agricultural) Pool; (ii) to Watermaster in conformance with the procedures described in the Peace Agreement between the Parties therein, dated June 29, 2000; (iii) in conformance with the procedures described in Paragraph I of the Purchase and Sale Agreement for the Purchase of Water by Watermaster from Overlying (Non-Agricultural Pool dated June 30, 2007; or (iv) to Watermaster and thence to members of the Appropriative Pool in accordance with the following guidelines and those procedures Watermaster may further provide in Watermaster's Rules and Regulations:

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<sup>11</sup> Order dated September 28, 2000 and Order dated April 19, 2001.

(a) By December 31 of each year, the members of the Overlying (Non-Agricultural) Pool shall notify Watermaster of the amount of water each member shall make available in their individual discretion for purchase by the Appropriators. By January 31 of each year, Watermaster shall provide a Notice of Availability of each Appropriator's pro-rata share of such water;

(b) Except as they may be limited by paragraph 9(e) below, each member of the Appropriative Pool will have, in their discretion, a right to purchase its pro-rata share of the supply made available from the Overlying (Non-Agricultural) Pool at the price established in 9(d) below. Each Appropriative Pool member's pro-rata share of the available supply will be based on each Producer's combined total share of Operating Safe Yield and the previous year's actual Production by each party;

(c) If any member of the Appropriative Pool fails to irrevocably commit to their allocated share by March 1 of each year, its share of the Overlying (Non-Agricultural) Pool water will be made available to all other members of the Appropriative Pool according to the same proportions as described in 9(b) above and at the price established in Paragraph 9(d) below. Each member of the Appropriative Pool shall complete its payment for its share of water made available by June 30 of each year.

(d) Commensurate with the cumulative commitments by members of the Appropriative Pool pursuant to (b) and (c) above, Watermaster will purchase the surplus water made available by the Overlying (Non-Agricultural) Pool water on behalf of the members of the Appropriative Pool on an annual basis at 92% of the then-prevailing "MWD Replenishment Rate" and each member of the Appropriative Pool shall complete its payment for its determined share of water made available by June 30 of each year.

(e) Any surplus water cumulatively made available by all members of the Overlying (Non-Agricultural) Pool that is not purchased by Watermaster after completion of the process set forth herein will be pro-rated among the members of the Pool in proportion to the total quantity offered for transfer in accordance with this provision and may be retained by the

Overlying (Non-Agricultural) Pool member without prejudice to the rights of the members of the Pool to make further beneficial use or transfer of the available surplus.

(f) Each Appropriator shall only be eligible to purchase their pro-rata share under this procedure if the party is: (i) current on all their assessments; and (ii) in compliance with the OBMP.

(g) The right of any member of the Overlying (Non-Agricultural) Pool to transfer water in accordance with this Paragraph 9(a)-(c) in any year is dependent upon Watermaster making a finding that the member of the Overlying (Non-Agricultural) Pool is using recycled water where it is both physically available and appropriate for the designated end use in lieu of pumping groundwater.

(h) Nothing herein shall be construed to affect or limit the rights of any Party to offer or accept an assignment as authorized by the Judgment Exhibit "G" paragraph 6 above, or to affect the rights of any Party under a valid assignment.

910. Rules. The Pool Committee shall adopt rules for administering its program and in amplification of the provisions, but not inconsistent with, this pooling plan.

**EXHIBIT "H"**  
**APPROPRIATIVE POOL**  
**POOLING PLAN**

1. Qualification for Pool. Any city, district or other public entity and public utility -- either regulated under Public Utilities Commission jurisdiction, or exempt therefrom as a non-profit mutual water company (other than those assigned to the Overlying (Agricultural) Pool) -- shall be a member of this pool. All initial members of the pool are listed in Exhibit "E", together with their respective appropriative rights and acre foot allocation and percentage shares of the initial and subsequent Operating Safe Yield.

2. Pool Committee. The Pool Committee shall consist of one (1) representative appointed by each member of the Pool.

3. Voting. The total voting power on the Pool Committee shall be 1,000 votes. Of these, 500 votes shall be allocated in proportion to decreed percentage shares in Operating Safe Yield. The remaining 500 votes shall be allocated proportionally on the basis of assessments paid to Watermaster during the preceding year. Routine business of the Pool Committee may be conducted on the basis of one vote per member, but upon demand of any member a weighted vote shall be taken. Affirmative action of the Committee shall require a majority of the voting power of members in attendance, provided that it includes concurrence by at least one-third of its total members.

4. Advisory Committee Representatives. **Members of the Pool Committee shall be designated to represent this pool on the Advisory Committee on the following basis: Each major appropriator, i.e., the owner of an adjudicated appropriative right in excess of 3,000 acre feet, or each appropriator that produces in excess of 3,000 acre feet based upon the prior year's production, shall be entitled to one representative. Two additional representatives of the Appropriative Pool on the Advisory Committee shall be elected at large by the remaining members of the pool. The voting power of the Appropriative Pool on the Advisory Committee shall be apportioned between the major appropriator representatives in proportion to their respective voting power in the Pool Committee. The two representatives of the remaining appropriators shall exercise equally the voting power proportional to the Pool Committee voting power of said**

remaining appropriators; provided, however, that if any representative fails to attend an Advisory Committee meeting, the voting power of that representative shall be allocated among the representatives of the Appropriative Pool in attendance in the same proportion as their respective voting powers.<sup>12</sup>

5. Replenishment Obligation. The pool shall provide funds for purchase of replenishment water to replace any production by the pool in excess of Operating Safe Yield during the preceding year.

6. Administrative Assessment. Costs of administration of this pool and its share of general Watermaster expense shall be recovered by a uniform assessment applicable to all production during the preceding year.

7. Replenishment Assessment. The cost of replenishment water required to replace production from Chino Basin in excess of Operating Safe Yield in the preceding year shall be allocated and recovered as follows:

(a) For production, other than for increased export,  
within CBMWD or WMWD:

(1) Gross Assessment. 15% of such replenishment water costs shall be recovered by a uniform assessment against all production of each appropriator producing in said area during the preceding year.

(2) Net Assessment. The remaining 85% of said costs shall be recovered by a uniform assessment on each acre foot of production from said area by each such appropriator in excess of his allocated share of Operating Safe Yield during said preceding year.

(b) For production which is exported for use outside Chino Basin in excess of maximum export in any year through 1976, such increased export production shall be assessed against the exporting appropriator in an amount sufficient to purchase replenishment water from CBMWD or WMWD in the amount of such excess.

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<sup>12</sup> Order dated September 18, 1996.

(c) For production within SBVMWD or PVMWD:

By an assessment on all production in excess of an appropriator's share of Operating Safe Yield in an amount sufficient to purchase replenishment water through SBVMWD or MWD in the amount of such excess.

8. Socio-Economic Impact Review. The parties have conducted certain preliminary socio-economic impact studies. Further and more detailed socio-economic impact studies of the assessment formula and its possible modification shall be undertaken for the Appropriator Pool by Watermaster no later than ten (10) years from the effective date of this Physical Solution, or whenever total production by this pool has increased by 30% or more over the decreed appropriative rights, whichever is first.

9. Facilities Equity Assessment. Watermaster may, upon recommendation of the Pool Committee, institute proceedings for levy and collection of a Facilities Equity Assessment for the purposes and in accordance with the procedures which follow:

(a) Implementing Circumstances. - There exist several sources of supplemental water available to Chino Basin, each of which has a differential cost and quantity available. The optimum management of the entire Chino Basin water resource favors the maximum use of the lowest cost supplemental water to balance the supplies of the Basin, in accordance with the Physical Solution. The varying sources of supplemental water include importations from MWD and SBVMWD, importation of surface and ground water supplies from other basins in the immediate vicinity of Chino Basin, and utilization of reclaimed water. In order to fully utilize any of such alternate sources of supply, it will be essential for particular appropriators having access to one or more of such supplies to have invested, or in the future to invest, directly or indirectly, substantial funds in facilities to obtain and deliver such water to an appropriate point of use. To the extent that the use of less expensive alternative sources of supplemental water can be maximized by the inducement of a Facilities Equity Assessment, as herein provided, it is to the long-term benefit of the entire basin that such assessment be authorized and levied by Watermaster.

(b) Study and Report. - At the request of the Pool Committee, Watermaster shall undertake a survey study of the utilization of alternate supplemental supplies by

members of the Appropriative Pool which would not otherwise be utilized and shall prepare a report setting forth the amount of such alternative supplies being currently utilized, the amount of such supplies which could be generated by activity within the pool, and the level of cost required to increase such uses and to optimize the total supplies available to the basin. Said report shall contain an analysis and recommendation for the levy of a necessary Facilities Equity Assessment to accomplish said purpose.

(c) Hearing. - If the said report by Watermaster contains a recommendation for imposition of a Facilities Equity Assessment, and the Pool Committee so requests, Watermaster shall notice and hold a hearing not less than 60 days after distribution of a copy of said report to each member of the pool, together with a notice of the hearing date. At such hearing, evidence shall be taken with regard to the necessity and propriety of the levy of a Facilities Equity Assessment and full findings and decision shall be issued by Watermaster.

(d) Operation of Assessment. - If Watermaster determines that it is appropriate that a Facilities Equity Assessment be levied in a particular year, the amount of additional supplemental supplies which should be generated by such assessment shall be estimated. The cost of obtaining such supplies, taking into consideration the investment in necessary facilities shall then be determined and spread equitably among the producers within the pool in a manner so that those producers not providing such additional lower cost supplemental water, and to whom a financial benefit will result, may bear a proportionate share of said costs, not exceeding said benefit; provided that any producer furnishing such supplemental water shall not thereby have its average cost of water in such year reduced below such producer's average cost of pumping from the Basin. In so doing, Watermaster shall establish a percentage of the total production by each party which may be produced without imposition of a Facilities Equity Assessment. Any member of the pool producing more water than said percentage shall pay such Facilities Equity Assessment on any such excess production. Watermaster is authorized to transmit and pay the proceeds of such Facilities Equity Assessment to those producers who take less than their share of Basin water by reason of furnishing a higher percentage of their requirements through use of supplemental water.



10. Unallocated Safe Yield Water. To the extent that, in any five years, any portion of the share of Safe Yield allocated to the Overlying (Agricultural) Pool is not produced, such water shall be available for reallocation to members of the Appropriative Pool, as follows:

(a) Priorities. - Such allocation shall be made in the following sequence:

(1) to supplement, in the particular year, water available from Operating Safe Yield to compensate for any reduction in the Safe Yield by reason of recalculation thereof after the tenth year of operation hereunder.

(2) pursuant to conversion claims as defined in Subparagraph (b) hereof.

(3) as a supplement to Operating Safe Yield, without regard to reductions in Safe Yield.

(b) Conversion Claims.<sup>13</sup> The following procedures may be utilized by any appropriator:

1) **Record of Unconverted Agricultural Acreage.** *Watermaster shall maintain on an ongoing basis a record with appropriate related maps of all agricultural acreage within the Chino Basin subject to being converted to appropriative water use pursuant to the provisions of this subparagraph. An initial identification of such acreage as of June 30, 1995 is attached hereto as Appendix 1.*

(2) **Record of Water Service Conversion.** Any appropriator who undertakes to permanently provide water service to lands *subject to conversion* may report such intent to change water service to Watermaster. Watermaster *should* thereupon verify such change in water service and shall maintain a record and account for each appropriator of the total acreage involved. *Should, at any time, converted acreage return to water service from the Overlying (Agricultural) Pool, Watermaster shall return such acreage to unconverted status*

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<sup>13</sup> Order dated November 17, 1995.

*and correspondingly reduce or eliminate any allocation accorded to the appropriator involved.*

**(3) Allocation of Safe Yield Rights**

**(i) *For the term of the Peace Agreement in any year in which sufficient unallocated Safe Yield from the Overlying (Agricultural) Pool is available for such conversion claims, Watermaster shall allocate to each appropriator with a conversion claim 2.0 acre feet of unallocated Safe Yield water for each converted acre for which conversion has been approved and recorded by the Watermaster.***<sup>14</sup>

**(ii) *In any year in which the unallocated Safe Yield water from the Overlying (Agricultural) Pool is not sufficient to satisfy all outstanding conversion claims pursuant to subparagraph (i) herein above, Watermaster shall establish allocation percentages for each appropriator with conversion claims. The percentages shall be based upon the ratio of the total of such converted acreage approved and recorded for each appropriators's account in comparison to the total of converted acreage approved and recorded for all appropriators. Watermaster shall apply such allocation percentage for each appropriator to the total unallocated Safe Yield water available for conversion claims to derive the amount allocable to each appropriator.***

**(4) Notice and Allocation. Notice of the special allocation of Safe Yield water pursuant to conversion claims shall be given to each appropriator and shall be treated for purposes of this Physical Solution as an addition to such appropriator's share of the Operating Safe Yield for the particular year only.**

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<sup>14</sup> Order dated September 28, 2000 and Order dated April 19, 2001.

**(5) Administrative Costs. Any costs of Watermaster attributable to the administration of such special allocations and conversion claims shall be assessed against the appropriators participating in such reporting, apportioned in accordance with the total amount of converted acreage held by each appropriator participating in the conversion program.**

11. In Lieu Procedures. There are, or may develop, certain areas within Chino Basin where good management practices dictate that recharge of the basin be accomplished, to the extent practical, by taking surface supplies of supplemental water in lieu of ground water otherwise subject to production as an allocated share of Operating Safe Yield.

(a) Method of Operation. - An appropriator producing water within such designated in lieu area who is willing to abstain for any reason from producing any portion of such producer's share of Operating Safe Yield in any year may offer such unpumped water to Watermaster. In such event, Watermaster shall purchase said water in place, in lieu of spreading replenishment water, which is otherwise required to make up for over production. The purchase price for in lieu water shall be the lesser of:

- (1) Watermaster's current cost of replenishment water, whether or not replenishment water is currently then obtainable, plus the cost of spreading; or
- (2) The cost of supplemental surface supplies to the appropriator, less
  - a. said appropriator's average cost of ground water production, and
  - b. the applicable production assessment were the water produced.

Where supplemental surface supplies consist of MWD or SBVMWD supplies, the cost of treated, filtered State water from such source shall be deemed the cost of supplemental surface supplies to the appropriator for purposes of such calculation.

In any given year in which payments may be made pursuant to a Facilities Equity Assessment, as to any given quantity of water the party will be entitled to payment under this section or pursuant to the Facilities Equity Assessment, as the party elects, but not under both.

(b) Designation of In Lieu Areas. - The first in lieu area is designated as the "In Lieu Area No. 1" and consists of an area wherein nitrate levels in the ground water generally exceed 45 mg/l, and is shown on Exhibit "J" hereto. Other in lieu areas may be designated by subsequent order of Watermaster upon recommendation or approval by Advisory Committee. Said in lieu areas may be enlarged, reduced or eliminated by subsequent orders; provided, however, that designation of In Lieu Areas shall be for a minimum fixed term sufficient to justify necessary capital investment. In Lieu Area No. 1 may be enlarged, reduced or eliminated in the same manner, except that any reduction of its original size or elimination thereof shall require the prior order of Court.

12. Carry-over. Any appropriator who produces less than his assigned share of Operating Safe Yield may carry such unexercised right forward for exercise in subsequent years. The first water produced during any such subsequent year shall be deemed to be an exercise of such carry-over right. In the event the aggregate carry-over by any appropriator exceeds its share of Operating Safe Yield, such appropriator shall, as a condition of preserving such surplus carry-over, execute a storage agreement with Watermaster. Such appropriator shall have the option to pay the gross assessment applicable to such carry-over in the year in which it accrued.

13. Assignment, Transfer and Lease. Appropriative rights, and corresponding shares of Operating Safe Yield, may be assigned or may be leased or licensed to another appropriator for exercise in a given year. Any transfer, lease or license shall be ineffective until written notice thereof is furnished to and approved as to form by Watermaster, in compliance with applicable Watermaster rules. Watermaster shall not approve transfer, lease or license of a right for exercise in an area or under conditions where such production would be contrary to sound basin management or detrimental to the rights or operations of other producers.

14. Rules. The Pool Committee shall adopt rules for administering its program and in amplification of the provisions, but not inconsistent with, this pooling plan.

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## EXHIBIT "I"

### ENGINEERING APPENDIX

1. Basin Management Parameters. In the process of implementing the physical solution for Chino Basin, Watermaster shall consider the following parameters:

(a) Pumping Patterns. - Chino Basin is a common supply for all persons and agencies utilizing its waters. It is an objective in management of the Basin's waters that no producer be deprived of access to said waters by reason of unreasonable pumping patterns, nor by regional or localized recharge of replenishment water, insofar as such result may be practically avoided.

(b) Water Quality. - Maintenance and improvement of water quality is a prime consideration and function of management decisions by Watermaster.

(c) Economic Considerations. - Financial feasibility, economic impact and the cost and optimum utilization of the Basin's resources and the physical facilities of the parties are objectives and concerns equal in importance to water quantity and quality parameters.

2. **Hydraulic Control and Re-Operation.** In accordance with the purpose and objective of the Physical Solution to "establish a legal and practical means for making the maximum reasonable beneficial use of the waters of the Chino Basin" (paragraph 39) including but not limited to the use and recapture of reclaimed water (paragraph 49(a) ) and the identified Basin Management Parameters set forth above, Watermaster will manage the Basin to secure and maintain Hydraulic Control through controlled overdraft.

(a) **Hydraulic Control.** "Hydraulic Control" means the reduction of groundwater discharge from the Chino North Management Zone to the Santa Ana River to de minimus quantities. The Chino North Management Zone is more fully described and set forth in Attachment I-1 to this Engineering Appendix. By obtaining Hydraulic Control, Watermaster will ensure that the water management activities in the Chino North Management Zone do not cause

materially adverse impacts to the beneficial uses of the Santa Ana River downstream of Prado Dam.

(b) **Re-Operation.** “Re-Operation” means the controlled overdraft of the Basin by the managed withdrawal of groundwater for the Desalters and the potential increase in the cumulative un-replenished Production from 200,000 acre-feet authorized by paragraph 3 below, to 600,000 acre feet for the express purpose of securing and maintaining Hydraulic Control as a component of the Physical Solution.

[1] The increase in the controlled overdraft herein is separate from and in addition to the 200,000 acre-feet of accumulated overdraft authorized in paragraph 3(a) and 3(b) below over the period of 1978 through 2017.

[2] “Desalters” means the Chino I Desalter, the Chino I Expansion, the Chino II Desalter and Future Desalters, consisting of all the capital facilities and processes that remove salt from Basin water, including extraction wells and transmission facilities for delivery of groundwater to the Desalter. Desalter treatment and delivery facilities for the desalted water include pumping and storage facilities and treatment and disposal capacity in the Santa Ana Regional Interceptor.

[3] The groundwater Produced through controlled overdraft pursuant to Re-Operation does not constitute New Yield or Operating Safe Yield and it is made available under the Physical Solution for the express purpose of satisfying some or all of the groundwater Production by the Desalters until December 31, 2030. (“Period of Re-Operation”).

[4] The operation of the Desalters, the Production of groundwater for the Desalters and the use of water produced by the Desalters pursuant to Re-Operation are

subject to the limitations that may be set forth in Watermaster Rules and Regulations for the Desalters.

(5) Watermaster will update its Recharge Master Plan and obtain Court approval of its update, to address how the Basin will be contemporaneously managed to secure and maintain Hydraulic Control and operated at a new equilibrium at the conclusion of the period of Re-Operation. The Recharge Master Plan shall contain recharge projections and summaries of the projected water supply availability as well as the physical means to accomplish recharge projections. The Recharge Master Plan may be amended from time to time with Court approval.

(6) Re-Operation and Watermaster's apportionment of controlled overdraft in accordance with the Physical Solution will not be suspended in the event that Hydraulic Control is secured in any year before the full 400,000 acre-feet has been Produced without Replenishment, so long as: (i) Watermaster has prepared, adopted and the Court has approved a contingency plan that establishes conditions and protective measures that will avoid unreasonable and unmitigated material physical harm to a party or to the Basin and that equitably distributes the cost of any mitigation attributable to the identified contingencies; and (ii) Watermaster is in substantial compliance with a Court approved Recharge Master Plan.<sup>15</sup>

3. Operating Safe Yield. Operating Safe Yield in any year shall consist of the Appropriative Pool's share of Safe Yield of the Basin, plus any controlled overdraft of the Basin which Watermaster may authorize. In adopting the Operating Safe Yield for any year, Watermaster shall be limited as follows:

(a) Accumulated Overdraft. - During the operation of this Judgment and Physical Solution, the overdraft accumulated from and after the effective date of the Physical Solution and

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<sup>15</sup> Order dated December 21, 2007.

resulting from an excess of Operating Safe Yield over Safe Yield shall not exceed 200,000 acre feet.

(b) Quantitative Limits. - In no event shall Operating Safe Yield in any year be less than the Appropriative Pool's share of Safe Yield, nor shall it exceed such share of Safe Yield by more than 10,000 acre feet. The initial Operating Safe Yield is hereby set at 54,834 acre feet per year. Operating Safe Yield shall not be changed upon less than five (5) years' notice by Watermaster. Nothing contained in this paragraph shall be deemed to authorize, directly or indirectly, any modification of the allocation of shares in Safe Yield to the overlying pools, as set forth in Paragraph 44 of the Judgment.

4. Ground Water Storage Agreements. Any agreements authorized by Watermaster for storage of supplemental water in the available ground water storage capacity of Chino Basin shall include, but not be limited to:

- (a) The quantities and term of the storage right.
- (b) A statement of the priority or relation of said right, as against overlying or Safe Yield uses, and other storage rights.
- (c) The procedure for establishing delivery rates, schedules and procedures which may include:
  - [1] spreading or injection, or
  - [2] in lieu deliveries of supplemental water for direct use.
- (d) The procedures for calculation of losses and annual accounting for water in storage by Watermaster.
- (e) The procedures for establishment and administration of withdrawal schedules, locations and methods.

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EXHIBIT 'J' -- Map of In Lieu Area No. 1

EXHIBIT 'K' -- Legal Description of Chino Basin

**AVAILABLE UPON REQUEST  
AND/OR ON WEBSITE**

# **POST TRIAL MEMORANDUM**

ORIGINAL FILED

JUL 12 1978  
V. DENNIS WARDLE  
COUNTY CLERK

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SUPERIOR COURT OF THE STATE OF CALIFORNIA

FOR THE COUNTY OF SAN BERNARDINO

CHINO BASIN MUNICIPAL WATER  
DISTRICT,

Plaintiff,

v.

CITY OF CHINO, et al.

Defendants.

No. 164327

PLAINTIFF'S POST TRIAL  
MEMORANDUM

Pursuant to order of the Court issued January 27, 1978,  
Judgment was entered in this action whereby the Court retained  
continuing jurisdiction of the matter.

To assist the Court in such continuing jurisdiction the  
plaintiff, Chino Basin Municipal Water District, hereby submits  
this Post Trial Memorandum setting forth the statement of the  
nature of the action, and the principle characteristics of the  
Judgment.

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I.

NATURE OF ACTION

This action is a plenary adjudication of all rights in and to the ground waters of Chino Basin and its storage capacity. The case is predicated on the fact that the basin is, and since at least 1953 has been, in a condition of overdraft.

The Judgment adjudicated the rights of several hundred overlying landowners, producing in the aggregate over sixty percent of the basin supply for agricultural use, as well as several substantial industrial and commercial producers of water for use on their overlying lands, cities, public water districts, utilities, and mutual water companies all of whom produce water from the basin.

Each of the defendants named in the Judgment is a water producer or other water claimant or public water district within the Chino Basin. Each such defendant has been identified as a member of one of the following three groups:

a. Overlying (Agricultural) Producers -- A party entitled to possession of lands overlying Chino Basin producing water from such basin for overlying agricultural use on said lands.

b. Overlying (Non-Agricultural) Producers -- A party entitled to possession of lands overlying Chino Basin producing water from such basin for overlying use on said lands for other than agricultural purposes.

c. Appropriator -- A party producing water from Chino Basin pursuant to an appropriative or prescriptive right, which right is protected from loss or diminution by prescription by the provisions of Section 1007 of the California Civil Code.

II.

HIGHLIGHTS OF THE JUDGMENT

A. Declaration of Rights.

1. Overlying Agricultural Rights. Because of the nature of the Physical Solution and the method of assessment proposed for the exercise of overlying agricultural rights, it was not necessary to declare individual overlying rights. This avoided a dual problem. First, the total number of parties in the category exceeded 1,200. Second, the available records and measuring devices for precise calculation of individual rights was less than adequate. Thus the rights of all agricultural users have been declared in gross for all necessary purposes of the Judgment.

2. State of California. Because of the several diverse and complex interests of the State of California, and in view of the willingness of the State to stipulate to be bound by the Physical Solution of the Judgment, no attempt was made in the Judgment to define or categorize the rights of the State of California. The State and its agencies were subjected by Judgment, to the Physical Solution, and their rights are treated in gross along with the overlying agricultural rights.

3. Appropriative Rights. The twenty-two parties in the "Appropriative Pool" have rights which are appropriative and prescriptive in nature. Under full adjudication of such rights to ground water each would have had differing priorities and quantities. The complexity of such determination was avoided by resorting to principles of mutual prescription in the Judgment. Thus, all of the parties who are appropriators have been adjudged that their rights have equal priority.

1       B. Continuing Jurisdiction of Watermaster Provisions.

2           1. Exemptions from Continuing Jurisdiction. The Court,  
3 with limited exceptions, retained continuing jurisdiction of the  
4 case. Exempted (either entirely or for a specific period of time)  
5 from the Court's continuing jurisdiction was the re-determination  
6 of Safe Yield and modifications of assessment formulas in the  
7 appropriative pool for a period of ten years.

8           2. Watermaster Organization and Powers. The public  
9 interests in the preservation of the water resource was protected  
10 and assured in the sense that the Court's Watermaster is an over-  
11 lying district, which holds no rights to produce ground water but  
12 is the importing agency bringing supplemental water into the basin.  
13 At the same time, the Watermaster Advisory Committee was created  
14 and given broad powers to review, advise and consent to the action  
15 of the Watermaster, subject to more detailed actions by pool com-  
16 mittees formed to advise, consent and administer the affairs of the  
17 several pools established under the Physical Solution. In these  
18 many provisions, there is a balance created to assure the protection  
19 of the private rights of the parties and the general public interest  
20 in the preservation of the resource.

21       C. Physical Solution. The Physical Solution is the heart of  
22 the Judgment. It is essential to understanding of the Physical  
23 Solution that it be recognized that there is sufficient water to  
24 meet the needs of all of the parties. This is because there are  
25 significant imported water supplies available to supplement the  
26 native Safe Yield of the basin. However, the supplemental waters  
27 are significantly more expensive than local ground waters. Accord-  
28 ingly, the function of the Judgment, and of its Physical Solution,

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1 is to provide an equitable and feasible method of assuring that a  
2 parties share in the burden of the costs of importing the necessa  
3 supplemental water to achieve a hydrologic balance within Chino  
4 Basin.

5 The Physical Solution provides the mechanics by which the  
6 management plan is implemented. The basic concept of the Physical  
7 Solution is similar to that adopted in the prior ground water  
8 adjudications in Southern California, i.e., the parties are entitl  
9 to produce their requirements for ground water from the basin,  
10 provided that they contribute, by Watermaster assessments, suffici  
11 money to assure purchase of supplemental water to replace any  
12 aggregate production in excess of the Safe Yield. It is in the  
13 detailed formulation of that Physical Solution that some of the  
14 most interesting features of the Judgment were developed.

15 1. Multiple Pool Plans. All of the parties have been  
16 categorized into three major pools. The total Safe Yield of the  
17 basin has been allocated as between the three pools with each pool  
18 assuming a level of reduction in aggregate rights below current  
19 levels of production. Within each pool, by utilizing this format,  
20 the Judgment grouped parties with distinct economic and social  
21 concerns in a manner allowing them to provide the necessary funding  
22 within their particular needs and requirements. For example, it is  
23 of importance to agricultural operations that the total cost of  
24 water be kept to a minimum. It is also important to the entire  
25 area that the Physical Solution be structured so as to encourage  
26 continued commitment of land to agricultural or "green belt" activi  
27 Accordingly, approximately 60% of the Safe Yield of the basin is  
28 committed, in gross, to the Overlying (Agricultural) Pool. Over

1 production by that pool, in the aggregate, is to be replaced by a  
2 gross assessment on all production by all parties within the pool  
3 The net effect of the use of this assessment technique, under cur-  
4 rent conditions, is an assessment in the magnitude of \$5.00 per  
5 acre foot for replenishment water.

6 On the other hand, overlying industrial and commercial  
7 users do not find the cost of water to be as critical a factor.  
8 Accordingly, the more traditional "net assessment" formula was  
9 used with rights being allocated among the twelve members of the  
10 Overlying (Non-Agricultural) Pool. In this assessment mode, over-  
11 production is replenished on the basis of an assessment for the  
12 full cost of excess water produced on an acre foot per acre foot  
13 basis.

14 In the case of the Appropriators, the Judgment developed  
15 formula whereby the total over-production by that pool is met by  
16 a gross assessment as to 15% of the cost and a net assessment as t  
17 the remaining 85% of the cost.

18 The Judgment then leaves the assessment pattern within  
19 each pool under the continuing jurisdiction provisions subject to  
20 review and modification by the Court. Thus, each category of  
21 producers retains the maximum flexibility to meet future and  
22 developing circumstances. In this regard, the Judgment specifically  
23 recognizes the impact of social-economic conditions and provides  
24 for continuing study of those factors.

25 2. Operating Safe Yield. The concept of operating Safe  
26 Yield was applied with regard to the Appropriative Pool. The net  
27 effect of the concept was to allow limited mining of water in  
28 storage in excess of Safe Yield during the early period of the



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1 Physical Solution in order to reduce the burden of assessment. As  
2 a result, provision was made for limited extractions by the Approp-  
3 priative Pool in excess of that pool's share of the Safe Yield.  
4 Offsetting that right is the fact that the Appropriative Pool takes  
5 the full burden of reductions in the Safe Yield if such reductions  
6 should occur in the future. A maximum limit of 200,000 acre feet  
7 has been placed upon the aggregate mining of water authorized under  
8 this provision of the Judgment.

9 3. Ground Water Storage Contracts. The utilization of  
10 excess ground water storage capacity has been recognized in the  
11 Judgment. The administration of activities of storing water to  
12 utilize that capacity are provided for in underground storage  
13 agreements pursuant to Watermaster regulations. This is an enormous  
14 significant aspect of the adjudication, in view of the existence of  
15 approximately 2,000,000 acre feet of unused storage capacity within  
16 the basin, the largest resource of its kind in Southern California.

17 4. In Lieu Areas. The element of water quality, hereto-  
18 fore only peripherally approached in ground water adjudication, was  
19 accommodated in the Judgment by provision for "in lieu areas."  
20 Therein producers may obtain compensation for water left in the  
21 ground in lieu of its production pursuant to adjudicated rights.  
22 Provision is made within the Judgment for "in lieu areas" to be  
23 established by action of the Court.

24 5. Facilities Equity Assessment. In the Appropriative  
25 Pool, provision has been made for implementation of a "facilities  
26 equity assessment" as an aid to a gross assessment if that was  
27 ultimately adopted by the pool. These provisions are generally  
28 patterned on the statutory solution involved in the Basin Equity

Assessment provisions of the Orange County Water District Act.

6. Agency Contracts for Exercise of Overlying (Non-Agricultural) Rights. The overlying rights of the Non-Agricultural Pool may be well exercised ultimately by municipal systems of parties within the Appropriative Pool. Inasmuch as the overlying right by its nature is appurtenant to the land and cannot be transferred, provision is made for an appropriator to enter into and approve an agency agreement to produce water for delivery to the overlying land pursuant to its overlying right.

7. Unallocated Safe Yield Water. It is contemplated that over a long period of years, agricultural production may well fall substantially below the aggregate amount of the Safe Yield right allocated to the pool. That Safe Yield right will remain available for agricultural use, but in a given year or a series of years there may be a substantial amount of Safe Yield water which is not pumped by Overlying Agricultural Pool parties. The Judgment adopts a formula for allocating that unpumped water among the members of the Appropriative Pool by first, replacing any reductions in Safe Yield (the full impact of which falls on the Appropriative Pool), and then to recognize the conversion of agricultural land to municipal and domestic purposes.

8. Use of Reclaimed Water. Reclaimed water is recognized as part of supplemental water subject to use for replenishment by Watermaster or for storage by any party.

9. Export. The Judgment did not limit or prohibit export of ground water production, but such export over base export quantities was made subject to a full net assessment. That is, a party producing "new" water for export must pay an assessment

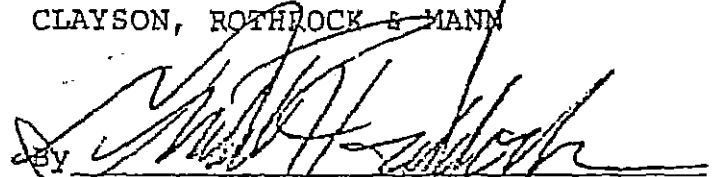
1 sufficient to buy or replenishment water to replace exported wa  
2 acre foot for acre foot.

3 10. Unlawful Pumping Practices. The Judgment does not  
4 preclude the prosecution of any cause of action which may arise  
5 with relation to the location on the extent of pumping between  
6 neighboring well owners which may constitute a wrongful interfer  
7 The subject matter of the Judgment is the determination and allo  
8 cation of rights in the gross quantity of water representing the  
9 Safe Yield of the ground water basin.

10 DATED: July 11, 1978.

11 DONALD D. STARK  
12 A Professional Corporation

13 CLAYSON, ROTHROCK & MANN

14   
15 By \_\_\_\_\_  
16 GERALD R. HADDOCK  
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# **PEACE AGREEMENT**

***PEACE AGREEMENT***

***CHINO BASIN***

***JUNE 29, 2000***

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# **PEACE AGREEMENT CHINO BASIN**

THIS AGREEMENT (Agreement) is dated the 29th day of June, 2000 regarding the Chino Groundwater Basin.

## **RECITALS**

**WHEREAS**, disputes have arisen from time to time among and between water users within the Santa Ana River Watershed resulting in a judgment entered in Orange County Superior Court Case No. 117628, Orange County Water District v. City of Chino in 1969; and

**WHEREAS**, a complaint was filed on January 2, 1975, seeking an adjudication of water rights, injunctive relief and the imposition of a physical solution for the Chino Groundwater Basin (hereinafter Chino Basin); and

**WHEREAS**, a Judgment was entered in San Bernardino County Superior Court Case No. 164327 in Chino Basin Municipal Water District v. City of Chino, et al. in 1978, now designated No. RCV 51010 that adjudicated rights to the groundwater and storage capacity within the Chino Basin and established a physical solution; and

**WHEREAS**, the Parties intend that each Producer should be able to Produce both the quantity and quality of water to meet its water supply needs to the greatest extent possible from the water that underlies the Producer's area of benefit; and

**WHEREAS**, the Judgment provides the State of California is the largest owner of land overlying the Chino Basin, and provides that all future Production by the State, or its departments or agencies for overlying use on State-owned lands shall be considered as use by the Agricultural Pool; and

**WHEREAS**, Paragraph 16 of the Judgment authorized the appointment of a Watermaster for a term or terms of five (5) years; and

**WHEREAS**, Watermaster has the express powers and duties as provided in the Judgment or as "hereafter ordered or authorized by the Court in the exercise of the Court's continuing jurisdiction" subject to the limitations stated elsewhere in the Judgment; and

**WHEREAS**, Paragraph 41 of the Judgment provides that "Watermaster, with the advice of the Advisory and Pool Committees" has "discretionary powers in order to develop an optimum basin management program (OBMP) for Chino Basin"; and

**WHEREAS**, on February 19, 1998, in San Bernardino County Superior Court Case Number RCV 51010, the Court appointed a "Nine-member Board as Interim Watermaster for a twenty-six month period commencing March 1, 1998 and ending June 30, 2000" and "directed the Interim Watermaster to develop and submit the OBMP"; and

**WHEREAS**, a draft Programmatic Environmental Impact Report (PEIR) for the OBMP has been completed and distributed to the Parties as well as the State Clearinghouse and other interested Parties and the Inland Empire Utilities Agency (IEUA) is serving as "Lead Agency" for purposes of preparing and completing the PEIR as previously directed by the Court on November 18, 1999; and

**WHEREAS**, this Agreement facilitates the implementation of the OBMP which is subject to environmental review under the California Environmental Quality Act (CEQA) as previously directed by the Court; and

**WHEREAS**, disputes have arisen in regard to a number of matters pertaining to the power and authority of the Court and Watermaster under the Judgment, including but not limited to Watermaster power and author-

ity regarding recharge, owning property, holding water rights, water Transfers, storage, yield management, land use conversions, assessments, benefits, procedures and the adoption and implementation of the OBMP; and

**WHEREAS**, OCWD has filed a petition with the State Water Resources Control Board requesting a change of the Santa Ana River's "Fully Appropriated" status, and filed an application to appropriate up to five hundred seven thousand (507,000) acre-feet of such newly declared surplus water; and

**WHEREAS**, the Parties to this Agreement desire to resolve issues by consent under the express terms and conditions stated herein; and

**WHEREAS**, the Parties wish to preserve and maintain Watermaster's role under the Judgment without compromising the Parties' collective and individual "benefits of the bargain" under this Agreement; and

**WHEREAS**, the Parties intend that this Agreement shall enable the adoption and implementation of an OBMP consistent herewith, which will benefit the Basin and all Parties hereto;

**NOW, THEREFORE**, in consideration of the mutual promises specified herein and by conditioning their performance under this Agreement upon conditions precedent set forth in Article III, the Watermaster approval and Court Order of its terms, and for other good and valuable consideration, the Parties agree as follows:

## **I**

### **DEFINITIONS AND RULES OF CONSTRUCTION**

1.1 **Definitions.** As used in this Agreement, these terms, including any grammatical variations thereof shall have the following meanings:

- (a) "Agricultural Pool" shall have the meaning of Overlying (Agricultural) Pool as used in the Judgment and shall include all its members;
- (b) "Appropriative Pool" shall have the meaning as used in the Judgment and shall include all its members;
- (c) "Basin Water" means groundwater within Chino Basin which is part of the Safe Yield, Operating Safe Yield, or Replenishment Water in the Basin as a result of operations under the physical solution decreed in the Judgment. Basin Water does not include "Stored Water;"
- (d) "Best Efforts" means reasonable diligence and reasonable efforts under the totality of the circumstances. Indifference and inaction do not constitute Best Efforts. Futile action(s) are not required.
- (e) "CBWCD" means the Chino Basin Water Conservation District;
- (f) "CEQA" means the California Environmental Quality Act, Public Resources Code Sections 21000 et seq; 14 California Code of Regulations 15000 et seq.;
- (g) "Chino Basin" or "Basin" means the groundwater basin underlying the area shown on Exhibit "B" to the Judgment and within the boundaries described on Exhibit "K" to the Judgment;
- (h) "Chino Basin Watershed" means the surface drainage area tributary to and overlying Chino Basin;

- (i) “Chino I Desalter” also known as the SAWPA Desalter means the Desalter owned and operated by PC14 with a present capacity of eight (8) million gallons per day (mgd) and in existence on the Effective Date;
- (j) “Chino I Desalter Expansion” means the planned expansion of the Chino I Desalter from its present capacity of eight (8) mgd to a capacity of up to fourteen (14) mgd, to be owned and operated by IEUA and WMWD acting through PC14;
- (k) “Chino II Desalter” means a new Desalter not in existence on the Effective Date with a design capacity of ten (10) mgd, to be owned, constructed, and operated by IEUA and WMWD acting independently or in their complete discretion, acting through the PC14, constructed and operated consistent with the OBMP and to be located on the eastside of the Chino Basin;
- (l) “Court” means the court exercising continuing jurisdiction under the Judgment;
- (m) “Date of Execution” means the first day following the approval and execution of the Agreement by the last Party to do so;
- (n) “Desalter” and “Desalters” means the Chino I Desalter, Chino I Desalter Expansion, the Chino II Desalter and Future Desalters, consisting of all the capital facilities and processes that remove salt from Basin Water, including extraction wells, transmission facilities for delivery of groundwater to the Desalter, Desalter treatment and delivery facilities for the desalted water including pumping and storage facilities, and treatment and disposal capacity in the SARI System;

- (o) “Early Transfer” means the reallocation of Safe Yield not Produced by the Agricultural Pool to the Appropriative Pool on an annual basis rather than according to the five year increment described in Paragraph 10 of Exhibit “H” of the Judgment;
- (p) “Effective Date” means October 1, 2000, provided that all conditions precedent have been waived or satisfied;
- (q) “Future Desalters” means enlargement of the Chino I Desalter to a capacity greater than the Chino I Expansion or enlargement of the Chino II Desalter and any other new Desalter facilities that may be needed to carry out the purposes of the OBMP over the term of this Agreement;
- (r) “General law” means all applicable state and federal law;
- (s) “Groundwater” means water beneath the surface of the ground and within the zone of saturation, i.e., below the existing water table;
- (t) “TEUA” means the Inland Empire Utilities Agency, referred to in the Judgment as Chino Basin Municipal Water District;
- (u) “In-lieu recharge” means taking supplies of Supplemental Water in lieu of pumping groundwater otherwise subject to Production as an allocated share of Operating Safe Yield, as provided in Exhibit “H” Paragraph 11 of the Judgment;
- (v) “Judgment” means the Judgment dated January 27, 1978, in San Bernardino County Case No. 164327 (redesignated as San Bernardino County Case No. RCV 51010) as amended by Order Approving Amendments to Judgment Dated December 1, 1995, and Order for Amendments to the Judgment Regard-

ing Changes in Pooling Plans and Appropriative Pool Representation on the Advisory Committee, dated September 18, 1996 and other such amendments;

- (w) “Jurupa Community Services District” (JCSD) means the Jurupa Community Services District and the Santa Ana River Water Company individually. Subject to the provisions of this Agreement, the design and delivery obligations for the Chino II Desalter set forth in Section 7.3 regarding Jurupa Community Services District include both the Jurupa Community Services District and the Santa Ana River Water Company. Santa Ana River Water Company may exercise its discretion to receive its portion of the desalted water through an interconnection or at its own expense through an independent pipeline to connect to the Chino II Desalter or in any other method as the Jurupa Community Services District and the Santa Ana River Water Company may jointly agree. Nothing in this definition shall be construed as expanding the initial mgd capacity of the Chino II Desalter as provided in the facilities plan which is attachment “1” to the OBMP Implementation Plan (Exhibit “B” hereto). If it is necessary to meet Santa Ana River Water Company’s demands and there is insufficient initial capacity in the Chino II Desalter to satisfy the demands of Santa Ana River Water Company for desalted water in the quantities as provided in the Revised Draft Water Supply Plan Phase I Desalting Project Facilities Report, Jurupa’s and Ontario’s entitlement to desalted water made available from the initial capacity of the Chino II Desalter shall abate pro-rata to accommodate the demand of Santa Ana River Water Company up to a maximum quantity of 1,300 acre feet per year.
- (x) “Local Storage” means water held in a storage account pursuant to a Local Storage agreement between a party to the

Judgment and Watermaster and consisting of: (i) a Producer's unproduced carry-over water or (ii) a party to the Judgment's Supplemental Water, up to a cumulative maximum of fifty thousand (50,000) acre-feet for all parties to the Judgment.

- (y) "Material Physical Injury" means material injury that is attributable to the Recharge, Transfer, storage and recovery, management, movement or Production of water, or implementation of the OBMP, including, but not limited to, degradation of water quality, liquefaction, land subsidence, increases in pump lift (lower water levels) and adverse impacts associated with rising groundwater. Material Physical Injury does not include "economic injury" that results from other than physical causes. Once fully mitigated, physical injury shall no longer be considered to be material;
- (z) "Metropolitan Water District" means the Metropolitan Water District of Southern California;
- (aa) "New Yield" means proven increases in yield in quantities greater than historical amounts from sources of supply including, but not limited to, capture of rising water, capture of available storm flow, operation of the Desalters (including the Chino I Desalter), induced Recharge and other management activities implemented and operational after June 1, 2000;
- (bb) "Non-Agricultural Pool" shall have the meaning as used in the Judgment for the Overlying (Non-Agricultural Pool) and shall include all its members;
- (cc) "OBMP Assessments" means assessments, other than the assessments levied as provided in Section 5.1(g), levied by Watermaster for the purpose of implementing the Optimum



Basin Management Program (OBMP),, which shall be deemed Administrative Assessments under Paragraph 54 of the Judgment.

- (dd) “OCWD” means the Orange County Water District;
- (ee) “Operating Safe Yield” means the annual amount of groundwater which Watermaster shall determine, pursuant to criteria specified in Exhibit “I” to the Judgment, can be Produced from Chino Basin by the Appropriative Pool parties free of Replenishment obligation under the Physical Solution. Watermaster shall include any New Yield in determining Operating Safe Yield;
- (ff) “Overdraft” means a condition wherein the total annual Production from the Basin exceeds the Safe Yield thereof, as provided in the Judgment;
- (gg) “Party or Parties” means a Party to this Agreement;
- (hh) “Party or parties to the Judgment” means a party to the Judgment;
- (ii) “Produce or Produced” means to pump or extract groundwater from the Chino Basin;
- (jj) “Producer” means any person who Produces groundwater from the Chino Basin;
- (kk) “Production” means the annual quantity, stated in acre feet, of water Produced from the Chino Basin;
- (ll) “PC14” means Project Committee No. 14, members of SAWPA, composed of IEUA, WMWD, and OCWD, pursuant

to Section 18 of the SAWPA Joint Exercise of Powers Agreement which now constitutes the executive Authority through which SAWPA acts with respect to the Chino I Desalter;

- (mm) “Public Hearing” means a hearing of Watermaster after notice pursuant to Paragraphs 58 and 59 or other Paragraphs of the Judgment that may be applicable, to all parties to the Judgment and to any other person entitled to notice under the Judgment, this Agreement or general law;
- (nn) “Recharge and Recharge Water” means introduction of water into the Basin, directly or indirectly, through injection, percolation, delivering water for use in-lieu of Production or other method. Recharge references the physical act of introducing water into the Basin. Recharge includes Replenishment Water but not all Recharge is Replenishment Water. This definition shall not be construed to limit or abrogate the authority of CBWCD under general law;
- (oo) “Replenishment Water” means Supplemental Water used to Recharge the Basin pursuant to the physical solution, either directly by percolating or injecting the water into the Basin or indirectly by delivering the water for use in lieu of Production and use of Safe Yield or Operating Safe Yield;
- (pp) “Recycled Wastewater” means water which, as a result of treatment of wastewater, is suitable for a direct beneficial use or a controlled use that would not otherwise occur and is therefore considered a valuable resource, referred to as “reclaimed water” in the Judgment.
- (qq) “Safe Yield” means the long-term average annual quantity of groundwater (excluding Replenishment Water or Stored Water but including return flow to the Basin from use of

Replenishment or Stored Water) which can be Produced from the Basin under cultural conditions of a particular year without causing an undesirable result;

- (rr) “Salt Credits” means an assignable credit that may be granted by the Regional Water Quality Control Board and computed by Watermaster from activities that result from removal of salt from the Basin, or that result in a decrease in the amount of salt entering the Basin;
- (ss) “SAWPA” means the Santa Ana Watershed Project Authority;
- (tt) “Sphere of Influence” has the same meaning as set forth in Government Code Section 56076;
- (uu) “Storage and Recovery Program” means the use of the available storage capacity of the Basin by any person under the direction and control of Watermaster pursuant to a storage and recovery agreement but excluding “Local Storage”, including the right to export water for use outside the Chino Basin and typically of broad and mutual benefit to the parties to the Judgment;
- (vv) “Stored Water” means Supplemental Water held in storage, as a result of direct spreading, injection or in-lieu delivery, for subsequent withdrawal and use pursuant to agreement with Watermaster;
- (ww) “Supplemental Water” means water imported to Chino Basin from outside the Chino Basin Watershed and recycled water;
- (xx) “Transfer” means the assignment, lease, or sale of a right to Produce water to another Producer within the Chino Basin or to another person or entity for use outside the Basin in con-

formance with the Judgment, whether the Transfer is of a temporary or permanent nature;

- (yy) “TVMWD” means Three Valleys Municipal Water District (referred to in the Judgment as Pomona Valley Municipal Water District);
- (zz) “Watermaster” means Watermaster as the term is used in the Judgment;
- (aaa) “Watermaster Resolution 88-3” means the resolution by the Chino Basin Watermaster establishing the procedure for transferring unallocated Safe Yield water from the Agricultural Pool to the Appropriative Pool, adopted on April 6, 1988 and rescinding Resolution 84-2 in its entirety;
- (bbb) “WMWD” means Western Municipal Water District;

## 1.2 Rules of Construction.

- (a) Unless the context clearly requires otherwise:
  - (i) The plural and singular forms include the other;
  - (ii) “Shall,” “will,” “must,” and “agrees” are each mandatory;
  - (iii) “may” is permissive;
  - (iv) “or” is not exclusive;
  - (v) “includes” and “including” are not limiting; and
  - (vi) “between” includes the ends of the identified range.

- (b) Headings at the beginning of Articles, paragraphs and subparagraphs of this Agreement are solely for the convenience of the Parties, are not a part of this Agreement and shall not be used in construing it.
- (c) The masculine gender shall include the feminine and neuter genders and vice versa.
- (d) The word “person” shall include individual, partnership, corporation, limited liability company, business trust, joint stock company, trust, unincorporated association, joint venture, governmental authority, water district and other entity of whatever nature.
- (e) Reference to any agreement (including this Agreement), document, or instrument means such agreement, document, instrument as amended or modified and in effect from time to time in accordance with the terms thereof and, if applicable, the terms hereof.
- (f) Except as specifically provided herein, reference to any law, statute, ordinance, regulation or the like means such law as amended, modified, codified or reenacted, in whole or in part and in effect from time to time, including any rules and regulations promulgated thereunder.

## II COMPLIANCE WITH CEQA

- 2.1 Commitments Shall be Consistent With CEQA Compliance. In executing this Agreement, the Parties agree that no commitment will be made to carry out any “project” under the OBMP and within the meaning of CEQA unless and until the environmental review and assessments required by CEQA for that defined “project” have been

completed. Any future implementing actions in furtherance of Program Elements 2 through 9 that meet the definition of “project” under CEQA, shall be subject to further environmental documentation in the form of an exemption, a negative declaration, mitigated negative declaration, environmental impact report, supplemental EIR or subsequent EIR. Any challenge claiming a breach of this article shall be brought within the same period of time applicable to claims under Public Resources Code section 21000, et seq.

- 2.2 Reservation of Discretion. Execution of this Agreement is not intended to commit any Party to undertake a project without compliance with CEQA or to commit the Parties to a course of action, which would result in the present approval of a future project.
- 2.3 No Prejudice by Comment or Failure to Comment. Nothing in the PEIR, or a Party’s failure to object or comment thereon, shall limit any Party’s right to allege that “Material Physical Injury” will result or has resulted from the implementation of the OBMP, the storage, recovery, management, movement or Production of water as provided in Article V herein.
- 2.4 Acknowledgment that IEUA is the Lead Agency. IEUA has been properly designated as the “Lead Agency” for the purposes of preparing the PEIR as ordered by court on November 18, 1999.

### III CONDITIONS PRECEDENT

- 3.1 Performance Under Articles V, VI, and VII is Subject to Satisfaction of Conditions Precedent. Each Party’s obligations under this Agreement are subject to the satisfaction of the following conditions on or before the dates specified below, unless satisfaction of a specified condition or conditions is waived in writing by all other Parties:

- (a) The Parties' covenants and commitments set forth in Article V are expressly conditioned upon Watermaster's contemporaneous approval of this Agreement and the OBMP Implementation Plan by June 29, 2000 and upon an Order of the Court directing Watermaster to proceed in accordance with this Agreement and only this Agreement, on or before July 13, 2000. Watermaster's approval of this Agreement and the OBMP Implementation Plan shall be in the form of a resolution substantially similar to Exhibit "A" attached hereto and it shall contain a commitment to adopt the requisite policies and procedures to implement the provisions set forth in Article V on or before December 31, 2000, unless an earlier date for performance is otherwise expressly provided herein.
- (b) Appropriation by the California Legislature of at least \$121,000,000 from the proceeds made available by the passage of Proposition 13 for the benefit of the SAWPA by October 1, 2000.

#### IV MUTUAL COVENANTS

- 4.1 Joint Defense. The Parties shall proceed with reasonable diligence and use Best Efforts to jointly defend any lawsuit or administrative proceeding challenging the legality, validity, or enforceability of any term of this Agreement. However, nothing herein shall require the State of California to incur legal or administrative costs in support of such an effort.
- 4.2 No Opposition to the OBMP. No Party to this Agreement shall oppose Watermaster's adoption and implementation of the OBMP as provided in Exhibit B attached hereto in a manner consistent with this Agreement, or the execution of Memoranda of Agreement that incorporate the provisions which are substantially similar to those

contained in Exhibit "C" attached hereto. Nothing herein shall be construed as limiting any Party's right of participation in all the functions of Watermaster as are provided in the Judgment or to preclude a party to the Judgment from seeking judicial review of Watermaster determinations pursuant to the Judgment or as otherwise provided in this Agreement.

4.3 Indemnification of the Agricultural Pool. The Parties shall indemnify and defend the State of California and the members of the Agricultural Pool against any lawsuit or administrative proceedings, without limitation, arising from Watermaster's adoption, approval, management, or implementation of a Storage and Recovery Program.

4.4 Consent to Specified Changes to the Judgment. Each Party consents to the following modifications to the Judgment.

(a) The Judgment shall be amended so that the last sentence of Paragraph 8 of the Judgment reads:

All overlying rights are appurtenant to the land and cannot be assigned or conveyed separate or apart therefrom for the term of the Peace Agreement except that the members of the Overlying (Non-Agricultural) Pool shall have the right to Transfer or lease their quantified Production rights within the Overlying (Non-Agricultural) Pool or to Watermaster in conformance with the procedures described in the Peace Agreement between the Parties therein, dated June 29, 2000.

(b) Paragraph 6 of Exhibit "G" to the Judgment regarding the Overlying Non-Agricultural Pool shall be amended to read:

Assignment. Rights herein decreed are appurtenant to that land and are only assignable with the land for over-



lying use thereon; provided, however, (a) that any appropriator who may, directly or indirectly, undertake to provide water service to such overlying lands may, by an appropriate agency agreement on a form approved by Watermaster, exercise said overlying right to the extent, but only to the extent necessary to provide water service to said overlying lands, and (b) the members of the pool shall have the right to Transfer or lease their quantified Production rights within the pool or to Watermaster in conformance with the procedures described in the Peace Agreement between the Parties therein, dated June 29, 2000 for the term of the Peace Agreement.

- (c) The 1995 Amendment to the Judgment shall be amended as follows: Section 10(b)(3)(i) shall now read:

“For the term of the Peace Agreement, in any year in which sufficient unallocated Safe Yield from the Overlying (Agricultural) Pool is available for such conversion claims, Watermaster shall allocate to each appropriator with a conversion claim, 2.0 acre-feet of unallocated Safe Yield water for each converted acre for which conversion has been approved and recorded by the Watermaster.”

Appendix 1 to the Judgment shall be construed to be consistent with this amendment. All other parts of the 1995 Amendment shall remain the same.

- 4.5 Construction of “Operating Yield” Under the Judgment. Exhibit I to the Judgment shall be construed to authorize Watermaster to include New Yield as a component of Operating Safe Yield.
- 4.6 Best Efforts to Obtain Funding for OBMP. Each Party shall use Best Efforts to obtain and support funding that is consistent with the

OBMP and this Agreement. The Parties shall coordinate their individual efforts and report their progress to Watermaster no less than each quarter beginning on the Effective Date.

- 4.7 CBWCD. Watermaster shall provide for, arrange or approve the necessary revenue to fund Recharge activities listed in the OBMP and CBWCD shall not assume any legal duty or responsibility to conduct Recharge other than as is expressly set forth herein, as it may agree or as may be provided under general law or the Judgment.

## V

### WATERMASTER PERFORMANCE

- 5.1 Recharge and Replenishment. After the Effective Date and until the termination of this Agreement, the Parties expressly consent to Watermaster's performance of the following actions, programs or procedures regarding Recharge and Replenishment:
- (a) All Recharge of the Chino Basin with Supplemental Water shall be subject to Watermaster approval.
  - (b) Watermaster will ensure that any person may make application to Watermaster to Recharge the Chino Basin with Supplemental Water, including the exercise of the right to offer to sell in-lieu Recharge water to Watermaster as provided in the Judgment and the Agreement in a manner that is consistent with the OBMP and the law. Watermaster shall not approve an application by any party to the Judgment if it is inconsistent with the terms of the Agreement, or will cause any Material Physical Injury to any party to the Judgment or the Basin. Any potential or threatened Material Physical Injury to any Party or the Basin caused by the Recharge of Supplemental Water shall be fully and reasonably mitigated as a condition of approval. In the event the Material Physical Injury cannot be fully and

reasonably mitigated, the request for Recharge of Supplemental Water must be denied.

- (c) Watermaster shall administer, direct and conduct the Recharge of all water in a manner that is consistent with this Agreement, the OBMP and causes no Material Physical Injury to any party to the Judgment or the Chino Basin. Nothing herein shall be construed as committing a Party to provide Supplemental Water upon terms and conditions that are not deemed acceptable to that Party.
- (d) Notwithstanding Section 5.1(c), CBWCD shall reserve its complete discretion to Recharge the Basin with water other than Supplemental Water as may be authorized by general law so long as the Recharge is in accordance with the limitations in the Judgment, if any and is in accordance with the provisions of Section 5.1(d)(i)-(v).
  - (i) Upon request by Watermaster CBWCD shall exercise Best Efforts to consult, coordinate and cooperate with Watermaster when recharging water into the Basin;
  - (ii) CBWCD shall provide Watermaster with reasonable notice in advance of any material change in its historic Recharge operations;
  - (iii) CBWCD shall not be required to provide funding for Recharge projects merely by virtue of its execution of this Agreement;
  - (iv) CBWCD shall Recharge the Basin in a manner that does not cause Material Physical Injury to any party to the Judgment or the Basin. Upon Watermaster's receipt of a written allegation that an existing or proposed

CBWCD Recharge activity has or will cause Material Physical Injury to any party to the Judgment or the Basin, Watermaster shall hold a Public Hearing within a reasonable time. Watermaster shall provide notice and opportunity to be heard to interested parties to the Judgment including CBWCD. After hearing, Watermaster may approve, deny or condition the CBWCD's Recharge. Watermaster's decision shall be based upon the record and it shall be subject to the court's review;

- (v) CBWCD's Recharge of the Basin coupled with an intent to store and recover water shall require a storage and recovery agreement.

(e) Watermaster shall exercise its Best Efforts to:

- (i) protect and enhance the Safe Yield of the Chino Basin through Replenishment and Recharge;
- (ii) ensure there is sufficient Recharge capacity for Recharge Water to meet the goals of the OBMP and the future water supply needs within the Chino Basin;
- (iii) direct Recharge relative to Production in each area and sub-area of the Basin to achieve long term balance and to promote the goal of equal access to groundwater within all areas and sub-areas of the Chino Basin;
- (iv) evaluate the potential or threat for any Material Physical Injury to any party to the Judgment or the Chino Basin, including, but not limited to, any Material Physical Injury that may result from any Transfer of water in storage or water rights which is proposed in place of

physical Recharge of water to Chino Basin in accordance with the provisions of Section 5.3;

- (v) establish and periodically update criteria for the use of water from different sources for Replenishment purposes;
  - (vi) ensure a proper accounting of all sources of Recharge to the Chino Basin;
  - (vii) Recharge the Chino Basin with water in any area where groundwater levels have declined to such an extent that there is an imminent threat of Material Physical Injury to any party to the Judgment or the Basin;
  - (viii) maintain long-term hydrologic balance between total Recharge and discharge within all areas and sub-areas;
  - (ix) coordinate, facilitate and arrange for the construction of the works and facilities necessary to implement the quantities of Recharge identified in the OBMP Implementation Plan.
- (f) Watermaster shall undertake Recharge, using water of the lowest cost and the highest quality, giving preference as far as possible to the augmentation and the Recharge of native storm water.
- (g) In furtherance of its obligations under this Section, for a period of five years, commencing with Fiscal Year 2000-2001, and within each such Fiscal Year Watermaster shall arrange for the physical Recharge of Supplemental Water in the amount of an annual average of 6,500 acre-feet per year in one or more of

the areas commonly known as the Montclair, Brooks and Upland spreading facilities.

- (i) If for any reason at the end of the five year period, a cumulative total of 32,500 acre-feet of physical Recharge has not been accomplished under this subdivision, then Recharge shall continue at the above referenced locations at the average annual rate of 6,500 acre-feet until the full 32,500 acre-feet of physical Recharge has been accomplished;
  - (ii) The Recharged Supplemental Water shall increase the Operating Safe Yield under the Judgment. The cost and allocation of this Supplemental Water under this Section 5.1g shall be apportioned pro rata among the members of the Appropriative Pool under the Judgment according to the Producer's share of the initial Safe Yield;
  - (iii) The need to continue physical Recharge under this paragraph shall be evaluated by Watermaster after the conclusion of Fiscal Year 2004-2005. In evaluating further physical Recharge pursuant to this paragraph, Watermaster shall take into account the provisions of this Article, the Judgment and the OBMP among all other relevant factors. Except as to Watermaster's determination of Material Physical Injury, the rights of each party to the Judgment to purchase or lease water to meet its over-Production obligation shall be unaffected by this provision;
- (h) Watermaster shall not own Recharge projects, including but not limited to spreading grounds, injection wells, or diversion works. It shall never own real property. However, Watermaster may own water rights in trust for the benefit of the

parties to the Judgment. Moreover, Watermaster shall arrange, facilitate and provide for Recharge by entering into contracts with appropriate persons, which may provide facilities and operations for physical Recharge of water as required by the Judgment and this Agreement, or pursuant to the OBMP. Any such contracts shall include appropriate terms and conditions, including terms for the location and payment of costs necessary for the operation and maintenance of facilities, if any.

- (i) CBWCD's rights and obligations to obtain Replenishment Water are unaffected by the execution of this Agreement. Its obligation, rights and duties regarding Recharge may be set by arms length negotiation through separate agreement or as they otherwise exist under general law and the Judgment.
- (j) Watermaster shall provide an annual accounting of the amount of Recharge and the location of the specific types of Recharge.

5.2 Storage and Recovery. After the Effective Date and until the termination of this Agreement, the Parties expressly consent to Watermaster's performance of the following actions, programs or procedures regarding the storage and recovery of water:

- (a) In General.
  - (i) All storage capacity shall be subject to regulation and control by Watermaster;
  - (ii) No person shall store water in and recover water from the Chino Basin without an agreement with Watermaster;
  - (iii) Watermaster will ensure that any person, including but not limited to the State of California and the Department

of Water Resources may make application to Watermaster to store and recover water from the Chino Basin as provided herein in a manner that is consistent with the OBMP and the law. Watermaster shall not approve an application to store and recover water if it is inconsistent with the terms of this Agreement or will cause any Material Physical Injury to any party to the Judgment or the Basin. Any potential or threatened Material Physical Injury to any Party or the Basin caused by the storage and recovery of water shall be reasonably and fully mitigated as a condition of approval. In the event the Material Physical Injury cannot be mitigated, the request for storage and recovery must be denied.

- (iv) This Agreement shall not be construed to limit the State or its department or agencies from using available storage capacity in the Basin in accordance with the provisions of this Section under a storage and recovery agreement with Watermaster.

(b) Local Storage.

- (i) For a period of five years from the Effective Date, Watermaster shall ensure that: (a) the quantity of water actually held in Local Storage under a storage agreement with Watermaster is confirmed and protected and (b) each party to the Judgment shall have the right to store its un-Produced carry-over water. Thereafter, a party to the Judgment may continue to Produce the actual quantity of carry-over water and Supplemental Water held in its storage account, subject only to the loss provisions set forth in this Section 5.2. This means a party to the Judgment may increase the total volume of carry-over water it holds in Local Storage up to five years after the



Effective Date and as Watermaster may approve pursuant to a Local Storage agreement for Supplemental Water.

- (ii) For a period of five years from the Effective Date, any party to the Judgment may make application to Watermaster for a Local Storage agreement, whereby it may store Supplemental Water in the Chino Basin.
- (iii) Watermaster shall provide reasonable advance written notice to all interested parties of the proposed Local Storage agreement, prior to approving the agreement. The notice shall include the persons engaged in the Local Storage, the location of the Recharge and Production facilities and the potential for any Material Physical Injury, if any.
- (iv) Watermaster shall approve the Local Storage agreement so long as: (1) the total quantity of Supplemental Water authorized to be held in Local Storage under all then existing Local Storage agreements for all parties to the Judgment does not exceed the cumulative total of 50,000 acre-feet; (2) the party to the Judgment making the request provides their own Recharge facilities for the purpose of placing the Supplemental Water into Local Storage; (3) the agreement will not result in any Material Physical Injury to any party to the Judgment or the Basin. Watermaster may approve a proposed agreement with conditions that mitigate any threatened or potential Material Physical Injury.
- (v) There shall be a rebuttable presumption that the Local Storage agreement for Supplemental Water does not

result in Material Physical Injury to a party to the Judgment or the Basin.

- (vi) In the event any party to the Judgment, or Watermaster, objects to a proposed Local Storage agreement for Supplemental Water and submits evidence that there may be a Material Physical Injury to any party to the Judgment or the Basin, Watermaster shall hold a Public Hearing and allow the objecting party to the Judgment a reasonable opportunity to be heard.
- (vii) In the event more than one party to the Judgment submits a request for an agreement to store Supplemental Water pursuant to a Local Storage agreement, Watermaster shall give priority to the first party to file a bona fide written request which shall include the name of the party to the Judgment, the source, quantity and quality of the Supplemental Water, an identification of the party to the Judgment's access to or ownership of the Recharge facilities, the duration of the Local Storage and any other information Watermaster shall reasonably request. Watermaster shall not grant any person the right to store more than the then existing amount of available Local Storage. The amount of Local Storage available for the storage of Supplemental Water shall be determined by subtracting the previously approved and allocated quantity of storage capacity for Supplemental Water from the cumulative maximum of 50,000 acre-feet.
- (viii) Watermaster shall base any decision to approve or disapprove any proposed agreement upon the record.

- (ix) Any party to the Judgment may seek judicial review of Watermaster's decision.
- (x) Five years after the Effective Date, Watermaster shall have discretion to place reasonable limits on the further accrual of carry-over and Supplemental Water in Local Storage. However, Watermaster shall not limit the accrual of carry-over Local Storage for Fontana Union Mutual Water Company and Cucamonga County Water District when accruing carry-over storage pursuant to *Lease of Corporate Shares Coupled with Irrevocable Proxy, dated July 1, 1993 between Cucamonga County Water District and Fontana Water Resources Inc. and the Settlement Agreement Among Fontana Union Water Company, Kaiser Steel Reserves Inc., San Gabriel Valley Water Company and Cucamonga County Water Districts dated February 7, 1992*, to a quantity less than 25,000 acre-feet for the term of this Agreement.
- (xi) Watermaster shall evaluate the need for limits on water held in Local Storage to determine whether the accrual of additional Local Storage by the parties to the Judgment should be conditioned, curtailed or prohibited if it is necessary to provide priority for the use of storage capacity for those Storage and Recovery Programs that provide broad mutual benefits to the parties to the Judgment as provided in this paragraph and Section 5.2(c) below;
- (xii) Watermaster shall set the annual rate of loss from Local Storage for parties to the Judgment at zero until 2005. Thereafter the rate of loss from Local Storage for parties to the Judgment will be 2% until recalculated based upon the best available scientific information. Losses

shall be deducted annually from each party to the Judgment's storage account;

- (xiii) Watermaster shall allow water held in storage to be transferred pursuant to the provisions of Section 5.3 below. Storage capacity is not transferable by any party to the Judgment or any Party hereto.

(c) Storage and Recovery Program.

- (i) Watermaster will ensure that no person shall store water in and recover water from the Basin, other than pursuant to a Local Storage agreement, without a storage and recovery agreement with Watermaster;
- (ii) Watermaster shall prepare a list of basic information that a proposed applicant for a Storage and Recovery Program must submit to Watermaster prior to the execution of a storage and recovery agreement;
- (iii) As a precondition of any project, program or contract regarding the use of Basin storage capacity pursuant to a Storage and Recovery Program, Watermaster shall first request proposals from qualified persons.
- (iv) Watermaster shall be guided by the following criteria in evaluating any request to store and recover water from the Basin by a party to the Judgment or any person under a Storage and Recovery Program.
  - (a) The initial target for the cumulative quantity of water held in storage is 500,000 acre-feet in addition to the existing storage accounts;

- (b) Watermaster shall prioritize its efforts to regulate and condition the storage and recovery of water developed in a Storage and Recovery Program for the mutual benefit of the parties to the Judgment and give first priority to Storage and Recovery Programs that provide broad mutual benefits;
- (v) For the term of this Agreement, members of the Appropriative Pool and the Non-Agricultural Pool shall be exclusively entitled to the compensation paid for a Storage and Recovery Program irrespective of whether it be in the form of money, revenues, credits, proceeds, programs, facilities, or other contributions (collectively “compensation”) as directed by the Non-Agricultural and the Appropriative Pools;
- (vi) The compensation received from the use of available storage capacity under a Storage and Recovery Program, may be used to off-set the Watermaster’s cost of operation, to reduce assessments on the parties to the Judgment within the Appropriative and Non-Agricultural Pools, and to defray the costs of capital projects as may be requested by the members of the Non-Agricultural Pools and the Appropriative Pool;
- (xiii) Any potential or threatened Material Physical Injury to any party to the Judgment or the Basin caused by storage and recovery of water, whether Local Storage and recovery or pursuant to a Storage and Recovery Program, shall be reasonably and fully mitigated as a condition of approval;
- (ix) Watermaster reserves discretion to negotiate appropriate terms and conditions or to refuse to enter into a Storage

and Recovery or to deny any request. However, with respect to persons not parties to the Judgment, Watermaster reserves complete discretion. Watermaster shall base any decision to approve or disapprove any proposed Storage and Recovery Program upon the record. However, it may not approve a proposed Storage and Recovery Program unless it has first imposed conditions to reasonably and fully mitigate any threatened or potential Material Physical Injury;

- (x) Any party to the Judgment may seek review of the Watermaster's decision regarding a Storage and Recovery Program.
- (d) The specific terms and conditions for the use of the facilities of CBWCD in connection with Local Storage or Storage and Recovery Programs shall be covered under separate agreements reached by arms length bargaining between Watermaster and CBWCD. Watermaster and any other Party shall not be entitled to the income received by CBWCD for use of its facilities in connection with Local Storage or Storage and Recovery Programs without the consent of CBWCD. Nothing in this Agreement shall be construed as preventing CBWCD from entering into an agreement with others for use of its facilities in a manner consistent with Section 5.1(d) i-v of this Agreement.
- (e) Nothing herein shall be construed as prohibiting the export of Supplemental Water stored under a Storage and Recovery Program and pursuant to a storage and recovery agreement.
- (f) Watermaster shall exercise Best Efforts to undertake the following measures:

- (i) Complete the Short-term conjunctive use project, authorized by Watermaster and conducted by IEUA, TVMWD and MWD;
- (ii) Evaluate and develop a seasonal peaking program for in-Basin use and dry year yield to reduce the Basin's demand on the Metropolitan Water District for imported water;
- (iii) Evaluate and develop a dry year export program;
- (iv) Evaluate and develop a seasonal peaking export program;

5.3 Transfers. After the Effective Date and until the termination of this Agreement, the Parties expressly consent to Watermaster's performance of the following actions, programs or procedures regarding the Transfer of water:

- (a) Watermaster will ensure that any party to the Judgment may Transfer water in a manner that is consistent with this Agreement, the OBMP and the law. Watermaster shall not approve a Transfer if it is inconsistent with the terms of the Agreement, or will cause any Material Physical Injury to any party to the Judgment or the Basin. Any potential or threatened Material Physical Injury to any party to the Judgment or the Basin caused by the Transfer of water shall be fully and reasonably mitigated as a condition of approval. In the event the Material Physical Injury cannot be fully and reasonably mitigated, the request for Transfer must be denied.
- (b) A party to the Judgment may make application to Watermaster to Transfer water as provided in the Judgment.

- (i) Watermaster shall provide reasonable advance written notice to all the parties to the Judgment of a proposed Transfer, prior to approving the Transfer. The notice shall include the persons engaged in the Transfer, the location of the Production and Watermaster's analysis of the potential for Material Physical Injury, if any;
- (ii) Watermaster shall approve the Transfer of water as provided in the Judgment so long as the individual Transfer does not result in any Material Physical Injury to any party to the Judgment or the Basin. Watermaster may approve a proposed Transfer with conditions that fully and reasonably mitigate any threatened or potential Material Physical Injury;
- (iii) There shall be a rebuttable presumption that the Transfer and the Production by the transferee does not result in Material Physical Injury to a party to the Judgment or the Basin;
- (iv) In the event any party to the Judgment, or Watermaster, objects to a proposed Transfer and submits evidence that there may be Material Physical Injury to any party to the Judgment or the Basin, Watermaster shall hold a Public Hearing and allow the objecting party to the Judgment a reasonable opportunity to be heard;
- (v) Watermaster shall base any decision to approve or disapprove any proposed Transfer upon the record after considering potential impacts associated with the individual Transfer alone and without regard to impacts attributable to any other Transfers;



- (vi) Any party to the Judgment may seek judicial review of the Watermaster's decision.
- (c) Watermaster shall allow Producers to lease water rights to make up for the lessee's over-Production.
- (d) Except as provided in Section 5.2, Producers shall not be required to file a storage and recovery or recapture plan except when Producing water transferred from a storage account.
- (e) Watermaster shall approve the Transfer or lease of the quantified Production rights of Non-Agricultural Producers within the Non-Agricultural Pool subject to the provisions of paragraph (b) above. The right to Transfer within the pool includes the right to lease water to other members of the Non-Agricultural Overlying Pool. In addition, the parties to the Judgment with rights within the Non-Agricultural Pool shall have the additional right to Transfer their rights to Watermaster for the purposes of Replenishment for a Desalter or for a Storage and Recovery Program.
- (f) Consistent with the provisions of 88-3, Watermaster shall approve the Transfer of unallocated Safe Yield under-Produced by the Agricultural Pool in Fiscal Year 1998-99, for Transfer to the Appropriative Pool in Fiscal Year 1999-2000, 35,262.452 acre-feet consistent with Watermaster Resolution 88-3. This Transfer shall be in addition to the Early Transfer of the 32,800 acre-feet per year from the Agricultural Pool to the Appropriative Pool referenced below in 5.3(g).
- (g) Watermaster shall approve an "Early Transfer" of water to the Appropriative Pool in an amount not less than 32,800 acre-feet per year that is the expected approximate quantity of water not Produced by the Agricultural Pool. The quantity of water sub-

ject to Early Transfer under this paragraph shall be the greater of (i) 32,800 acre-feet or (ii) 32,800 acre-feet plus the actual quantity of water not Produced by the Agricultural Pool for that Fiscal Year that is remaining after all the land use conversions are satisfied pursuant to 5.3(i) below.

- (i) The Early Transfer water shall be annually allocated among the members of the Appropriative Pool in accordance with their pro-rata share of the initial Safe Yield.
- (ii) The Transfer shall not limit the Production right of the Agricultural Pool under the Judgment to Produce up to 82,800 acre-feet of water in any year or 414,000 acre-feet in any five years as provided in the Judgment.
- (iii) The combined Production of all parties to the Judgment shall not cause a Replenishment assessment on the members of the Agricultural Pool. The Agricultural Pool shall be responsible for any Replenishment obligation created by the Agricultural Pool Producing more than 414,000 acre-feet in any five-year period.
- (iv) The parties to the Judgment and Watermaster shall Produce water in accordance with the Operating Safe Yield and shall procure sufficient quantities of Replenishment Water to satisfy over-Production requirements, whatever they may be, and avoid Material Physical Injury to any party to the Judgment or the Basin;
- (v) Nothing herein shall be construed as modifying the procedures or voting rights within or by the members of the Agricultural Pool.

- (h) The amount of water rights converted for agricultural land to urban use is presently 2.6 acre-feet per acre, with 1.3 acre-feet per acre being allocated collectively to all members of the Appropriative Pool with an initial share of Safe Yield and 1.3 acre-feet per acre being allocated to that appropriator providing service for that urban use. The rate of 2.6 acre-feet per acre shall be changed to a total of 2.0 acre-feet per acre, all of which shall be allocated upon the conversion of the land to that party to the Judgment which is an a member of the Appropriative Pool, on the Effective Date of this Agreement, and whose Sphere of Influence or authorized service area contains the land (purveyor). Upon such conversion of water rights, the purveyor will pledge that amount of water needed for such urban land use, when such urban land use is established, up to 2 acre-feet of water per acre of land per year will be made available for service for such converted land by purveyor under its then-existing standard laws, regulations, rules and policies, or for service arranged by such purveyor, subject only to prohibition of such service by a federal, state agency or court with jurisdiction to enforce such prohibition. The owner of such converted land shall have the right to enforce such pledge by specific performance or writ of mandate under the terms of this Agreement. No monetary damages shall be awarded.
- (i) The members of the Agricultural Pool, including the State of California, shall have the right to engage in a voluntary agreement with an appropriator which has a service area contiguous to or inclusive of the agricultural land, to provide the required water to the overlying land on behalf of the member of the Agricultural Pool unless otherwise prohibited by general law. The appropriator providing service shall be entitled to a credit to off-set Production to the extent it is serving the overlying land up to the amount of the historical maximum annual quantity of water previously used on the property.

5.4 Assessments, Credits, and Reimbursements. After the Effective Date and until the termination of this Agreement, the Parties expressly consent to Watermaster's performance of the following actions, programs or procedures regarding Assessments.

- (a) During the term of this Agreement, all assessments and expenses of the Agricultural Pool including those of the Agricultural Pool Committee shall be paid by the Appropriate Pool. This includes but is not limited to OBMP Assessments, assessments pursuant to Paragraphs 20, 21, 22, 30, 42, 51, 53, 54 both General Administrative Expenses and Special Project Expenses, 55, and Exhibit F (Overlying Agricultural Pool Pooling Plan) of the Judgment except however in the event the total Agricultural Pool Production exceeds 414,000 acre-feet in any five consecutive year period as defined in the Judgment, the Agricultural Pool shall be responsible for its Replenishment obligation pursuant to Paragraph 45 of the Judgment.
- (b) The City of Pomona (Pomona) shall be allowed a credit of up to \$2 (two) million against OBMP Assessments for its installation and operation and maintenance of its existing anion exchange project, which is hereby determined to further the purposes of the OBMP. Pomona's construction and operation of its anion exchange project was not legally compelled and Pomona had no legal duty to construct the project. For the 30 (thirty) year initial Term of this Agreement, Pomona's OBMP Assessment shall be credited \$66,667 per year, not to exceed Pomona's total BMP Assessment attributable to the project's Production for that year. Extension of the Term of this Agreement shall not extend the period of credit.
- (c) Kaiser Ventures (Kaiser) in recognition of its contribution of 25,000 acre-feet to offset Replenishment obligations for the

Desalters shall be allowed a credit of up to \$900,000 (nine hundred thousand dollars) against OBMP Assessments for the Desalters and related facilities. For the 30 (thirty) year initial Term of this Agreement, Kaiser's OBMP Assessment shall be credited up to \$30,000 (thirty thousand dollars) per year, not to exceed Kaiser's OBMP Assessment attributable to Desalters and related facilities. Extension of the Term of this Agreement shall not extend the period of credit. In the event Kaiser Transfers its water rights appurtenant to its overlying land which it owns on the date of execution, the purchaser (Kaiser's successor in interest) shall be entitled one-half (1/2) of the annual credit.

- (d) Watermaster shall adopt reasonable procedures to evaluate requests for OBMP credits against future OBMP Assessments or for reimbursement. Any Producer or party to the Judgment, including but not limited to the State of California, may make application to Watermaster for reimbursement or credit against future OBMP Assessments for any capital or operations and maintenance expenses incurred in the implementation of any project or program, including the cost of relocating groundwater Production facilities, that carries out the purposes of the OBMP including but not limited to those facilities relating to the prevention of subsidence in the Basin, in advance of construction or that is prospectively dedicated to service of the stated goals of the OBMP. Watermaster shall exercise reasonable discretion in making its determination, considering the importance of the project or program to the successful completion of the OBMP, the available alternative funding sources, and the professional engineering and design standards as may be applicable under the circumstances. However, Watermaster shall not approve such a request for reimbursement or credit against future BMP Assessments under this section where the

Producer or party to the Judgment was otherwise legally compelled to make the improvement.

- (e) Any Producer that Watermaster compels to move a groundwater Production facility that is in existence on the Date of Execution shall have the right to receive a credit against future Watermaster assessments or reimbursement up to the reasonable cost of the replacement groundwater Production facility.
- (f) The procurement of Replenishment Water and the levy of assessments shall be consistent with the provisions of Section 5.4(a) above.

5.5 Salt Credits. After the Effective Date and until the termination of this Agreement, the Parties expressly consent to Watermaster's performance of the following actions, programs or procedures regarding Salt Credits. Watermaster shall assign to the members of the Appropriative Pool, salt credits under the OBMP other than those that were previously allocated for the existing Chino I Desalter, or are attributable to a project or program undertaken by the State of California for the benefit of its overlying land and that carry out the purposes of the OBMP.

5.6 Metering. After the Effective Date and until the termination of this Agreement, the Parties expressly consent to Watermaster's performance of the following actions, programs or procedures regarding metering:

- (a) With respect to the obligation to install meters, which is set forth in the Judgment Paragraph 21, any Assessment levied by Watermaster on the members of the Agricultural Pool, regarding metering shall be paid by the Appropriative Pool. Members of the Agricultural Pool, shall have no obligation to install meters hereafter. The obligation to install meters on wells

owned or operated by members of the Agricultural Pool, shall become that of the Watermaster.

- (b) Agricultural Pool meters shall be installed within thirty-six months of the Date of Execution. Watermaster shall be responsible for providing the meter, as well as the cost of any installation, maintenance, inspection, testing and repairing. The members of the Agricultural Pool, shall provide reasonable access during business hours to a location reasonably appropriate for installation, inspection, and repairing of a meter.
- (c) The State of California reserves its right to continue to install, operate, maintain, inspect, test and repair its own meters on wells owned or operated by the State, unless it consents to installation by Watermaster in which case Watermaster assumes the cost.

## VI

### COVENANTS BY THE MEMBERS OF THE AGRICULTURAL POOL

- 6.1 Best Efforts to Support Storage and Recovery. The members and representatives of the Agricultural Pool shall exercise Best Efforts to support the development of any Storage and Recovery Project, once it has been approved by Watermaster, so long as there is no Material Physical Injury to a member of the Agricultural Pool or the Basin.
- 6.2 Covenant of Good Faith and Fair Dealing. The members and representatives of the Agricultural Pool, including the State of California in its capacity as a member and owner of overlying land within the Agricultural Pool, shall be bound by the covenant of good faith and fair dealing, and not oppose or undermine the efforts of Watermaster to secure the development of a Storage and Recovery Program, so

long as there is no potential or threatened Material Physical Injury to a member of the Agricultural Pool or the Basin.

- 6.3 Waiver of Compensation. For the term of this Agreement, the members and representatives of the Agricultural Pool shall waive any claims or rights they might raise or possess, and shall not be entitled, to any compensation from a Storage and Recovery Program irrespective of whether it be in the form of money, revenues, credits, proceeds, programs, facilities, or other contributions (compensation). Further, the members of the Appropriative Pool and the Non-Agricultural Overlying Pool shall have the exclusive rights to any such compensation. This Section shall not apply to the charges adopted by CBWCD for storage and recovery purposes. This paragraph shall not be construed as a limitation on the ability of the State of California to make application to the Watermaster for a Storage and Recovery Program pursuant to Section 5.2.

## VII DESALTERS

- 7.1 Need for Desalters. The OBMP requires construction and operation of Desalters. The Desalters shall be owned, operated and maintained by IEUA and WMWD acting independently or in their complete discretion, acting through PC14 consistent with the terms of this Agreement.
- 7.2 Ownership and Operation.
- (a) Chino I Desalter.
    - (i) The existing "Chino I Desalter," also known as the "SAWPA Desalter," consisting of extraction wells, transmission facilities for delivery of groundwater to the Chino I Desalter, Desalter treatment and delivery facil-



ities for product water, including pumping and storage facilities, and treatment and disposal capacity in the SARI System, is owned and operated by SAWPA, which has created “The Project Committee No. 14 (PC14)” comprised of SAWPA members, IEUA, WMWD, and OCWD, pursuant to “Project Agreement No. 14” dated April 2, 1991, to exercise all the powers and responsibilities of Section 18 of the SAWPA Joint Exercise of Powers Agreement, which now constitutes the executive authority through which SAWPA acts with respect to the Chino I Desalter and to fund repayment for any loans for construction and operation and maintenance of such Desalter and a “Financing Agreement” dated April 1, 2000.

- (ii) The Chino I Desalter is operated pursuant to (a) “take or pay” agreements with the purchasers of water made available from such Desalter; (b) an agreement with the Metropolitan Water District (MWD) subsidizing that Desalter to reduce the cost of the water made available by that Desalter compared to the alternative cost of uninterruptible treated imported water available from MWD; and (c) an agreement with the Watermaster, all Pools of Producers from the Chino Basin, Kaiser Ventures, Inc., formerly known as Kaiser Resources, Inc. (Kaiser) and the California Regional Water Quality Control Board, Santa Ana Region (RWQB), regarding provision of certain water with which to satisfy the Replenishment obligation for operating the Desalter.

(b) Chino II Desalter and Chino I Expansion.

IEUA and WMWD acting independently or in their complete discretion through PC14 must own and operate the Chino II

Desalter and the Chino I Expansion in the same manner as the Chino I Desalter, except as otherwise provided in this Agreement.

(c) Future Desalters.

IEUA and WMWD acting independently or in their complete discretion through PC14 must own and operate Future Desalters, if and only if, they can secure funding from state, federal or sources other than the Parties to pay the capital costs required to construct Future Desalters.

7.3 Design and Construction of Chino II Desalter, Chino I Expansion and Future Desalters.

(a) IEUA and WMWD acting independently or in their complete discretion, acting through PC14 shall design and construct the Chino II Desalter on the eastside of the Chino Basin and expand the capacity of the Chino I Desalter already in existence on the Date of Execution, from 8 mgd up to 14 million gallons per day.

(b) The Chino II Desalter shall have an initial capacity of 10 mgd and shall be designed to deliver water to Jurupa Community Services District, the City of Ontario, and if requested, others subject to the limitations of available funding. The existing capacity of the Chino I Desalter shall be expanded by a minimum of 2 mgd and up to 6 mgd, depending on the rate of development and availability of funding and shall be designed to deliver water to the Cities of Chino, Chino Hills and the State of California as provided in this Section.

- (c) There is no minimum initial capacity established for Future Desalters as the size and timing of Future Desalters are dependent upon variables not presently subject to reliable estimates.
  - (i) It is contemplated by the Parties that Future Desalters, and a further expansion of the Chino I Desalter to a capacity greater than the Chino I Expansion or the Chino II Desalter to a capacity greater than 10 mgd may occur;
  - (ii) IEUA and WMWD shall design and construct Future Desalters, whether acting independently, or in their complete discretion, through PC14, provided that their obligation shall be conditioned upon their ability to secure funding from the state or federal sources other than the Parties to pay the capital costs of construction. Absent such funding, the IEUA and WMWD, acting independently or, in their complete discretion, acting through PC14, shall have no obligation to construct Future Desalters;
- (d) The specific location of wells to supply the Chino II Desalter and Future Desalters shall be determined with Watermaster approval and shall be in a location, which is consistent with and shall carry out the purpose of the OBMP. The design and construction of the Chino II Desalter, Chino I Expansion, and Future Desalters shall be in accordance with the OBMP and subject to Watermaster approval. Watermaster approval shall not be unreasonably withheld and shall insure that the operation of the Desalters will implement the OBMP and not result in Material Physical Injury to any party to the Judgment or the Basin.
- (e) Wells operated in connection with the Desalters shall be designed and constructed to Produce water with high total

dissolved solids (TDS) and be located in areas consistent with the purposes of the OBMP.

#### 7.4 Funding.

- (a) The capital costs of the Chino I Desalter are not affected by this Agreement.
- (b) The capital costs of designing and constructing the Chino II Desalter and the Chino I Desalter Expansion shall be partially derived from Proposition 13 funds. The Parties shall exercise their Best Efforts to secure said funds from the appropriate state agencies. However, all unmet capital, operation and maintenance costs relative to the Chino II Desalter shall be paid from the following sources and in the following order of priority:
  - (i) The net amount of funding received by SAWPA from its existing preliminary gross allocation of \$87,000,000 from the \$235,000,000 Proposition 13 bond funding provided for the Santa Ana River Watershed sub-account, which currently includes \$20,000,000-30,000,000 earmarked for the Chino II Desalter and \$5,000,000 for the Chino I Desalter Expansion;
  - (ii) All other eligible Proposition 13 bond funding;
  - (iii) All other available federal, state or SAWPA funding;
  - (iv) MWD subsidies or other funding without committing the storage space of the Chino Basin under any storage and recovery or conjunctive use agreement, such as that secured pursuant to Agreement Number 7658, between MWD, SAWPA, IEUA, WMWD and OCWD dated

December 7, 1995, and entitled "Chino Basin Desalination Program, Phase I, Joint Participation Agreement for Recovery and Utilization of Contaminated Groundwater;"

- (v) Revenue derived from the sale of water made available from the Desalters; and
  - (vi) Any additional revenue arranged by IEUA and WMWD acting independently or in their complete discretion, acting through PC14, pursuant to an agreement substantially similar to or an amendment of the SAWPA PC14 Agreement entered into on or about April 2, 1991.
- (c) IEUA's and WMWD's obligation to construct Future Desalters whether acting independently, or in their complete discretion, through PC14, shall be conditioned upon their ability to secure state or federal funding to pay for the capital costs related to such construction. Absent such state and/or federal funding, the IEUA and WMWD, acting independently or, in their complete discretion, acting through PC14, shall have no obligation to construct Future Desalters.
- (i) If, after the earlier of ten years, or the conversion of 20,000 acres of agricultural land, Watermaster, in its discretion, determines that Future Desalters are necessary to implement the OBMP, IEUA or WMWD, acting independently or in their complete discretion acting through PC14, shall have a period up to thirty-six (36) months to secure sufficient funding from State or Federal sources to pay for all the capital costs required to construct "Future Desalters;"

- (ii) If IEUA and WMWD acting independently or, in their complete discretion, acting through PC14 cannot secure the necessary funding, the Parties, other than the Agricultural Pool, will exercise their Best Efforts to negotiate new terms and conditions so as to accomplish the implementation of this portion of the OBMP;
- (iii) If, however, the Parties, other than the Agricultural Pool, are unable to negotiate new terms to this Agreement within twenty-four (24) months from the initiation of negotiations, the Parties may appoint a mutually agreed upon mediator. Failing an agreement, the Parties reserve all legal rights and remedies, provided that the Agricultural Pool shall not be liable for the costs of the Future Desalters. The remainder of this Agreement shall remain in full force and effect.

7.5 Replenishment Water. Replenishment for the Desalters shall be provided from the following sources in the following order of priority.

- (a) Watermaster Desalter Replenishment account composed of 25,000 acre-feet of water abandoned by Kaiser pursuant to the "Salt Offset Agreement" dated October 21, 1993, between Kaiser and the RWQB, and other water previously dedicated by the Appropriative Pool.
- (b) New Yield of the Basin, unless the water Produced and treated by the Desalters is dedicated by a purchaser of the desalted water to offset the price of desalted water to the extent of the dedication;
- (c) Safe Yield of the Basin, unless the water Produced and treated by the Desalters is dedicated by a purchaser of the desalted

water to offset the price of desalted water to the extent of the dedication;

- (d) Additional Replenishment Water purchased by Watermaster, the costs of which shall be levied as an Assessment by Watermaster.

## 7.6 Sale of Water.

- (a) The terms and conditions for the purchase and sale of water from the Chino I Desalter shall be as provided by separate agreement.
- (b) The terms and conditions for the purchase and sale of desalted water from the Chino II Desalter and Chino I Expansion are as follows.
  - (i) Members of the Appropriative Pool and the State of California shall have the first priority right to purchase desalted water developed by Chino II and Chino I Expansion on an equal basis, pursuant to a water supply contract, which is not a “take or pay” contract but contains a minimum annual quantity of water available to be purchased and is consistent with the provisions of this Agreement.
  - (ii) OCWD shall have the second priority right to purchase desalted water from the Chino II Desalter and the Chino I Expansion provided that IEUA and WMWD have elected to act through PC14.
  - (iii) If the members of the Appropriative pool, the State of California and the OCWD do not contract for the delivery of all desalted water made available by Chino

II Desalter and the Chino I Expansion, other persons may purchase the water.

- (c) The terms and conditions for the purchase and sale of desalted water from Future Desalters are contingent upon IEUA and WMWD acting independently or, in their complete discretion, acting through PC14, securing sufficient funding to pay the capital costs of transporting the desalted water from the Chino II Desalter and Chino I Expansion to other parties to the Judgment that are members of the Appropriative Pool and that desire to purchase desalted water. If sufficient funding is acquired, then other parties to the Judgment that are members of the Appropriative Pool shall have the right to purchase desalted water under the terms and conditions provided in this Article.
- (d) The price of desalted water to the parties to the Judgment that are members of the Appropriative Pool, the State of California and OCWD when purchasing water pursuant to Section 7.6(b)2 above, shall be the actual cost of providing the water but shall not exceed \$375.00 per acre foot, as adjusted by the purchase and sale agreement between IEUA, WMWD, PC14 and the purchasing party, but in no event shall such adjustment exceed the annual consumer's price index for the LA/Anaheim/Riverside Area or the percent increase in the MWD treated water rates, or its equivalent, whichever is less as measured from the Effective Date.
- (i) If a party to the Judgment elects to Produce water for the Chino II Desalter, the Chino I Expansion or Future Desalters they shall be entitled to a credit against the purchase price in an amount equivalent to the cost of alternative Replenishment Water then available from MWD as interruptible, untreated water or the then pre-



vailing value of the avoided Replenishment obligation, whichever is less;

- (ii) If the purchaser is a person other than a party to the Judgment, the price shall be no less than the cost of the alternative water supplies with comparable reliability and quality or if no purchasers are identified then at the highest price that may be attained under the circumstances;
  - (iii) Fifty percent of any annual revenues received by the Project 14 Committee in excess of the actual ongoing operation, maintenance and Replenishment expenses which revenues are derived from sales of water to any person not a Producer under the Judgment, or the OCWD, shall be provided to Watermaster for use as an off-set against any future assessments against the Parties by Watermaster.
- (e) The term of such Water Supply Contract shall be not less than 30 years if requested by a Party to this Agreement.

## VIII TERM

- 8.1 Commencement. This Agreement shall become effective on the Effective Date and shall expire on the Termination Date.
- 8.2 Expiration. Unless extended pursuant to paragraph 8.3, this Agreement shall expire and thereupon terminate on December 31 of the thirtieth (30th) calendar year starting on January 1, of the first calendar year following the Effective Date.

8.3 Meet and Confer. The Parties agree to meet and confer during the 25th year of this Agreement to discuss any new or modified terms which may be requested or required by each Party in order to continue the term of this Agreement. However, no Party shall be required to modify or amend a term of this Agreement as a precondition to exercising their right to one thirty (30) year extension as provided in 8.4 below.

8.4 Independent Right to Extend. The term of this Agreement may be extended for a period of an additional thirty (30) years, upon the unilateral election of either the Appropriative or Agricultural Pool, (as a Pool only and not the individual members of either Pool) acting in accordance with Watermaster procedures under the Judgment, prior to the end of the twenty-fifth (25<sup>th</sup>) year. The election shall be made in writing with a copy to be sent to the Watermaster and all Parties to this Agreement. In the event an election is made to continue this Agreement, the Agreement shall continue for the extended term on the same terms and conditions as existed during the first thirty (30) years of the Agreement.

8.5 Force Majeure.

- (a) If the performance, in whole or in part, of the obligations of the respective Parties is prevented by act or failure to act of any agency other than a Party to this Agreement, court or any other person, by natural disaster or catastrophic event (such as earthquake, fire, drought or flood), contamination, war, strikes, lockouts, acts of God, or acts of civil or military authority, by the operation of applicable law, or by any other cause beyond the control of the affected Party or Parties, whether similar to the causes specified herein or not, the obligation of the affected Party or Parties to perform an act or actions under this Agreement shall be suspended from the time and to the extent that the performance thereof is prevented, but reasonable diligence

shall be observed by the affected Party or Parties, so far as it lies in their power, in performing such respective obligations in whole or in part under this Agreement.

- (b) In the event performance is prevented as described above, the Parties agree actively to cooperate and use their Best Efforts to resume performance.

8.6 Only One Mandatory Extension. In no event shall a Party be required to extend performance under this Agreement beyond the first two terms of this Agreement, irrespective of the existence of force majeure. Any further extensions under this Agreement shall be consensual among the Parties to such an agreement.

8.7 Effect of Termination. Upon termination of this Agreement further performance by the Parties under the Agreement shall be excused. Performance under the Agreement shall not be the cause of any action or claim other than as expressly provided herein. Other than as provided in paragraph 8.8, upon termination of this Agreement, the legal rights, remedies, responsibilities and authorities of all Parties regarding the Judgment, interpretation of the Judgment and the powers and authority of Watermaster or the Court, in existence on the Date of Execution, whatever they may be, are expressly reserved and shall be as they existed on the Date of Execution, provided that such rights and remedies shall not be a basis to challenge a Party's performance under this Agreement.

8.8 Rescission of Resolutions 84-2 and 88-3. Upon termination of this Agreement, the members of the Appropriative Pool shall have no obligation to pay the Watermaster Assessments for the members of the Agricultural Pool. The provisions of Resolution 84-2 and 88-3 shall be rescinded and except as provided for in Section V above,

pertaining to "Early Transfers" of Safe Yield during the term of this Agreement, the members of the Appropriative Pool shall not be entitled to further Early Transfers of water from the Agricultural Pool. Upon the termination of this Agreement, the Parties agree that no further Early Transfers of unallocated Safe Yield shall occur. The determination of the Safe Yield as provided for in the Judgment at Paragraph 44 shall be construed to mean that the Appropriative Pool shall receive no Transfers of unallocated Safe Yield from the Agricultural Pool for a period of five (5) consecutive years after the termination of this Agreement, at which time the Appropriative Pool shall receive the difference between 414,000 acre-feet allocated to the Agricultural Pool and the actual water used by the Agricultural Pool for the first five consecutive calendar years immediately following the termination of this Agreement.

- 8.9 Mediation Upon Failure to Secure Capital Funding for Future Desalters. If IEUA or WMWD have not acquired the funding within thirty-six (36) months of the date of the Watermaster determination regarding the need for the Future Desalters as provided in Article VII, then the members of the Appropriative Pool, Non-Agricultural Pool and IEUA and WMWD will exercise Best Efforts to negotiate new terms and conditions for the capital costs for any such Future Desalters.
- 8.10 Parties Rights Unaffected Upon Termination. Each Party's rights shall be unaffected by their having approved, executed or implemented this Agreement pursuant to their mutual consent other than as provided in Section 8.8.

## IX CONFLICTS

9.1 Events Constituting a Default by a Party. Each of the following constitutes a "default" by a Party under this Agreement.

- (a) A Party fails to perform or observe any term, covenant, or undertaking in this Agreement that it is to perform or observe and such failure continues for ninety (90) days from a Notice of Default being sent in the manner prescribed in Section 10.13.

9.2 Remedies Upon Default. In the event of a default, each Party shall have the following rights and remedies:

- (a) Specific Performance. Each Party agrees and recognizes that the rights and obligations set forth in this Agreement are unique and of such a nature as to be inherently difficult or impossible to value with money. If one Party does not perform in accordance with the specific wording of any of the provisions in this Agreement applicable to that Party, defaults, or otherwise breaches this Agreement, an action at law for damages or other remedies at law would be wholly inadequate to protect the unique rights and interests of the other Party to the Agreement. Accordingly, in any court controversy concerning this Agreement, the Agreement's provisions will be enforceable in a court of equity by specific performance. This specific performance remedy is not exclusive and is in addition to any other remedy available to the Parties to enforce the terms of this Agreement.
- (b) Injunction. Each Party agrees and recognizes that the rights and obligations set forth in this Agreement are material to another Party and of such a nature that there will be substantial

reliance upon the terms of this Agreement. If one Party does not perform in accordance with specific wording of any of the provisions of this Agreement applicable to that Party, defaults, or otherwise breaches this Agreement, an action at law for damages or other remedies at law would be wholly inadequate to prevent substantial and irreparable harm to another Party to the Agreement. Accordingly, in any court controversy concerning this Agreement, the Agreement's provisions will be enforceable in a court of equity by mandatory and prohibitory injunction. This mandatory and prohibitory injunction remedy is not exclusive and is in addition to any other remedy available to the Parties to enforce the terms of this Agreement.

- (c) Cumulative Rights and Remedies. The Parties do not intend that any right or remedy given to a Party on the breach of any provision under this Agreement be exclusive; each such right or remedy is cumulative and in addition to any other remedy provided in this Agreement or otherwise available at law or in equity. If the non-breaching Party fails to exercise or delays in exercising any right or remedy, the non-breaching Party does not thereby waive that right or remedy. Furthermore, no single or partial exercise of any right, power, or privilege precludes any further exercise of a right, power, or privilege granted by this Agreement or otherwise.
- (d) Attorneys' Fees. In any adversarial proceedings between the Parties other than the dispute resolution procedure set forth below and under the Judgment, the prevailing Party shall be entitled to recover their costs, including reasonable attorneys' fees. If there is no clear prevailing Party, the Court shall determine the prevailing Party and provide for the award of costs and reasonable attorneys' fees. In considering the reasonableness of either Party's request for attorneys' fees as a prevailing Party, the Court shall consider the quality, efficiency, and

value of the legal services and similar/prevaling rate for comparable legal services in the local community.

### 9.3 Dispute Resolution.

- (a) Scope of Dispute Resolution. Disputes (Disputes) between the Parties other than those constituting a “Default”, or “Exclusion” (defined below), shall be resolved pursuant to the provisions of this Section.
- (b) Exclusions:
  - (i) Emergency. An emergency event which, if not promptly resolved may result in imminent danger to the public health, safety or welfare shall not be subject to dispute resolution.
  - (ii) Complete Discretion. Those matters reserved to the complete discretion of a Party under this Agreement shall not be subject to dispute resolution.
  - (iii) Review Under the Judgment Unaffected. The rights and remedies of the parties to the Judgment to seek review of Watermaster actions shall not be subject to dispute resolution.
- (c) Disputes.
  - (i) Each Party to this Agreement may submit any Dispute related to or arising under this Agreement to non-binding mediation by delivering a Notice of Dispute to the other Party;

- (ii) The written Notice of Dispute prepared by the Party shall be delivered to the other Party in accordance with Section 10.13. The Notice of Dispute shall clearly describe the basis of the dispute and the Sections of the Agreement under which the Dispute arises;
- (iii) The non-binding mediation shall be conducted by Judicial Arbitration Mediation Services (JAMS) or an equivalent mediation service agreed to by the Parties;
- (iv) Unless otherwise agreed, a mediator shall be appointed within forty-five (45) days of the date the Notice of Dispute is delivered to hear the dispute and provide a written determination. The mediator shall be chosen jointly by the Parties. If the Parties cannot agree, the Court shall appoint the mediator. Employees or agents of Watermaster or any Party are ineligible to serve as the mediator;
- (v) The mediation shall be held within ninety (90) days of the date the Notice of Dispute is delivered;
- (vi) Any statute of limitations applicable to any claims, rights, causes of action, suits, or liabilities of whatever kind or nature, in law, equity or otherwise, whether known or unknown, shall be tolled during the mediation process. For purposes of this Section, the mediation process shall commence upon the service of a Notice of Dispute to the other Party pursuant to Section 9.3c(i) above. For purposes of this Section, the mediation process shall be deemed complete ten (10) days after service of the mediator's written notice of the conclusion of the mediation;



**X**  
**GENERAL PROVISIONS**

- 10.1 Supersedence. Upon execution of this Agreement, any and all existing agreements or contracts between the Parties concerning the precise subject matter of this Agreement are hereby rescinded to the extent that they conflict with express terms herein.
- 10.2 Applicability to Others.
- (a) After the Date of Execution, each Party agrees that any other agreement or contract relating to the subject matter of this Agreement, or the Judgment, to which it is a party, shall be consistent with the provisions of this Agreement, unless all other Parties consent to the inconsistent agreement or contract.
  - (b) After the Date of Execution, each Party reserves complete discretion to enter into other agreements or contracts on subject matter not covered by the terms of this Agreement.
- 10.3 Admissions by Parties. Nothing in this Agreement constitutes an admission of liability by any Party hereto for any prior or past acts that preceded the Date of Execution. This Agreement and any documents prepared in connection herewith may not be used as evidence in any litigation, except as necessary to interpret or enforce the terms of this Agreement.
- 10.4 Construction of Agreement. Each Party, with the assistance of competent legal counsel, has participated in the drafting of this Agreement and any ambiguity should not be construed for or against any Party on account of such drafting.

- 10.5 Each Party Bears Own Costs. Each Party is to bear its own costs, expenses, and attorneys' fees arising out of or in connection with the subject matter of this Agreement and the negotiation, drafting, and execution of this Agreement. Each of the Parties understands that this Agreement includes all claims for loss, expense and attorneys' fees, taxable or otherwise, incurred by it or arising out of any matters leading up to the execution of this Agreement.
- 10.6 Waiver of Breach. No waiver or indulgence of any breach or series of breaches of this Agreement shall be deemed or construed as a waiver of any other breach of the same or any other provision hereof or affect the enforceability of any part or all of this Agreement. No waiver shall be valid unless executed in writing by the waiving Party.
- 10.7 Awareness of Contents/Legal Effect. The Parties expressly declare and represent that they have read the Agreement and that they have consulted with their respective counsel regarding the meaning of the terms and conditions contained herein. The Parties further expressly declare and represent that they fully understand the content and effect of this Agreement and they approve and accept the terms and conditions contained herein, and that this Agreement is executed freely and voluntarily.
- 10.8 Agreement Binding On All. This Agreement shall be binding upon and shall inure to the benefit of each of the Parties, and each of their respective agents, employees, directors, officers, attorneys, representatives, principals, shareholders, sureties, parents, subsidiaries, affiliates, successors, predecessors, assigns, trustees or receivers appointed to administer their assets, and attorneys of any and all such individuals and entities. All the covenants contained in this Agreement are for the express benefit of each and all such persons described in this Section. This Agreement is not intended to benefit any third parties.

- 10.9 Counterparts. This Agreement may be executed in counterparts. This Agreement shall become operative as soon as one counterpart hereof has been executed by each Party. The counterparts so executed shall constitute one Agreement notwithstanding that the signatures of all Parties do not appear on the same page.
- 10.10 Captions. The captions contained herein are included solely for convenience and shall not be construed as part of this Agreement or as full or accurate descriptions of the terms hereof.
- 10.11 Choice of Law. This Agreement shall be construed and enforced pursuant to the laws of the State of California.
- 10.12 Authority to Enter into This Agreement. Each Party represents and warrants that its respective obligations herein are legal and binding obligations of such Party; that each Party is fully authorized to enter into this Agreement, and that the person signing this Agreement hereinafter for each Party has been duly authorized to sign this Agreement on behalf of said Party.
- 10.13 Notice.
- (a) Any notice required under this Agreement shall be written and shall be served either by personal delivery, mail or fax.
  - (b) In the case of service by personal delivery or fax, no additional time, in days, shall be added to the time in which a right may be exercised or an act may be done.
  - (c) In the case of service by mail, notice must be deposited in a post office, mailbox, sub post-office, substation, or mail chute, or other like facility regularly maintained by the United States Postal Service, in a sealed envelope, with postage paid, addressed to the representative(s) of the Party

on whom it is to be served, at their place of business. The service is complete at the time of deposit. Any period of notice and any right or duty to do any act or make any response within any period or on a date certain after service of notice by mail shall be extended five days. Any period of notice and any right or duty to do any act or make any response within any period or on a date certain after service of notice by Express mail or other method of delivery providing for overnight delivery shall be extended by two court days.

10.14 Amendments and/or Changes to Agreement.

- (a) Any amendments and/or changes to this Agreement must be in writing, signed by a duly authorized representative of the Parties hereto, and must expressly state the mutual intent of the Parties to amend this Agreement as set forth herein. The Parties to this Agreement recognize that the terms and conditions of this Agreement, which are set forth herein in the Sections preceding this Section have been arrived at through the collective negotiations by the Parties.
- (b) The Parties hereby agree that no amendments and/or changes may be made to this Agreement without the express written approval of each Party to this Agreement, provided that upon request, no such approval shall be unreasonably withheld.

**XI**  
**ACKNOWLEDGMENTS:**  
**CONFIRMATION OF RIGHTS**

- 11.1 Each Party's rights to water it presently holds in storage with Watermaster are confirmed and protected.

11.2 The Parties confirm that in addition to the benefits received by the State under this Agreement, including an exemption from the payment of Watermaster Assessments as a member of the Agricultural Pool, the rights of the State of California under the Judgment to Produce water are not modified or altered by this Agreement. For all purposes of the Judgment all future Production by the State or its departments or agencies, including but not limited to the Department of Corrections, Department of Fish and Game, Youth Authority, Department of Parks and Recreation, Department of Toxic Substances Control, and Department of Transportation as set forth in Paragraph 10 of the Judgment, for overlying use on State-owned lands, shall be considered use by the Agricultural Pool. This Agreement is not intended to limit the State or its departments or agencies including but not limited to, the Department of Corrections, Department of Fish and Game, Youth Authority, Department of Parks and Recreation, Department of Toxic Substances Control, and Department of Transportation from exercising the State's rights of future Production for overlying use on State-owned lands as set forth in Paragraph 10 of the Judgment. The Parties agree that they will not oppose the State's exercise of its rights pursuant to the Judgment. The State of California is not executing this Agreement on behalf of the State Water Resources Control Board, the Department of Water Resources, Department of Toxic Substances Control, or the California Regional Water Quality Control Board or the Department of Fish and Game except as stated above. Nothing in this Agreement shall be construed in any way as modifying, altering or limiting the regulatory and trustee obligations, legal rights or duties of any State Agencies, including the Department of Fish and Game, the State Water Resources Control, the California Regional Water Quality Control Boards, the Department of Toxic Substances Control and Department of Water Resources. This Agreement does not limit in any way, and expressly recognizes the rights and ability of the Department of Water Resources to make application to

Watermaster to use groundwater storage space in the Chino Basin as described in Water Code Section 11258 and as provided in Section 5.2(c) herein.

- 11.3 Nothing in this Agreement shall be construed as modifying, altering, or limiting CBWCD from carrying out its obligations under general law.

IN WITNESS WHEREOF, the Parties hereto have set forth their signatures as of the date written below:

DATED:

7/31/00

CITY OF ONTARIO

By 

DATED:

CITY OF POMONA

By \_\_\_\_\_

DATED:

CITY OF UPLAND

By \_\_\_\_\_

[Signatures continued on following pages]

**SIGNATURE PAGES AVAILABLE UPON  
REQUEST AND/OR ON WEBSITE**

# EXHIBIT A



WATERMASTER RESOLUTION  
NO. 2000-\_\_

**RESOLUTION OF THE CHINO BASIN WATERMASTER TO ADOPT THE GOALS AND PLANS OF THE PHASE I REPORT AS IMPLEMENTED BY THE OBMP IMPLEMENTATION PLAN, CONSISTENT WITH THE PEACE AGREEMENT AS ITS OBMP ("OBMP"), TO ADOPT THE REQUISITE POLICIES AND PROCEDURES TO IMPLEMENT THE PROVISIONS SET FORTH IN ARTICLE V OF THE PEACE AGREEMENT ON OR BEFORE DECEMBER 31, 2000, AND TO APPROVE THE "PEACE AGREEMENT."**

WHEREAS, the Judgment in the Chino Basin Adjudication, *Chino Basin Municipal Water District v. City of Chino, et al.*, San Bernardino Superior Court No. 164327, created the Watermaster and directed it to perform the duties as provided in the Judgment or ordered or authorized by the Court in the exercise of the Court's continuing jurisdiction; and

WHEREAS, the Judgment directs Watermaster to develop an OBMP subject to the limitations contained in the Judgment; and

WHEREAS, Watermaster and prepared and submitted a Phase I Report regarding the OBMP to the Court; and

WHEREAS, the Court ordered the Inland Empire Utilities Agency (IEUA) to act as "lead agency" for the purposes of preparing any applicable environmental review for the OBMP in the form of a Programmatic Environmental Impact Report (PEIR) and the Court is exercising continuing jurisdiction over this matter; and

WHEREAS, the parties developed a Memorandum of Principles which articulated a framework of an agreement which the Watermaster Board

articulated a framework of an agreement which the Watermaster Board unanimously approved on May 26, 2000; and

WHEREAS, the parties have reduced the principles into a more definitive agreement and an OBMP Implementation Plan.

WHEREAS, the goals and plans in the Phase I Report implemented consistent with the OBMP Implementation Plan and the Peace Agreement constitute the OBMP; and

WHEREAS, the IEUA has prepared and circulated a draft PEIR and held a public meeting to take public comment on the OBMP on June 28, 2000; and

WHEREAS, the parties to the Peace Agreement and the parties to the Judgment have requested Watermaster to approve the Peace Agreement and the OBMP Implementation Plan and to implement the goals and plans contained in the OBMP Phase I Report in a manner consistent with the Peace Agreement and the OBMP Implementation Plan.

NOW, THEREFORE, IT IS HEREBY RESOLVED AND DETERMINED THAT:

1. The goals and plans in the Phase I Report and their implementation as provided in and consistent with the Implementation Plan and the Peace Agreement are in furtherance of the physical solution set forth in the Judgment and Article X, Section 2 of the California Constitution.

2. Although not a signatory, the Chino Basin Watermaster Board supports and approves the Peace Agreement negotiated by the parties thereto.
3. Subject to the satisfaction of all conditions precedent set forth in the Peace Agreement and the unanimous approval of the Peace Agreement by the Parties thereto no later than August 1, 2000:
  - a. Watermaster adopts the goals and plans of the Phase I Report consistent with the Implementation Plan and the Peace Agreement.
  - b. The Watermaster will proceed in accordance with the OBMP Implementation Plan and the Peace Agreement.
  - c. Watermaster will comply with the conditions described in Article V of the Peace Agreement labeled, "Watermaster Performance" and Watermaster shall adopt all necessary policies and procedures in order to implement the provisions set forth in Article V on or before December 31, 2000, unless an earlier date is specified in the Peace Agreement or the OBMP Implementation Plan.
4. The Watermaster Board will transmit a request to the Court to issue an Order authorizing and directing Watermaster to proceed in accordance with this Resolution.
5. In approving this Agreement, Watermaster is not committing to carry-out any project within the meaning of CEQA unless and until environmental review and assessments required by CEQA

for that defined "project" have been completed. Any future actions that meet the definition of a "project" under CEQA shall be subject to environmental documentation.

# **FIRST AMENDMENT TO PEACE AGREEMENT**

## **FIRST AMENDMENT TO PEACE AGREEMENT CHINO BASIN**

THIS FIRST AMENDMENT TO PEACE AGREEMENT ("Agreement") is dated the 2<sup>nd</sup> of September 2004 regarding the Chino Groundwater Basin.

### **RECITALS**

A. The Parties entered into that certain "Peace Agreement" dated June 29, 2000. The Peace Agreement was approved by the Court in San Bernardino Superior Court Case No. RCV 51010.

B. Section 5.5 of the Peace Agreement provided for Watermaster assignment of "Salt Credits." Certain parties to the Peace Agreement contend that Salt Credits were intended as a benefit to compensate non-discharging Appropriators for their obligation under Section 7.5(b) of the Peace Agreement to provide their share of the storm flow Recharge component of New Yield for Desalter Replenishment. The storm flow Recharge component of New Yield has been established by Watermaster at 12,000 acre-feet per annum.

C. Pursuant to that contention, Monte Vista Water District brought a "Motion for an Order Compelling Watermaster to Establish a Program to Equitably Allocate Benefits from Water Quality Mitigation Measures Under the Physical Solution" on March 11, 2004.

D. The Parties have agreed that if the obligation to dedicate the storm flow Recharge component of New Yield for Desalter Replenishment is eliminated from the Peace Agreement, then Salt Credits can be eliminated from the Peace Agreement. The Parties intend that the storm flow Recharge component of New Yield will remain assigned to the individual Appropriators as a component of Safe Yield, and will not be independently dedicated to Desalter Replenishment, even if it subsequently becomes determined to be part of the Safe Yield in accordance with Section 4.5 of the Peace Agreement and Sections 6.2 and 6.5 of the Watermaster Rules and Regulations.

E. Except as set forth herein, the Parties to the Peace Agreement have agreed that Desalter Replenishment will continue to be provided for as set forth in Section 7.5 of the Peace Agreement, as amended, with Desalter Replenishment being provided from the following sources in order of priority: (a) the 25,000 acre-feet of Kaiser water; (b) New Yield other than the 12,000 acre-feet of storm flow Recharge; (c) Safe Yield and (d) Additional Replenishment Water purchased by Watermaster.

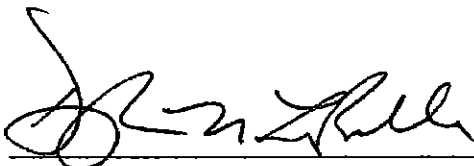
1. **Salt Credits Deleted.** Sections 1.1(rr) and 5.5 of the Peace Agreement are hereby deleted.

2. **Stormwater Component of New Yield Dedicated to Appropriators.**  
The 12,000 acre-feet of storm flow Recharge determined by Watermaster to be part of New Yield shall be allocated to the Appropriators according to their percentages of Safe Yield under the Judgment. Notwithstanding section 7.5(c) of the Peace Agreement, those amounts will continue to be dedicated in those percentages to the Appropriators if that storm flow Recharge is subsequently determined to be Safe Yield. Section 7.5(b) of the Peace Agreement is hereby amended to read:

"New Yield, other than the storm flow Recharge component thereof, unless the Water Produced and treated by the Desalters is dedicated by a purchaser of the desalted water to offset the price of desalted water to the extent of the dedication."

3. **Effect of Amendment.** Except as amended hereby, the Peace Agreement remains in full force and effect and nothing in this First Amendment shall be construed to require Watermaster to levy the Replenishment Assessment contemplated by subdivision(d) of Section 7.5 thereof separately against the Parties that receive desalted water

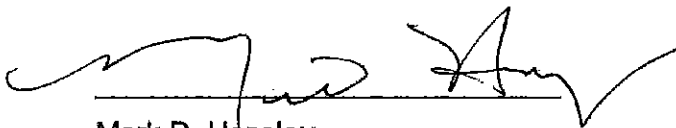
IN WITNESS WHEREOF, the Parties hereto have set forth their signatures as of the date written below:



Douglas N. La Belle  
City Manager

9/28/04

Date



Mark D. Hensley  
City Attorney

9/28/04

Date

**SIGNATURE PAGES AVAILABLE UPON  
REQUEST AND/OR ON WEBSITE**



# **SECOND AMENDMENT TO PEACE AGREEMENT**

September 21, 2007

## ATTACHMENT "L"

### SECOND AMENDMENT TO PEACE AGREEMENT

THIS SECOND AMENDMENT TO PEACE AGREEMENT ("AGREEMENT") is dated the \_\_\_\_ of September 2007 regarding the Chino Groundwater Basin.

#### RECITALS

- A. The Parties entered into that certain "Peace Agreement" dated June 29, 2000. The Peace Agreement was approved by the Court in San Bernardino Superior Court Case No. RCV 51010.
- B. The Parties entered into a First Amendment to the Peace Agreement on September 2nd of 2004 regarding the deletion of Salt Credits and the Stormwater Component of New Yield.

NOW THEREFORE, in consideration of the covenants and conditions herein contained, and for other good and valuable consideration the receipt of which is hereby acknowledged, the Parties agree as follows:

#### AGREEMENT

**Section 1. OBMP Credits Modified.** The Peace Agreement § 5.4(d) will be amended to read:

- (d) Watermaster shall adopt reasonable procedures to evaluate requests for OBMP credits against future OBMP Assessments or for reimbursement. Any Producer or party to the Judgment, including but not limited to the State of California, may make application to Watermaster for reimbursement or credit against future OBMP Assessments for any capital or operations and maintenance expenses incurred in the implementation of any project or program, including the cost of relocating groundwater Production facilities, that carries out the purposes of the OBMP and specifically relates to the prevention of subsidence in the Basin, in advance of construction or that is prospectively dedicated to service of the stated goals of the OBMP. Watermaster shall exercise reasonable discretion in making its determination, considering the importance of the project or program to the successful completion of the OBMP, the available alternative funding sources, and the professional engineering and design standards as may be applicable under the circumstances. However, Watermaster shall not approve such a request for reimbursement or credit against future OBMP Assessments under this section where the Producer or party to the Judgment was otherwise legally compelled to make the improvement.

September 21, 2007

**Section 2. Increase the Limit on Storage of Local Supplemental Water** The current cap of 50,000 acre-feet of Storage of Supplemental Water described in paragraph 5.2(b)(iv) and 5.2(b)(vii) of the Peace Agreement shall be increased from 50,000 to 100,000 acre-feet. Any Party to the Judgment may make Application to Watermaster to store Supplemental Water pursuant to the terms of section 5.2(b) of the Peace Agreement except that the rebuttable presumption applicable to Local Storage Agreements described in Peace Agreement paragraph 5.2(b)(v) shall no longer be in effect with regard to such applications.

**Section 3. Effect of Amendment.** Except as amended hereby, the Peace Agreement remains in full force and effect.

IN WITNESS WHEREOF, the Parties hereto have set forth their signatures as of the date written below:

# **PEACE II AGREEMENT**

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Table of Contents for Unofficial Use Only - Not Part of Court-Approved Agreement

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	--Copy available upon request and/or on website--	
	<b>Attachment C Report on the Distribution of Benefit to Basin Agencies from the Major Program Elements Encompassed by the Peace Agreement and Non-Binding Term Sheet</b>	
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	<b>Attachment D 2007 Supplement to the Implementation Plan OBMP for the Chino Basin</b>	
	--Moved to the OBMP Section; copy available upon request and/or on website--	
	<b>Attachment E Desalter Replenishment with Most Rapid Depletion of the Re-Operation Account</b>	
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	<b>Attachment F Discretionary Actions to Amend Watermaster Rules and Regulations</b>	
	--Moved to the Rules & Regulations Section; copy available upon request and/or on website--	
	<b>Attachment G Purchase and Sale Agreement for the Purchase of Water by Watermaster from Overlying (Non-Agricultural) Pool</b>	
	--Copy available upon request and/or on website--	
	<b>Attachment H Judgment Amendment to Paragraph 8</b>	
	--Incorporated into the Restated Judgment; copy available upon request and/or on website--	
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	--Incorporated into the Restated Judgment; copy available upon request and/or on website--	
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	--Copy available upon request and/or on website--	
<b>Exhibit 3</b>	<b>Accelerated Schedule for the Planning, Design, and Construction of the Chino Creek Well Field</b>	
	--Copy available upon request and/or on website--	

October 25, 2007

**PEACE II AGREEMENT:  
PARTY SUPPORT FOR WATERMASTER'S OBMP  
IMPLEMENTATION PLAN, –  
SETTLEMENT AND RELEASE OF CLAIMS  
REGARDING FUTURE DESALTERS**

**WHEREAS**, paragraph 41 of the Judgment entered in *Chino Basin Municipal Water District v. City of Chino* (San Bernardino Superior Court Case No. 51010) grants Watermaster, with the advice of the Advisory and Pool Committees, "discretionary powers in order to implement an Optimum Basin Management Program ("OBMP") for the Chino Basin";

**WHEREAS**, the Parties to the Judgment executed an agreement resolving their differences and pledging their support for Watermaster actions in accordance with specific terms in June of 2000 ("Peace Agreement");

**WHEREAS**, Watermaster approved Resolution 00-05, and thereby adopted the goals and objectives of the OBMP, the OBMP Implementation Plan and committed to act in accordance with the terms of the Peace Agreement;

**WHEREAS**, pursuant to Article IV, paragraph 4.2, each of the parties to the Peace Agreement agreed not to oppose Watermaster's adoption and implementation of the OBMP Implementation Plan attached as Exhibit "B" to the Peace Agreement;

**WHEREAS**, the Peace Agreement, the OBMP Implementation Plan and the Chino Basin Watermaster Rules and Regulations contemplate further actions by Watermaster in furtherance of its responsibilities under paragraph 41 of the Judgment and in accordance with the Peace Agreement and the OBMP Implementation Plan;

**WHEREAS**, the Parties to the Peace Agreement made certain commitments regarding the funding, design, construction and operation of Future Desalters;

**WHEREAS**, after receiving input from its stakeholders in the form of the Stakeholder's Non-Binding Term Sheet, Watermaster has proposed to adopt Resolution 07-05 attached as Exhibit "1" hereto to further implement the OBMP through a suite of measures commonly referred to and herein defined as "Peace II Measures", including but not limited to the 2007 Supplement to the OBMP, the Second Amendment to the Peace Agreement, amendments to Watermaster's Rules and Regulations, the purchase and sale of water within the Overlying (Non-Agricultural) Pool and certain Judgment amendments; and

**NOW, THEREFORE**, in consideration of the mutual promises specified herein and by conditioning their performance under this Agreement upon the conditions precedent set forth in Article III herein, the Watermaster Approval, and Court Order, and for other good and valuable consideration, the Parties agree as follows:

**ARTICLE I**  
**DEFINITIONS AND RULES OF CONSTRUCTION**

**1.1 Definitions.**

- (a) "Desalters" means Desalters and Future Desalters collectively, as defined in the Peace Agreement.
- (b) "Hydraulic Control" means the reduction of groundwater discharge from the Chino North Management Zone to the Santa Ana River to de minimus quantities. The Chino North Management Zone is defined in the 2004 Basin Plan amendment (RWQCB resolution R8-2004-001) attached hereto as Exhibit "B."
- (c) "Leave Behind" means a contribution to the Basin from water held in storage within the Basin under a Storage and Recovery Agreement that may be established by Watermaster from time to time that may reflect any or all of the following: (i) actual losses; (ii) equitable considerations associated with Watermaster's management of storage agreements; and (iii) protection of the long-term health of the Basin against the cumulative impacts of simultaneous recovery of groundwater under all storage agreements.
- (d) "Re-Operation" means the controlled overdraft of the Basin by the managed withdrawal of groundwater Production for the Desalters and the potential increase in the cumulative un-replenished Production from 200,000 authorized by paragraph 3 of the Engineering Appendix Exhibit I to the Judgment, to 600,000 acre feet for the express purpose of securing and maintaining Hydraulic Control as a component of the Physical Solution.
- (e) Unless otherwise expressly provided herein, all definitions set forth in the Peace Agreement and the Judgment are applicable to the terms as they are used herein.

**1.2 Rules of Construction.**

- (a) Unless the context clearly requires otherwise:
  - (i) The plural and singular forms include the other;
  - (ii) "Shall," "will," "must," and "agrees" are each mandatory;
  - (iii) "May" is permissive;
  - (iv) "Or" is not exclusive;
  - (v) "Includes" and "including" are not limiting; and
  - (vi) "Between" includes the ends of the identified range.



- (b) Headings at the beginning of Articles, paragraphs and subparagraphs of this Agreement are solely for the convenience of the Parties, are not a part of this Agreement and shall not be used in construing it.
- (c) The masculine gender shall include the feminine and neuter genders and vice versa.
- (d) The word "person" shall include individual, partnership, corporation, limited liability company, business trust, joint stock company, trust, unincorporated association, joint venture, governmental authority, water district and other entity of whatever nature.
- (e) Reference to any agreement (including this Agreement), document, or instrument means such agreement, document, instrument as amended or modified and in effect from time to time in accordance with the terms thereof and, if applicable, the terms thereof.
- (f) Except as specifically provided herein, reference to any law, statute or ordinance, regulation or the like means such law as amended, modified, codified or reenacted, in whole or in part and in effect from time to time, including any rules and regulations promulgated thereunder.

## **ARTICLE II**

### **COMPLIANCE WITH CEQA**

- 2.1 Project Description. The proposed project description regarding the design, permitting, construction and operation of Future Desalter, securing Hydraulic Control through Basin Re-Operation is set forth in Attachment "A" to Watermaster Resolution 07-05 attached hereto as Exhibit "1."
- 2.2 Acknowledgment of IEUA as the Lead Agency for CEQA Review. IEUA has been properly designated as the "Lead Agency" for the purposes of completing environmental assessment and review of the proposed project.
- 2.3 Commitments are Consistent with CEQA. The Parties agree and acknowledge that no commitment will be made to carry out any "project" under the amendments to the OBMP and within the meaning of CEQA unless and until the environmental review and assessment that may be required by CEQA for that defined "project" have been completed.
- 2.4 Reservation of Discretion. Execution of this Agreement is not intended to commit any Party to undertake a project without compliance with CEQA or to commit the Parties individually or collectively to any specific course of action, which would result in the present approval of a future project.
- 2.5 No Prejudice by Comment or Failure to Comment. Nothing contained in environmental review of the Project, or a Party's failure to object or comment thereon, shall limit any

October 25, 2007

Party's right to allege that "Material Physical Injury" will result or has resulted from the implementation of the OBMP or its amendment.

### **ARTICLE III** **CONDITIONS PRECEDENT**

3.1 Performance Under Articles IV-XII is Subject to Satisfaction of the Conditions Precedent. Each Party's obligations under this Agreement are subject to the satisfaction of the following conditions precedent on or before the dates specified below, unless satisfaction or a specified condition or conditions is waived in writing by all other Parties:

- (a) Watermaster approval of Resolution 07-05 in a form attached hereto as Exhibit "I," including the following Attachments thereto:
  - (i) the amendments to the Chino Basin Watermaster Rules and Regulations set forth in Attachment "F" thereto.
  - (ii) the 2007 Supplement to the OBMP Implementation Plan set forth in Attachment "D" thereto.
  - (iii) the amendments to the Judgment set forth in Attachments "H, I, and J" thereto.
  - (iv) the Second Amendment to the Peace Agreement set forth in Attachment "L" thereto.
  - (v) the Purchase and Sale Agreement for the Purchase of Water by Watermaster From the Overlying (Non-Agricultural) Pool as set forth in Attachment G thereto.
- (b) The execution of the proposed Second Amendment to the Peace Agreement by all Parties to the Peace Agreement .
- (c) Court approval of the proposed Judgment Amendments and a further order of the Court directing Watermaster to proceed in accordance with the terms of the Peace II Measures as embodied in Resolution 07-05.

### **ARTICLE IV** **MUTUAL ACKNOWLEDGEMENT AND COVENANTS**

- 4.1 Acknowledgment of Peace II Measures. The collective actions of Watermaster set forth in Watermaster Resolution 07-05 and the Attachments thereto (Peace II Measures) constitute further actions by Watermaster in implementing the OBMP in accordance with the grant and limitations on its discretionary authority set forth under paragraph 41 of the Judgment
- 4.2 Non-Opposition. No Party to this Agreement shall oppose Watermaster's adoption of Resolution 07-05 and implementation of the Peace II measures as embodied therein

including the Judgment Amendments, Amendments to the Peace Agreement, the 2007 Supplement to the OBMP Implementation Plan and Amendments to the Chino Basin Watermaster's Rules and Regulations or to Watermaster's execution of memoranda of agreement that are not materially inconsistent with the terms contained therein. Notwithstanding this covenant, no party shall be limited in their right of participation in all functions of Watermaster as they are provided in the Judgment or to preclude a Party to the Judgment from seeking judicial review of Watermaster determinations pursuant to the Judgment or as otherwise provided in this Agreement.

- 4.3 Consent to Amendments. Each Party expressly consents to the Judgment amendments and modifications set forth in Watermaster's Resolution 07-05.
- 4.4 Non-Agricultural Pool Intervention. The Parties acknowledge and agree that any Party to the Judgment shall have the right to purchase Non-Agricultural overlying property within the Basin and appurtenant water rights and to intervene in the Non-Agricultural Pool.

## **ARTICLE V**

### **FUTURE DESALTERS**

- 5.1 Purpose. Watermaster plans to coordinate and the Parties to the Judgment plan to arrange for the physical capacity and potable water use of water from the Desalters. Desalters in existence on the effective date of this Agreement will be supplemented to provide the required capacity to cumulatively produce approximately 40,000 acre-feet per year of groundwater from the Desalters by 2012.
- 5.2 2007 Supplement to the OBMP Implementation Plan. The OBMP Implementation Plan will be supplemented as set forth in the 2007 Supplement to the OBMP Implementation Plan to reflect that Western Municipal Water District ("WMWD"), acting independently or in its complete discretion with the City of Ontario ("Ontario") or the Jurupa Community Services District ("Jurupa") or both, will exercise good faith and reasonable best efforts to arrange for the design, planning, and construction of Future Desalters in accordance with the 2007 Supplement to the OBMP Implementation Plan, to obtain Hydraulic Control, further Re-Operation and support the Future Desalters.
- 5.3 Implementation. WMWD, acting independently or in its complete discretion with Ontario, Jurupa, or both, will exercise good faith and reasonable best efforts to arrange for the design, planning, and construction of Future Desalters in accordance with the 2007 Supplement to the OBMP Implementation Plan, to account for Hydraulic Control, Re-Operation and Future Desalters.
- (a) WMWD, acting independently or in its complete discretion with Ontario or Jurupa or both, will exercise good faith and reasonable best efforts to proceed in accordance with the timeline for the completion of design, permitting, finance and construction as attached hereto as Exhibit "2"
- (b) WMWD, acting independently or in its complete discretion with the City of Ontario or the Jurupa Community Services District or both, will provide quarterly progress reports to Watermaster and the Court.

- 5.4 Project Description. The Future Desalters will add up to 9 mgd to existing Desalters. This will include production capacity from new groundwater wells that will be located in the Southerly end of the Basin, as depicted in Exhibit "3" attached hereto and incorporated herein by this reference. The final design and construction of Future Desalters *may* depend on the terms and conditions that may be freely arrived at by fair bargaining among WMWD and the Chino Basin Desalter Authority ("CDA") or whether it is required to build stand-alone facilities or both. There are material yield benefits to the Parties to the Judgment that are achieved by obtaining Hydraulic Control through Basin Re-Operation. The extent of these benefits is somewhat dependent upon the final location of new production facilities within the southerly end of the Basin. Accordingly, Watermaster will ensure that the location of Future Desalter groundwater production facilities will achieve both Hydraulic Control and maximize yield enhancement by their location emphasizing groundwater production from the Southerly end of the Basin.
- 5.5 Implementing Agreements. Within twenty-four (24) months of the effective date, WMWD, acting independently or in its complete discretion with the City of Ontario or the Jurupa Community Services District or both, will exercise good faith and reasonable best efforts to complete final binding agreement(s) regarding Future Desalters that includes the following key terms:
- (a) Arrangements for WMWD's purchase of product water from CDA;
  - (b) Arrangements with CDA, Jurupa and other Chino Basin parties for the common use of existing facilities, if any;
  - (c) Arrangement with the owners of the SARI line;
  - (d) Arrangements with the Appropriative Pool regarding the apportionment of any groundwater produced as controlled overdraft in accordance with the Physical Solution between Desalters I, Desalters II on the one hand and the Future Desalters on the other hand;
  - (e) WMWD's payment to Watermaster to reimburse Parties to the Judgment for their historical contributions towards the OBMP, if any;
  - (f) The schedule for approvals and project completion.
- 5.6 Reservation of Discretion. Nothing herein shall be construed as committing WMWD, or any members of CDA to take any specific action(s) to accommodate the needs or requests of the other, Watermaster, or any Party to the Judgment, whatever the request may be.
- 5.7 Condition Subsequent. WMWD's obligation to execute a binding purchase agreement with CDA or to independently develop the Future Desalters is subject to the express condition subsequent that the total price per acre-foot of water delivered must not be projected to exceed the sum of the following: (i) the full MWD Tier II Rate; (ii) the MWD Treatment Surcharge calculated in terms of an annual average acre-foot charge; and (iii) \$150 (in 2006 dollars) per acre-foot of water delivered to account for water supply reliability.

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- (a) The full acre-foot cost to Western for Capital and O&M (assuming the priority allocation of controlled overdraft), includes:
  - (i) the delivery of the desalted water to its Mockingbird Reservoir or directly to the City of Norco,
  - (ii) any applicable ongoing Watermaster assessments, payments to CDA and JCSD and for SARI utilization.
- (b) Provided that if third-party funding, grants and a MWD subsidy under the Local Resources Program or otherwise should reduce Western's costs to an amount which is \$75 (in 2006 dollars) below the cap described in paragraph 5.5, Western will transmit an amount equal to fifty (50) percent of the amount less than the computed price cap less \$75 (in 2006 dollars) to Watermaster.
- (c) Western may elect to exercise its right of withdrawal under this paragraph 5.7 within 120 days following the later of: (1) completion of preliminary design; or (2) the certification of whatever CEQA document is prepared for the project, but not later than sixty (60) days thereafter and in no event after a binding water purchase agreement has been executed.

5.8 Limitations. The operation of the Future Desalters will be subject to the following limitations:

- (a) Well Location. New groundwater production facilities for the Future Desalters will be located in the southern end of the Basin to achieve the dual purpose of obtaining Hydraulic Control and increasing Basin yield.
  - (i) New wells will be constructed in the shallow aquifer system among Desalter I wells No. 1 through 4 and west of Desalter I.
  - (ii) So long as these wells produce at least one-half of the Future Desalter groundwater, the Future Desalters shall be entitled to first priority for the allocation of the 400,000 acre-feet of controlled overdraft authorized by the Judgment Amendments to Exhibit I.
- (b) Export. The export of groundwater from the Basin must be minimized. WMWD will present a plan for export minimization to the Watermaster for review and approval prior to operation of the Future Desalters.
  - (i) Watermaster will account for water imported and exported by WMWD.
  - (ii) Watermaster will prepare an initial reconciliation of WMWD's imports and exports at the end of the first ten (10) years of operation and every year thereafter to determine whether a "net export" occurred.

- (iii) WMWD will pay an assessment, if any, on all "net exports" in accordance with Judgment Exhibit "H," paragraph 7(b) after the initial reconciliation is completed at the end of the first ten (10) years of operation.

**ARTICLE VI**  
**GROUNDWATER PRODUCTION BY AND**  
**REPLENISHMENT FOR DESALTERS**

- 6.1 Acknowledgment. The Parties acknowledge that the hierarchy for providing Replenishment Water for the Desalters is set forth in Article VII, paragraph 7.5 of the Peace Agreement, and that this section controls the sources of water that will be offered to offset Desalter Production.
- 6.2 Peace II Desalter Production Offsets. To facilitate Hydraulic Control through Basin Re-Operation, in accordance with the 2007 Supplement to the OBMP Implementation Plan and the amended Exhibits G and I to the Judgment, additional sources of water will be made available for purposes of Desalter Production and thereby some or all of a Replenishment obligation. With these available sources, the Replenishment obligation attributable to Desalter production in any year will be determined by Watermaster as follows:
  - (a) Watermaster will calculate the total Desalter Production for the preceding year and then apply a credit against the total quantity from:
    - (i) the Kaiser account (Peace Agreement Section 7.5(a).);
    - (ii) dedication of water from the Overlying (Non-Agricultural) Pool Storage Account or from any contribution arising from an annual authorized Physical Solution Transfer in accordance with amended Exhibit G to the Judgment;
    - (iii) New Yield (other than Stormwater (Peace Agreement Section 7.5(b)));
    - (iv) any declared losses from storage in excess of actual losses enforced as a "Leave Behind";
    - (v) Safe Yield that may be contributed by the parties (Peace Agreement Section 7.5(c));
    - (vi) any Production of groundwater attributable to the controlled overdraft authorized pursuant to amended Exhibit I to the Judgment.
  - (b) To the extent available credits are insufficient to fully offset the quantity of groundwater production attributable to the Desalters, Watermaster will use water or revenue obtained by levying the following assessments among the members of the Overlying (Non-Agricultural) Pool and the Appropriative Pool to meet any remaining replenishment obligation as follows.

- (i) A Special OBMP Assessment against the Overlying (Non-Agricultural) Pool as more specifically authorized and described in amendment to Exhibit "G" paragraph 8(c) to the Judgment will be dedicated by Watermaster to further off-set replenishment of the Desalters. However, to the extent there is no remaining replenishment obligation attributable to the Desalters in any year after applying the off-sets set forth in 6.2(a), the OBMP Special Assessment levied by Watermaster will be distributed as provided in Section 9.2 below. The Special OBMP Assessment will be assessed pro-rata on each member's share of Safe Yield, followed by
  - (ii) A Replenishment Assessment against the Appropriative Pool, pro-rata based on each Producer's combined total share of Operating Safe Yield and the previous year's actual production. Desalter Production is excluded from this calculation. However, if there is a material reduction in the net cost of Desalter product water to the purchasers of product water, Watermaster may re-evaluate whether to continue the exclusion of Desalter Production but only after giving due regard to the contractual commitment of the parties.
  - (iii) The quantification of any Party's share of Operating Safe Yield does not include the result of any land use conversions.
- (c) The rights and obligations of the parties, whatever they may be, regarding Replenishment Assessments attributable to all Desalters and Future Desalters in any renewal term of the Peace Agreement are expressly reserved and not altered by this Agreement.

## **ARTICLE VII**

### **YIELD ACCOUNTING**

- 7.1 New Yield Attributable to Desalters. Watermaster will make an annual finding as to the quantity of New Yield that is made available by Basin Re-Operation including that portion that is specifically attributable to the Existing and Future Desalters. Any subsequent recalculation of New Yield as Safe Yield by Watermaster will not change the priorities set forth above for offsetting Desalter production as set forth in Article VII, Section 7.5 of the Peace Agreement. For the initial term of the Peace Agreement, neither Watermaster nor the Parties will request that Safe Yield be recalculated in a manner that incorporates New Yield *attributable to the Desalters* into the determination of Safe Yield so that this source of supply will be available for Desalter Production rather than for use by individual parties to the Judgment.
- 7.2 Apportionment of Controlled Overdraft. Within twelve (12) months of the court approval and no later than December 1, 2008, with facilitation by Watermaster, WMWD and the Appropriative Pool will establish by mutual agreement the portion of the 400,000 acre-feet of the controlled overdraft authorized by the amendment to Exhibit "T" to the Judgment that will be allocated among the Desalters and pursuant to a proposed schedule.

- (a) To the extent the groundwater wells for the Future Desalters pump at least fifty (50) percent groundwater from the southern end of the Basin as set forth in Exhibit "3" the *Future Desalters* will be entitled to first priority to the controlled overdraft authorized by the amendment to Exhibit "T" to the Judgment.
- (b) WMWD and the Appropriative Pool will exercise good faith and reasonable best efforts to arrive at a fair apportionment. Relevant considerations in establishing the apportionment include, but are not limited to: (i) the nexus between the proposed expansion and achieving Hydraulic Control; (ii) the nexus between the project and obtaining increased yield; (iii) the identified capital costs; (iv) operating and maintenance expenses; and (iv) the availability of third-party funding.
- (c) The parties will present any proposed agreement regarding apportionment to Watermaster. Watermaster will provide due regard to any agreement between WMWD and the Appropriative Pool and approve it so long as the proposal phases the Re-Operation over a reasonable period of time to secure the physical condition of Hydraulic Control and will achieve the identified yield benefits while at the same time avoiding Material Physical Injury or an inefficient use of basin resources.
- (d) If WMWD and the Appropriative Pool do not reach agreement on apportionment of controlled overdraft to Future Desalters, then no later than August 31, 2009, the members of the Appropriative Pool will submit a plan to Watermaster that achieves the identified goals of increasing the physical capacity of the Desalters and potable water use of approximately 40,000 acre-feet of groundwater production from the Desalters from the Basin no later than 2012. The Appropriative Pool proposal must demonstrate how it has provided first priority to the Future Desalters if the conditions of paragraph 7.2(a) are met.
- (e) Watermaster will have discretion to apportion the controlled overdraft under a schedule that reflects the needs of the parties and the need for economic certainty and the factors set forth in Paragraph 7.2(a) above. Watermaster may exercise its discretion to establish a schedule for Basin Re-Operation that best meets the needs of the Parties to the Judgment and the physical conditions of the Basin, including but not limited to such methods as "ramping up," "ramping down," or "straight-lining."
  - (i) An initial schedule will be approved by Watermaster and submitted to the Court concurrent with Watermaster Resolution 07-05.
  - (ii) Watermaster may approve and request Court approval of revisions to the initial schedule if Watermaster's approval and request are supported by a technical report demonstrating the continued need for access to controlled overdraft, subject to the limitations set forth in amended Exhibit "T" to the Judgment and the justification for the amendment.



- 7.3 Suspension. An evaluation of Watermaster's achievement of Basin outflow conditions, achievement of Hydraulic Control and compliance with Regional Board orders will be completed annually by Watermaster. Re-Operation and Watermaster's apportionment of controlled overdraft will not be suspended in the event that Hydraulic Control is secured in any year *before* the full 400,000 acre-feet has been produced so long as: (i) Watermaster has prepared, adopted and the Court has approved a contingency plan that establishes conditions and protective measures to avoid Material Physical Injury and that equitably distributes the cost of any mitigation attributable to the identified contingencies, and (ii) Watermaster is in substantial compliance with a Court approved Recharge Master Plan as set forth in Paragraph 8.1 below.
- 7.4 Storage: Uniform Losses. The Parties acknowledge that Watermaster has assessed a two (2)-percent loss on all groundwater presently held in storage to reflect the current hydrologic condition. As provided in the Peace Agreement, Watermaster will continue to maintain a minimum 2 (two) percent loss until substantial evidence exists to warrant the imposition of another loss factor. However, the Parties further acknowledge and agree that losses have been substantially reduced through the OBMP Implementation Plan and the operation of Desalters I and II and that once Hydraulic Control is achieved outflow and losses from the Basin will have been limited to de minimis quantities. Therefore, Watermaster may establish uniform losses for all water held in storage based on whether the Party has substantially contributed to Watermaster reducing losses and ultimately securing and maintaining Hydraulic Control.
- (a) Pre-Implementation of the Peace Agreement. The uniform annual loss (leave behind) of six (6) percent will be applied to all storage accounts to address actual losses, management and equitable considerations arising from the implementation of the Peace Agreement, the OBMP Implementation Plan, the 2007 Supplement to the OBMP Implementation Plan, including but not limited to the Desalters and Hydraulic Control unless the Party holding the storage account: (i) has previously contributed to the implementation of the OBMP as a Party to the Judgment, is in compliance with their continuing covenants under the Peace Agreement or in lieu thereof they have paid or delivered to Watermaster "financial equivalent" consideration to offset the cost of past performance prior to the implementation of the OBMP and (ii) promised continued future compliance with Watermaster Rules and Regulations. In the event that a Party satisfies 7.4(a)(i) and 7.4(a)(ii) they will be assessed a minimum loss of two (2) percent against all water held in storage to reflect actual estimated losses. Watermaster's evaluation of the sufficiency of any consideration or financial equivalency may take into account the fact that one or more Parties to the Judgment are not similarly situated.
- (b) Post-Hydraulic Control. Following Watermaster's determination that it has achieved Hydraulic Control and for so long as Watermaster continues to sustain losses from the Basin to the Santa Ana River at a de minimis level (less than one (1) percent), any Party to the Judgment (agency, entity or person) may qualify for the Post-Hydraulic Control uniform loss percentage of less than 1 percent if they meet the criteria of 7.4(a)(i) and 7.4(a)(ii) above.

- 7.5 Allocation of Losses. Any losses from storage assessed as a Leave Behind in excess of actual losses ("dedication quantity") will be dedicated by Watermaster towards groundwater Production by the Desalters to thereby avoid a Desalter replenishment obligation that may then exist *in the year* of recovery. Any dedication quantity which is not required to offset Desalter Production in the year in which the loss is assessed, will be made available to the members of the Appropriative Pool. The dedication quantity will be pro-rated among the members of the Appropriative Pool in accordance with each Producer's combined total share of Operating Safe Yield and the previous year's actual production. However, before any member of the Appropriative Pool may receive a distribution of any dedication quantity, they must be in full compliance with the 2007 Supplement to the OBMP Implementation Plan and current in all applicable Watermaster assessments.

## **ARTICLE VIII** **RECHARGE**

- 8.1 Update to the Recharge Master Plan. Watermaster will update and obtain Court approval of its update to the Recharge Master Plan to address how the Basin will be contemporaneously managed to secure and maintain Hydraulic Control and subsequently operated at a new equilibrium at the conclusion of the period of Re-Operation. The Recharge Master Plan will be jointly approved by IEUA and Watermaster and shall contain recharge estimations and summaries of the projected water supply availability as well as the physical means to accomplish the recharge projections. Specifically, the Plan will reflect an appropriate schedule for planning, design, and physical improvements as may be required to provide reasonable assurance that following the full beneficial use of the groundwater withdrawn in accordance with the Basin Re-Operation and authorized controlled overdraft, that sufficient Replenishment capability exists to meet the reasonable projections of Desalter Replenishment obligations. With the concurrence of IEUA and Watermaster, the Recharge Master Plan will be updated and amended as frequently as necessary with Court approval and not less than every five (5) years. Costs incurred in the design, permitting, operation and maintenance of recharge improvements will be apportioned in accordance with the following principles.
- a. Operations and Maintenance. All future operations and maintenance costs attributable to all recharge facilities utilized for recharge of recycled water in whole or in part unfunded from third party sources, will be paid by the Inland Empire Utilities Agency ("IEUA") and Watermaster. The contribution by IEUA will be determined annually on the basis of the relative proportion of recycled water recharged bears to the total recharge from all sources in the prior year. For example, if 35 percent of total recharge in a single year is from recycled water, then IEUA will bear 35 percent of the operations and maintenance costs. All remaining unfunded costs attributable to the facilities used by Watermaster will be paid by Watermaster.
- i. IEUA reserves discretion as to how it assesses its share of costs.

ii. Watermaster will apportion its costs among the members of the stakeholders in accordance with Production, excluding Desalter Production.

iii. The operations and maintenance costs of water recharged by aquifer storage and recovery will not be considered in the calculation other than by express agreement.

b. Capital. Mutually approved capital improvements for recharge basins that do or can receive recycled water constructed pursuant to the Court approved Recharge Master Plan, if any, will be financed through the use of third party grants and contributions if available, with any unfunded balance being apportioned 50 percent each to IEUA and Watermaster. The Watermaster contribution shall be allocated according to shares of Operating Safe Yield. All remaining unfunded costs attributable to the facilities used by Watermaster will be paid by Watermaster.

8.2 Coordination. The members of the Appropriative Pool will coordinate the development of their respective Urban Water Management Plans and Water Supply Master Plans with Watermaster as follows.

- (a) Each Appropriator that prepares an Urban Water Management Plan and Water Supply Plans will provide Watermaster with copies of their existing and proposed plans.
- (b) Watermaster will use the Plans in evaluating the adequacy of the Recharge Master Plan and other OBMP Implementation Plan program elements.
- (c) Each Appropriator will provide Watermaster with a draft in advance of adopting any proposed changes to their Urban Water Management Plans and in advance of adopting any material changes to their Water Supply Master Plans respectively in accordance with the customary notification routinely provided to other third parties to offer Watermaster a reasonable opportunity to provide informal input and informal comment on the proposed changes.
- (d) Any party that experiences the loss or the imminent threatened loss of a material water supply source will provide reasonable notice to Watermaster of the condition and the expected impact, if any, on the projected groundwater use.

8.3 Continuing Covenant. To ameliorate any long-term risks attributable to reliance upon un-replenished groundwater production by the Desalters, the annual availability of any portion of the 400,000 acre-feet set aside as controlled overdraft as a component of the Physical Solution, is expressly subject to Watermaster making an annual finding about whether it is in substantial compliance with the revised Watermaster Recharge Master Plan pursuant to Paragraphs 7.3 and 8.1 above.

8.4 Acknowledgment re 6,500 Acre-Foot Supplemental Recharge. The Parties make the following acknowledgments regarding the 6,500 Acre-Foot Supplemental Recharge:

- (a) A fundamental premise of the Physical Solution is that all water users dependent upon Chino Basin will be allowed to pump sufficient waters from the Basin to meet their requirements. To promote the goal of equal access to groundwater within all areas and sub-areas of the Chino Basin, Watermaster has committed to use its best efforts to direct recharge relative to production in each area and sub-area of the Basin and to achieve long-term balance between total recharge and discharge. The Parties acknowledge that to assist Watermaster in providing for recharge, the Peace Agreement sets forth a requirement for Appropriative Pool purchase of 6,500 acre-feet per year of Supplemental Water for recharge in Management Zone 1 (MZ1). The purchases have been credited as an addition to Appropriative Pool storage accounts. The water recharged under this program has not been accounted for as Replenishment water.
- (b) Watermaster was required to evaluate the continuance of this requirement in 2005 by taking into account provisions of the Judgment, Peace Agreement and OBMP, among all other relevant factors. It has been determined that other obligations in the Judgment and Peace Agreement, including the requirement of hydrologic balance and projected replenishment obligations, will provide for sufficient wet-water recharge to make the separate commitment of Appropriative Pool purchase of 6,500 acre-feet unnecessary. Therefore, because the recharge target as described in the Peace Agreement has been achieved, further purchases under the program will cease and Watermaster will proceed with operations in accordance with the provisions of paragraphs (c), (d) and (e) below.
- (c) The parties acknowledge that, regardless of Replenishment obligations, Watermaster will independently determine whether to require wet-water recharge within MZ1 to maintain hydrologic balance and to provide equal access to groundwater in accordance with the provisions of this Section 8.4 and in a manner consistent with the Peace Agreement, OBMP and the Long Term Plan for Subsidence. Watermaster will conduct its recharge in a manner to provide hydrologic balance within, and will emphasize recharge in MZ1. Accordingly, the Parties acknowledge and agree that each year Watermaster shall continue to be guided in the exercise of its discretion concerning recharge by the principles of hydrologic balance.
- (d) Consistent with its overall obligations to manage the Chino Basin to ensure hydrologic balance within each management zone, for the duration of the Peace Agreement (until June of 2030), Watermaster will ensure that a minimum of 6,500 acre-feet of wet water recharge occurs within MZ1 on an annual basis. However, to the extent that water is unavailable for recharge or there is no replenishment obligation in any year, the obligation to recharge 6,500 acre-feet will accrue and be satisfied in subsequent years.
  - (1) Watermaster will implement this measure in a coordinated manner so as to

facilitate compliance with other agreements among the parties, including but not limited to the Dry-Year Yield Agreements.

- (2) In preparation of the Recharge Master Plan, Watermaster will consider whether existing groundwater production facilities owned or controlled by producers within MZ1 may be used in connection with an aquifer storage and recovery ("ASR") project so as to further enhance recharge in specific locations and to otherwise meet the objectives of the Recharge Master Plan.
- (e) Five years from the effective date of the Peace II Measures, Watermaster will cause an evaluation of the minimum recharge quantity for MZ1. After consideration of the information developed in accordance with the studies conducted pursuant to paragraph 3 below, the observed experiences in complying with the Dry Year Yield Agreements as well as any other pertinent information, Watermaster may increase the minimum requirement for MZ1 to quantities greater than 6,500 acre-feet per year. In no circumstance will the commitment to recharge 6,500 acre-feet be reduced for the duration of the Peace Agreement.

## ARTICLE IX

9.1 Basin Management Assistance. Three Valleys Municipal Water District ("TVMWD") shall assist in the management of the Basin through a financial contribution of \$300,000 to study the feasibility of developing a water supply program within Management Zone 1 of the Basin or in connection with the evaluation of Future Desalters. The study will emphasize assisting Watermaster in meeting its OBMP Implementation Plan objectives of concurrently securing Hydraulic Control through Re-Operation while attaining Management Zone 1 subsidence management goals. Further, TVMWD has expressed an interest in participating in future projects in the Basin that benefit TVMWD. If TVMWD wishes to construct or participate in such future projects, TVMWD shall negotiate with Watermaster in good faith concerning a possible "buy-in" payment.

### 9.2 Allocation of Non-Agricultural Pool OBMP Special Assessment

a. For a period of ten years from the effective date of the Peace II Measures, any water (or financial equivalent) that may be contributed from the Overlying (Non-Agricultural) Pool in accordance with paragraph 8(c) of Exhibit G to the Judgment (as amended) will be apportioned among the members of the Appropriative Pool in each year as follows:

(i)	City of Ontario.	80 af
(ii)	City of Upland	161 af
(iii)	Monte Vista Water District	213 af
(iv)	City of Pomona	220 af
(v)	Marygold Mutual Water Co	16 af
(vi)	West Valley Water District	15 af

b. In the eleventh year from the effective date of the Peace II Measures and in each year thereafter in which water may be available from the Overlying (Non-Agricultural) Pool in excess of identified Desalter replenishment obligations as determined in accordance with Section 6.2 above, any excess water (or financial equivalent) will be distributed pro rata among the members of the Appropriative Pool based upon each Producer's combined total share of Operating Safe Yield and the previous year's actual production.

## **ARTICLE X**

### **SETTLEMENT AND RELEASE**

- 10.1 Settlement. By its execution of this Agreement, the Parties mutually and irrevocably, fully settle their respective claims, rights and obligations, whatever they may be, regarding the design, funding, construction and operation of Future Desalters as set forth in and arising from Article VII of the Peace Agreement.
- 10.2 Satisfaction of Peace Agreement Obligation Regarding Future Desalters. The Parties' individual and collective responsibilities arising from the Part VII of the Peace Agreement and the OBMP Implementation Plan regarding the planning, design, permitting, construction and operation of Future Desalters, whatever they may be, are unaffected by this Agreement. However, upon the completion of a 10,000 AFY (9 mgd) expansion of groundwater production and desalting from Desalter II as provided for herein, the Parties will be deemed to have satisfied all individual and collective pre-existing obligations arising from the Peace Agreement and the OBMP Implementation Plan, whatever they may be, with regard to Future Desalters as described in Part VII of the Peace Agreement and the OBMP Implementation Plan.
- 10.3 Satisfaction of Pomona Credit. In recognition of the ongoing benefits received by TVMWD through the City of Pomona's anion exchange project, as its sole and exclusive responsibility, TVMWD will make an annual payment to Watermaster in an amount equal to the credit due the City of Pomona under Peace Agreement Paragraph 5.4(b) ("the Pomona Credit").
- (a) Within ninety (90) days of each five-year period following the Effective Date of this Agreement, in its sole discretion TVMWD shall make an election whether to continue or terminate its responsibilities under this paragraph. TVMWD shall provide written notice of such election to Watermaster.
  - (b) Watermaster will provide an annual invoice to TVMWD for the amount of the Pomona Credit.
  - (c) Further, in any renewal term of the Peace Agreement, TVMWD will continue to make an equivalent financial contribution which TVMWD consents to

Watermaster's use for the benefit of MZ1, subject to the same conditions set forth above with respect to TVMWD's payment of the "Pomona Credit".

- (d) In the event TVMWD elects to terminate its obligation under this Paragraph, the Peace Agreement and the responsibility for satisfying the Pomona Credit will remain unchanged and unaffected, other than as it will be deemed satisfied for each five-year period that TVMWD has actually made the specified payment.

- 10.4 Release. Upon WMWD's completion of a 10,000 AFY (9 mgd) expansion of groundwater production and desalting in a manner consistent with the parameters set forth in this Agreement, each Party, for itself, its successors, assigns, and any and all persons taking by or through it, hereby releases WMWD and IEUA from any and all obligations arising from WMWD's and IEUA's responsibility for securing funding, designing, and constructing Future Desalters as set forth in or arising exclusively from Article VII of the Peace Agreement and the Program Elements 3, 6, and 7, OBMP Implementation Plan only, and each Party knowingly and voluntarily waives all rights and benefits which are provided by the terms and provisions of section 1542 of the Civil Code of the State of California, or any comparable statute or law which may exist under the laws of the State of California, in or arising from WMWD's and IEUA's responsibility for securing funding, designing, and constructing Future Desalters as set forth in or arising exclusively from Article VII of the Peace Agreement and the OBMP Implementation Plan only. The Parties hereby acknowledge that this waiver is an essential and material term of this release. The Parties, and each of them, acknowledge that Civil Code section 1542 provides as follows:

**A GENERAL RELEASE DOES NOT EXTEND TO CLAIMS WHICH THE CREDITOR DOES NOT KNOW OR SUSPECT TO EXIST IN HIS OR HER FAVOR AT THE TIME OF EXECUTING THE RELEASE, WHICH IF KNOWN BY HIM OR HER MUST HAVE MATERIALLY AFFECTED HIS OR HER SETTLEMENT WITH THE DEBTOR.**

Each Party understands and acknowledges that the significance and consequence of this waiver of Civil Code section 1542 is the waiver of any presently unknown claims as described above, and that if any Party should eventually suffer additional damages arising out of the respective claim that Party will not be able to make any claim for those additional damages. Further, all Parties to this Agreement acknowledge that they consciously intend these consequences even as to claims for such damages that may exist as of the date of this Agreement but which are not known to exist and which, if known, would materially affect the Parties' respective decision to execute this Agreement, regardless of whether the lack of knowledge is the result of ignorance, oversight, error, negligence, or any other cause.

- 10.5 Assessments. In view of the substantial investments previously made and contemplated by Watermaster and the parties over the term of the Peace Agreement and in particular to implement the OBMP, the parties desire substantial certainty regarding Watermaster's principles of cost allocation. The principles set forth in the Peace Agreement and the

Peace II Measures including those stated herein, constitute a fair and reasonable allocation of responsibility among the stakeholders. Accordingly, other than in the event of an emergency condition requiring prompt action by Watermaster or to correct a manifest injustice arising from conditions not presently prevailing in the Basin and unknown to Watermaster and the parties and then only to the extent Watermaster retains discretion, Watermaster will maintain the principles of cost allocation for apportioning costs and assessments as provided in the Judgment and now implemented through the Peace Agreement and the Peace II Measures for the balance of the initial Term of the Peace Agreement. For the balance of the initial Term of the Peace Agreement, the parties to the Peace II Agreement will waive any objections to the Watermaster's principles of cost allocation other than as to issues regarding whether Watermaster has: (i) properly followed appropriate procedures; (ii) correctly computed assessments and charges; and (iii) properly reported.

10.6 Reservation of Rights. Nothing herein shall be construed as precluding any party to the Judgment from seeking judicial review of any Watermaster action on the grounds that Watermaster has failed to act in accordance with the Peace Agreement as amended, this Agreement, the Amended Judgment, the OBMP Implementation Plan as amended and applicable law.



October 25, 2007

**ARTICLE XI**  
**TERM**

- 11.1 Commencement. This Agreement will become effective upon the satisfaction of all conditions precedent and shall expire on the Termination Date.
- 11.2 Termination. This Agreement is coterminous with the initial term of the Peace Agreement and will expire of its own terms and terminate on the date of the Initial Term of the Peace Agreement.

**ARTICLE XIII**  
**GENERAL PROVISIONS**

- 12.1 Construction of this Agreement. Each Party, with the assistance of competent legal counsel, has participated in the drafting of this Agreement and any ambiguity should not be construed for or against any Party on account of such drafting.
- 12.2 Awareness of Contents/Legal Effect. The Parties expressly declare and represent that they have read the Agreement and that they have consulted with their respective counsel regarding the meaning of the terms and conditions contained herein. The parties further expressly declare and represent that they fully understand the content and effect of this Agreement and they approve and accept the terms and conditions contained herein, and that this Agreement is executed freely and voluntarily.
- 12.3 Counterparts. This Agreement may be executed in counterparts. This Agreement shall become operative as soon as one counterpart hereof has been executed by each Party. The counterparts so executed shall constitute an Agreement notwithstanding that the signatures of all Parties do not appear on the same page.

IN WITNESS THEREOF, the Parties hereto have set forth their signatures as of the date written below:

Dated:

Party: \_\_\_\_\_

By \_\_\_\_\_

# Exhibit 1

September 21, 2007

**WATERMASTER RESOLUTION  
NO. 07-05**

**RESOLUTION OF THE CHINO BASIN WATERMASTER  
REGARDING THE PEACE II AGREEMENT AND  
THE OBMP IMPLEMENTATION PLAN**

**WHEREAS**, the Judgment in the Chino Basin Adjudication, *Chino Municipal Water District v. City of Chino, et al.*, San Bernardino Superior Court No. 51010, created the Watermaster and directed it to perform the duties as provided in the Judgment or ordered or authorized by the court in the exercise of the Court's continuing jurisdiction;

**WHEREAS**, Watermaster has the express powers and duties as provided in the Judgment or as "hereafter" ordered or authorized by the Court in the exercise of the Court's continuing jurisdiction" subject to the limitations stated elsewhere in the Judgment;

**WHEREAS**, Watermaster, with the advice of the Advisory and Pool Committees has discretionary powers to develop an OBMP for Chino Basin, pursuant to Paragraph 41 of the Judgment;

**WHEREAS**, in June of 2000, the Parties to the Judgment executed the Peace Agreement providing for the implementation of the OBMP and Watermaster adopted Resolution 00-05 whereby it agreed to act in accordance with the Peace Agreement;

**WHEREAS**, the Court ordered Watermaster to proceed in accordance with the Peace Agreement and the OBMP Implementation, Exhibit "B" thereto;

**WHEREAS**, Watermaster adopted and the Court approved Chino Basin Watermaster Rules and Regulations in June of 2001;

**WHEREAS**, the Peace Agreement, the OBMP Implementation Plan and the Chino Basin Watermaster Rules and Regulations reserved Watermaster's discretionary powers in accordance with Paragraph 41 of the Judgment, with the advice from the Advisory and Pool Committees, and contemplated further implementing actions by Watermaster;

**WHEREAS**, the Judgment requires that Watermaster in implementing the Physical Solution, and the OBMP have flexibility to consider and where appropriate make adjustments after taking into consideration technological, economic, social and institutional factors in maximizing the efficient use of the waters of the Basin.

**WHEREAS**, the Parties to the Judgment provided input into the creation of a "Stakeholder Non-Binding Term Sheet" that articulated methods to maximize beneficial use of the Basin ("Peace II measures") was distributed to and considered by each of the Pools, the Advisory Committee and the Watermaster Board and subsequently transmitted to the Court;

September 21, 2007

**WHEREAS**, Watermaster will continue to require that to the extent any of the Peace II Implementing Measures constitute "projects" within the meaning of the California Environmental Quality Act ("CEQA"), compliance with CEQA will be required as a pre-condition of Watermaster's issuance of any final, binding approvals; and

**WHEREAS**, the actions articulated in the "Stakeholder Non-Binding Term Sheet" and contemplated herein to maximize the beneficial use of the groundwater and the Basin benefit the Basin and the Parties to the Judgment.

**NOW, THEREFORE, IT IS HEREBY RESOLVED AND DETERMINED THAT:**

1. Watermaster caused the completion of a preliminary engineering, hydrogeologic, and technical evaluation of the physical impacts to the Basin and to the Parties to the Judgment that may result from implementation of the Peace II measures. The preliminary evaluation was conducted by Mark Wildermuth of Wildermuth Environmental.

2. The Assistant to the Special Referee, Joe Scalmanini of Luhdorff & Scalmanini Consulting Engineers, transmitted his technical review in March of 2007 ("Report"). In relevant part, the Report states:

"For planning level analysis, the existing model is a useful and applicable tool to simulate approximate basin response to management actions that involve the quantities and distribution of pumping and recharge in the basin. For example, for the most notable of its applications to date, which has been to conduct a planning level analysis of intended future hydraulic control, the model can be confidently utilized to examine whether groundwater conditions (levels) will form in such a way that hydraulic control will be achieved as result of basin re-operation and, if not, what other changes in basin operation are logically needed to achieve it." (Report at p. 37)

3. Watermaster caused the preparation of a specific project description set forth in Attachment "A" hereto for the purpose of conducting a more refined engineering, hydrogeologic and technical evaluation of the physical impacts to the Basin and to the Parties to the Judgment that may result from implementation of the Peace II measures.

4. Watermaster caused the completion of a macro socioeconomic analysis by Dr. David Sunding, a PhD in economics and professor at the University of California Berkeley set forth in Attachment "B" hereto. The macro analysis provided an evaluation of the macro costs and benefits to the parties as a whole that may be attributable to the Peace II measures.

5. Watermaster caused an update of the previously completed socioeconomic analysis conducted pursuant to the Judgment. The analysis was completed by Dr. Sunding, and it considered the positive and negative impacts of implementing the OBMP, the Peace Agreement, and the Peace II measures, including Watermaster assessments. The analysis also addressed the potential distribution of costs and benefits among the parties that were initiated

September 21, 2007

with the approval of the Peace Agreement. The study was completed in final draft form on September 13, 2007 and is set forth in Attachment "C" hereto. Each of the Parties to the Judgment has had the opportunity to comment on earlier drafts of the report and on the final draft of the report and to consider the analyses contained therein prior to Watermaster's approval of this Resolution 07-05.

9. Watermaster has caused the preparation of the 2007 Supplement to the Optimum Basin Management Program ("OBMP") addressing Watermaster's efforts to, among other things, pursue Hydraulic Control through Basin Re-Operation as set forth in Attachment "D" hereto.

10. Watermaster has prepared a summary of the cumulative total of groundwater production and desalting from all authorized Desalters and other activities authorized by the 2007 Supplement to the OBMP Implementation Plan as amended as provided in the Peace Agreement in a schedule that: (i) identifies the total quantity of groundwater that will be produced through the proposed Basin Re-Operation to obtain Hydraulic Control, and (ii) characterizes and accounts for all water that is projected to be produced by the Desalters for the initial Term of the Peace Agreement (by 2030) as dedicated water, New Yield, controlled overdraft pursuant to the Physical Solution or subject to Replenishment. This schedule is set forth in Attachment "E" hereto. Watermaster will modify its projections from time to time, as may be prudent under the circumstances.

11. More than fifteen months have passed since the Non-Binding Term Sheet was initially published by Watermaster in its current form and transmitted to the Court for its consideration and more than six months have passed following Watermaster's declaration that any party interested in participating in the development and construction of Future Desalters should identify their interest in making a proposal and no party has stepped forward and made a responsive proposal in lieu of the Western Municipal Water District proposal.

12. The Peace II measures collectively consist of:

(a) Watermaster's election to exercise its reserved discretion as provided in the Judgment, the Peace Agreement and the OBMP Implementation Plan, to amend the Watermaster Rules and Regulations as more fully set forth in Attachment "F" attached hereto and incorporated herein by this reference;

(b) Watermaster's execution and Court approval of the proposed Purchase and Sale Agreement with the Non-Agricultural (Overlying) Pool as more fully set forth in Attachment "G" attached hereto and incorporated herein by this reference;

(c) Watermaster's and the Court's approval of the proposed amendments to the Judgment as more fully set forth in Attachment "H", Attachment "I" and Attachment "J" attached hereto and incorporated herein by this reference;

(d) Watermaster's approval of and further agreement to act in accordance with the Peace II Agreement, including the provisions related to Future Desalters, as more fully set forth in Attachment "K" attached hereto, upon a further order of the

September 21, 2007

Court directing Watermaster to proceed in accordance with its terms;

(e) Watermaster's and the Court's approval of the 2007 Supplement to the OBMP Implementation Plan as they are more fully set forth in Attachment "D" attached hereto and incorporated herein by this reference; and

(f) Execution of the proposed Second Amendment to the Peace Agreement as more fully set forth in Attachment "L" attached hereto and incorporated herein by this reference, approval by Watermaster and a further order of the Court directing Watermaster to proceed in accordance with its terms.

13. The Overlying (Non-Agricultural), the Overlying (Agricultural) Pool, and the Appropriative Pool have approved the Peace II measures and recommended Watermaster's adoption of this Resolution 07-05

14. The Advisory Committee has approved the Peace II measures and recommended Watermaster's adoption of this Resolution 07-05.

15. In adopting this Resolution and by its agreement to implement the Peace II measures, Watermaster is not committing to carry out any project within the meaning of CEQA unless and until CEQA compliance has been demonstrated for any such project.

16. The Watermaster Board will transmit this Resolution 07-05, and the Peace II implementing measures, and the referenced Attachments to the Court along with other supporting materials and request the Court to approve the proposed Judgment Amendments and to further order that Watermaster proceed to further implement the 2007 Supplement to the OBMP as provided in the Peace II measures.

Date: 10-25-07

  
for CHINO BASIN WATERMASTER

# Attachment A

September 21, 2007

**Attachment "A"**  
**Project Description**  
**for the**  
**2007 Amendment to the Chino Basin**  
**Optimum Basin Management Program**

**Introduction**

This document contains the project description for the Chino Basin desalting and re-operation programs that has been distilled from various planning investigations and was described in the Stakeholder Non-Binding Term Sheet. This document was prepared for use in: (a) Chino Basin Watermaster's evaluation of the potential actions to cause Material Physical Injury to the Basin or the Parties to the Judgment; (b) in connection with Watermaster's request for Court review and approval of proposed actions in further implementation of the Optimum Basin Management Program ("OBMP"); and (c) an environmental impact report to be prepared as part of the expansion of the desalters.

**Requirements of the 2004 Amendment to the Water Quality Control Plan for the Santa Ana Watershed**

Water quality objectives are established by the Regional Water Quality Control Board, Santa Ana Region ("Regional Board") to preserve the beneficial uses of the Chino Basin and the Orange County Basin located downstream of the Chino Basin. Prior to the 2004 Amendment, the Regional Water Quality Control Plan (Basin Plan) contained restrictions on the use of recycled water within the Chino Basin for irrigation and groundwater recharge. The pre-2004 Basin Plan contained TDS "anti-degradation" objectives that ranged from 220 to 330 mg/L over most of the Chino Basin. Ambient TDS concentrations slightly exceeded these objectives. There was no assimilative capacity for TDS; thus, the use of the Inland Empire Utilities Agency's ("IEUA") recycled water for irrigation and groundwater recharge would have required mitigation even though the impact of this reuse would not have materially impacted future TDS concentrations or impaired the beneficial uses of Chino Basin groundwater.

In 1995, the Regional Board initiated a collaborative study with 22 water supply and wastewater agencies, including Watermaster and the IEUA, to devise a new TDS and nitrogen (total inorganic nitrogen or TIN) control strategy for the Santa Ana Watershed. This study culminated in the Regional Board's adoption of the 2004 Basin Plan Amendment in January 2004 (Santa Ana Regional Water Quality Control Board, 2004). The 2004 Basin Plan Amendment included two sets of TDS objectives – antidegradation objectives that ranged between 280, 250 and 260 mg/L for Management Zones 1, 2, and 3, respectively; and a "maximum benefit"-based TDS objective of 420 mg/L for the Chino North Management Zone, which consists of almost all of Management Zones 1, 2, and 3. The relationship of the Management Zones that were developed for the OBMP and the "maximum benefit" based management zones is shown in Figure 1. Under the "maximum benefit"-based objective, the new TDS concentration limit for recycled water



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that is to be used for recharge and other direct uses is 550 mg/L as a 12-month average. This discharge requirement has been incorporated into the IEUA's National Pollutant Discharge Elimination System (NPDES) permits for its wastewater treatment facilities.

In order for the IEUA and Watermaster to gain access to the assimilative capacity afforded by the "maximum benefit"-based objectives, the IEUA and Watermaster have to demonstrate that the maximum beneficial use of the waters of the State is being achieved. The 2004 Basin Plan Amendment contains a series of commitments that must be met in order to demonstrate that the maximum benefit is being achieved. These commitments include:

1. The implementation of a surface water monitoring program;
2. The implementation of groundwater monitoring programs;
3. The expansion of Desalter I to 10 million gallons per day (mgd) and the construction of a 10-mgd Desalter II
4. The commitment to future desalters pursuant to the OBMP and the Peace Agreement;
5. The completion of the recharge facilities included in the Chino Basin Facilities Improvement Program;
6. The management of recycled water quality;
7. The management of the volume-weighted TDS and nitrogen in artificial recharge to less than or equal to the maximum benefit objectives;
8. The achievement and maintenance of hydraulic control of subsurface outflows from the Chino Basin to protect the Santa Ana River water quality; and
9. The determination of the ambient TDS and nitrogen concentrations in the Chino Basin every three years.

The IEUA and Watermaster have previously demonstrated compliance with all of these requirements with the sole exception of hydraulic control. Hydraulic control is defined as the reduction of groundwater discharge from the Chino North Management Zone to the Santa Ana River to de minimus quantities. Hydraulic control ensures that the water management activities in the Chino North Management Zone do not result in material adverse impacts on the beneficial uses of the Santa Ana River downstream of Prado Dam. Achieving hydraulic control also maximizes the safe yield of the Chino Basin as required by Paragraph 30 and 41 of the Judgment. Two reports by Wildermuth Environmental, Inc. ("WEI"), prepared in 2006 at the direction of Watermaster, demonstrate that hydraulic control has not yet been achieved in the area between the Chino Hills and Chino Desalter I, well number 5 (WEI, 2006a and b).

Without hydraulic control, the IEUA and Watermaster will have to cease the use of recycled water in the Chino Basin and will have to mitigate the effects of using recycled water back to the adoption of the 2004 Basin Plan Amendment, which is December 2004. The demand for recycled water in the Chino Basin is projected to reach from about 12,500 acre-ft/yr in 2005 to 58,000 acre-ft/yr in 2010, 68,000 acre-ft/yr in 2015, 79,000 acre-ft/yr in 2020 and 89,000 acre-ft/yr in 2025. Recycled water reduces the demand of

State Water Project ("SWP") water by an equal amount, thereby reducing the demand on the Sacramento Delta and reducing energy consumption. Recycled water is a critical element of the OBMP and water supply reliability in the Chino Basin area.

Failure to achieve hydraulic control could lead to restrictions from the Regional Board on the use of imported SWP water for replenishment when the TDS concentration in SWP water exceeds the antidegradation objectives. The Regional Board produced a draft order that would treat the recharge of SWP water as a waste discharge. There would be no assimilative capacity if the Chino Basin antidegradation objectives were in force. Figure 2 shows the percent of time that the TDS concentration at Devil Canyon is less than or equal to a specific value based on observed TDS concentrations at the Devil Canyon Afterbay. This restriction will occur about 35, 52, and 50 percent of the time for Management Zones 1, 2, and 3, respectively. This will affect other basins in the Santa Ana Watershed, and the Regional Board is encouraging all basin managers to propose "maximum benefit"-based objectives similar to those in Chino Basin. With the "maximum benefit"-based TDS objective in the Chino Basin, there is assimilative capacity, and there would be no such restriction on the recharge of imported water.

The Regional Board is using its discretion in granting "maximum benefit" objectives even though hydraulic control has not been demonstrated. The Regional Board will continue to use "maximum benefit"-based objectives in the Chino Basin as long as the IEUA and Watermaster continue to develop and implement, in a timely manner, the OBMP desalter program as described in the project description below.

#### **The Stakeholder Non-Binding Term Sheet: Peace II Implementing Measures**

Under Watermaster oversight, the Chino Basin OBMP stakeholders have been engaged in, among other things, complying with the Peace Agreement provision regarding the planning and financing of the expansion of the OBMP desalting program to its full planned capacity generally referred to as Future Desalters (See Peace Agreement Article VII). The stakeholders have been evaluating various alternatives since early 2004 and produced the Stakeholders' Non-Binding Term Sheet that was transmitted to the Court along with a request by Watermaster for further technical review by the Assistant to the Special Referee in May of 2006. The Assistant's review was completed in March of 2007.

The Non-Binding Term Sheet includes several items that will collectively further implement the existing OBMP Implementation Plan (Peace II Measures). The two items of interest to this project description are: the expansion of the desalting program and "Basin Re-Operation," which are both physically described in Section II, Refined Basin Management Strategy, subsections A and B; and Section IV, Future Desalters.

The construction of a new desalter well field will be sized and located to achieve hydraulic control. The desalter will produce at least 9 mgd of product water. New groundwater production for the expanded desalter program will occur in the Southern end of the basin. Some of this new desalter supply will come from a new well field that will

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be constructed in a location among Desalter I wells 1 through 4 and west of these wells. These wells will be constructed to pump groundwater from the shallow part of the aquifer system, which is defined herein to be the saturated zone that occurs within about 300 feet of the ground surface. The total groundwater pumping for all of the desalters authorized in the term sheet will be about 40,000 acre-ft/yr.

"Re-operation" means the increase in controlled overdraft, as defined in the Judgment, from 200,000 acre-ft over the period of 1978 through 2017 to 600,000 acre-ft through 2030 with the 400,000 acre-ft increase allocated specifically to the meet the replenishment obligation of the desalters. Re-operation is required to achieve hydraulic control. Re-Operation and Watermaster's apportionment of controlled overdraft will not be suspended in the event Hydraulic Control is secured in any year *before* the full 400,000 acre-feet has been produced so long as: (i) Watermaster has prepared, adopted and the Court has approved a contingency plan that establishes conditions and protective measures to avoid Material Physical Injury and that equitably addresses this contingency, and (ii) Watermaster continues to demonstrate credible material progress toward obtaining sufficient capacity to recharge sufficient quantities of water to cause the Basin to return to a new equilibrium at the conclusion of the Re-Operation period. In addition to contributing to the achievement of hydraulic control, Re-operation will contribute to the creation of new yield. Watermaster has the discretion to apportion the 400,000 acre-foot increase in controlled overdraft under a schedule for re-operation that best meets the needs of the Parties and the conditions of the basin over the Initial Term of the Peace Agreement (before June 30, 2030).

### **The Project Description**

The proposed project has two main features: the expansion of the desalter program such that the groundwater pumping for the desalters will reach about 40,000 acre-ft and that the pumping will occur in amounts and at locations that contribute to the achievement of hydraulic control; and the strategic reduction in groundwater storage (re-operation) that, along with the expanded desalter program, significantly achieves hydraulic control.

**The Expanded Desalting Program.** A new well field, referred to as the Chino Creek Well Field (CCWF), will be constructed. The capacity of this well field could range from about 5,000 acre-ft/yr to 7,700 acre-ft/yr. The capacity of the CCWF will be determined during the design of the well field. Groundwater produced at the CCWF will be conveyed to Desalter I. The approximate location of the CCWF is shown in Figure 3. The capacity of Desalter I will not be increased; although, it is likely that the treatment systems at Desalter I will be modified to accommodate the chemistry of the raw water pumped from the CCWF. The product water capacity of Desalter I is about 14,200 acre-ft/yr which corresponds to a raw water pumping requirement of about 16,100 acre-ft/yr. The volume of groundwater pumping at existing Desalter I wells 13, 14, and 15 and conveyed to Desalter I will be reduced to accommodate new pumping at the CCWF.

The treatment capacity of Desalter II will be increased from 10,400 acre-ft/yr to about 21,000 acre-ft/yr, which corresponds to the raw water pumping requirement of 11,800

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acre-ft/yr expanding to 23,900 acre-ft/yr. The increase in groundwater pumping for Desalter II will come in part from greater utilization of the existing Desalter II wells and the addition of new wells to the Desalter II well field from either the construction of new wells and/or connecting Desalter I wells 13, 14, and 15.

The new product water developed at Desalter II would be conveyed to the Jurupa Community Services District ("JCSD"), the City of Ontario, and/or Western Municipal Water District ("WMWD") through existing and new pipelines. The facilities required to convey this water include pipelines, pump stations, and reservoirs. The precise locations of these facilities are unknown at this time.

The most current working description of these facilities is contained a report that was prepared for the City of Ontario and WMWD, entitled Chino Desalter Phase 3 Alternatives Evaluation (Carollo, 2007). Currently (September 2007), the City of Ontario and the WMWD are working with the JCSD and others to refine the alternatives in the Carollo report. The assumed startup for the expanded desalters is January 2013.

Finally, 40,000 acre-ft/yr of groundwater is expected to be produced by all Existing and Future Desalters. The parties that are engaged in developing the desalter expansion are planning for a total of 40,000 acre-ft/yr of desalter groundwater pumping. Watermaster, on behalf of the Parties, will review the desalter pumping requirements to achieve hydraulic control during the project evaluation in the summer and fall of 2007.

**Re-Operation.** Through re-operation and pursuant to a Judgment Amendment, Watermaster will engage in controlled overdraft and use up to a maximum of 400,000 acre-ft to off-set Desalter replenishment through 2030. After the 400,000 acre-ft is exhausted and the period of Re-Operation is complete, Watermaster will recalculate the safe yield of the basin. The Re-Operation will have no impact on Operating Safe Yield or on the parties' respective rights thereto. For project evaluation purposes, the Re-Operation and controlled overdraft of 400,000 will be examined under two different schedules that bracket the range in expected schedules. The first schedule will be based on allocating the 400,000 acre-ft at a constant percentage of desalter pumping such that the 400,000 acre-ft is used up in a constant proportion of the desalter pumping through 2030. The second schedule will use the controlled overdraft to off-set desalter the applicable replenishment obligation completely each year until the 400,000 acre-ft is completely exhausted.

The New Yield as defined by the Peace Agreement, attributable to the authorized desalters and the reduction in storage from re-operation, will be assigned to the authorized desalters. The resulting replenishment obligation assigned to the authorized desalters will then be handled as any other replenishment obligation pursuant to the Judgment. The New Yield is expected to come from a reduction in groundwater discharge from the Chino Basin to the Santa Ana River within the reservoir created by Prado Dam and from new induced recharge of the Santa Ana River upstream of Prado Dam.

### **Other Important Facility and Operational Plans that Will Occur Concurrently with the Proposed Project**

**Expansion of Artificial Recharge Capacity.** Watermaster and the IEUA will need to expand artificial recharge capacity in the Chino Basin to meet future replenishment obligations. This will occur independently from the proposed project. Current supplemental water recharge capacity is about 91,000 acre-ft/yr. The required recharge capacity to meet future replenishment obligations is about 150,000 acre-ft, a capacity expansion of about 59,000 acre-ft/yr. This expansion will occur through construction of new spreading basins, improvements to existing spreading basins and stormwater retention facilities, aquifer storage and recovery wells. The proposed project will be analyzed without recharge expansion projects.

**Expansion of Storage and Recovery Programs.** Currently, there is only one groundwater storage program approved in the Chino Basin: the 100,000 acre-ft Dry Year Yield Program with the Metropolitan Water District of Southern California (Metropolitan). Metropolitan, the IEUA, and Watermaster are considering expanding this program an additional 50,000 acre-ft to 150,000 acre-ft over the next few years. Watermaster is also considering an additional 150,000 acre-ft in programs with non-party water agencies. The total volume of groundwater storage allocated to storage programs that could overlay the proposed project is about 300,000 acre-ft.

These storage programs, if not sensitive to the needs of hydraulic control, could cause groundwater discharge to the Santa Ana River and result in non-compliance with hydraulic control and a loss in safe yield. There have been no planning investigations that articulate how the expansion from the existing 100,000 acre-ft program to the future 300,000 acre-ft set of programs will occur and thus this expansion is not included herein

### **References**

Santa Ana Regional Water Quality Control Board, 2004, Resolution No R8-2004-0001, <http://www.waterboards.ca.gov/santaana/pdf/04-01.pdf>

Stakeholder Non-Binding Term Sheet, in the form transmitted to the Court, 2006

Wildermuth Environmental, Inc., 2006a. Draft Report, Analysis of Future Replenishment and Desalter Plans Pursuant to the Peace Agreement and Peace II Process, April 2006; prepared for the Chino Basin Watermaster.

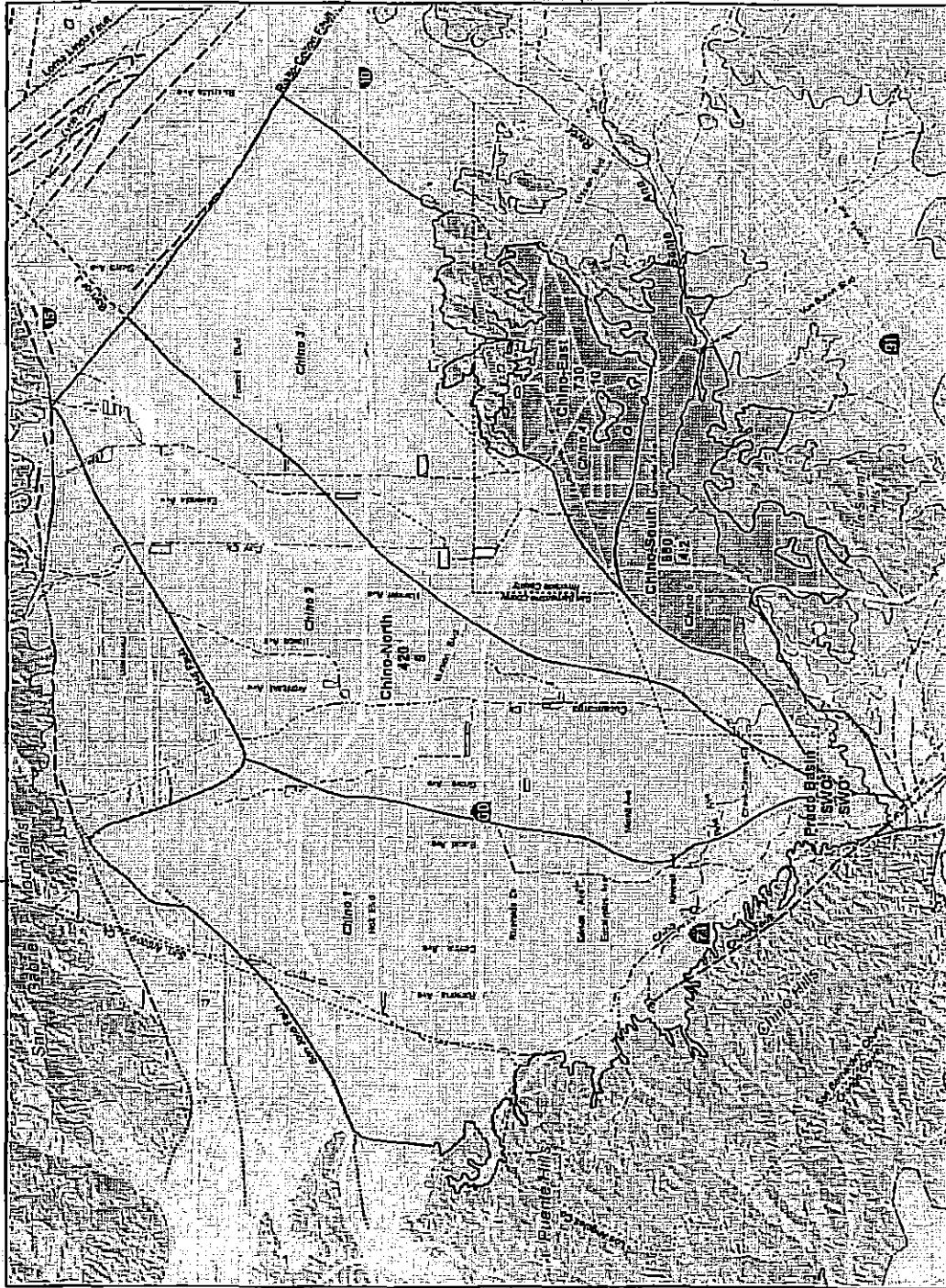
Wildermuth Environmental, Inc., 2006b. Chino Basin Maximum Benefit Monitoring Program Annual Report, April 2006; prepared for the Chino Basin Watermaster and Inland Empire Utilities Agency.

Wildermuth Environmental, Inc., 2006c. Draft Report, Addendum to the Draft April 2006 Report, Analysis of Future Replenishment and Desalter Plans Pursuant to the Peace

September 21, 2007

Agreement and Peace II Process, December 2006; prepared for the Chino Basin Watermaster.

Carollo Engineers, 2007. Chino Desalter Phase 3 Alternatives Evaluation, May 2007; Prepared for the City of Ontario and the Western Municipal Water District.



**Management Zone Labeling Key**

Chino-North  
283  
4.9  
SOW = Surface Water Objective

Management Zone Name  
TDS Maximum Benefit Objective  
Nitrate Maximum Benefit Objective  
OBMP Management Zone Boundary

**Other Features**

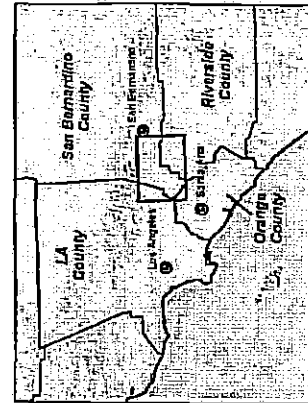
Rivers, Creeks, and Flood Control Channels  
Flood Control & Conservation Basins

**Geology**

Unconsolidated Water-Bearing Sediments  
Consolidated Bedrock

**Faults**

Location Certain  
Location Approximate  
Location Correlated  
Location Uncertain



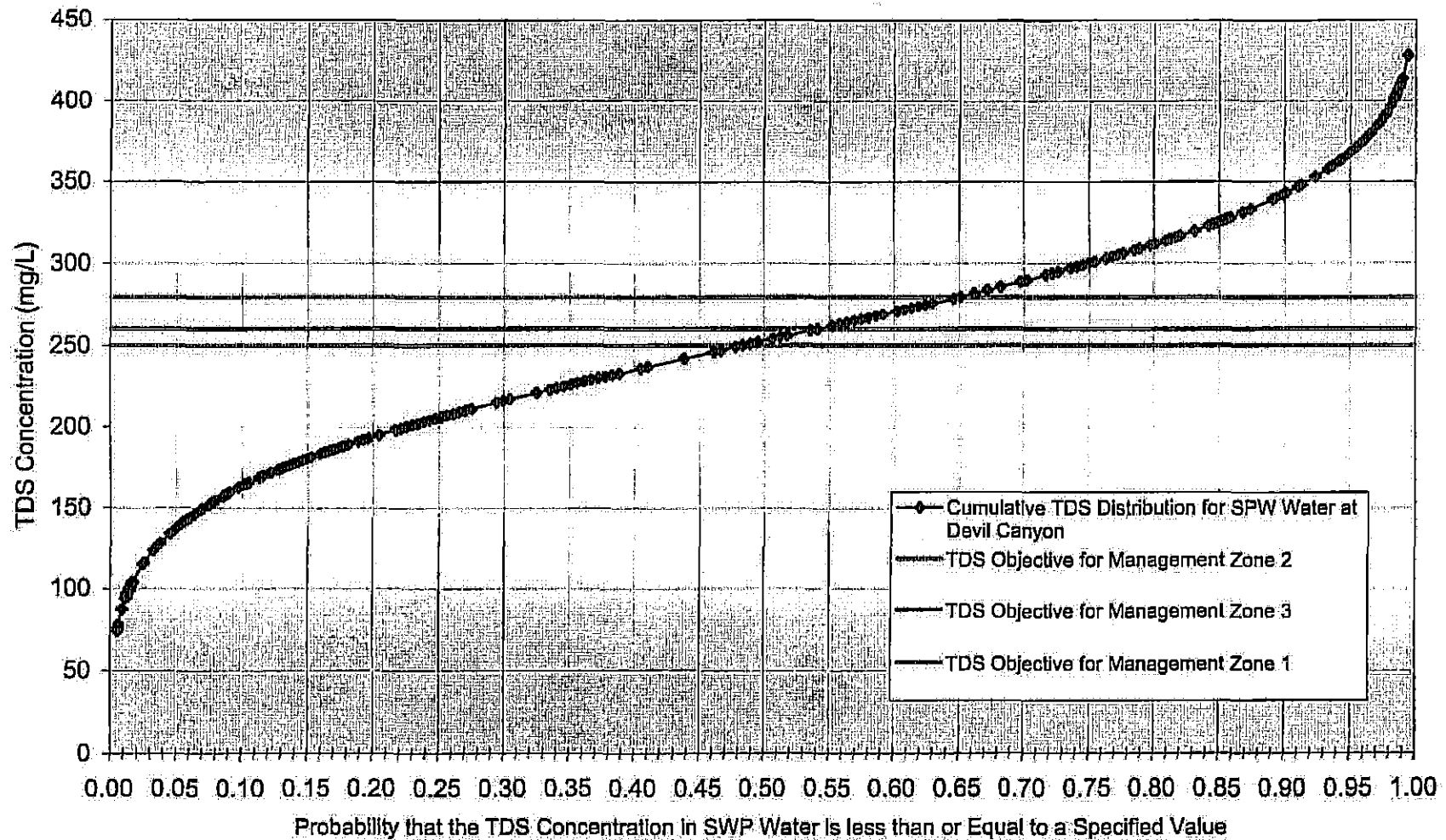
Prepared by:  
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Beverly Hills, CA 90210  
Tel: 310.277.1111  
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**Comparison of OBMP Management Zones and RWQCB Basin Plan Management Zones**

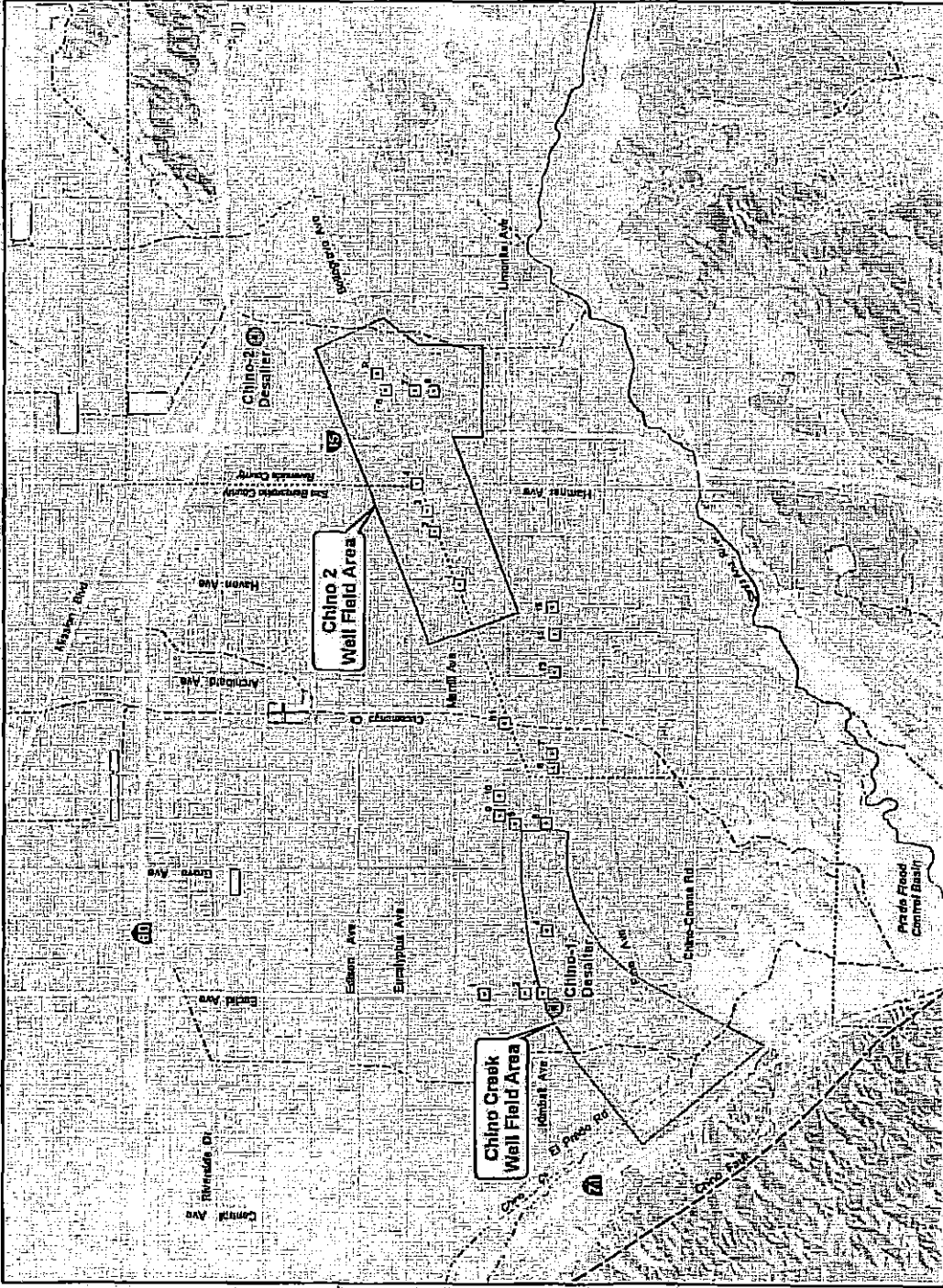
**Figure 1**

Chino Basin Optimum Basin Management Program  
Project II Amendment (2007)

**Figure 2**  
**Historical TDS Concentration in State Water Project Water at Devil Canyon**

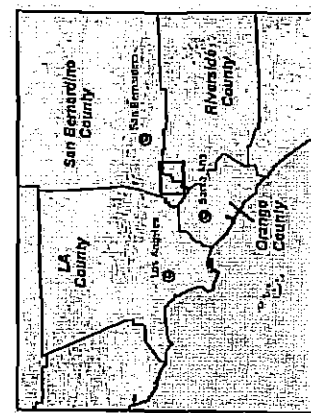






- Main Features**
- Chino-1 Desalter Well (Existing)
  - Chino-2 Desalter Well (Existing)
  - Desalter Facility

- Geology**
- Unconsolidated Water-Bearing Sediments
  - Consolidated Bedrock
  - Location Certain
  - Location Approximate
  - Location Concealed
  - Location Uncertain



Chino Basin Optimum Basin Management Program  
Phase II Amendment (2007)



Prepared by:  
WILDERMUTH  
2007  
Date: 05/07/07  
File: Project 2007

Existing Desalter Wells,  
Proposed Chino Creek Well Field,  
and Chino 2 Expansion Well Field  
Figure 3

# **WATERMASTER RULES & REGULATIONS**

# CHINO BASIN WATERMASTER RULES AND REGULATIONS

2025 Update to 2022 version

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## **ARTICLE I GENERAL PROVISIONS**

### **1.0    Title.**

This document shall be known and may be referred to as the "2025 Update to the 2022 Chino Basin Watermaster Rules and Regulations" adopted pursuant to the Judgment.

### **1.1    Definitions.**

As used in these Rules and Regulations, these terms, including any grammatical variations thereof shall have the following meanings.

- (a) "Active Parties" means all parties to the Judgment other than those who have filed a written waiver of service of notices with Watermaster, pursuant to Paragraph 58 of the Judgment. [Judgment ¶ 4(a).]
- (b) "Adjusted Physical Production" shall have the definition given in section 7.5(b)(iv).
- (c) "Agricultural Pool" shall have the meaning of Overlying (Agricultural) Pool as used in the Judgment and shall include all its members. [Peace Agreement § 1.1(a).]
- (d) "Agricultural Pool Committee" shall mean the designated representatives and alternates who serve on behalf of the Agricultural Pool.
- (e) "Annual or Year" means a fiscal year, July 1 through June 30 following, unless the context shall clearly indicate a contrary meaning. [Judgment ¶ 4(b).]
- (f) "Annual Production Right" means the total amount of water available to the Appropriative Pool in any year from all available sources (e.g., Carry-Over Water, assigned share of Operating Safe Yield, Transfers, New Yield, water Recaptured from Storage, land-use conversions, Early Transfer) which Watermaster shall determine can be Produced by the members of the Appropriative Pool free of a Replenishment Obligation.
- (g) "Answer" means the written response that may be filed to a Complaint or the reply to a Contest pursuant to the provisions of Article X.
- (h) "Applicant" means a person that files an Application for Watermaster approval of an action pursuant to Article X.
- (i) "Application" means a request filed by any person pursuant to the provisions of Article X, seeking (i) Watermaster approval of Recharge, Transfer, Recapture or Qualifying Storage operations or activities or (ii) for Watermaster approval of a credit or reimbursement.
- (j) "Appropriative Pool" shall have the meaning as used in the Judgment and shall include all its members. [Peace Agreement § 1.1(b).]



- (k) "Basin Water" means Groundwater within the Chino Basin which is part of the Safe Yield, Operating Safe Yield, New Yield), or Replenishment Water in the Basin as a result of operations under the Physical Solution decreed in the Judgment. Basin Water does not include "Stored Water" under the Judgment and the Peace Agreement. [Judgment ¶ 4(d).]
- (l) "Best Efforts" means reasonable diligence and reasonable efforts under the totality of the circumstances. [Peace Agreement § 1.1(d).] Note: a rule of construction applies to this definition. See section 1.2(e) below.
- (m) "CBWCD" means the Chino Basin Water Conservation District. [Peace Agreement § 1.1(e).]
- (n) "Carry-Over Right" means the annual unpumped share of Safe Yield and Operating Safe Yield that is reserved to be pumped first the following year by the members of the Non-Agricultural Pool and the Appropriative Pool respectively. [Based on the Judgment Exhibit "G" ¶ 7 and Exhibit "H" ¶ 12.]
- (o) "Carry-Over Water" means the un-Produced water in any year that may accrue to a member of the Non-Agricultural Pool or the Appropriative Pool and that is Produced first each subsequent Fiscal Year or stored as Excess Carry-Over. (Judgment Exhibit H ¶ 12.)
- (p) "CEQA" means the California Environmental Quality Act, Public Resources Code Sections 21000 et seq; 14 California Code of Regulations 15000 et seq. [Peace Agreement § 1.1(f).]
- (q) "Chino Basin" or "Basin" means the Groundwater basin underlying the area shown on Exhibit "B" to the Judgment and within the boundaries described on Exhibit "K" to the Judgment. [Judgment ¶ 4(f) and Peace Agreement § 1.1(g).]
- (r) "Chino Basin Watershed" means the surface drainage area tributary to and overlying Chino Basin. [Judgment ¶ 4(g) and Peace Agreement § 1.1(h).]
- (s) "Chino I Desalter," also known as the SAWPA Desalter, means the Desalter owned and operated by PC 14 with a present capacity of approximately eight (8) million gallons per day (mgd) and in existence on the Effective Date. [Peace Agreement § 1.1(i).]
- (t) "Chino I Desalter Expansion" means the planned expansion of the Chino I Desalter from its present capacity of approximately eight (8) mgd to a capacity of up to fourteen (14) mgd. [Peace Agreement § 1.1(j).]
- (u) "Chino II Desalter" means a new Desalter not in existence on the Effective Date with a design capacity of approximately ten (10) mgd, to be constructed and operated consistent with the OBMP and to be located on the eastside of the Chino Basin. [Peace Agreement § 1.1(k).]

- (v) "Chino North Management Zone" means the Chino North Management Zone, as it is illustrated in the 2004 Basin Plan amendment (Regional Water Quality Control Board Resolution R8-2004-0001, "Resolution Amending the Water Quality Control Plan for the Santa Ana River Basin to Incorporate an Updated Total Dissolved Solids (TDS) and Nitrogen Management Plan for the Santa Ana Region Including Revised Groundwater Subbasin Boundaries, Revised TDS and Nitrate-Nitrogen Quality Objectives for Groundwater, Revised TDS and Nitrogen Wasteload Allocations, and Revised Reach Designations, TDS and Nitrogen Objectives and Beneficial Uses for Specific Surface Waters").
- (w) "Committee(s)" means any of the Pool Committees or the Watermaster Advisory Committee as the context may compel.
- (x) "Complainant" means a party to the Judgment that files a Complaint pursuant to Article X.
- (y) "Complaint" means a claim filed by a party to the Judgment with Watermaster pursuant to the provisions of Article X.
- (z) "Contest" means an objection filed by a party to the Judgment pursuant to the provisions of Article X.
- (aa) "Contestant" means a party to the Judgment that files a Contest pursuant to the provisions of Article X.
- (bb) "Court" means the court exercising continuing jurisdiction under the Judgment. [Peace Agreement § 1.1(1).]
- (cc) "Court's Findings and Order, dated July 21, 2021" shall mean the Court's Findings and Order Re Motion Regarding Implementation of the Local Storage Limitation Solution, dated July 21, 2021.
- (dd) "Court's Findings and Order, dated March 15, 2019" shall mean the Court's Findings and Order Regarding Amendments to Restated Judgment, Peace Agreement, Peace II Agreement, and Re-Operation Schedule, dated March 15, 2019.
- (ee) "Court's Orders, dated April 28, 2017" shall mean the Court's Orders for Watermaster's Motion Regarding the 2015 Safe Yield Reset Agreement, Amendment of Restated Judgment, Paragraph 6, dated April 28, 2017.
- (ff) "Court's Orders, dated July 31, 2020" shall mean the Court's Orders Regarding Chino Basin Watermaster Motion Regarding 2020 Safe Yield Reset, Amendment of Restated Judgment, Paragraph 6, dated July 31, 2020.
- (gg) "Court's Order, dated January 10, 2025" shall mean the Court's Findings and Order Granting Motion to Increase the Safe Storage Capacity of the Chino Basin, dated January 10, 2025.

- (hh) "Date of Execution" means the first day following the approval and execution of the Peace Agreement by the last Party to do so which date is August 1, 2000. [Peace Agreement § 1.1(m).]
- (ii) "Desalter" and "Desalters" means the Chino I Desalter, Chino I Desalter Expansion, the Chino II Desalter, related facilities and Future Desalters, consisting of all the capital facilities and processes that remove salt from Basin Water, including extraction wells, transmission facilities for delivery of groundwater to the Desalter, Desalter treatment and delivery facilities for the desalted water including pumping and storage facilities, and treatment and disposal capacity in the SARI System. [Peace Agreement § 1.1(n).]
- (jj) "Early Transfer" means the reallocation of Safe Yield in accordance with the Peace Agreement where water from the Agricultural Pool is made available to the Appropriative Pool on an annual basis. [Peace Agreement § 1.1(o).]
- (kk) "Effective Date" refers to the Effective Date of the Peace Agreement and means October 1, 2000. [Peace Agreement § 1.1(p).]
- (ll) "Excess Carry-Over Water" means Carry-Over Water which in aggregate quantities exceeds a party's share of Safe Yield in the case of the Non-Agricultural Pool, or the assigned share of Operating Safe Yield in the case of the Appropriative Pool, in any year.
- (mm) "Future Desalters" means enlargement of the Chino I Desalter to a capacity greater than the Chino I Expansion or enlargement of the Chino II Desalter and any other new Desalter facilities that may be needed to carry out the purposes of the OBMP over the term of the Peace Agreement. [Peace Agreement § 1.1(q).]
- (nn) "General law" means all applicable state and federal laws. [Peace Agreement § 1.1(r).]
- (oo) "Groundwater" means all water beneath the surface of the ground. [Judgment ¶ 4(h) and Peace Agreement § 1.1(s).]
- (pp) "Groundwater Storage Agreement" means either a Local Storage Agreement or an agreement in connection with a Storage and Recovery Program.
- (qq) "Hydraulic Control" means the reduction of groundwater discharge from the Chino North Management Zone to the Santa Ana River to de minimus quantities. [Peace II Agreement § 1.1(b).]
- (rr) "Hydrologic Balance" means the maintenance of total inflow at a level generally equivalent to total outflow as measured over an appreciable period of time that is sufficient to account for periodic changes in climate and watershed, basin and land management conditions.

- (ss) "IEUA" means the Inland Empire Utilities Agency, referred to in the Judgment as Chino Basin Municipal Water District. [Peace Agreement § 1.1(t).]
- (tt) "In-lieu Recharge" means taking supplies of Supplemental Water in lieu of pumping groundwater otherwise subject to Production as an allocated share of Operating Safe Yield, as provided in Exhibit "H" Paragraph 11 of the Judgment. [Peace Agreement § 1.1(u).]
- (uu) "Judgment" means the Judgment dated January 27, 1978, in San Bernardino County Case No. 164327 (redesignated as San Bernardino County Case No. RCV RS51010) as restated pursuant to Order Adopting Restated Judgment, dated September 27, 2012, amended pursuant to Order Approving Amendments to Restated Judgment and Rules and Regulations Regarding Compensation of Watermaster Board Members, dated August 22, 2014, Court's Orders, dated April 28, 2017, Court's Findings and Order, dated March 15, 2019, Court's Order Granting Motion for Court Approval of Amendments to Restated Judgment Regarding Compensation of Watermaster Pool and Advisory Committee Members, dated June 26, 2020, Court's Orders, dated July 31, 2020, and other such amendments. [See Peace Agreement § 1.1(v).]
- (vv) "Leave Behind" means a contribution to the Basin from water held in storage within the Basin under a Storage and Recovery Agreement that may be established by Watermaster from time to time that may reflect any or all of the following: (i) actual losses; (ii) equitable considerations associated with Watermaster's management of storage agreements; and (iii) protection of the long-term health of the Basin against the cumulative impacts of simultaneous recovery of groundwater under all storage agreements. [Peace II Agreement § 1.1(c).]
- (ww) "Local Imported Water" is water from any origin, native or foreign which was not available for use or included in the calculation of Safe Yield of the Chino Basin at the time the Judgment was entered. [Based on Judgment 49(c).] Local Imported Water is reported by Watermaster in its annual report.
- (xx) "Local Storage" means water held in a storage account pursuant to a Local Storage Agreement between a party to the Judgment and Watermaster. Local Storage accounts may consist of: (i) a Producer's unproduced Excess Carry-Over Water or (ii) a party to the Judgment's Supplemental Water, up to a cumulative maximum of one hundred thousand (100,000) acre-feet for all parties to the Judgment stored in the Basin on or after July 1, 2000 or (iii) that amount of Supplemental Water previously stored in the Basin on or before July 1, 2000 and quantified in accordance with the provisions and procedures set forth in Section 7.2 of these Rules and Regulations, or (iv) that amount of water which is or may be stored in the Basin pursuant to a Storage Agreement with Watermaster which exists and has not expired before July 1, 2010. [Peace Agreement § 1.1(x).] As to that portion of the Maximum Local Storage Quantity in excess of the initial 500,000 AF Safe Storage Capacity, Local Storage accounts may consist of

Producers' Excess Carry-Over Water or parties' to the Judgment's Supplemental Water.

- (yy) "Local Storage Agreement" means a Groundwater Storage Agreement for Local Storage.
- (zz) "Material Physical Injury" means material injury that is attributable to the Recharge, Transfer, Storage and Recovery, management, movement or Production of water, or implementation of the OBMP, including, but not limited to, degradation of water quality, liquefaction, land subsidence, increases in pump lift (lower water levels) and adverse impacts associated with rising Groundwater. Material Physical Injury does not include "economic injury" that results from other than physical causes. Once fully mitigated, physical injury shall no longer be considered to be material. [Peace Agreement § 1.1(y).]
- (aaa) "Maximum Local Storage Quantity" means the maximum quantity of water that may be held in Local Storage, when combined with Carry-Over Water, is 900,000 acre-feet until June 30, 2040. [Court's Order, dated January 10, 2025.]
- (bbb) "Metropolitan Water District" or "MWD" means the Metropolitan Water District of Southern California. [Peace Agreement § 1.1(z).]
- (ccc) "Minimal Producer" means any producer whose Production does not exceed ten (10) acre-feet per year. [Judgment ¶ 4(j).]
- (ddd) "New Yield" means proven increases in yield in quantities greater than historical amounts from sources of supply including, but not limited to, capture of rising water, capture of available storm flow, operation of the Desalters and related facilities, induced Recharge and other management activities implemented and operational after June 1, 2000. [Peace Agreement § 1.1(aa).]
- (eee) "Non-Agricultural Pool" shall have the meaning as used in the Judgment for the Overlying (Non-Agricultural) Pool and shall include all its members. [Peace Agreement § 1.1(bb).]
- (fff) "OBMP" means the Optimum Basin Management Program, which consists of the OBMP Phase I Report and the OBMP Implementation Plan, which shall be implemented consistent with the provisions of Article V of the Peace Agreement. [July 13, 2000 Court Order.]
- (ggg) "OBMP Assessments" means assessments levied by Watermaster for the purpose of implementing the OBMP. [Peace Agreement § 1.1(cc).] Note: a rule of construction applies to this definition. See section 1.2(f) below.
- (hhh) "OBMP Implementation Plan" means Exhibit "B" to the Peace Agreement, as supplemented by the 2007 Supplement thereto.

- (iii) "OCWD" means the Orange County Water District. [Peace Agreement § 1.1(dd).]
- (jjj) "Operating Safe Yield" means the annual amount of Groundwater which Watermaster shall determine, pursuant to criteria specified in Exhibit "I" to the Judgment, can be Produced from Chino Basin by the Appropriative Pool parties free of Replenishment obligation under the Physical Solution. [Judgment ¶ 4(1) and Peace Agreement § 1.1(ee).]
- (kkk) "Overdraft" means a condition wherein the total annual Production from the Basin exceeds the Safe Yield thereof, as provided in the Judgment. [Judgment ¶ 4(m) and Peace Agreement § 1.1(ff).]
- (lll) "Overlying Right" means the appurtenant right of an owner of lands overlying Chino Basin to Produce water from the Basin for overlying beneficial use on such lands. [Judgment ¶ 4(n).]
- (mmm) "PC 14" means Project Committee No. 14, members of SAWPA, composed of IEUA, WMWD, and OCWD, pursuant to Section 18 of the SAWPA Joint Exercise of Powers Agreement which now constitutes the executive Authority through which SAWPA acts with respect to the Chino I Desalter and other facilities, programs and projects. [Peace Agreement § 1.1(ll).]
- (nnn) "Party" or "Parties" means a Party to the Peace Agreement or Peace II Agreement. [Peace Agreement § 1.1(gg); Peace II Agreement § 1.1(e).]
- (ooo) "Party" or "parties to the Judgment" means a party to the Judgment. [Peace Agreement § 1.1(hh).]
- (ppp) "Peace Agreement" means the agreement dated June 29, 2000 among various parties to the Judgment identified therein and approved by Watermaster, as amended by the First Amendment to Peace Agreement dated September 2, 2004, the Second Amendment to Peace Agreement, dated September 21, 2007, and as shown in Attachment A to the Court's Findings and Order, dated March 15, 2019.
- (qqq) "Peace II Agreement" means the agreement dated September 21, 2007 among various parties to the Judgment identified therein and approved by Watermaster, as amended as shown in Attachment A to the Court's Findings and Order, dated March 15, 2019.
- (rrr) "Person" means any individual, partnership, corporation, limited liability company, business trust, joint stock company, trust, unincorporated association, joint venture, governmental authority, water district and other entity of whatever nature including but not limited to the State of California and the Department of Water Resources. [Judgment ¶ 4(o).]

- (sss) "Physical Solution" shall have the meaning of the Physical Solution as described in the Judgment.
- (ttt) "Produce" or "Produced" means to pump or extract groundwater from the Chino Basin. [Judgment 4(q) and Peace Agreement § 1.1(ii).]
- (uuu) "Producer" means any person who Produces water from the Chino Basin. [Judgment ¶ 4(r) and Peace Agreement § 1.1(jj).]
- (vvv) "Production" means the annual quantity, stated in acre-feet, of water Produced from the Chino Basin. [Judgment ¶ 4(s) and Peace Agreement § 1.1(kk).]
- (www) "Public Hearing" means a hearing of Watermaster held pursuant to the Judgment other than as provided in Article X herein.
- (xxx) "Qualifying Storage" means the storage of Supplemental Water, Excess Carry-Over Water after July 1, 2010 or to participate in a Storage and Recovery Program.
- (yyy) "Qualifying Storage Agreement" means an agreement with Watermaster to store Supplemental Water, Excess Carry-Over Water after July 1, 2010 or to store water by participation in a Storage and Recovery Program.
- (zzz) "Recapture" and "Recover" means the withdrawal of water stored in the Basin under a Groundwater Storage Agreement.
- (aaaa) "Recharge" and "Recharge Water" means the introduction of water into the Basin, directly or indirectly, through injection, percolation, delivering water for use in-lieu of Production or other method. Recharge references the physical act of introducing water into the Basin. Recharge includes Replenishment Water but not all Recharge is Replenishment Water. [Peace Agreement § 1.1(nn).] Note: a rule of construction applies to this definition. See section 1.2(g) below.
- (bbbb) "Recycled Water" means water which, as a result of treatment of wastewater, is suitable for a direct beneficial use or a controlled use that would not otherwise occur and is therefore considered a valuable resource, referred to as "reclaimed water" in the Judgment. [Judgment ¶ 4(u) and Peace Agreement § 1.1(pp).]
- (cccc) "Re-Operation" means the controlled overdraft of the Basin by the managed withdrawal of groundwater Production for the Desalters and the potential increase in the cumulative un-replenished Production from 200,000 acre-feet authorized by paragraph 3 of the Engineering Appendix Exhibit I to the Judgment, to 600,000 acre-feet for the express purpose of securing and maintaining Hydraulic Control as a component of the Physical Solution. [Peace II Agreement § 1.1(d).] The Court-approved schedule for access to Re-Operation water during the period of 2013-14 through 2029-30 is attached hereto as Exhibit "B."

- (dddd) "Reset Technical Memorandum" means the memorandum, dated October 6, 2022, attached hereto and incorporated herein as Exhibit "A," which sets forth the methodology pursuant to which the Safe Yield is evaluated or reset.
- (eeee) "Replenishment Obligation" means the quantity of water that Watermaster must purchase to replace Production by any Pool during the preceding Fiscal Year which exceeds that Pool's allocated share of Safe Yield or Operating Safe Yield in the case of the Appropriative Pool. The quantity of a Producer's Over-Production and the Replenishment Obligation is determined after Watermaster takes into account any Transfers of water or any Recovery from storage in the same year, and takes into account the Appropriative Pool obligation as a result of the implementation of the Peace Agreement, if any. [Judgment ¶ 45.]
- (ffff) "Replenishment Water" means Supplemental Water used to Recharge the Basin pursuant to the Physical Solution, either directly by percolating the water into the Basin or indirectly by delivering the water for use in-lieu of Production and use of Safe Yield or Operating Safe Yield. [Judgment ¶ 4(v) and Peace Agreement § 1.1(oo).]
- (gggg) "Responsible Party" means the owner, co-owner, lessee or other person(s) designated by multiple parties interested in a well as the person responsible for purposes of filing reports with Watermaster pursuant to the Judgment ¶ 4(w). [Judgment, ¶ 4(w).]
- (hhhh) "Rules and Regulations" means this 2025 Update to the 2022 Chino Basin Watermaster Rules and Regulations as authorized pursuant to the Judgment, adopted by the Watermaster on April 24, 2025 and as they may be amended from time to time. They are to be distinguished from the previous Watermaster Rules and Regulations that were repealed and replaced by the same action adopting and approving these Rules and Regulations.
- (iiii) "Safe Yield" means the long-term average annual quantity of groundwater (excluding Replenishment Water or Stored Water but including return flow to the Basin from use of Replenishment or Stored Water) which can be Produced from the Basin under cultural conditions of a particular year without causing an undesirable result. [Judgment ¶ 4(x) and Peace Agreement § 1.1(qq).]
- (jjjj) "SAWPA" means the Santa Ana Watershed Project Authority. [Peace Agreement § 1.1(ss).]
- (kkkk) "Sphere of Influence" has the same meaning as set forth in Government Code Section 56076.
- (llll) "Storage and Recovery Program" means the use of the available storage capacity of the Basin by any person under the direction and control of Watermaster pursuant to a Court approved Groundwater Storage Agreement but excluding "Local Storage," including the right to export water for use outside the Chino



Basin and typically of broad and mutual benefit to the parties to the Judgment. [Peace Agreement §1.1(uu).]

- (mmmm) "Stored Water" means Supplemental Water held in storage, as a result of direct spreading, injection or in-lieu delivery, for subsequent withdrawal and use pursuant to a Groundwater Storage Agreement with Watermaster. [Judgment ¶ 4(aa) and Peace Agreement § 1.1(vv).]
- (nnnn) "Supplemental Water" means water imported to Chino Basin from outside the Chino Basin Watershed and Recycled Water. [Judgment ¶ 4(bb) and Peace Agreement § 1.1(ww).]
- (oooo) "Transfer" means the assignment (excepting an assignment by a member of the Non-Agricultural Pool or the Agricultural Overlying Pool), lease, or sale of a right to Produce water to another Producer within the Chino Basin or to another person or entity for use outside the Basin upon the person's intervention in conformance with the Judgment. [Peace Agreement § 1.1(xx).]
- (pppp) "TVMWD" means Three Valleys Municipal Water District (referred to in the Judgment as Pomona Valley Municipal Water District). [Peace Agreement § 1.1(yy).]
- (qqqq) "Uniform Groundwater Rules and Regulations" (UGRR) means the Uniform Groundwater Rules and Regulations that were in effect on December 31, 2000.
- (rrrr) "Watermaster" means Watermaster as the term is used in the Judgment. [Peace Agreement § 1.1 (zz).]
- (ssss) "WMWD" means Western Municipal Water District. [Judgment ¶ 4(cc) and Peace Agreement § 1.1(bbb).]

## 1.2 Rules of Construction

- (a) Unless the context clearly requires otherwise:
  - (i) The plural and singular forms include the other;
  - (ii) "Shall," "will," "must," and "agrees" are each mandatory;
  - (iii) "may" is permissive;
  - (iv) "or" is not exclusive;
  - (v) "includes" and "including" are not limiting; and
  - (vi) "between" includes the ends of the identified range.
- (b) The masculine gender shall include the feminine and neuter genders and vice versa.

- (c) Reference to any agreement, document, instrument, or report means such agreement, document, instrument or report as amended or modified and in effect from time to time in accordance with the terms thereof and, if applicable, the terms hereof
  - (d) Except as specifically provided herein, reference to any law, statute, ordinance, regulation or the like means such law as amended, modified, codified or reenacted, in whole or in part and in effect from time to time, including any rules and regulations promulgated thereunder. [Peace Agreement § 1.2.]
  - (e) "Best Efforts" as defined in section 1.1 (l) above, shall be construed to mean that indifference and inaction do not constitute Best Efforts. However, futile action(s) are not required. [Peace Agreement § 1.1(d).]
  - (f) OBMP Assessments as defined in section 1.1(ggg) above, shall be deemed Administrative Expenses under Paragraph 54 of the Judgment. OBMP Assessments do not include assessments levied as provided in Section 5.1(g) of the Peace Agreement. Upon the expiration of the Peace Agreement, no conclusion of "general benefit" may be drawn based upon the manner in which the assessments have been made during the term of the Peace Agreement. [Peace Agreement § 1.1(cc).]
  - (g) The definition of the terms Recharge and Recharge Water in section 1.1(aaaa) above, shall not be construed to limit or abrogate the authority of CBWCD under general law. [Peace Agreement § 1.1(nn).]
  - (h) The right of a party to receive a credit if Watermaster compels a Groundwater Production facility to be shut down and/or moved under section 4.5 below, shall not be construed in determining the extent of Watermaster's authority under the Judgment, if any, to compel the shut-down of a well.
  - (i) These Rules and Regulations should not be construed as placing any limitation on the export of Supplemental Water other than as may be provided in the Judgment, except as may be necessary as a condition to prevent Material Physical Injury (see specifically section 8.3 below).
- 1.3 Consistency with Judgment, Peace Agreement, and Peace II Agreement. These Rules and Regulations shall be construed consistent with the Judgment, the Peace Agreement, and the Peace II Agreement. In the event of a conflict between these Rules and Regulations and the Judgment, the Peace Agreement, or the Peace II Agreement, the Judgment, the Peace Agreement, and Peace II Agreement shall prevail. In the event of a conflict between the Peace Agreement, or the Peace II Agreement and the Judgment, the Judgment shall control.
- 1.4 No Prejudice. No provision of these Rules and Regulations shall be used to construe the power and authority of the Advisory Committee or the Watermaster Board inter-se under the Judgment.

- 1.5 Amendment of Rules. These Rules and Regulations may be amended by Watermaster only upon the prior approval of the Watermaster Advisory Committee.
- 1.6 Repeal of Existing Rules and Regulations. Watermaster's existing Rules and Regulations are repealed upon the adoption of this 2025 Update to the 2022 Chino Basin Watermaster Rules and Regulations and along with the previously repealed Uniform Groundwater Rules and Regulations, they will have no further force and effect. However, all other rules and regulations, which includes the Rules for the Advisory Committee and for each of the three Pools, shall remain in effect.

## **ARTICLE II ADMINISTRATION**

- 2.0 Principal Office. The principal office of Watermaster shall be the Chino Basin Watermaster business office, currently located at 9641 San Bernardino Road, Rancho Cucamonga, California 91730, telephone number 909-484-3888, fax number 909-484-3890, and e-mail [info@cbwm.org](mailto:info@cbwm.org), or at such other location or locations as may be designated from time to time by Watermaster Resolution and filed with the Court.
- 2.1 Records. The minutes of Watermaster meetings shall be open to inspection and maintained at the principal office. [Based on Judgment ¶ 37(d).] Copies of minutes may be obtained upon payment of the duplication costs thereof. Copies of other records may be obtained on the payment of the duplication costs thereof and pursuant to Watermaster policy. Watermaster shall maintain a website (presently [www.cbwm.org](http://www.cbwm.org)). Watermaster Staff shall publish those records and other matters that it deems to be of interest to the parties to the Judgment, the general public or the Court on its website.
- 2.2 Regular Meetings. Regular meetings shall be held at the principal office of Watermaster pursuant to Watermaster policy at such time(s) as may be contained in the necessary notice(s) thereof [Based on Judgment ¶ 37 (b).] As a matter of policy, Watermaster shall generally operate in accordance with the provisions of the California Open Meetings Law (Brown Act). However, in the event of conflict, the procedures set forth in these Rules and Regulations shall control.
- 2.3 Special Meetings. Special meetings may be called at any time by a majority of the Watermaster Board by delivering notice thereof at least twenty-four (24) hours before the time of each such meeting in the case of personal delivery (including faxes and e-mail), and ninety-six (96) hours in the case of mail. [Based on Judgment ¶ 37 (c).]
- 2.4 Adjournment. Any meeting may be adjourned to a time and place specified in the order of adjournment. Less than a quorum may so adjourn from time to time. A copy of the order or notice of adjournment shall be conspicuously posted forthwith on or near the door of the place where the meeting was held. [Based on Judgment ¶ 37 (e).]
- 2.5 Public Meetings/Hearings. All meetings, whether regular or special, shall be open to the public unless they are properly designated as a confidential session. Whenever a Public Hearing shall be required therein, written notice of such public hearing containing the time, date and place of Public Hearing, together with the matter to be heard thereat, shall be given to all Active Parties and each such person who has requested, in writing, notice of such meeting, at least ten (10) days prior to said Public Hearing. At such Public Hearing, evidence shall be taken with regard to only the matters noticed, unless a sufficient urgency shall exist to the contrary, and full findings and decisions shall be issued and made available for public inspection. Notwithstanding the provisions of this section 2.5, the provisions of Article X shall control when applicable.
- 2.6 Confidential Sessions.

- (1) The Watermaster Board may hold confidential sessions authorized by this Rule .A confidential session may be held by the Watermaster Board and, at a minimum, the chairs of the three Pools (Appropriative, Agricultural and Non-Agricultural) to, in a manner consistent with the Judgment:
    - (i) meet with counsel to discuss or act on pending or threatened litigation involving Watermaster; or
    - (ii) discuss personnel matters of Watermaster employees involving individual employees; or
    - (iii) discuss contract negotiations involving Watermaster.
  - (2) Minutes shall not be taken for confidential sessions of the Watermaster Board, but a confidential memorandum shall be prepared to describe attendance and votes on decisions.
  - (3) Notice of confidential sessions of the Watermaster Board shall be as provided in section 2.7.
  - (4) A report on any action taken at the confidential session of the Watermaster Board shall be given both immediately following the conclusion of the confidential session and at the next regular meeting of the Watermaster Board.
  - (5) The Advisory Committee may hold a confidential session on any matter authorized by its own resolution.
- 2.7 Notice. Notices shall be given in writing to all Active Parties and each such person who has requested notice in writing, and shall specify the time and place of the meeting and the business to be transacted at the meeting. Notice may be provided by either facsimile or e-mail delivery if the party so consents to such delivery. [Based on Judgment ¶ 37(c).] Delivery of notice shall be deemed made on the date personally given or within ninety-six (96) hours of deposit thereof in the United States mail, first class, postage prepaid, addressed to the designee and at the address in the latest designation filed by such person. Copies of all notices shall be published on the Watermaster website. Watermaster will maintain a current list of the names of active parties and their addresses for the purpose of providing service, and will maintain a current list of the names and addresses of all parties to the Judgment. [Judgment ¶ 58.]
- 2.8 Quorum. A majority of the Board acting as Watermaster shall constitute a quorum for the transaction of the affairs or business. [Based on Judgment ¶ 35.]
- 2.9 Voting Procedures. Only action by affirmative vote of a majority of the members of the Watermaster Board present and acting as Watermaster shall be effective. All actions may be adopted by voice vote, but upon demand of any member of a Board acting as Watermaster, the roll shall be called and the ayes and noes recorded in the minutes of the proceedings. Every member of a Board acting as Watermaster, in attendance, unless

disqualified by reason of an opinion of the Watermaster counsel that the member of the board has a conflict of interest, shall be required to vote.

2.10 Conflict of Interest. Watermaster is an interest based governing structure in which various interests must be represented in decision-making. It is expected and preferred that each interest be allowed to participate in Watermaster decisions except as provided in these Rules and Regulations. Each member of the Watermaster Board or the Advisory Committee shall vote on matters before the Board or Advisory Committee unless that member has a conflict of interest as described in this Rule or other provision of general law. No member of the Watermaster Board or Advisory Committee may vote, participate in meetings or hearings pertaining to, or otherwise use his or her position to influence a Watermaster decision in which he knows or has reason to know he has both a direct personal and financial interest.

(a) Subject to the qualification provided for in section 2.10(b) herein, a member of the Watermaster Board or Advisory Committee is deemed to have a direct personal and financial interest in a decision where it is reasonably foreseeable that the decision will have a material effect on the Watermaster member, members of his or her immediate family, or the Watermaster member's other business, property, and commercial interests.

(b) To be classified as a direct personal and financial interest, the particular matter must be distinguishable from matters of general interest to the respective pool (Appropriative, Non-Agricultural, or Agricultural) or party to the Judgment, which the Watermaster member has been appointed to represent on the Watermaster Board or Advisory Committee. The member must stand to personally gain discrete and particular advantage from the outcome of the decision beyond that generally realized by any other person or the interests he or she represents. Moreover, Watermaster representatives are expressly intended to act in a representative capacity for their constituents. A member of the Board or Advisory Committee shall not be considered to have a discrete and particular financial advantage unless a decision may result in their obtaining a financial benefit that is not enjoyed by any other person. In those instances where the Board member or Advisory Committee member does have a conflict of interest, that respective interest may be represented by that interest's designated alternate and the Board or Advisory Committee member with the identified conflict of interest may address the Board or Committee or participate in the hearing or meeting as a party to the Judgment.

2.11 Minutes. The secretary (or in the absence thereof any person so designated at said meeting) shall cause the preparation and subscription of the minutes of each meeting and make available a copy thereof to all Active Parties and each person who has filed a request for copies of all minutes or notices in writing. The minutes shall constitute notice of all actions therein reported. Unless a reading of the minutes is ordered by a majority of the members of the Board acting as Watermaster, minutes may be approved without reading. [Based on Judgment ¶ 37(d).] Watermaster shall publish a copy of its minutes on the Watermaster website.

- 2.12 Rules of Order. Except as may be provided herein, the procedures of the conduct of any meeting shall be governed by the latest revised edition of Roberts' Rules of Order. However, such rules, adopted to expedite the transaction of the business in an orderly fashion, are deemed to be procedural only and failure to strictly observe such rules shall not affect the jurisdiction or invalidate any action taken at a meeting that is otherwise held in conformity with law.
- 2.13 Compensation. Members of Watermaster shall receive compensation from Watermaster for attendance at meetings, regular or special, in an amount as approved by the Court, together with reasonable expenses related to the respective activities thereof, subject to applicable provisions of law. A Watermaster Board member has three Options with regard to payment of compensation. Option 1 is have the payment payable directly to the Board member under the Board member's name; Option 2 is to have the payment payable directly to the Board member's employer/agency; and Option 3 is for the Board member to waive the compensation payment. Option 1 or 2 requires completion and submission of a signed W •9 form. [Based on Judgment ¶ 18 (as amended).]
- 2.14 Employment of Experts and Agents. Watermaster may employ or retain such administrative, engineering, geologic, accounting, legal or other specialized personnel and consultants as it may deem appropriate and shall require appropriate bonds from all officers and employees handling Watermaster funds. Watermaster shall maintain records for purposes of allocating costs of such services as well as of all other expenses of Watermaster administration as between the several pools established by the Physical Solution of the Judgment. No member of the Watermaster Advisory Committee or any Pool Committee may be employed or compensated by Watermaster for professional or other services rendered to such committee or to Watermaster other than as provided in section 2.13 above. [Based on Judgment ¶ 20.]
- 2.15 Acquisition of Facilities. Watermaster may purchase, lease, acquire and hold all necessary facilities and equipment; provided, that it is not the intent of the Judgment that Watermaster acquire any interest in real property or substantial capital assets. [Judgment ¶ 19 and Peace Agreement § 5.1(h).]
- 2.16 Investment of Funds. Watermaster may hold and invest all Watermaster funds in investments authorized from time to time for public agencies of the State of California, taking into consideration the need to increase the earning power of such funds and to safeguard the integrity thereof. [Based on Judgment ¶ 23.]
- 2.17 Borrowing. Watermaster may borrow from time to time, amounts not to exceed the annual anticipated receipts of Watermaster during such year. [Judgment ¶ 24.]
- 2.18 Contracts. Watermaster may enter into contracts and agreements for the performance of any of its powers pursuant to the Judgment.
- 2.19 Cooperation with Other Agencies. Watermaster may, subject to the prior recommendation of the Advisory Committee, act jointly or cooperate with agencies of the United States of America, and the State of California or any political subdivisions, municipalities, districts

or any person to the end that the purpose of the Physical Solution of the Judgment may be fully and economically carried out. [Based on Judgment ¶ 26.]

- 2.20 Annual Administrative Budget. Watermaster shall submit to the Advisory Committee, after Pool Committee review and approval, an administrative budget and recommendation for action for each subsequent Fiscal Year on or before March 1. The Advisory Committee shall review and submit the budget and their recommendations to Watermaster on or before April 1, next following. Watermaster shall hold a public hearing on the budget which was approved by Advisory Committee at an April meeting of each year and adopt the annual administrative budget which shall include the administrative items for each committee. The administrative budget shall set forth budgeted items in sufficient detail as necessary to make a proper allocation of expenses among the several pools, together with Watermaster's proposed allocation. The budget shall contain such additional comparative information or explanation as the Advisory Committee may recommend from time to time. Expenditures within the budgeted items may thereafter be made by Watermaster in the exercise of its powers, as matter of course. Any budget transfer in excess of 20% of a budget category, or modification of the administrative budget during any year shall be first submitted to the Advisory Committee for review and recommendation. [Based on Judgment ¶ 30.]
- 2.21 Annual Report. Watermaster shall prepare and make available an annual report, which shall be filed on or before January 31 of each year and shall contain details as to the operation of each of the pools, a certified audit of all assessments and expenditures pursuant to the Physical Solution of the Judgment and a review of Watermaster activities. [Based on Judgment ¶ 48.] The annual report shall generally include an update on the status of the parties' efforts to implement the OBMP. On a biannual basis, the annual report shall include an engineering appendix which contains a more specific "state of the Basin" report including an update on the status of individual OBMP related activities such as monitoring results and Watermaster's analysis of Hydrologic Balance. The annual report shall also include a compilation of any amendments to these Rules and Regulations made by Watermaster during the prior twelve (12) months and serve as notice to the Court of the amendments.
- 2.22 Studies. Watermaster may, with concurrence of the Advisory Committee or affected Pool Committee and in accordance with paragraph 54(b) of the Judgment, undertake relevant studies of hydrologic conditions, both quantitative and qualitative, and operating aspects of implementation of the Chino Basin OBMP. [Judgment ¶ 27.]
- 2.23 Demonstrated CEQA Compliance. Watermaster shall not approve any request made under the Judgment or these Rules and Regulations where the proposed action also constitutes a "project" within the meaning of CEQA unless the Watermaster finds that the person requesting Watermaster approval has demonstrated CEQA compliance.
- 2.24 Notice of Litigation. Watermaster shall provide reasonable notice to the parties to the Judgment of any threatened or existing litigation affecting Watermaster or that challenges the legality, validity, or enforceability of the Judgment, the Peace Agreement, the OBMP Implementation Plan or the Rules and Regulations.



- 2.25 Defense of Judgment. Watermaster shall reasonably defend the Judgment, the Peace Agreement, the Peace II Agreement, the OBMP Implementation Plan, and these Rules and Regulations against challenges brought by persons who are not parties to the Judgment. These costs incurred by Watermaster in defending the Judgment, the Peace Agreement, the Peace II Agreement, the OBMP Implementation Plan, and these Rules and Regulations shall be considered a Watermaster general administrative expense. However, the State of California shall not be obligated to reimburse Watermaster for any legal or administrative costs incurred in such defense. [Based on Peace Agreement § 4.1.]
- 2.26 Written Reports. All reports required to be provided by Watermaster under these Rules and Regulations shall be provided in written form unless the context requires otherwise.
- 2.27 Interventions. Watermaster will receive and make recommendations regarding petitions for intervention and accumulate them for filing with the Court from time to time. [Judgment ¶ 60 and Order re Intervention Procedures, July 14, 1978.]
- 2.28 Advisory Committee and Pool Administration. Administration of each of the three Pools is not governed by these Rules and Regulations. Each of these entities has its own rules and shall thereby be governed by those rules. The Advisory Committee shall also be governed by its own rules and procedures. However, when these Rules and Regulations make express reference to the Advisory Committee and the context requires such a construction, these Rules and Regulations shall control.

### **ARTICLE III MONITORING**

- 3.0 Scope. Watermaster will carry out the monitoring activities described under Program Element 1 of the OBMP and, as described in the OBMP Implementation Plan. Monitoring procedures not described by this Article III, shall be implemented through the development of appropriate Watermaster policies and procedures as necessary. Any such policies and procedures adopted by resolution or minute action shall be reported to the Court in Watermaster's annual report.
- 3.1 Meters. This section sets forth Watermaster's rules and procedures for monitoring Groundwater Production by metering.
- (a) Reporting. Any person Producing in excess of ten (10) acre-feet per year shall install and maintain in good operating condition, at the cost of each such person except as provided in (b) below, such meters as Watermaster may deem necessary. Any such measuring device shall be subject to regular inspection and testing as the Watermaster may, from time to time, require, but at a minimum every two years. [Judgment ¶ 21.]
  - (b) Watermaster shall provide a meter testing service with a complete line of carefully calibrated test equipment. Any Producer may request an evaluation of any or all of its water meters at any time. Watermaster shall only pay for tests initiated by Watermaster and for all tests on meters owned by Watermaster
  - (c) Agricultural Pool Meters.
    - (i) Any assessment levied by Watermaster on the members of the Agricultural Pool to fund the installation of meters which is set forth in the Judgment, paragraph 21 regarding metering, shall be paid by the Appropriative Pool. Members of the Agricultural Pool, shall have no obligation to pay for or assume any duty with regard to the installation of meters. The obligation to install and maintain and replace meters on wells owned or operated by members of the Agricultural Pool shall be that of the Watermaster. [Peace Agreement § 5.6(a).]
    - (ii) Agricultural Pool meters shall be installed within thirty-six (36) months of the Date of Execution. Watermaster shall be responsible for providing the meter, as well as paying the cost of any installation, maintenance, inspection, testing, calibrating and repairing. The members of the Agricultural Pool shall provide reasonable access during business hours to a location reasonably appropriate for installation, inspection, testing, calibrating and repairing of a meter. [Peace Agreement § 5.6(b).] However, the State of California reserves its right to continue to install, operate, maintain, inspect, test and repair its own meters on wells owned or operated by the State, unless it consents to installation by Watermaster in which case Watermaster assumes the cost. [Peace Agreement § 5.6(c).]

- (iii) Watermaster shall test every Agricultural Pool meter other than those owned by the State of California on an active well under Watermaster's jurisdiction at least once every two years.

- 3.2 Reporting by Producers. Each party, or Responsible Party Producing water from the Basin, shall file with Watermaster on forms provided therefore, a quarterly report of the total water Production of that Producer during the preceding calendar quarter, together with such additional information as Watermaster and/or the affected Pool Committee may require. The report shall be due on the 15th day of the month next succeeding the end of each respective calendar quarter, i.e., April 15, July 15, October 15 and January 15, except for minimal Producers, whose reports are due annually by July 15. [Judgment ¶ 47.] Watermaster shall annually estimate the quantity of water Produced by "minimal producers" by any reasonable means, including but not limited to the use of a water duty factor dependent upon the type of use and/or acreage.
- 3.3 Error Corrections. All reports or other information submitted to Watermaster by the parties shall be subject to a four-year limitations period regarding the correction of errors contained in such submittals. In addition, all information generated by Watermaster shall be subject to the same four-year limitations period. All corrections to errors shall apply retroactively for no more than four years.

**ARTICLE IV**  
**ASSESSMENTS, REIMBURSEMENTS AND CREDITS**

- 4.0 Scope. This Article sets forth Watermaster's rules and procedures regarding, assessments, reimbursements and credits.
- 4.1 Assessments. Watermaster shall levy assessments against the parties (other than Minimal Producers complying herewith) based upon Production during the preceding Production period. The assessment shall be levied by Watermaster pursuant to the pooling plan adopted for the applicable pool. [Based on Judgment ¶ 53.] Assessments shall cover the cost of Replenishment Water and the expenses of Watermaster administration which shall be categorized as either (a) general, or (b) special project expense.
- (a) General Administrative Watermaster Expense shall include office rental, general personnel expense, supplies and office equipment and related incidental expense and general overhead. [Judgment ¶ 54(a).]
  - (b) Special Project Expense shall consist of special engineering, economic or other studies, litigation expense, meter testing or other major operating expenses. Each such project shall be assigned a task order number and shall be separately budgeted and accounted for. [Judgment ¶ 54(b).]
  - (c) General Watermaster administrative expense shall be allocated and assessed against the respective pools based upon allocations made by the Watermaster, who shall make such allocations based upon generally-accepted cost accounting methods. [Judgment ¶ 54.]
  - (d) Special project expense shall be allocated to a specific pool, or any portion thereof, only upon the basis of prior express assent and finding of benefit by the appropriate Pool Committee, or pursuant to written order of the Court. [Judgment ¶ 54.]
  - (e) Minimal Producers shall be exempted from payment of assessments upon filing of the Production reports referred to in section 3.2 hereof and payment of an annual five dollar (\$5.00) administrative fee with the annual Production report. [Based on Judgment ¶ 52.] In addition, any Minimal Producer who is a member of the Appropriative Pool or the Non-Agricultural Pool and who has no quantified right to Produce water, shall pay a replenishment assessment upon the water that it Produces.
  - (f) Notwithstanding the foregoing, Watermaster shall levy assessments for the 6,500 acre-feet per year as provided in section 5.1(g) of the Peace Agreement and the cost and allocation of this Supplemental Water shall be apportioned pro rata among the members of the Appropriative Pool under the Judgment according to the Producer's assigned share of Operating Safe Yield. [Peace Agreement § 5.1(g)(ii) (inclusion of word "Operating" to correct mis-phrasing of Peace Agreement as required by the context in the Peace Agreement).]

- 4.2 OBMP Assessments. Watermaster Assessments for implementation of the OBMP shall be considered a Watermaster Administrative Expense pursuant to paragraph 54 of the Judgment.
- 4.3 Assessment - Procedure. Assessments shall be levied and collected as follows:
- (a) Notice of Assessment. Watermaster shall give written notice of all applicable assessments to each party as provided in the Judgment not later than October 31 of each year [Judgment ¶ 55(a).];
  - (b) Payment. Each assessment shall be payable on or before thirty (30) days after the date of invoice, and shall be the primary obligation of the party or successor owning the water Production facility at the time written notice of assessment is given, even though prior arrangement for payment by others has been made in writing and filed with Watermaster [Judgment ¶ 55(b).]; and
  - (c) Delinquency. Any delinquent assessment shall incur a late charge of ten (10%) percent per annum (or such greater rate as shall equal the average current cost of borrowed funds to the Watermaster) from the due date thereof. Delinquent assessments and late charge may be collected in a show-cause proceeding instituted by the Watermaster, in which case the Court may allow Watermaster's reasonable cost of collection, including attorney's fees. [Judgment ¶ 55(c).]
- 4.4 Assessment Adjustments. The Watermaster shall make assessment adjustments in whole or in part for assessments to any Producer as a result of erroneous Production reports or otherwise as necessary for the reporting period as either a credit or debit in the next occurring assessment package unless otherwise decided by Watermaster.
- (a) All assessments will be based on the assumption that appropriate, timely filed and pending Applications will be approved by Watermaster. If any such Applications are not approved, a supplemental assessment may be levied.
  - (b) Assessment adjustments may be necessary due to overstated Production, understated Production, or errors in the assessment package discovered after the assessments have been approved.
  - (c) Watermaster may cause an investigation and report to be made concerning questionable reports of Production from the Basin.
  - (d) Watermaster may seek to collect delinquent assessments and interest in a show-cause proceeding in which case the Court may allow Watermaster its reasonable costs of collection, including attorney's fees. [Judgment ¶ 55(c).] Alternately, Watermaster may bring suit in a court having jurisdiction against any Producer for the collection of any delinquent assessments and interest thereon. The court, in addition to any delinquent assessments, may award interest and reasonable costs including attorney's fees.

- 4.5 Credits Against OBMP Assessments and Reimbursements. Watermaster shall exercise reasonable discretion in making its determination regarding credits against OBMP Assessments and reimbursements, considering the importance of the project or program to the successful completion of the OBMP, the available alternative funding sources, and the professional engineering and design standards as may be applicable under the circumstances. However, Watermaster shall not approve such a request for reimbursement or credit against future OBMP Assessments under this section where the Producer or party to the Judgment was otherwise legally compelled to make the improvement. [Peace Agreement § 5.4(d).]
- (a) Any party to the Judgment may make Application for credits against OBMP assessments or for reimbursement by filing a timely Application pursuant to the provisions of this section and Article X of these Rules and Regulations.
  - (b) A party to the Judgment is eligible to be considered for credits or reimbursement for those documented capital, operations and maintenance expenses, including the cost of shutting down and/or relocating Groundwater Production facilities, that are reasonably incurred in the implementation of any project or program that carries out the purposes of the OBMP and specifically relates to the prevention of subsidence in the Basin, upon approval of the request by Watermaster. [Peace Agreement § 5.4(d), as amended.] The purposes of the OBMP shall be those goals set forth in the Phase I Report as implemented through the OBMP Implementation Plan in a manner consistent with the Peace Agreement. [July 13, 2000 Court Order.]
  - (c) Any Producer that Watermaster compels to shut down and/or move a Groundwater Production facility that is in existence on August 1, 2000 shall have the right to receive a credit against future Watermaster assessments or reimbursement up to the reasonable cost of the replacement Groundwater Production facility, including the legal rate of interest on California Judgments. [Peace Agreement § 5.4(e).] In its sole discretion, Watermaster may determine to issue full reimbursement upon approval of the Application or to issue a credit against future Watermaster assessments. However, in the event Watermaster elects to provide a credit in lieu of reimbursement, it must have fully compensated the Producer for the reasonable cost of the replacement Groundwater Production facility through any combination of credits and reimbursements within five years from the date of the Application, unless the Producer consents in writing to a longer period. Note: this section is subject to a rule of construction. See section 1.2(h) above.
  - (d) An Application to Watermaster for reimbursement or a credit against OBMP Assessments shall be considered timely, if and only if the Application has been approved by Watermaster in advance of construction or the offer by a party to dedicate the facility to carry out the purposes of the OBMP as described in (b) above. [Based on Peace Agreement § 5.4(d).]
- 4.6 Agricultural Pool Assessments and Expenses. During the term of the Peace Agreement, all Assessments and expenses of the Agricultural Pool including those of the Agricultural Pool Committee shall be paid by the Appropriative Pool. This includes but is not limited to

OBMP Assessments, assessments pursuant to paragraphs 20, 21, 22, 30, 42, 51, 53, 54 (both general administrative expenses and special project expenses), 55, and Exhibit F (Agricultural Pool Pooling Plan) of the Judgment except however in the event the total Agricultural Pool Production exceeds 414,000 acre-feet in any five consecutive year period as defined in the Judgment, the Agricultural Pool shall be responsible for its Replenishment Obligation pursuant to paragraph 45 of the Judgment. [Peace Agreement § 5.4(a).]

- 4.7 Replenishment Assessments. Watermaster shall levy and collect assessments in each year, pursuant to the respective pooling plans, in the amount of the Replenishment Obligation (including any Desalter Replenishment) for any pool during the preceding year. [Based on Judgment ¶ 51.]
- 4.8 Desalter Replenishment Assessments and Credits. The price of Desalted water to a purchaser of Desalted water does not include the cost of Replenishment. The source of Replenishment shall be those provided in Article VII herein, Article VII of the Peace Agreement, and Article VI of the Peace II Agreement. However, a purchaser of Desalted water may elect to obtain a reduced Assessment levied by Watermaster by dedicating by Transfer, or assignment, some or all of its Production rights to Watermaster for the purpose of satisfying Desalter Replenishment. The amount of the credit granted by Watermaster shall be equal to the value of the cost of Replenishment Water then available from the MWD as interruptible, untreated water or the then prevailing value of the avoided Replenishment Obligation, whichever is less. For purposes of determining Replenishment assessments, water Produced by the Desalters shall be considered Production by the Appropriative Pool.
- 4.9 Consistency with Peace Agreement. The procurement of Replenishment Water and the levy of Assessments shall be consistent with the provisions of section 5.4(a) of the Peace Agreement.
- 4.10 OBMP Committee. Watermaster shall establish a subcommittee (OBMP Committee) for the purpose of coordinating fund raising efforts in furtherance of the OBMP.
  - (a) The subcommittee shall hold a regularly scheduled meeting a minimum of once every quarter.
  - (b) Prior to each subcommittee meeting, Watermaster shall prepare a summary of the funds, loans or grants secured for the purpose of implementing the OBMP over the past three months and distribute any information it may possess regarding the availability of other potential funds, loans or grants.

## **ARTICLE V PHYSICAL SOLUTION**

- 5.0 Scope. This Article generally sets forth the standards for Watermaster implementation of the Physical Solution established by the Judgment, including the application of these standards to Watermaster conduct and decisions under the Judgment, these Rules and Regulations and the OBMP.
- 5.1 Physical Solution. It is essential that this Physical Solution provide maximum flexibility and adaptability to use existing future, technological, social, institutional and economic options to maximize beneficial use of the waters of the Chino Basin. [Judgment ¶ 40.]
- 5.2 Watermaster Control. Watermaster, with the advice of the Advisory and Pool Committees, is granted discretionary powers in order to develop its OBMP. [Based on Judgment ¶ 41.]
- 5.3 Basin Management Parameters. Watermaster shall consider the following parameters in implementing the Physical Solution under Articles VI - X of these Rules and Regulations:
- (a) Pumping Patterns. Chino Basin is a common supply for all persons and agencies utilizing its waters. It is an objective in management of the Basin's waters that no Producer be deprived of access to said waters by reason of unreasonable pumping patterns, nor by regional or localized Recharge of Replenishment Water, insofar as such result may be practically avoided. [Judgment Exhibit "I".]
  - (b) Water Quality. Maintenance and improvement of water quality is a prime consideration and function of management decisions by Watermaster. [Judgment Exhibit "I".]
  - (c) Economic Considerations. Financial feasibility, economic impact and the cost of optimum use of the Basin's resources and the physical facilities of the parties are objectives and concerns equal in importance to water quantity and quality parameters. [Judgment Exhibit "I".]



**ARTICLE VI**  
**SAFE YIELD AND OPERATING SAFE YIELD**

- 6.0 Scope. This Article sets forth the rules and procedures that are applicable to Watermaster's regulation, control, and management of Safe Yield and Operating Safe Yield.
- 6.1 Annual Production Right. The Annual Production Right shall be calculated by Watermaster pursuant to the Judgment and the Peace Agreement.
- 6.2 New Yield. The Judgment provides that Safe Yield may need to be periodically adjusted based on more accurate and updated data and based on evidence of increased capture of native water and increased return flow from use of Replenishment or Stored Water. Safe Yield can only be re-determined periodically when long-term data or evidence is developed in support thereof. In order to encourage maximization of Basin Water under the Physical Solution, New Yield shall be accounted for by Watermaster in interim periods between re-determinations of Safe Yield.
- (a) Proven increases in yield in quantities greater than the historical level of contribution from certain Recharge sources may result from changed conditions including, but not limited to, the increased capture of rising water, increased capture of available storm flow, and other management activities. These increases are considered New Yield.
  - (b) To the extent the New Yield arises from conditions, programs or projects implemented and operational after July 1, 2000, it is available for allocation by Watermaster as a component of the Annual Production Right for each member of the Appropriative Pool.
  - (c) As part of the documentation for the assessments and annual report for each year, Watermaster will provide a summary and analysis of the historical recharge and whether there are changed conditions that have resulted in a quantity of New Yield.
  - (d) Except as described in section 6.2(f) below, pursuant to the Peace Agreement and the Peace II Agreement, any New Yield shall first be assigned to offsetting Desalter Replenishment Obligations in the immediately following year and as reasonably required to satisfy expected future Replenishment Obligations arising from the Desalter. If there is water in the Watermaster Desalter Replenishment Account to satisfy the Desalter Replenishment Obligation for the year, the New Yield shall be made available to the Appropriative Pool to satisfy a Replenishment Obligation consistent with section 7.5(a)(3) herein.
  - (e) New Yield is expected to result from a variety of conditions, including but not limited to enhanced Basin management, increased stormwater Recharge, induced Recharge from operation of the Desalters, injection, and changes in land use patterns. Watermaster has established an initial baseline quantity of stormflow Recharged in the Basin under historical conditions in the amount of 5,600 acre-feet per year. Any party to the Judgment may request Watermaster to re-examine this

initial estimate of the baseline quantity and to adjust the quantity in accordance with best available technology and substantial evidence.

- (f) The storm flow component of Recharge determined by Watermaster to be part of New Yield shall be allocated to the Appropriators according to their percentages of Safe Yield under the Judgment. Notwithstanding section 7.5(c) of the Peace Agreement, those amounts will continue to be dedicated in those percentages to the Appropriators if that storm flow Recharge is subsequently determined to be Safe Yield. [First Amendment to Peace Agreement, ¶ 2.]

### 6.3 Accounting of Unallocated Agricultural Portion of Safe Yield.

- (a) In each year, the 82,800 acre-feet being that portion of the Safe Yield made available to the Agricultural Pool under the Judgment, shall be made available in the following sequence:
  - (i) To the Agricultural Pool to satisfy all demands for overlying Agricultural Pool lands;
  - (ii) To supplement, in the particular year, water available from Operating Safe Yield to compensate for any reduction in the Safe Yield by reason of recalculation thereof;
  - (iii) To land use conversions that were completed prior to October 1, 2000;
  - (iv) To land use conversions that have been completed after October 1, 2000; and
  - (v) To the Early Transfer of the quantity of water not Produced by the Agricultural Pool that is remaining after all the land use conversions are satisfied pursuant to section 5.3(h) of the Peace Agreement from the Agricultural Pool to the Appropriative Pool in accordance with their pro-rata assigned share of Operating Safe Yield.
- (b) In the event actual Production by the Agricultural Pool exceeds 414,000 acre-feet in any five years, the Agricultural Pool shall procure sufficient quantities of Replenishment Water to satisfy over-Production obligations, whatever they may be.

### 6.4 Conversion Claims. The following procedures may be utilized by any Appropriator:

- (a) Record of Unconverted Agricultural Acreage. Watermaster shall maintain on an ongoing basis a record, with appropriate related maps, of all agricultural acreage within the Chino Basin subject to being converted to appropriative water use pursuant to the provisions of this subparagraph.
- (b) Record of Water Service Conversion. Any Appropriator who undertakes to permanently provide water service to any portion of a legal parcel subject to

conversion shall report such change to Watermaster. Watermaster shall ensure that when a partial conversion occurs, that the water use on the acreage is properly metered. For all or any portion of the legal parcel that is proposed for conversion, Watermaster shall thereupon verify such change in water service and shall maintain a record and account for each Appropriator of the total acreage involved. Should, at any time, all or any portion of the converted acreage return to agricultural overlying use, Watermaster shall return such acreage that returns to agricultural use to unconverted status and correspondingly reduce or eliminate any allocation accorded to the Appropriator involved.

## 6.5 Recalculation of Safe Yield.

- (a) Prior Safe Yield Resets. Pursuant to the Court's Orders, dated April 28, 2017, effective July 1, 2010 and continuing until June 30, 2020, the Safe Yield for the Basin was reset at 135,000 AFY. Pursuant to the Court's Orders, dated July 31, 2020, effective July 1, 2020 and continuing until June 30, 2030, the Safe Yield for the Basin was reset at 131,000 AFY. For all purposes arising under the Judgment, the Peace Agreements and the OBMP Implementation Plan, the Safe Yield shall be 131,000 AFY, without exception, unless and until Safe Yield is reset in accordance with the procedures set forth in this Section 6.5, and determined by the Court pursuant to its retained continuing jurisdiction.
- (b) Scheduled Resets. Watermaster will initiate a process to evaluate and reset the Safe Yield by July 1, 2030 as further provided in this Section 6.5. Subject to the provisions of Section 6.5(c) below, the Safe Yield, as it is reset effective July 1, 2030 will continue until June 30, 2040. Watermaster will initiate the reset process, taking into account then prevailing best management practices and advances in hydrological science, no later than July 1, 2028, in order to ensure that the Safe Yield, as reset, may be approved by the court no later than June 30, 2030. [Court's Orders, dated July 31, 2020 at 15.] Watermaster must present its evaluation and recommendation regarding Safe Yield for the period July 1, 2030, and ending June 30, 2040, to the Parties to the Judgment no later than January 1, 2030. [Court's Orders, dated July 31, 2020 at 15.] Consistent with the provisions of the OBMP Implementation Plan, thereafter Watermaster will conduct a Safe Yield evaluation and reset process no less frequently than every ten years. This Section 6.5(b) is deemed to satisfy Watermaster's obligation, under Paragraph 3.(b) of Exhibit "I" to the Judgment, to provide notice of a potential change in Operating Safe Yield.
- (c) Interim Correction. In addition to the scheduled reset set forth in Section 6.5(b) above, the Safe Yield may be reset in the event that:
  - (i) with the recommendation and advice of the Pools and Advisory Committee and in the exercise of prudent management discretion described in Section 6.5(e)(iii), below, Watermaster recommends to the court that the Safe Yield must be changed by an amount greater (more or less) than 2.5% of the then-effective Safe Yield. [Court's Order, dated April 28, 2017; Court's Findings and Order, dated March 15, 2019 at 2.]

- (ii) The California State Water Resources Control Board develops water conservation measures prior to June 30, 2030, that result in a reduction in urban irrigation in the Chino Basin (i.e., reduced Evapotranspiration Adjustment Factors), as required by Water Code § 10609, et seq., that is reasonably likely to materially reduce recharge in the Chino Basin and such measures are determined to change the Safe Yield by more than 2.5% of the then-effective Safe Yield, and Watermaster moves the Court to reset the Safe Yield accordingly. [Court's Orders, dated July 31, 2020 at 15.]
- (d) Safe Yield Reset Methodology. The Safe Yield shall be subsequently evaluated pursuant to the methodology set forth in the Reset Technical Memorandum. The reset will rely upon long-term hydrology and will include data from 1921 to the date of the reset evaluation. The long-term hydrology will be continuously expanded to account for new data from each year, through July 2030, as it becomes available. This methodology will thereby account for short-term climatic variations, wet and dry. Based on the best information practicably available to Watermaster, the Reset Technical Memorandum sets forth a prudent and reasonable professional methodology to evaluate the then prevailing Safe Yield in a manner consistent with the Judgment, the Peace Agreements, and the OBMP Implementation Plan. In furtherance of the goal of maximizing the beneficial use of the waters of the Chino Basin, Watermaster, with the recommendation and advice of the Pools and Advisory Committee, may supplement the Reset Technical Memorandum's methodology to incorporate future advances in best management practices and hydrologic science as they evolve over the term of the Court's Order, dated April 28, 2017.
- (e) Annual Data Collection and Evaluation. In support of its obligations to undertake the reset in accordance with the Reset Technical Memorandum and this Section 6.5, Watermaster shall annually undertake the following actions:
  - (i) Ensure that, unless a Party to the Judgment is excluded from reporting, all production by all Parties to the Judgment is metered, reported, and reflected in Watermaster's approved Assessment Packages;
  - (ii) Collect data concerning cultural conditions annually with cultural conditions including, but not limited to, land use, water use practices, production, and facilities for the production, generation, storage, recharge, treatment, or transmission of water;
  - (iii) Evaluate the potential need for prudent management discretion to avoid or mitigate undesirable results including, but not limited to, subsidence, water quality degradation, and unreasonable pump lifts. Where the evaluation of available data suggests that there has been or will be a material change from existing and projected conditions or threatened undesirable results, then a more significant evaluation, including modeling, as described in the Reset Technical Memorandum, will be undertaken; and,

- (iv) As part of its regular budgeting process, develop a budget for the annual data collection, data evaluation, and any scheduled modeling efforts, including the methodology for the allocation of expenses among the Parties to the Judgment. Such budget development shall be consistent with section 5.4(a) of the Peace Agreement.
- (f) Modeling. Watermaster shall cause the Basin model to be updated and a model evaluation of Safe Yield, in a manner consistent with the Reset Technical Memorandum, to be initiated no later than January 1, 2024, in order to ensure that the same may be completed by June 30, 2025.
- (g) Peer Review. The Pools shall be provided with reasonable opportunity, no less frequently than annually, for peer review of the collection of data and the application of the data collected in regard to the activities described in Section 6.5(d), (e), and (f) above.
- (h) No Retroactive Accounting. Notwithstanding that the initial Safe Yield reset, described in Section 6.5(a) above, was effective as of July 1, 2010, Watermaster will not, in any manner, including through the approval of its Assessment Packages, seek to change prior accounting of the prior allocation of Safe Yield and Operating Safe Yield among the Parties to the Judgment for Production Years prior to July 1, 2014.

## **ARTICLE VII RECHARGE**

7.0 Scope. This Article sets forth the standards that are applicable to Watermaster's review of Recharge actions by all persons that may be subject to the Judgment as well as Watermaster's efforts to administer, direct, and arrange for Recharge in accordance with the Judgment.

7.1 In General

- (a) Watermaster shall administer, direct and arrange for the Recharge of all water in a manner pursuant to the Judgment, the Peace and Peace II Agreements and the OBMP in a manner that causes no Material Physical Injury to any party to the Judgment or the Chino Basin. Nothing herein shall be construed as committing a Party to provide Supplemental Water upon terms and conditions that are not deemed acceptable to that party. This means that no party to the Judgment shall be individually and independently obligated to purchase or acquire Supplemental Water on behalf of another party to the Judgment. [Peace Agreement § 5.1(e).] Applications to engage in Recharge activities shall be processed in accordance with the provisions of Article X using the forms provided by Watermaster attached hereto as Appendix 1.
- (b) Watermaster shall exercise its Best Efforts to:
  - (i) Protect and enhance the Safe Yield of the Chino Basin through Replenishment and Recharge [Peace Agreement § 5.1(e).];
  - (ii) Ensure there is sufficient Recharge capacity for Recharge water to meet the goals of the OBMP and the future water supply needs within the Chino Basin [Peace Agreement § 5.1(e).];
  - (iii) Evaluate the long term Hydrologic Balance within all areas and subareas of the Chino Basin;
  - (iv) Make its initial report on the then existing state of Hydrologic Balance by July 1, 2003, including any recommendations on Recharge actions which may be necessary under the OBMP. Thereafter Watermaster shall make written reports on the long term Hydrologic Balance in the Chino Basin every two years;
  - (v) Use and consider the information provided in the reports under (iv) above, when modifying or updating the Recharge Master Plan and in implementing the OBMP;
  - (vi) Evaluate the potential or threat for any Material Physical Injury to any party to the Judgment or the Chino Basin, including, but not limited to, any Material Physical Injury that may result from any Transfer of water in

storage or water rights which is proposed in place of physical Recharge of water to Chino Basin in accordance with the provisions of section 5.3 of the Peace Agreement [Peace Agreement § 5.1(e).];

- (vii) Cooperate with owners of existing Recharge facilities to expand/improve/preserve Recharge facilities identified in the Recharge Master Plan; arrange for the construction of the works and facilities necessary to implement the quantities of Recharge identified in the OBMP Implementation Plan [Peace Agreement § 5.1(e)(ix)] and cooperate with appropriate entities to construct and operate the new Recharge facilities that are identified in the Recharge Master Plan;
  - (viii) Ensure that its Recharge efforts under the Recharge Master Plan are consistent with the Judgment, and the Peace Agreement;
  - (ix) Establish and periodically update criteria for the use of water from different sources for Replenishment purposes [Peace Agreement § 5.1(e)(v).];
  - (x) Ensure a proper accounting of all sources of Recharge to the Chino Basin [Peace Agreement § 5.1(e)(vi).];
  - (xi) Recharge the Chino Basin with water in any area where Groundwater levels have declined to such an extent that there is an imminent threat of Material Physical Injury to any party to the Judgment or the Basin [Peace Agreement § 5.1(e)(vii).];
  - (xii) Maintain long-term Hydrologic Balance between total Recharge and discharge within all areas and sub-areas [Peace Agreement § 5.1(e)(viii).]; and
  - (xiii) Use water of the lowest cost and the highest quality, giving preference as far as possible to the augmentation and the Recharge of native storm water. [Peace Agreement § 5.1(f).]
- (c) Recharge Master Plan. The Recharge Master Plan will address how the Basin will be contemporaneously managed to secure and maintain Hydraulic Control and subsequently operated at a new equilibrium at the conclusion of the period of Re-Operation. The Recharge Master Plan will be jointly approved by IEUA and Watermaster and shall contain recharge estimations and summaries of the projected water supply availability as well as the physical means to accomplish the recharge projections. Specifically, the Recharge Master Plan will reflect an appropriate schedule for planning, design, and physical improvements as may be required to provide reasonable assurance that following the full beneficial use of the groundwater withdrawn in accordance with the Basin Re-Operation and authorized controlled overdraft, that sufficient Replenishment capability exists to meet the reasonable projections of Desalter Replenishment obligations. With the concurrence of IEUA and Watermaster, the Recharge Master Plan will be updated

and amended as frequently as necessary with Court approval and not less than every five (5) years. [Peace II Agreement § 8.1.]

- (i) Coordination. The members of the Appropriative Pool will coordinate the development of their respective Urban Water Management Plans and Water Supply Master Plans with Watermaster as follows. [Peace II Agreement § 8.2.]
  - a) Each Appropriator that prepares an Urban Water Management Plan and Water Supply Plans will provide Watermaster with copies of its existing and proposed plans.
  - b) Watermaster will use the Urban Water Management Plans in evaluating the adequacy of the Recharge Master Plan and other OBMP Implementation Plan program elements.
  - c) Each Appropriator will provide Watermaster with a draft in advance of adopting any proposed changes to its Urban Water Management Plans and in advance of adopting any material changes to their Water Supply Master Plans respectively in accordance with the customary notification routinely provided to other third parties to offer Watermaster a reasonable opportunity to provide informal input and informal comment on the proposed changes.
  - d) Any Party that experiences the loss or the imminent threatened loss of a material water supply source will provide reasonable notice to Watermaster of the condition and the expected impact, if any, on the projected groundwater use.
- (ii) In preparation of the Recharge Master Plan, Watermaster will consider whether existing groundwater production facilities owned or controlled by producers within Management Zone 1 may be used in connection with an aquifer storage and recovery ("ASR") project so as to further enhance recharge in specific locations and to otherwise meet the objectives of the Recharge Master Plan. [Peace II Agreement § 8.4(d)(2).]
- (d) Watermaster shall not own Recharge projects, including but not limited to spreading grounds, injection wells, or diversion works. [Peace Agreement § 5.1(h).]
- (e) Watermaster may own and hold water rights in trust for the benefit of the parties to the Judgment. Subject to this exception, Watermaster shall not own land or interests in real property. [Peace Agreement § 5.1(h).] Watermaster shall obtain Court approval prior to acquiring any water rights in trust for the benefit of the parties to the Judgment. In addition, Watermaster shall conform all existing permits to ensure that title is held in trust for the benefit of the parties to the Judgment.



- (f) Watermaster shall arrange, facilitate and provide for Recharge by entering into contracts with appropriate persons, which may provide facilities and operations for physical Recharge of water as required by the Judgment and the Peace Agreement, or pursuant to the OBMP. Any such contracts shall include appropriate terms and conditions, including terms for the location and payment of costs necessary for the operation and maintenance of facilities, if any. [Peace Agreement § 5.1(h).]
- (g) Watermaster shall provide an annual accounting of the amount of Recharge and the location of the specific types of Recharge. [Peace Agreement § 5.1(j).]

7.2 Recharge of Supplemental Water. All Recharge of the Chino Basin with Supplemental Water shall be subject to Watermaster approval obtained by Application made to Watermaster in accordance with provisions of Article X. [Peace Agreement § 5.1(a).] In reviewing any such Application, Watermaster shall comply with the following.

- (a) Watermaster will ensure that any person may make Application to Watermaster to Recharge the Chino Basin with Supplemental Water pursuant to Article X, including the exercise of the right to offer to sell In-Lieu Recharge Water to Watermaster as provided in the Judgment and the Peace Agreement in a manner that is consistent with the OBMP and the law. [Peace Agreement § 5.1(b).]
- (b) Watermaster shall not approve an Application by any party to the Judgment under Article X if it is inconsistent with the terms of the Peace Agreement, or will cause any Material Physical Injury to any party to the Judgment or the Basin. [Peace Agreement § 5.1(b).]
- (c) Any potential or threatened Material Physical Injury to any party to the Judgment or the Basin caused by the Recharge of Supplemental Water shall be fully and reasonably mitigated as a condition of approval. In the event the Material Physical Injury cannot be fully and reasonably mitigated, the request for Recharge of Supplemental Water must be denied. [Peace Agreement § 5.1(b).]
- (d) Absent a clear showing as to peculiar circumstances or changes, Recharge of the Chino Basin with Supplemental Water conducted through spreading grounds shall be assessed: (i) a 1.5% evaporation loss if the Recharge occurs in November through March; or (ii) a 4.2% evaporation loss if the Recharge occurs in April through October. Such loss shall be a one-time adjustment applicable to the Party engaging in Recharge. Losses for Recharge through injection wells shall be determined on a case by case basis. [Judgment at ¶41.]

7.3 Recharge of 6,500 Acre-Feet of Supplemental Water in Management Zone 1. Consistent with its overall obligations to manage the Chino Basin to ensure hydrologic balance within each management zone, for the duration of the Peace Agreement (until June of 2030), Watermaster will ensure that a minimum of 6,500 acre-feet of wet water recharge occurs within Management Zone 1 on an annual basis. However, to the extent that water is unavailable for recharge or there is no replenishment obligation in any year, the obligation

to recharge 6,500 acre-feet will accrue and be satisfied in subsequent years. [Peace II Agreement § 8.4(d).]

- (a) Watermaster will implement this measure in a coordinated manner so as to facilitate compliance with other agreements among the parties, including but not limited to the Dry-Year Yield Agreements.
- (b) Five years from the effective date of the Peace II Measures, Watermaster will cause an evaluation of the minimum recharge quantity for Management Zone 1. After consideration of the information developed, the observed experiences in complying with the Dry Year Yield Agreements as well as any other pertinent information, Watermaster may increase the minimum requirement for Management Zone 1 to quantities greater than 6,500 acre-feet per year. In no circumstance will the commitment to recharge 6,500 acre-feet be reduced for the duration of the Peace Agreement. [Peace II Agreement § 8.4(e).]

7.4 Sources of Replenishment Water. Supplemental Water may be obtained by Watermaster from any available source. Watermaster shall, however, seek to obtain the best available quality of Supplemental Water at the most reasonable cost for recharge in the Basin. It is anticipated that Supplemental Water for Replenishment of Chino Basin may be available at different rates to the various pools to meet their Replenishment Obligations. If such is the case, each pool will be assessed only that amount necessary for the cost of Replenishment Water to that pool, at the rate available to the pool, to meet its Replenishment Obligation. In this connection, available resources may include, but are not limited to:

- (a) Maximum beneficial use of Recycled Water, which shall be given a high priority by Watermaster [Judgment ¶ 49(a).];
- (b) State Project Water subject to applicable service provisions of the State's water service contracts [Judgment ¶ 49(b).];
- (c) Local Imported Water through facilities and methods for importation of surface and Groundwater supplies from adjacent basins and watersheds [Judgment ¶ 49(c).]; and
- (d) Available supplies of Metropolitan Water District water from its Colorado River Aqueduct. [Judgment ¶ 49(d).]

7.5 Desalter Replenishment. Notwithstanding the provisions of section 7.4, above, for the initial term of the Peace Agreement, the Replenishment obligation attributable to Desalter production in any year will be determined by Watermaster as follows [Peace Agreement § 7.5; Peace II Agreement § 6.2.]:

- (a) Watermaster will calculate the total Desalter Production for the preceding year and then apply a credit against the total quantity from:

- (i) the Watermaster Desalter replenishment account composed of 25,000 acre-feet of water abandoned by Kaiser Ventures pursuant to the "Salt Offset Agreement" dated October 21, 1993, between Kaiser Ventures and the RWQCB, and other water previously dedicated by the Appropriative Pool [Peace Agreement § 7.5(a).];
  - (ii) dedication of water from the Overlying (Non-Agricultural) Pool Storage Account or from any contribution arising from an annual authorized Physical Solution Transfer in accordance with amended Exhibit G to the Judgment;
  - (iii) New Yield that may be made available to Watermaster through a combination of management programs, actions or facilities, other than the Stormwater component of New Yield, as determined on an annual basis [Peace Agreement § 7.5(b)];
  - (iv) any declared losses from storage in excess of actual losses enforced as a "Leave Behind";
  - (v) Safe Yield that may be contributed by the parties [Peace Agreement § 7.5(c)];
  - (vi) any Production of groundwater attributable to the controlled overdraft authorized pursuant to Exhibit I to the Judgment, as amended.
- (b) To the extent available credits are insufficient to fully offset the quantity of groundwater production attributable to the Desalters, Watermaster will use water or revenue obtained by levying the following assessments among the members of the Overlying (Non-Agricultural) Pool and the Appropriative Pool to meet any remaining replenishment obligation as follows.
- (i) A Special OBMP Assessment against the Overlying (Non-Agricultural) Pool as more specifically authorized and described in amendment to Exhibit "G" paragraph 5 (c) to the Judgment will be dedicated by Watermaster to further off-set replenishment of the Desalters. However, to the extent there is no remaining replenishment obligation attributable to the Desalters in any year after applying the off-sets set forth in 7.5(a), the OBMP Special Assessment levied by Watermaster will be distributed as provided in Section 9.2 of the Peace II Agreement. The Special OBMP Assessment will be assessed pro-rata on each member's share of Safe Yield.
  - (ii) The members of the Appropriative Pool will contribute a total of 10,000 afy toward Desalter replenishment, allocated among Appropriative Pool members as follows:

- 85% of the total (8,500 afy) will be allocated according to the Operating Safe Yield percentage of each Appropriative Pool member; and
- 15% of the total (1,500 afy) will be allocated according to each land use conversion agency's percentage of the total land use conversion claims, based on the actual land use conversion allocations of the year.

The annual desalter replenishment obligation contribution of each Appropriative Pool member will be calculated using the following formula:

$$\begin{aligned} \text{Desalter replenishment obligation contribution} = & (8,500 * \% \text{ Appropriator's share of total initial 49,834 afy Operating Safe Yield}) \\ & + (1,500 * \% \text{ Appropriator's proportional share of that year's total conversion claims}) \end{aligned}$$

A sample calculation of the desalter replenishment obligation contribution for each Appropriative Pool member is shown on Exhibit 4 to the Peace II Agreement, as amended.

- (iii) A Replenishment Assessment against the Appropriative Pool for any remaining Desalter replenishment obligation after applying both 6(b)(i) and 6(b)(ii) of the Peace II Agreement, allocated pro-rata to each Appropriative Pool member according to the combined total of the member's share of Operating Safe Yield and the member's Adjusted Physical Production, as defined below. Desalter Production is excluded from this calculation. A sample calculation of the allocation of the remaining desalter obligation is shown in Exhibit 4 to the Peace II Agreement.<sup>1</sup>
- (iv) Adjusted Physical Production is the Appropriative Pool member's total combined physical production (i.e., all groundwater pumped or produced by the Appropriative Pool member's groundwater wells in the Chino Basin, including water transferred from the Non- Agricultural Pool under Exhibit G, ¶9 of the Judgment), with the following adjustments:
  - (1) In the case of assignments among Appropriative Pool members, or between Appropriative Pool members and Non-Agricultural Pool members under Exhibit G, ¶6 of the Judgment, resulting in pumping or production by one party to the Judgment for use by another party to the Judgment, the production for purposes of Adjusted Physical Production shall be assigned to the party making beneficial use of the water, not the actual producer.

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<sup>1</sup> This sample calculation is attached hereto as Exhibit "C."

- (2) Production offset credits pursuant to voluntary agreements under section 5.3(i) of the Peace Agreement are calculated at 50% of the total voluntary agreement credit in the determination of Adjusted Physical Production for an Appropriative Pool member participating in a voluntary agreement for that year. In the determination of Adjusted Physical Production, the voluntary agreement credit is subtracted from physical production. Reduction of the voluntary agreement credit from 100% to 50% is applicable only to the calculation of the Adjusted Physical Production hereunder; but in all other applications, the voluntary agreement credit shall remain unchanged (i.e. remain at 100%).
- (3) Production associated with approved storage and recovery programs (e.g., Dry Year Yield recovery program with MWD) is not counted in Adjusted Physical Production, except for in-lieu participation in such programs: in-lieu put quantities shall be added to physical production, and in-lieu take quantities shall be subtracted from physical production.
- (4) Metered pump-to-waste Production that is determined by Watermaster to be subsequently recharged to the groundwater basin is deducted from physical production; unmetered pump-to-waste production that is determined by Watermaster not to be subsequently recharged to the groundwater basin is added to physical production.
- (5) The Appropriative Pool may approve, by unanimous vote, the inclusion of other items in the determination of Adjusted Physical Production, with the exception of Non- Agricultural Pool water assigned or transferred under Exhibit G, ¶6 or ¶10 of the Judgment.
- (v) Any member of the Non-Agricultural Pool that is also a member of the Appropriative Pool may elect to transfer (a) some or all of the annual share of Operating Safe Yield of the transferor in and for the year in which the transfer occurs (except that such transfer shall exclude any dedication to the Watermaster required by section 6.2(b)(1) of the Peace II Agreement), and (b) any quantity of water held in storage by the transferor (including without limitation carryover and excess carryover) to any member of the Appropriative Pool, in either case at any price that the transferor and transferee may deem appropriate and for the purpose of satisfying the transferee's desalter replenishment obligation. The transferee's desalter replenishment obligation shall be credited by the number of acre-feet so transferred.
- (vi) For the purposes of this section 7.5(b), the quantification of any Party's share of Operating Safe Yield does not include either land use conversions or Early Transfers.

- 7.6 Method of Replenishment. Watermaster may accomplish Replenishment by any reasonable method, including spreading and percolation, injection of water into existing or new facilities, in-lieu procedures and acquisition of unproduced water from members of the Non-Agricultural and Appropriative Pools. [Judgment ¶ 50.]
- 7.7 Accumulations. In order to minimize fluctuations in assessments and to give Watermaster flexibility in the purchase and spreading of Replenishment Water, Watermaster may make reasonable accumulations of Replenishment Water assessment proceeds. Interest earned on such retained funds shall be added to the account of the pool from which the funds were collected and shall be applied only to the purchase of Replenishment Water. [Judgment ¶ 56.]
- 7.8 In-Lieu and Other Negotiated Procedures. To the extent good management practices dictate that recharge of the Basin be accomplished by taking surface supplies of Supplemental Water in lieu of Groundwater otherwise subject to Production as an allocated share of Operating Safe Yield, the following in-lieu procedures or other additional procedures as may be negotiated by Watermaster and approved by the Watermaster Advisory Committee shall prevail [Judgment Exhibit "H" ¶ 11.]:
- (a) Designation of In-Lieu Areas. In-lieu areas may be designated by order of Watermaster upon recommendation or approval of the Watermaster Advisory Committee. Watermaster has previously designated the entire Chino Basin as an in-lieu area. In-lieu areas may be enlarged, reduced or eliminated by subsequent order; provided, however, that designation of an in-lieu area shall be for a minimum fixed term sufficient to justify necessary capital investment. However, should in-lieu Area No.1, which has been established by the Court, be reduced or eliminated, it shall require prior order of the Court.
  - (b) Method of Operation. Any member of the Appropriative Pool Producing water within a designated in-lieu area who is willing to abstain for any reason from Producing any portion of its share of Operating Safe Yield in any year, may offer such unpumped water to Watermaster on a form to be provided therefor. In such event, Watermaster shall purchase said water in place, in lieu of spreading Replenishment Water, which may be otherwise required to make up for over Production. The purchase price for in-lieu water shall be the lesser of:
    - (i) Watermaster's current cost of Replenishment Water, plus the cost of spreading; or
    - (ii) The cost of supplemental surface supplies to the Appropriator, less
      - a) said Appropriator's average cost of Groundwater Production, and
      - b) the applicable Production assessment where the water is Produced.

## **ARTICLE VIII STORAGE**

8.0 Scope. This Article sets forth Watermaster's obligations and responsibilities regarding the management, regulation and control of storage within the Basin.

8.1 In General.

- (a) Watermaster Control. A substantial amount of available Groundwater storage capacity exists in the Basin that is not used for storage or regulation of Basin Waters. It is essential that the use of storage capacity of the Basin be undertaken only under Watermaster control and regulation so as to protect the integrity of the Basin. Watermaster will exercise regulation and control of storage primarily through the execution of Groundwater Storage Agreements. [Judgment ¶ 11.]
- (b) Categories of Groundwater Storage Agreements. There are different categories of storage and different types of Groundwater Storage agreements. Only those Groundwater Storage agreements defined as "Qualifying Storage agreements" require new Watermaster approval. Qualifying Storage agreements will be processed by Watermaster in accordance with the forms provided by Watermaster and attached hereto as Appendix 1.
- (c) Court Notification and Approval. Before it is effective, any Storage and Recovery Agreement entered into pursuant to a Storage and Recovery Program shall first receive Court Approval. With respect to all other Groundwater Storage Agreements, Watermaster shall notify the Court after approval.
- (d) Relationship Between Recapture and Storage. Recapture of water held in a storage account will generally be approved by Watermaster as a component of and coincident with a Groundwater Storage Agreement for Qualifying Storage. However, an Applicant for Qualifying Storage may request, and Watermaster may approve, a Groundwater Storage Agreement where the plan for recovery is not yet known. In such cases, the Applicant may request Watermaster approval of the Qualifying Storage only and subsequently submit and process an independent Application for Recapture under the provisions of Article X.
- (e) Storage of Safe Yield as Carry-Over Water. Any member of the Appropriative Pool or member of the Non-Agricultural Pool who Produces less than its assigned share of Operating Safe Yield or Safe Yield, respectively, may carry such unexercised right forward for exercise in subsequent years. Watermaster shall be required to keep an accounting of Carry-Over Water in connection with said Carry-Over Rights. The first water Produced in any subsequent year, shall be deemed to be in exercise of that Carry-Over Right. If the aggregate remaining Carry-Over Water available to any member of the Appropriative Pool, or member of the Non-Agricultural Pool with Safe Yield, in a given year exceeds its assigned share of Operating Safe Yield after its demands are met, such Producer shall, as a condition of preserving such Excess Carry-Over Water execute a Local Storage Agreement

with Watermaster. A member of the Appropriative Pool shall have the option to pay the gross assessment applicable to said Carry-Over Right in the year in which it occurred. [Judgment Exhibit "G," and Exhibit "H" ¶ 12.]

(f) Storage of Supplemental Water. The rules and procedures for the storage of Supplemental Water are set forth as follows.

(i) Supplemental Water. Each party, its officers, agents, employees, successors, and assigns, has been enjoined and restrained from storing Supplemental Water in Chino Basin for withdrawal, or causing withdrawal of water stored, except pursuant to the terms of a Groundwater Storage Agreement with Watermaster. Any Supplemental Water recharged by any person within Chino Basin, except pursuant to these Rules and Regulations and a Groundwater Storage Agreement, is deemed abandoned and shall not be considered Stored Water. [Judgment ¶ 14.]

(ii) Application for Storage of Supplemental Water. Watermaster will ensure that any person, including but not limited to the State of California and the Department of Water Resources may make Application to Watermaster to store and Recover water from the Chino Basin as provided herein in a manner that is consistent with the OBMP and the law. Watermaster shall not approve an Application to store and Recover water if it is inconsistent with the terms of the Peace Agreement or will cause any Material Physical Injury to any party to the Judgment or the Basin. Any potential or threatened Material Physical Injury to any party to the Judgment or the Basin caused by the storage and Recovery of water shall be reasonably and fully mitigated as a condition of approval. In the event the Material Physical Injury cannot be mitigated, the request for storage and Recovery must be denied. [Peace Agreement § 5.2(a)(iii).] Applications for the storage of Supplemental Water shall be processed in accordance with the provisions of Article X.

(g) Rules and Procedures in General.

(i) Any person desiring to store Supplemental Water in the Basin shall make appropriate Application therefor with the Watermaster pursuant to the provisions of this Article and Article X. Supplemental Water stored or Recharged in the Basin, except pursuant to a Groundwater Storage Agreement with Watermaster, shall be deemed abandoned and not classified as Stored Water. [Judgment ¶ 14.]

(ii) Guidelines and Criteria. Any person, whether a party to the Judgment or not, may make reasonable beneficial use of the available groundwater storage capacity of Chino Basin for storage of Water pursuant to written agreement with the Watermaster as provided herein. [Judgment ¶ 12.]

(iii) In the allocation of storage capacity, the needs and requirements of lands overlying Chino Basin and the owners of rights in the Safe Yield or



Operating Safe Yield of the Basin shall have priority and preference over storage for export. [Judgment ¶ 12.]

- (iv) It is an objective in management of the Basin's waters that no Producer shall be deprived of access to the Basin's waters by reason of unreasonable pumping patterns, nor by regional or localized Recharge of Replenishment Water, insofar as such result may be practically avoided. [Judgment Exhibit "I" ¶ 1(a).]
- (v) Maintenance and improvement of water quality shall be given prime consideration. [Judgment Exhibit "I" ¶ 1(b).]
- (vi) Financial feasibility, economic impact and the cost and optimum utilization of the Basin's resources and the physical facilities of the parties to the Judgment shall be considered equal in importance to water quantity and quality parameters. [Judgment Exhibit "I" ¶ 1(c).]
- (h) Contents of Groundwater Storage Agreements. Each Groundwater Storage Agreement shall include but not be limited to the following components [Judgment Exhibit "I" ¶ 3]:
  - (i) The quantities and the term of the storage right, which shall specifically exclude credit for any return flows;
  - (ii) A statement of the priorities of the storage right as against overlying, Safe Yield uses, and other storage rights;
  - (iii) The delivery rates, together with schedules and procedures for spreading, injection or in-lieu deliveries of Supplemental Water for direct use;
  - (iv) The calculation of storage water losses and annual accounting for water in storage; and
  - (v) The establishment and administration of withdrawal schedules, locations and methods.
- (i) Accounting. Watermaster shall calculate additions, extractions and losses of all Stored Water in Chino Basin, and any losses of water supplies or Safe Yield of Chino Basin resulting from such Stored Water, and keep and maintain for public record, an annual accounting thereof. [Judgment ¶ 29.]
- (j) No Material Physical Injury. Watermaster will ensure that any party to the Judgment may Recapture water in a manner consistent with the Peace Agreement, the OBMP, the Judgment and these Rules and Regulations. Watermaster shall not approve a Recapture plan if it is inconsistent with the terms of Peace Agreement or will cause Material Physical Injury to any party to the Judgment or the Basin. Any potential or threatened Material Physical Injury to any party to the Judgment or the Basin caused by the Recapture of water by any person shall be fully and reasonably

mitigated as a condition of approval. In the event the Material Physical Injury cannot be fully and reasonably mitigated, the request for Recapture must be denied.

8.2 Local Storage: Special Considerations. Under a Local Storage Agreement with Watermaster, every party to the Judgment shall be permitted to store its Excess Carry-Over Water and Supplemental Water in the Chino Basin according to the following provisions:

- (a) For the term of the Peace Agreement, Watermaster shall ensure that: (a) the quantity of water actually held in local storage under a Local Storage Agreement with Watermaster is confirmed and protected and (b) each party to the Judgment shall have the right to store its Excess Carry-Over Water. Thereafter, a party to the Judgment may continue to Produce the actual quantity of water held pursuant to a Local Storage Agreement, subject only to the loss provisions set forth herein.
- (b) For the term of the Peace Agreement, any party to the Judgment may make Application to Watermaster for a Local Storage Agreement pursuant to the provisions of this Article and Article X, whereby it may store Supplemental Water in the Chino Basin. [Peace Agreement § 5.2(b)(ii).]
- (c) In accordance with Article X, Watermaster shall provide written notice to all interested parties of the proposed Local Storage Agreement prior to approving the agreement.
- (d) Watermaster shall approve the storage of Supplemental Water under a Local Storage Agreement so long as: (1) the total quantity of Supplemental Water authorized to be held in Local Storage under all then-existing Local Storage Agreements, other than amounts classified as Supplemental Water under the procedure set forth in section 8.1 above, for all parties to the Judgment does not exceed the Maximum Local Storage Quantity; (2) the party to the Judgment making the request provides their own Recharge facilities for the purpose of placing the Supplemental Water into Local Storage; (3) the agreement will not result in any Material Physical Injury to any party to the Judgment or the Basin. Watermaster may approve a proposed agreement with conditions that mitigate any threatened or potential Material Physical Injury. [Peace Agreement § 5.2(b)(iv); Second Amendment to Peace Agreement.]
- (e) There shall be a rebuttable presumption that the Local Storage Agreement for Supplemental Water does not result in Material Physical Injury to a Party to the Judgment or the Basin. [Peace Agreement § 5.2(b)(v).]
- (f) In the event more than one party to the Judgment submits a request for an agreement to store Supplemental Water pursuant to a Local Storage Agreement, Watermaster shall give priority to the first party to file a bona fide written request which shall include the name of the party to the Judgment, the source, quantity and quality of the Supplemental Water, an identification of the party to the Judgment's access to or ownership of the Recharge facilities, the duration of the Local Storage and any other information Watermaster shall reasonably request. Watermaster shall not

grant any person the right to store more than the then-existing amount of available Local Storage. The amount of Local Storage available for the storage of Supplemental Water shall be determined by subtracting the previously approved and allocated quantity of storage capacity for Supplemental Water and Excess Carryover Water from the Maximum Local Storage Quantity. [Court's Findings and Order, dated July 21, 2021.] This means Watermaster shall not approve requests for the storage of Supplemental Water and Excess Carryover Water in excess of the Maximum Local Storage Quantity. Priorities among the parties to the Judgment shall be on the basis that the completed Applications filed first in time under the provisions of Article X shall have a priority in right up to the amount of the quantity approved by Watermaster.

- (g) After July 1, 2035, Watermaster shall have discretion to place reasonable limits on the further accrual of Excess Carry-Over Water and Supplemental Water in Local Storage. However, during the term of the Peace Agreement, Watermaster shall not limit the accrual of Excess Carry-Over Water for Fontana Union Mutual Water Company and Cucamonga County Water District when accruing Excess Carry-Over Water in Local Storage pursuant to the Settlement Agreement Among Fontana Union Water Company, Kaiser Steel Resources Inc., San Gabriel Valley Water Company and Cucamonga County Water District dated February 7, 1992, to a quantity less than 25,000 acre-feet for the term of the Peace Agreement. [Peace Agreement § 5.2(b)(x).]
- (h) Watermaster shall evaluate the need for limits on water held in Local Storage to determine whether the accrual of additional Local Storage by the parties to the Judgment should be conditioned, curtailed or prohibited if it is necessary to provide priority for the use of storage capacity for those Storage and Recovery Programs that provide broad mutual benefits to the parties to the Judgment as provided in this paragraph and section 5.2(c) of the Peace Agreement. [Peace Agreement § 5.2(b)(xi).]
- (i) Watermaster will impose a uniform loss against all water in storage in an amount of 2 (two) percent where the Party holding the storage account: (i) has previously contributed to the implementation of the OBMP as a Party to the Judgment, is in compliance with their continuing covenants under the Peace and Peace II Agreements or in lieu thereof they have paid or delivered to Watermaster "financial equivalent" consideration to offset the cost of past performance prior to the implementation of the OBMP and (ii) promised continued future compliance with Watermaster's Rules and Regulations. Where a Party has not satisfied the requirements of subsection (i)(i) and (i)(ii) herein, Watermaster will assess a 6 (six) percent loss. Following a Watermaster determination that Hydraulic Control has been achieved, Watermaster will assess losses of less than 1 (one) percent where the Party satisfies subsection (i)(i) and (i)(ii). [Peace II Agreement § 7.4.]

- (j) Watermaster shall allow water held in storage to be Transferred pursuant to the provisions of section 5.3 of the Peace Agreement as provided in Article X. Storage capacity is not Transferable. [Peace Agreement § 5.2(b)(xiii).]
- (k) Monetary payment shall not be accepted as a form of mitigation for Material Physical Injury where the injury is not confined to a specific party or parties. Where the Material Physical Injury is confined to a specific party or parties, monetary payment may be accepted as a form of mitigation, if acceptable to the affected party or parties.
- (l) Applicants for Local Storage of Supplemental Water agreements shall submit such Application prior to initiation of the placement of the Supplemental Water into storage except as provided in sections 8.1 and 8.2 above.
- (m) Any Supplemental Water stored or recharged in the Basin, except pursuant to a Local Storage Agreement for Supplemental Water with Watermaster, shall be deemed abandoned and not classified as Stored Water. [Judgment ¶ 14.]

8.3 Groundwater Storage and Recovery Program; Special Considerations. The parties, through Watermaster, may initiate a regional Storage and Recovery (sometimes called "conjunctive use") Program, for the mutual benefit of the Appropriators and the Non-Agricultural Pool in the Chino Basin according to the following provisions:

- (a) Watermaster will ensure that no person shall store water in, and recover water from the Basin, other than pursuant to a Local Storage Agreement, without a Storage and Recovery agreement with Watermaster [Peace Agreement § 5.2(c)(i).];
- (b) A proposed Applicant for a Storage and Recovery Program must submit the information set forth in Article X to Watermaster prior to Watermaster's consideration of an Application for a Storage and Recovery agreement;
- (c) As a precondition of any project, program or contract regarding the use of Basin storage capacity pursuant to a Storage and Recovery Program, Watermaster shall first request proposals from qualified persons [Peace Agreement § 5.2(c)(iii).];
- (d) Watermaster shall be guided by the following criteria in evaluating any request to store and recover water from the Basin by a party to the Judgment or any person under a Storage and Recovery Program.
  - (i) The initial target for the cumulative quantity of water held in storage is 500,000 acre-feet in addition to the existing storage accounts. The 500,000 acre-feet target may be comprised of any combination of participants and is in excess of up to an additional 100,000 acre-feet of Supplemental Water and Excess Carry-Over Rights that may be stored under Local Storage Agreements.

- (ii) Watermaster shall prioritize its efforts to regulate and condition the storage and recovery of water developed in a Storage and Recovery Program for the mutual benefit of the parties to the Judgment and give first priority to Storage and Recovery Programs that provide broad mutual benefits. [Peace Agreement § 5.2(c)(iv).];
- (e) The members of the Appropriative Pool and the Non-Agricultural Pool shall be exclusively entitled to the compensation paid for a Storage and Recovery Program irrespective of whether it be in the form of money, revenues, credits, proceeds, programs, facilities, or other contributions (collectively "compensation") with the benefits of such compensation to be spread as broadly as possible as directed by the Non-Agricultural and the Appropriative Pools [Peace Agreement § 5.2(c)(v).];
- (f) The compensation received from the use of available storage capacity under a Storage and Recovery Program, may be used to offset the Watermaster's cost of operation, to reduce any assessments on the parties to the Judgment within the Appropriative and Non-Agricultural Pools, and to defray the costs of capital projects as may be requested by the members of the Non-Agricultural Pools and the Appropriative Pool [Peace Agreement § 5.2(c)(vi).];
- (g) Any potential or threatened Material Physical Injury to any party to the Judgment or the Basin caused by storage and recovery of water, whether Local Storage and recovery or pursuant to a Storage and Recovery Program, shall be reasonably and fully mitigated as a condition of approval [Peace Agreement §§ 5.2(a)(iii) and 5.2(c)(viii) (labeled "(xiii)");
- (h) Watermaster reserves discretion to negotiate appropriate terms and conditions or to deny any request to enter into a Storage and Recovery Program Agreement. With respect to persons who are not parties to the Judgment, Watermaster reserves complete discretion to ensure that maximum compensation, as defined in section (e) above, is received. Watermaster shall base any decision to approve or disapprove any proposed Storage and Recovery Program Agreement upon the record as provided in Article X. However, it may not approve a proposed Storage and Recovery Program Agreement unless it has first imposed conditions to reasonably and fully mitigate any threatened or potential Material Physical Injury [Peace Agreement § 5.2(c)(ix).];
- (i) Any party to the Judgment may seek review of the Watermaster's decision regarding a Storage and Recovery Program Agreement as provided in Article X;
- (j) Nothing herein shall be construed as prohibiting the export of Supplemental Water stored under a Storage and Recovery Program and pursuant to a Storage and Recovery Agreement; and
- (k) The Parties shall indemnify and defend the State of California and the members of the Agricultural Pool against any lawsuit or administrative proceedings, without

limitation, arising from Watermaster's adoption, approval, management, or implementation of a Storage and Recovery Program.

- (l) Any losses from storage assessed as a Leave Behind in excess of actual losses (“dedication quantity”) will be dedicated by Watermaster towards groundwater Production by the Desalters to thereby avoid a Desalter replenishment obligation that may then exist in the year of recovery. Any dedication quantity which is not required to offset Desalter Production in the year in which the loss is assessed, will be made available to the members of the Appropriative Pool. The dedication quantity will be pro-rated among the members of the Appropriative Pool in accordance with each Producer’s combined total share of Operating Safe Yield and the previous year’s actual production. However, before any member of the Appropriative Pool may receive a distribution of any dedication quantity, they must be in full compliance with the 2007 Supplement to the OBMP Implementation Plan and current in all applicable Watermaster assessments. [Peace II Agreement § 7.5.]

#### 8.4 Recapture.

- (a) All Recapture of water held in a storage account under a Groundwater Storage Agreement shall be subject to the requirement that the Recovery of the water not result in Material Physical Injury to a party to the Judgment or the Basin.
- (b) Recapture of water held in a Local Storage Account that pre-exists the adoption of these Rules and Regulations and that was extended by Watermaster in accordance with Article V of the Peace Agreement and these Rules and Regulations until July 1, 2005, shall be in accordance with the provisions of the plan for Recapture previously approved by Watermaster. Any amendments to an approved Recapture plan shall require additional Watermaster's approval under the provisions of Article X.
- (c) A person with an approved plan for Recapture shall have the right to process amendments to the previously approved plan in accordance with the provisions of Article X.

## **ARTICLE IX TRANSFERS**

- 9.0 Scope. Any Transfer shall be made only in accordance with the Judgment, the Peace Agreement section 5.3, the Peace II Agreement, the OBMP and this Article IX.
- 9.1 In General. Watermaster will ensure that any party to the Judgment may Transfer water in a manner that is consistent with the Judgment, the Peace and Peace II Agreements, the OBMP and the law. Watermaster shall approve a Transfer if it is consistent with the terms of the Peace Agreement and Peace II Agreement, and will not cause any Material Physical Injury to any party to the Judgment or the Basin. Any potential or threatened Material Physical Injury to any party to the Judgment or the Basin caused by the Transfer of water shall be fully and reasonably mitigated as a condition of approval. In the event the Material Physical Injury cannot be fully and reasonably mitigated, the request for Transfer must be denied. Upon receipt of written request by Watermaster, a party to the Judgment shall exercise Best Efforts to provide Watermaster with a preliminary projection of any anticipated Transfer of Production within the Year.
- 9.2 Application to Transfer. A party to the Judgment may make Application to Watermaster to Transfer water as provided in the Judgment under the procedures set forth in Article X.
- (a) Watermaster shall provide reasonable advance written notice to all the Active Parties of a proposed Transfer, prior to approving the Transfer as provided in Article X.
  - (b) Watermaster shall approve the Transfer of water as provided in the Judgment so long as the individual Transfer does not result in any Material Physical Injury to any party to the Judgment or the Basin. Watermaster may approve a proposed Transfer with conditions that fully and reasonably mitigate any threatened or potential Material Physical Injury.
  - (c) There shall be a rebuttable presumption that the Transfer and the Production by the transferee does not result in Material Physical Injury to a party to the Judgment or the Basin.
  - (d) Watermaster shall base any decision to approve or disapprove any proposed Transfer upon the record after considering potential impacts associated with the individual Transfer alone and without regard to impacts attributable to any other Transfers. [Peace Agreement § 5.3(b)(v).] However, nothing herein shall be construed as impairing or restraining Watermaster's duty and discretion with regard to cumulative impacts in the context of section 9.3.
  - (e) Transfers which occur between the same parties in the same year shall be considered as a single Transfer for the purpose of determining Material Physical Injury.

- 9.3 Integrated Watermaster Review. In reviewing Transfers under these Rules and Regulations, Watermaster shall exercise reasonable discretion. Watermaster shall review each proposed Transfer based upon the record before it and considering the potential impacts of the proposed Transfer alone. However, Watermaster shall also consider the cumulative impacts of Transfers generally when carrying out its responsibilities to implement the OBMP and Recharge and monitoring programs authorized by these Rules and Regulations or the Judgment.
- (a) Watermaster will evaluate the cumulative physical impact of Transfers on the Basin, if any, by July 1, 2003, and a minimum of once every two years thereafter.
  - (b) Watermaster will take the results of its evaluation into account when carrying out its obligations under section 7.1 of these Rules and Regulations.
- 9.4 Transfer of Non-Agricultural Pool Production Rights. Watermaster shall approve the Transfer or lease of the quantified Production rights of Non-Agricultural Producers within the Non-Agricultural Pool subject to the provisions of section 9.2(b) above. The members of the Overlying (Non-Agricultural) Pool shall have the discretionary right to Transfer or lease their quantified Production rights and carry-over water held in storage accounts in quantities that each member may from time to time individually determine as Transfers in furtherance of the Physical Solution:
- (a) within the Overlying (Non-Agricultural) Pool;
  - (b) to Watermaster in conformance with the procedures described in the Peace Agreement between the Parties therein, dated June 29, 2000; or
  - (c) to Watermaster and thence to members of the Appropriative Pool in accordance with the following guidelines set forth in the Overlying (Non-Agricultural) Pool Pooling Plan:
    - (i) By December 31 of each year, the members of the Overlying (Non-Agricultural) Pool shall notify Watermaster of the amount of water each member shall make available in their individual discretion for purchase by the Appropriators. The Pool Committee of the Overlying (Non-Agricultural) Pool may, by affirmative action of its members from time to time, establish a price for such water or a method pursuant to which such price will be established. By January 31 of each year, Watermaster shall provide a Notice of Availability of each Appropriator's pro-rata share of such water;
    - (ii) Except as they may be limited by paragraph 9.4(v) below, each member of the Appropriative Pool will have, in their discretion, a right to purchase its pro-rata share of the supply made available from the Overlying (Non-Agricultural) Pool at the price at which the water is being offered. Each Appropriative Pool member's pro-rata share of the available supply will be



based on each Producer's combined total share of Operating Safe Yield and the previous year's actual Production by each party;

- (iii) If any member of the Appropriative Pool fails to irrevocably commit to their allocated share by March 1 of each year, its share of the Overlying (Non-Agricultural) Pool water will be made available to all other members of the Appropriative Pool according to the same proportions as described in 9.4(c)(ii) above and at the price at which the water is being offered. Each member of the Appropriative Pool shall complete its payment for its share of water made available by June 30 of each year.
  - (iv) Commensurate with the cumulative commitments by members of the Appropriative Pool pursuant to (ii) and (iii) above, Watermaster will purchase the surplus water made available by the Overlying (Non-Agricultural) Pool water on behalf of the members of the Appropriative Pool on an annual basis at which the water is being offered and each member of the Appropriative Pool shall complete its payment for its determined share of water made available by June 30 of each year.
  - (v) Any surplus water cumulatively made available by all members of the Overlying (Non-Agricultural) Pool that is not purchased by Watermaster after completion of the process set forth herein will be pro-rated among the members of the Pool in proportion to the total quantity offered for transfer in accordance with this provision and may be retained by the Overlying (Non-Agricultural) Pool member without prejudice to the rights of the members of the Pool to make further beneficial use or transfer of the available surplus.
  - (vi) Each Appropriator shall only be eligible to purchase their pro-rata share under this procedure if the party is: (i) current on all their assessments; and (ii) in compliance with the OBMP.
  - (vii) The right of any member of the Overlying (Non-Agricultural) Pool to transfer water in accordance with subsections 9.4(c)(i)–(iii) in any year is dependent upon Watermaster making a finding that the member of the Overlying (Non-Agricultural) Pool is using recycled water where it is both physically available and appropriate for the designated end use in lieu of pumping groundwater.
  - (viii) Nothing herein shall be construed to affect or limit the rights of any Party to offer or accept an assignment as authorized by the Judgment Exhibit “G” paragraph 6 above, or to affect the rights of any Party under a valid assignment.
- (d) In addition, the parties to the Judgment with rights within the Non-Agricultural Pool shall have the additional right to Transfer their rights to Watermaster for the purposes of Replenishment for a Desalter or for a Storage and Recovery Program.

- (e) Any member of the Non-Agricultural Pool (including without limitation any member of the Non-Agricultural Pool that is also a member of the Appropriative Pool) may elect to transfer (a) some or all of the annual share of Operating Safe Yield of the transferor in and for the year in which the transfer occurs (except that such transfer shall exclude any dedication to Watermaster required by Section 5(c) of Exhibit "G" to the Judgment), and (b) any quantity of water held in storage by the transferor (including without limitation carryover and excess carryover) to any member of the Appropriative Pool, in either case at any price that the transferor and transferee may deem appropriate and for the purpose of satisfying the transferee's desalter replenishment obligation. Any such transfer shall be effective upon delivery by the transferor or transferee to Watermaster staff of written notice of such transfer in the form attached hereto as Form 12. The transferee's desalter replenishment obligation shall be credited by the number of acre feet so transferred.

#### 9.5 Early Transfer.

- (a) Pursuant to the Peace Agreement, Watermaster approved an Early Transfer of the quantity of water not Produced by the Agricultural Pool that is remaining after all the land use conversions are satisfied pursuant to section 5.3(h) of the Peace Agreement to the Appropriative Pool. The quantity of water subject to Early Transfer under this section shall be the quantity of water not Produced by the Agricultural Pool that is remaining after all the land use conversions are satisfied pursuant to section 5.3(h) of the Peace Agreement.
  - (i) The Transfer shall not limit the Production right of the Agricultural Pool under the Judgment to Produce up to 82,800 acre-feet of water in any year or 414,000 acre-feet in any five years as provided in the Judgment. [Peace Agreement § 5.3(g)(ii).]
  - (ii) The combined Production of all parties to the Judgment shall not cause a Replenishment assessment on the members of the Agricultural Pool. The Agricultural Pool shall be responsible for any Replenishment obligation created by the Agricultural Pool Producing more than 414,000 acre-feet in any five-year period. [Peace Agreement § 5.3(g)(iii).]
  - (iii) Nothing herein shall be construed as modifying the procedures or voting rights within or by the members of the Agricultural Pool. [Peace Agreement § 5.3(g)(v).]
- (b) The amount of water converted from agricultural use to urban use prior to execution of the Peace Agreement was 2.6 acre-feet per acre, with 1.3 acre-feet per acre being allocated collectively to all members of the Appropriative Pool with an assigned share of Operating Safe Yield and 1.3 acre-feet per acre being allocated to that Appropriator providing service for that urban use. The rate of 2.6 acre-feet per acre shall be changed to a total of 2.0 acre-feet per acre, all of which shall be allocated upon the conversion of the land use to that party to the Judgment which is a member of the Appropriative Pool, on the Effective Date of the Peace Agreement, and

whose Sphere of Influence or authorized service area contains the land ("purveyor"). Upon such conversion of water use the purveyor will pledge that the amount of water needed for such urban land use, when such urban land use is established, up to 2.0 acre-feet of water per acre of land per year will be made available for service for such converted land by purveyor under its then existing standard laws, regulations, rules and policies, or for service arranged by such purveyor, subject only to prohibition of such service by a federal, state agency or court with jurisdiction to enforce such prohibition. The owner of such converted land shall have the right to enforce such pledge by specific performance or writ of mandate under the terms of the Peace Agreement. No monetary damages shall be awarded.

- 9.6 Voluntary Agreement. The members of the Agricultural Pool, including the State of California, shall have the right to engage in a voluntary agreement with an Appropriator which has a service area contiguous to or inclusive of the agricultural land, to provide water allocated from the Agricultural Pool to the overlying land for agricultural use on behalf of the member of the Agricultural Pool unless otherwise prohibited by general law. The Appropriator providing service shall be entitled to a pumping credit to offset Production pursuant to the Peace Agreement section 5.3(i). This provision will be construed as permitting Watermaster to accept new voluntary agreements only to the extent that such voluntary agreements occur within areas eligible for conversion as described in Attachment 1 to the Judgment, previously added to the Judgment as an amendment of the Order of the Court dated November 17, 1995.
- 9.7 Assignment of Overlying Rights. In addition to the Voluntary Agreement under section 9.6 above, should an Appropriator take an assignment of rights from a Non-Agricultural Pool member, the agreement shall provide that the Appropriator may undertake to provide water service to such overlying land, but only to the extent necessary to provide water service to said overlying lands. Watermaster shall make available to members of the Non-Agricultural Pool and/or Appropriative Pool, a standard form which shall be completed and filed with Watermaster. Any assignment, lease and/or license shall be ineffective unless provided on the standard form approved by Watermaster and filed with Watermaster. [Based on Judgment Exhibit "H" ¶ 13; Exhibit "G" ¶ 6.]

**ARTICLE X**  
**APPLICATIONS, CONTESTS AND COMPLAINTS**

- 10.0 Purpose. This Article sets forth the Watermaster rules and procedures for processing requests by a person for: (i) Watermaster approval of Recharge and Transfer; (ii) Qualifying Storage and Recapture; (iii) amendments to previously approved Applications; (iv) reimbursement or a credit for costs incurred by a party to the Judgment in furtherance of the OBMP; and (v) a Complaint for redress arising from an alleged Material Physical Injury to a party to the Judgment or the Basin. However, the procedures described in this Article X shall not be construed to apply to Watermaster actions, decisions, or rules other than as expressly set forth herein. All proceedings hereunder shall be conducted in an expeditious manner.
- 10.1 Notice and Opportunity to be Heard. Watermaster shall provide reasonable notice and opportunity to be heard to any person requesting Watermaster review or approval of any matter arising under this Article.
- 10.2 Judicial Review.
- (a) The Complaint procedures set forth in this Article X are not intended to constitute an exclusive remedy or constitute a requirement that a party to the Judgment exhaust this discretionary remedy. However, a party to the Judgment may elect to avail itself of the procedures set forth herein by filing a Complaint and requesting relief from any actual or threatened Material Physical Injury to any person or to the Basin where the alleged injury arises from the Recharge, Transfer or Qualifying Storage or Recapture of water by any person other than Watermaster.
  - (b) Once a party to the Judgment elects to pursue redress under the provisions of this Article, it shall exhaust this process until conclusion unless there is a sudden, unexpected event or emergency that causes a need for immediate judicial review or in the event that the Watermaster has failed to take action on a longstanding request. Thus, other than in the event of an emergency or where Watermaster has engaged in undue delay, a party to the Judgment may not seek judicial review of a Watermaster action on a pending Application or Complaint until the Watermaster Board has taken final action under the provisions of this Article. However, the procedures described in this Article X shall not preclude any party from seeking judicial review of any action, decision or rule of Watermaster in accordance with paragraph 31 of the Judgment.
- 10.3 Applications for Watermaster Approval: In General. Any party to the Judgment requesting approval by Watermaster for the Recharge, Transfer, Qualifying Storage or Recapture of water in the Basin, or reimbursements or credits against OBMP Assessments, or any person requesting approval of an agreement to participate in a Storage and Recovery Program, may make Application to Watermaster as provided in these Rules and Regulations.
- (a) Requests for Watermaster approval shall be processed by Application to the Watermaster.

- (b) All Applications shall be submitted to Watermaster in compliance with the requirements set forth in this Article. Approved forms for use by persons requesting Watermaster approval pursuant to this section are attached hereto as Appendix 1. Watermaster shall have no obligation to process incomplete Applications.
- (c) No person shall obtain a right to engage in the activities subject to an Application to Watermaster under these Rules and Regulations or the Judgment unless and until the proposed action is approved by Watermaster as provided herein.
- (d) Upon approval by Watermaster, the person shall have the right to proceed in accordance with the terms and conditions of the Watermaster approval. The rights of a party shall be construed consistent with the Judgment and subject to the terms and conditions set forth in Watermaster's approval.

10.4 Recharge Applications. Any party to the Judgment may make a request for Watermaster approval to engage in Recharge by submitting an Application to Watermaster that includes the following information.

- (a) The identity of the person proposing to engage in Recharge;
- (b) The quantity of water to be Recharged;
- (c) The quality of water to be Recharged;
- (d) The duration of the Recharge;
- (e) The method of the Recharge; and
- (f) The facilities to be used in the Recharge, and their location.

10.5 Transfer Applications. Any party to the Judgment may request Watermaster's approval for a Transfer by submitting an Application to Watermaster. A party to the Judgment that Produces water may in the same Fiscal Year request approval of a Transfer to offset all or a portion of its Replenishment Obligation, subject to the Watermaster's authority to approve or reject the Application under the provisions of this Article. An Application for Transfer shall include the following information:

- (a) The identity of the transferee and transferor;
- (b) The maximum quantity of water to be Transferred;
- (c) The duration of the Recovery of the quantity of water Transferred;
- (d) The location of the Production facilities from which the water will be Transferred, if known;
- (e) The location of the Production facilities from which the Transferred water will be Recaptured and Produced, if known; and

- (f) The rate of extraction at which the Transferred water will be Recaptured and Produced.

10.6 Qualifying Storage Agreements. A party to the Judgment may request Watermaster's approval of a Local Storage Agreement to store Supplemental Water, or, after July 1, 2005, a party to the Judgment may request Watermaster's approval of the accumulation of Excess Carry-Over Water in the event the party's aggregate Carry-Over Water exceeds its share of assigned Operating Safe Yield or Safe Yield. Prior to July 1, 2005, a party to the Judgment shall also be required to obtain a Local Storage Agreement to store Excess Carry-Over Water, and Watermaster shall approve such agreements under uniform terms and conditions. In addition, so long as there is then less than 100,000 acre-feet of Supplemental Water that was placed in Local Storage after July 1, 2000, a party to the Judgment's request to store Supplemental Water under a Local Storage Agreement shall be approved by Watermaster. The Applicant may include a plan for Recapture within the request for approval of the Qualifying Storage or subsequently identify the proposed plan for Recapture under an independent Application for Recapture or combine the request for subsequent approval in an Application for Transfer.

- (a) Any party to the Judgment may file an Application to store Supplemental Water pursuant to a Local Storage Agreement. The Application shall include the following information:
  - (i) The identity of the person(s) that will Recharge, Store and Recover the water;
  - (ii) The quantity of Supplemental Water to be Stored and Recovered;
  - (iii) The proposed schedule and method for the Recharge of water for Storage, if any;
  - (iv) The proposed schedule for Recovery, if any;
  - (v) The location of the Recharge facilities through which the Stored water will be Recharged, if any;
  - (vi) The location of the Production facilities through which the Stored water will be Recovered, if known; and
  - (vii) The water levels and water quality of groundwater in the areas likely to be affected by the storage and Recovery.
- (b) Each Producer shall have the right to store its un-Produced Carry-Over Water in the Basin. Excess Carry-Over Water placed into Local Storage after July 1, 2005 shall require a Local Storage Agreement with Watermaster. A Producer may file an Application prior to July 1, 2005 for a Local Storage Agreement for Excess Carry-Over Water that will be placed into Local Storage after July 1, 2005. Such an Application shall include the following information:

- (i) The identity of the person(s) that will store and Recover the Carry-Over Water;
- (ii) The quantity of Carry-Over Water to be stored and Recovered;
- (iii) The proposed schedule for the Recovery, to the extent known;
- (iv) The location of the Production facilities through which the stored Carry-Over Water will be Recovered, to the extent known; and
- (v) The water levels and water quality of Groundwater in the areas likely to be affected by the Production of the stored Carry-Over Water.

10.7 Storage and Recovery Program. Any person may request Watermaster's approval of an Agreement to participate in a Storage and Recovery Program by submitting an Application to Watermaster that, at a minimum, includes the following information:

- (a) The identity of the person(s) that will Recharge, store and Recover the water as well as its ultimate place of use;
- (b) The quantity of water to be Stored and Recovered;
- (c) The proposed schedule for the Recharge of water for storage, if any;
- (d) The proposed schedule and method for Recovery;
- (e) The location of the Recharge facilities through which the Stored Water will be Recharged;
- (f) The location of the Production facilities through which the Stored Water will be Recovered;
- (g) The water levels and water quality of the Groundwater in the areas likely to be affected by the Storage and Recovery, if known; and
- (h) Any other information that Watermaster requires to be included.

10.8 Recapture. Any person may file an Application for approval of its Recovery of water held in storage. Recapture of water may be approved by Watermaster as a component of and coincident with a request for approval of Qualifying Storage or a Transfer. However, an Applicant for Qualifying Storage may request, and Watermaster may approve, a Groundwater Storage Agreement where the plan for Recovery is not yet known. An Application for Recapture shall include the following information:

- (a) The identity of the person(s) that Recharged and stored the water;
- (b) The identity of the person(s) that will Recover the water as well as its ultimate place of use;

- (c) The quantity of water to be Recovered;
- (d) The proposed schedule for Recovery;
- (e) The location of the Production facilities through which the Stored Water will be Recovered;
- (f) The existing water levels and water quality of the Groundwater in the areas likely to be affected by the Recovery; and
- (g) Any other information that Watermaster requires to be included.

10.9 Credits Against OBMP Assessments and Reimbursements. Any Producer, including the State of California, may make Application to Watermaster to obtain a credit against OBMP Assessments or for reimbursements by filing an Application that includes the following information:

- (a) The identity of the party to the Judgment;
- (b) The specific purposes of the OBMP satisfied by the proposed project;
- (c) The time the project is proposed to be implemented and a schedule for completion;
- (d) The projected cumulative project costs; and
- (e) The specific capital or operations and maintenance expenses incurred in the implementation of any project or program, including the cost of relocating Groundwater Production facilities.

10.10 Watermaster Summary and Notification of a Pending Application. Upon Watermaster's receipt of an Application for Recharge, Transfer, Storage, Recapture or for a credit or reimbursement, Watermaster shall prepare a written summary and an analysis (which will include an analysis of the potential for Material Physical Injury) of the Application and provide Active Parties with a copy of the written summary and advance notice of the date of Watermaster's scheduled consideration and possible action on any pending Applications. The notice shall be accompanied by the Watermaster summary and analysis and it shall reasonably describe the contents of the Application and the action requested by the Applicant. Watermaster shall provide the following minimum notice to the Active Parties:

- (a) Applications for Recharge: 30 (thirty) days.
- (b) Applications for Transfer: 30 (thirty) days.
- (c) Applications for Storage and Recovery: 90 (ninety) days.
- (d) Local Storage Agreement or Recapture: 30 (thirty) days.



- 10.11 All Applications Considered by Pool Committees. All Applications shall be considered by the Pool Committees. Following its completion of the summary and analysis and the issuance of the required notice as provided in section 10.10, Watermaster Staff shall place the Application on the first available Pool Committee Agenda for each of the respective Pool Committees for consideration, discussion, recommendations or proposed conditions. The Application shall not be considered by the Advisory Committee until at least twenty-one (21) days after the last of the three Pool Committee meetings to consider the matter.
- 10.12 Watermaster Investigations of Applications. Watermaster may, in its discretion, cause an investigation of the Groundwater or the portion of the Basin affected by a pending Application. Any party to the proceeding may be requested to confer and cooperate with the Watermaster, its staff or consultants to carry out such investigations.
- 10.13 Contesting an Application. Following consideration of an Application by each Pool Committee, a Contest to the Application may be filed by any party to the Judgment. Contests to Applications filed by parties to the Judgment or other persons requesting Watermaster's approval pursuant to this Article shall be submitted in writing a minimum of fourteen (14) days prior to the date scheduled for Advisory Committee consideration and possible action. The Contest shall describe the basis for the Contest and the underlying facts and circumstances. Watermaster shall provide notice of the Contest to the Active Parties.
- 10.14 Contents of a Contest.
- (a) Each Contest shall include the name and address of the Contestant and show that the Contestant has read either the application or the related notice.
  - (b) If the Contest is based upon the allegation that the proposed action may result in Material Physical Injury to a party to the Judgment or the Basin, there shall be an allegation of the specific injury to the Contestant or to the Basin which may result from the proposed action and an identification of any then available evidence to support the allegation. If the Contest identifies documentary evidence other than Watermaster records or files, the Contestant shall serve copies of the documentary evidence on Watermaster and the Applicant seven (7) days prior to the hearing. If relevant to the Contest, the Contestant shall provide Watermaster with the location of the Contestant's extraction and place of use. The location shall be described with sufficient accuracy so that the position thereof relative to the proposed action may be determined. If relevant to the Contest, the Contestant shall describe the Contestant's purpose of use.
  - (c) If a Contest is based upon other grounds it shall summarize the grounds of the Contest.
  - (d) The Contest shall set forth any conditions or amendments to the proposed action which, if agreed upon, would result in withdrawal of the Contest.

- (e) If Watermaster finds the Contest fails to comply with this provision, it may reject the Contest and deny the request for hearing if the Contestant fails to correct the defect and file a proper Contest within five (5) business days of the Watermaster's rejection. In any instance where a rebuttable presumption is applicable, the Watermaster shall include a statement in the rejection of the Contest that the Contestant has failed to reference any potential substantial evidence to overcome the presumption of no Material Physical Injury.
- 10.15 Extensions of Time and Continuance for Good Cause. An Applicant or Contestant may request an extension of time to file a Contest and Answer or for a continuance of a scheduled hearing and the request may be granted by Watermaster staff where good cause exists.
- 10.16 Applicant May Answer the Contest. An Applicant or project proponent may elect to file a written Answer to any Contest.
- (a) Contents. An Answer shall be responsive to the allegations contained in the Contest.
  - (b) Time for Filing. Answers shall be filed at least seven (7) days prior to the scheduled hearing. If the Applicant intends to rely on documentary evidence other than Watermaster records or files, the Applicant shall serve copies of the documentary evidence upon Watermaster and the Contestant a minimum of three (3) days prior to the hearing.
- 10.17 Uncontested Applications by Parties to the Judgment.
- (a) The Advisory Committee and Board shall consider and may approve any uncontested Application. No hearing shall be required for an uncontested Application by a party to the Judgment unless there is good cause to hold a hearing. Where good cause appears, the Advisory Committee and the Board may deny, condition, or continue an uncontested Application. However, Watermaster shall not deny an Application until it has referred the matter to a hearing officer. In the case of a proposed denial or conditional approval, and upon the request of the Applicant, Watermaster shall schedule an appropriate and timely hearing in general conformity with this Article X.
  - (b) An uncontested Application shall be considered at the first regularly scheduled meeting of the Advisory Committee following the expiration of the Contest period.
  - (c) The Advisory Committee shall consider the Application, the staff Summary and Analysis and staff report and any rebuttable presumption that may be applicable and make any determinations under the Judgment in accordance with the provisions of section 10.25 herein.
  - (d) Following consideration by the Advisory Committee, the matter shall be transmitted to the Board for consideration. The Board shall also consider the

Application, the staff summary and Analysis and staff report and any rebuttable presumption that may be applicable, as well as the Advisory Committee action consistent with the Judgment. The Board's determination shall be made in accordance with the provisions of section 10.25 herein.

- (e) In each case where Watermaster the Advisory Committee or Board denies or conditions an uncontested Application made by a party to the Judgment, it must support its determination by substantial evidence and act in a manner that is consistent with the Judgment and the Peace Agreement.
- 10.18 Contested Applications. In each case where a Contest is filed, the matter shall be set for hearing by Watermaster staff in coordination with the hearing officer and the parties to the proceeding.
- 10.19 Applications by Persons not Parties to the Judgment. In its sole discretion, Watermaster may review, consider, process and decide upon Applications made by persons not parties to the Judgment. However, Watermaster may not approve or conditionally approve such an Application without first holding a hearing in accordance with this Article X.
- 10.20 Complaints in General. Any party to the Judgment may file a Complaint with Watermaster alleging that the conduct of another person is causing or will cause Material Physical Injury in violation of these Rules and Regulations, the Judgment and the Peace Agreement.
- (a) The Complaint shall identify the name of the Complainant, the specific action or conduct that is causing or will or may cause Material Physical Injury, and any recommended mitigation measures or conditions that might avoid or reduce the alleged Material Physical Injury.
  - (b) Upon receipt of the Complaint by Watermaster, it shall prepare a summary of the allegations and serve the summary along with a notice of the Complaint to the parties to the Judgment within 30 (thirty) days from filing.
  - (c) Any party to the Judgment may file an Answer to the Complaint within 14 (fourteen) days of the date of the notice of Complaint or other time as may be prescribed in the Watermaster notice of the Complaint.
  - (d) Watermaster shall schedule a hearing on the Complaint within 30 (thirty) days of the notice of the Complaint.
  - (e) A party to the Judgment's failure to appear or Contest a hearing on the approval of an Application of any matter before Watermaster shall not be a bar to the party's right to file a Complaint as provided herein. However, a party shall not be permitted to file a Complaint if it knew or should have known of a particular harm that that party would suffer and had a reasonable opportunity to object at the time of the original approval process but did not file such a Contest.

- (f) Any party to the Judgment may request an extension of time to file an Answer or to continue the hearing, which may be granted for good cause by Watermaster.
  - (g) Any party to a Complaint proceeding that intends to rely upon documentary evidence at the hearing, other than Watermaster documents or files, shall serve copies of the evidence upon Watermaster and the other parties to the proceeding a minimum of seven (7) days in advance of the hearing.
  - (h) Watermaster may, in its discretion, cause an investigation of the injury alleged to exist by the pending Complaint. Any party to the proceeding may be requested to confer and cooperate with the Watermaster, its staff or consultants to carry out such investigations.
- 10.21 All Complaints Considered by Pool Committees. All Complaints shall be considered by the Pool Committees. Following consideration by the respective Pool Committees, if the Complaint is not dismissed any person(s) directly impacted by the Complaint may file an Answer in accordance with the provisions of section 10.16 and the Complaint shall be set for hearing.
- 10.22 Designation of Hearing Officer for Applications, Contests and Complaints. The Watermaster Board shall develop and maintain a panel of five individuals that have technical expertise and some familiarity with the Basin. The hearing officer shall be selected by the mutual agreement of each side. If mutual agreement cannot be reached, each side to any hearing on an Application or Complaint shall rank their preferred hearing officer from one (1) to five (5). The panel member receiving the highest total score shall be selected by the Watermaster Board as the Hearing Officer, unless he or she is unable to serve in which case the panel member receiving the next highest rank shall be selected. Ties shall be broken by vote of the Watermaster Board. Watermaster may add or remove new members to the five member panel from time to time or as circumstances may warrant. There shall be only two sides in any hearing and intervenors shall be assigned to a side.
- 10.23 Duty of the Hearing Officer. The hearing officer shall conduct the hearings in accordance with the provisions of this Article. It shall be the responsibility of the hearing officer to compile the record, develop proposed findings and recommendations supported by substantial evidence in the record within thirty days of the hearing and transmit the record to the Advisory Committee and thereafter the Watermaster Board for further action. The hearing officer shall have and shall exercise the power to regulate all proceedings in any matter before it, and to take and do all acts and measures necessary or proper for the efficient performance of its duties.
- 10.24 Procedure at Hearings on Applications, Contests and Complaints
- (a) Parties Recognized at Hearing. Only the Applicant(s), Contestant(s), Watermaster staff and other party or parties to the Judgment which the hearing officer, in its discretion, allows to intervene as Applicant or Contestant, may be allowed to appear at the hearing.

- (b) Appearances. Persons appearing on their own behalf shall identify themselves at the beginning of the hearing. When a person is represented by an agent or attorney, such agent or attorney shall likewise enter an appearance before the hearing officer and thereafter will be recognized as fully controlling the case on behalf of that party to the proceeding.
- (c) Conduct of Hearings. Hearings shall be open to the public. The hearing officer has and shall exercise the power to regulate all proceedings in any manner before it, and to do all acts and take all measures necessary or proper for the efficient performance of its duties. The hearing officer may rule on the admissibility of evidence and may exercise such further and incidental authority as necessary for the conduct of the proceedings.
- (d) Evidence. The hearing need not be conducted according to technical rules of evidence and witnesses. Any relevant, non-repetitive evidence shall be admitted if it is the sort of evidence on which responsible persons are accustomed to rely in the conduct of serious affairs. Hearsay evidence may be used for the purpose of supplementing or explaining any direct evidence but shall not be sufficient by itself to support a finding unless it would be admissible over objection in civil actions.
- (e) Rebuttable Presumption. A rebuttable presumption under these Rules and Regulations means that the presumption shall be sufficient to approve an Application, unless a party to the Judgment opposing the Application produces substantial evidence to rebut the presumption. Once the party to the Judgment opposing the Application produces substantial evidence in support of their contention that an action may cause Material Physical Injury to a party to the Judgment or the Basin, the presumption shall be deemed rebutted.
- (f) Official Notice. Before or after submission of a matter for decision, official notice may be taken by the Hearing Officer of such facts as may be judicially noticed by the courts of this State.
- (g) Evidence by Reference. Public records of Watermaster which are relevant to the subject of the hearing and books, reports or other papers and pleadings which have been prepared by Watermaster and submitted previously to the Court, may in the discretion of the hearing officer, be received into evidence as exhibits without the need of supplying copies to Watermaster or other parties to the proceeding.
- (h) Examination of Witnesses. Each party to the proceeding shall have the right to call and examine witnesses and introduce exhibits. Watermaster staff and consultants may participate in the hearing as appropriate, using their technical knowledge and experience for the primary purpose of developing a full, fair and accurate record, including the questioning of any witness or the agents for any party to the proceeding
- (i) Order of Procedure. There shall be an opening statement by Watermaster staff, summarizing the subject matter and purpose of the hearing and the procedures to

be followed. The designated hearing officer will then ask all persons wishing to participate in the hearing to identify themselves. Staff shall present any written reports, or summary of any findings resulting from an investigation of the Application or the Complaint. The Applicant or the Complainant shall then proceed in the case in chief, followed by the Contestant(s) or the Respondents. The Applicant and the Complainant will then be afforded an opportunity to present any responsive evidence. The hearing officer may allow further response as the interests of justice may require. Questions from the hearing officer or Watermaster staff shall be appropriate at any time.

- (j) Opening Statements and Closing Briefs. Prior to presenting their case, any party to the proceeding may file a written opening statement, or may make an oral opening statement, the length of which may be prescribed by the hearing officer. At the close of the hearing, if the hearing officer deems it advisable, time will be allowed for the filing of written briefs.
- (k) Record. The record of the hearing shall consist of all documents submitted for consideration as well as all testimony presented. Tape recordings of all testimony shall be made. Any party, at that party's sole expense, may have a court reporter present at the hearing.
- (l) Completion of Record. The Hearing Officer may request assistance from Watermaster staff and general counsel in completing the record, proposed findings and recommendations. The Hearing Officer shall transmit his or her proposed findings to the Advisory Committee within thirty days of the close of the hearing. The proposed findings of the hearing officer shall be based upon substantial evidence in the record.

#### 10.25 Watermaster Determinations.

- (a) Watermaster shall consider and may approve, deny, or condition any contested Application. Prior to rendering a determination on a contested Application or a Complaint, both the Advisory Committee or the Board may also each remand the matter for further findings by the hearing officer a maximum of one time each. The hearing officer shall conduct any additional hearings and complete its review and rehearing and transmit its subsequent report to the Advisory Committee within thirty days from the date of notice from Watermaster of the need for additional findings.
- (b) A contested Application or a Complaint shall be considered at the first regularly scheduled meeting of the Advisory Committee following the transmittal of the record, proposed findings of fact and recommendations by the hearing officer and no later than 30 days from the date of the hearing. The Advisory Committee shall consider the Application, the staff summary and analysis and staff report, any rebuttable presumption, the Contest, Answer, the record, proposed findings of fact and any recommendations of the hearing officer. The Advisory Committee may amend, modify, accept or reject the report of the hearing officer, or it may direct

the hearing officer to conduct a re-hearing to receive additional evidence, direct the filing of additional briefs or request oral argument.

- (i) The findings and decision adopted by the Advisory Committee shall be supported by citations to substantial evidence in the record.
  - (ii) If the Advisory Committee fails to base its decision on substantial evidence in the record or fails to consider the proposed findings of fact developed by the Hearing Officer, subject to the right of the Advisory Committee to remand for further findings, any Advisory Committee mandate shall not be binding on the Watermaster Board. This provision shall not be considered in construing the power of the Watermaster Board or the Advisory Committee that may exist under the Judgment.
- (c) Following consideration by the Advisory Committee, the matter shall be transmitted to the Board for consideration within the next thirty (30) days. The Board shall also consider the Application, the staff summary, analysis and staff report, any rebuttable presumption that may be applicable, the Contest, the Answer, the record, the proposed findings of fact and recommendations of the hearing officer, as well as the Advisory Committee action consistent with the Judgment. The Watermaster Board may amend, modify, accept or reject the report of the hearing officer, or it may direct the hearing officer to conduct a re-hearing to receive additional evidence, direct the filing of additional briefs or request oral argument. If the Board directs the hearing officer to conduct a re-hearing, then the proposed findings of fact and any recommendations shall be transmitted to the Advisory Committee for re-consideration prior to transmittal to the Board.
- (d) Watermaster Action. In acting upon a Complaint, or by approving, denying or conditioning in whole or in part any Application under this Article, the determinations made by the Watermaster Advisory Committee and Board shall be based upon substantial evidence in the record developed by the hearing officer and then before the Advisory Committee and Board. In making such determinations, the Advisory Committee and Board shall act in a manner consistent with the Judgment, the Peace Agreement and these Rules and Regulations. Each shall support its determinations by written findings. Each shall consider all relevant evidence presented and give due consideration to the policies and purposes set forth in the Judgment as well as Article X, section 2 of the Peace Agreement and the OBMP Implementation Plan.
- (e) No Restriction on Rights to Judicial Review Following Determination by Watermaster. Nothing herein shall be construed as imposing any limitation on any party's rights to seek judicial review of a Watermaster decision under this Article pursuant to paragraph 31 of the Judgment once Watermaster has rendered a decision on the respective Application or, in the case of a Complaint, to seek judicial review of a Watermaster decision where a party to the Judgment has elected to pursue Watermaster review of an action under this Article.

- (f) Emergency Review. In the event of a sudden, unforeseen and unexpected emergency impacting the health, safety and welfare of a party to the Judgment or the Basin, the party to the Judgment may seek immediate judicial review in accordance with the provisions of the Judgment and the Local Rules.
- (g) Undue Delay. Absent a Watermaster determination that extraordinary circumstances exist, Watermaster shall render its final decision on any Application filed under this Article within 180 days from the date the Application is deemed complete by Watermaster Staff. In the event Watermaster fails to offer a satisfactory response to repeated requests by a party to the Judgment to approve, deny or condition an Application or to rule on a Complaint, a party to the Judgment may request judicial review of the matter prior to the final Watermaster action.
- (h) Effective Date of Watermaster Action.
  - (i) For purposes of judicial review, any action determination or rule of Watermaster shall be the date on which the decision is filed.
  - (ii) For the purposes of determining the date on which an approved Application pursuant to Article X shall be considered effective, the approval shall relate back to date the completed Application is filed.

#### 10.26 Application, Contests, Complaints Fees and Expenses.

- (a) Each party to the proceeding shall bear its own costs and expenses associated with the proceeding.
- (b) Watermaster's summary and analysis and participation in any hearing under this Article X shall be considered a general Watermaster administrative expense.
- (c) Upon request by the Agricultural Pool, Non-Agricultural Pool, or Appropriative Pool, the parties shall renegotiate this section 10.26. This renegotiation shall consider, but shall not be limited to, the adoption of a Court-approved resolution to address potential costs, fees and procedures incurred by parties to the Judgment and Watermaster in resolving frivolous and repetitiously unsuccessful similar contests.
- (d) Nothing herein shall be construed as precluding the right or claim by any party to the Judgment to request a reviewing Court under paragraph 31 of the Judgment to award litigation fees and costs to the extent such fees and costs may be available under general law.



# EXHIBIT A

## TECHNICAL MEMORANDUM

DATE: October 6, 2022

TO: Peter Kavounas, Chino Basin Watermaster

FROM: Garrett Rapp, PE, RCE #86007  
Eric Chiang, PhD  
Lauren Sather, PhD

REVIEWED BY: Mark Wildermuth, PE, RCE #32331  
Andy Malone, PG #8700

SUBJECT: 2022 Update of the Chino Basin Safe Yield Reset Methodology

Project No.: 941-80-22-32  
SENT VIA: EMAIL



This Technical Memorandum (TM) documents West Yost's findings related to the development of an updated Safe Yield Reset methodology. This TM was prepared pursuant to the scope of work<sup>1</sup> to comply with the April 28, 2017, Court Order regarding the Safe Yield of the Chino Basin (2017 Court Order).<sup>2</sup>

### 1.0 BACKGROUND AND OBJECTIVES

The Chino Basin Judgment defines the Safe Yield as the "long-term average annual quantity of ground water (excluding replenishment or stored water but including return flow to the Basin from use of replenishment or stored water) which can be produced from the Basin under cultural conditions of a particular year without causing an undesirable result."<sup>3</sup> The Judgment set the initial Safe Yield at 140,000 acre-feet per year (afy).

The Judgment also provides for a Physical Solution to provide maximum flexibility and adaptability in order that Watermaster and the Court may be free to use existing and future technological, social, institutional, and economic options in order to maximize the beneficial use of the Chino Basin.<sup>4</sup>

<sup>1</sup> The scope of work is described in Exhibit B of West Yost's October 29, 2021 letter

[http://www.cbwm.org/docs/othermeetings/2021%2010%2026%20-%20Safe%20Yield%20Reset%20Methodology%20Peer%20Review/downloads/20211029\\_SYCourtOrder\\_Supp\\_Scope\\_Budget.pdf](http://www.cbwm.org/docs/othermeetings/2021%2010%2026%20-%20Safe%20Yield%20Reset%20Methodology%20Peer%20Review/downloads/20211029_SYCourtOrder_Supp_Scope_Budget.pdf)

<sup>2</sup> *Orders for Watermaster's Motion Regarding the 2015 Safe Yield Reset Agreement, Amendment of Restated Judgment*, Paragraph 6, Superior Court for the County of San Bernardino (2017),  
<http://www.cbwm.org/docs/WatermasterCourtFilings/2017/20170418%20Further%20Revised%20Proposed%20Order%20re%20SYRA%20and%20Final%20Rulings%20and%20Order%20for%20Oral%20Argument.pdf>

<sup>3</sup> Section I.4.x of the *2012 Chino Basin Restated Judgment*,  
<http://www.cbwm.org/docs/WatermasterCourtFilings/2012/2012%20Watermaster%20Restated%20Judgment.pdf>

<sup>4</sup> See paragraph 40 of the *2012 Chino Basin Restated Judgment*

Watermaster's Optimum Basin Management Program (OBMP) Implementation Plan called for an initial redetermination of the Safe Yield in 2011 using monitoring data collected during the period of 2001 through 2010.<sup>5</sup> This was incorporated as a requirement in Watermaster's Rules and Regulations.<sup>6</sup> In 2012, Watermaster began an investigation to recalculate the Safe Yield of the Chino Basin, which was completed in 2015. The investigation developed and implemented a methodology to calculate Safe Yield and concluded that the Safe Yield for the period of fiscal year (FY) 2010/11 through 2019/20 was 135,000 afy (WEI, 2015).<sup>7</sup> The methodology used to calculate the Safe Yield was approved in the 2017 Court Order and is described below:

*"The methodology to redetermine the Safe Yield for 2010/11 and the recommended methodology for future Safe Yield evaluations is listed below. This methodology is consistent with professional custom, standard and practice, and the definition of Safe Yield in the Judgment and the Physical Solution.*

1. *Use the data collected during 2000/01 to 2009/10 (and in the case of subsequent resets newly collected data) in the re-calibration process for the Watermaster's groundwater-flow model.*
2. *Use a long-term historical record of precipitation falling on current and projected future land uses to estimate the long-term average net recharge to the Basin.*
3. *Describe the current and projected future cultural conditions, including, but not limited to the plans for pumping, stormwater recharge and supplemental-water recharge.*
4. *With the information generated in [1] through [3] above, use the groundwater-flow model to redetermine the net recharge to the Chino Basin taking into account the then existing current and projected future cultural conditions.*
5. *Qualitatively evaluate whether the groundwater production at the net recharge rate estimated in [4] above will cause or threaten to cause "undesirable results" or "Material Physical Injury". If groundwater production at net recharge rate estimated in [4] above will cause or threaten to cause "undesirable results" or "Material Physical Injury" then Watermaster will identify and implement prudent measures necessary to mitigate "undesirable results" or "Material Physical Injury", set the value of Safe Yield to ensure there is no "undesirable results" or "Material Physical Injury", or implement a combination of mitigation measures and a changed Safe Yield."*

In addition to approving the current Safe Yield Reset methodology, the 2017 Court Order included provisions regarding potential future updates to the Safe Yield Reset methodology:

*"4.4 Safe Yield Reset Methodology. [...] In furtherance of the goal of maximizing the beneficial use of the waters of the Chino Basin, Watermaster, with the recommendation and advice of the Pools and Advisory Committee, may supplement the Reset Technical Memorandum's methodology to*

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<sup>5</sup> OBMP Implementation Plan, p. 44-45, Program Element 8 – Develop and Implement Groundwater Storage Management Program, Program Element 9 – Develop and Implement Storage and Recovery Program, [http://www.cbwm.org/docs/legaldocs/Implementation\\_Plan.pdf](http://www.cbwm.org/docs/legaldocs/Implementation_Plan.pdf)

<sup>6</sup> See Section 6.5 of the June 2001 Chino Basin Watermaster Rules and Regulations, <http://www.cbwm.org/docs/rulesregs/CBWM%20Rules%20and%20Regulations.pdf>

<sup>7</sup> The report 2013 Groundwater Model Update and Recalculation of the Safe Yield Pursuant to the Peace Agreement, [http://www.cbwm.org/docs/engdocs/WEI%202013%20CBWM%20Recalculation%20Model%20Update/20151005\\_WEI\\_2013\\_CBWM\\_Recal\\_Model\\_Final\\_low.pdf](http://www.cbwm.org/docs/engdocs/WEI%202013%20CBWM%20Recalculation%20Model%20Update/20151005_WEI_2013_CBWM_Recal_Model_Final_low.pdf)

*incorporate future advances in best management practices and hydrologic science as they evolve over the term of this order.”*

Page 17 of the 2017 Court Order requires that “[t]he Pools be provided with reasonable opportunity, no less frequently than annually, for peer review of the collection of data and the application of the data collected in regard to” the update of the Safe Yield Reset methodology and the other requirements set forth in the 2017 Court Order.

The Safe Yield of the Chino Basin was recalculated in May 2020 using the 2020 Chino Valley Model (2020 CVM) and documented in the *2020 Safe Yield Recalculation Report* (2020 SYR Report) (WEI, 2020).<sup>8</sup> The Court adopted a Safe Yield of 131,000 acre-feet per year for the period of FY 2020/21 through 2029/30.<sup>9</sup> To aid the development of the 2020 CVM and its application to recalculate the Safe Yield, Watermaster conducted several peer review/stakeholder workshops for the Parties and their invited technical consultants. The questions and comments that arose during the review process were recorded and responded to in writing in Appendix F of the 2020 SYR Report. Several of these comments and questions were related to the Safe Yield Reset methodology and can be grouped into the following two categories:

- Recommendations to characterize and address uncertainty in the 2020 CVM and SYR methodology.
  - Uncertainty in groundwater model parameters (Appendix F-6, page 2-3; Appendix F-6, page 25)
  - Uncertainty in historical data (Appendix F-6, page 14)
  - Uncertainty in supply and demand projections (Appendix F-2, page 4; Appendix F-2, page 8; Appendix F-4, page 4; Appendix F-6, page 2-3; Appendix F-6, page 20)
  - Uncertainty in projected hydrology and human behavior (Numerous)
- Recommendations to reconsider the 10-year prospective calculation of the Safe Yield (Appendix F-5, page 1; Appendix F-5, page 3; Appendix F-6, page 22; Appendix F-7, page 1-2).

## 1.1 Scope of Work to Update the Safe Yield Reset Methodology

In FY 2020/21 and early FY 2021/22, Watermaster and the Parties collaborated to develop and refine a scope of work to update the Safe Yield Reset methodology pursuant to the 2017 Court Order and the above recommendations of the Parties. The initial scope of work comprised the following steps:

1. Watermaster’s Engineer will develop a TM defining the various sources of modeling uncertainty that should be considered and addressed in an updated Safe Yield Reset methodology, including related questions necessary to answer when updating the Safe Yield Reset methodology. This TM will be submitted to the Parties for review and comment.
2. Watermaster’s Engineer will conduct a peer review meeting to discuss the content of the TM described in Step 1. Feedback gathered from the peer review committee will inform the development of a process to define the proposed approaches to address the sources of model uncertainty in the proposed Safe Yield Reset methodology update.

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<sup>8</sup> The 2020 Safe Yield Recalculation Report,

[http://www.cbwm.org/docs/engdocs/Ground%20Water%20Modeling/20200515\\_Final\\_2020SYR\\_Report.pdf](http://www.cbwm.org/docs/engdocs/Ground%20Water%20Modeling/20200515_Final_2020SYR_Report.pdf)

<sup>9</sup> Orders for Watermaster’s Motion Regarding the 2020 Safe Yield Reset Agreement, Amendment of Restated Judgment, Paragraph 6, Superior Court for the County of San Bernardino (2020),

<http://www.cbwm.org/docs/WatermasterCourtFilings/2020/20200806%20Notice%20of%20Orders.pdf>

3. Watermaster’s Engineer will prepare responses to the comments received from the peer review committee and prepare a supplemental scope and budget for the process to define and document the proposed approaches to address model uncertainty. Watermaster will introduce this supplemental scope and budget as a budget amendment to be approved through the Watermaster process.

The TM described in Step 1 was distributed to the Parties on October 21, 2021. The peer review meeting described in Step 2 was held on October 26, 2021. The supplemental scope and budget described in Step 3 was introduced to the Watermaster Pool Committees, Advisory Committee, and Board in November 2021 and was approved by the Watermaster Board on November 18, 2021. The remaining steps in the scope of work include:

4. Watermaster’s Engineer will complete a survey of the state-of-the-art approaches to address the sources of uncertainty identified in the TM described in Step 1 (i.e., model parameters, water supply/demand projections, and climate projections). This will include the alternative approaches and datasets suggested in the October 26, 2021, peer review meeting. Watermaster’s Engineer will choose up to three approaches for each source of uncertainty to define in the next step.
5. Watermaster’s Engineer will define a method to implement each of the approaches selected in Step 4. Each method will consist of detailed steps for implementation in the calculation of the Safe Yield.
6. Watermaster’s Engineer will quantify the feasibility of the methods defined in Step 5. This will involve (i) testing the chosen methods and amending them as needed; (ii) determining the necessary computational capabilities necessary to implement the methods (e.g., parallel computing); and (iii) developing a general analysis of costs (e.g., staff time, computational resources) and benefits for each of the proposed methods. Sub-steps (i) and (ii) pertain to parameter uncertainty only. These estimates will aid in a comparison and selection of a preferred updated Safe Yield Reset methodology.
7. Watermaster’s Engineer will prepare a TM documenting the findings from Steps 4 through 6 and a recommended Safe Yield Reset methodology update. This TM will be reviewed with Watermaster staff before distributing to the Parties for review.
8. Watermaster will conduct multiple peer review workshops to solicit feedback on the TM and the recommended Safe Yield Reset methodology update. This step may include multiple iterations of the draft TM.
9. Following the completion of the peer review process, Watermaster’s Engineer will finalize the TM prepared in Steps 7 and 8 and prepare a summary TM with the proposed Safe Yield Reset methodology for submittal to the Court.
10. Watermaster’s Engineer will work with Watermaster staff and legal counsel to assist with the Court-approval process.

Two drafts of this TM (prepared as Step 7) were distributed to the Parties and the peer review committee in May and July 2022 for review and comment. Watermaster held workshops on May 19, 2022 and July 20, 2022, to review the contents of the draft TMs and solicit feedback from the Parties and the peer review committee (Step 8). Following these workshops, several peer reviewers provided written comment on the draft TMs. These comments and West Yost’s responses are included as Attachment B. A summary TM has also been prepared and is included as Attachment C (Step 9). A final draft of this TM was distributed to the Watermaster Pool Committees, Advisory Committee, and Board in September 2022.

## 1.1 Outline of This Technical Memorandum

This TM includes the following sections.

- **Section 1: Background and Objectives**
- **Section 2: Overview of Uncertainty in Surface-Water and Groundwater Modeling**  
Provides an overview of the sources of uncertainty in surface-water and groundwater modeling as well as a description of best management practices published by the California Department of Water Resources (DWR) on how to address uncertainty in sustainable groundwater management.
- **Section 3: Uncertainty in the Input Data to the 2020 CVM**  
Discusses the input files of the 2020 CVM and the associated uncertainty.
- **Section 4: Potential Approaches for Characterizing and Addressing Uncertainty**  
Describes potential approaches and recommended methods to characterize and address uncertainty for updating the Safe Yield Reset methodology.
- **Section 5: Recommended Process to Calculate the Safe Yield**  
Describes the recommended Safe Yield Reset methodology update.
- **Section 6: Cost Estimate and Schedule**  
Summarizes the cost estimate and schedule developed for the implementation of the updated Safe Yield Reset methodology into the 2025 Safe Yield Reevaluation.
- **Section 7: References**

## 2.0 OVERVIEW OF UNCERTAINTY IN SURFACE-WATER AND GROUNDWATER MODELING

This section provides an overview of uncertainties in surface-water and groundwater modeling as well as a description of best management practices published by the DWR on how to address uncertainty in sustainable groundwater management.

Uncertainty analysis in calibration and projection is an important part of surface-water and groundwater modeling. Prior practice in environmental impact assessments typically involves developing a single numerical groundwater model with limited uncertainty analysis. Considered in a risk management context, this approach is often insufficient to predict the range of potential impacts and their likelihood. A quantitative uncertainty analysis, however, delivers a range of model predictions (simulating historical or future conditions) with associated likelihoods, each plausible in that they are consistent with all available information and data. Uncertainty analysis also identifies the main sources of uncertainty and the extent to which the uncertainty in outcomes can be reduced by incorporating additional data into the model (Middlemis and Peeters, 2018). An uncertainty analysis of model parameters has the benefit of identifying gaps in data or understanding that may inform future monitoring (DWR, 2016). An uncertainty analysis of model projections improves the understanding of the sensitivity of modeled responses to future assumptions.

### 2.1 Sources of Uncertainty in Surface-Water and Groundwater Modeling

Groundwater management faces uncertainty on many fronts: in understanding the behavior of the groundwater system; in anticipating possible future climatic, economic, or geopolitical conditions; and in prioritizing management objectives, all of which combine to add ambiguity in the evaluation of

management options (Guillaume et al., 2016). For example, the subsurface environment is complex, heterogeneous, and difficult to directly observe, measure and characterize; and, groundwater systems are influenced by multiple factors, including geology, topography, vegetation, climate, hydrology, and human activities. Uncertainty in these factors affects our ability to accurately describe the existing groundwater system or predict its future state (Middlemis and Peeters, 2018).

Numerical models are based on simplifications of complex physical systems and processes (Johnson, 2010), and there are alternative representations of a physical system and associated process that can produce reasonable calibration results. A single calibrated model is thus a non-unique representation of the physical system and associated processes. Uncertainty in model projections is caused by the simplifications introduced into the model, the occurrence of non-unique model solutions, and unknown future conditions. The remainder of this section summarizes the main sources of uncertainty in surface-water and groundwater modeling.

### **2.1.1 Historical Data**

Historical data can be divided into two groups: (1) data that may be observed directly, such as precipitation, temperature, stream discharge, metered pumping, managed artificial recharge, wastewater discharge, and groundwater levels, and (2) data that cannot be or is not observed/measured directly, such as evapotranspiration, unmanaged recharge, septic tank discharge, unmetered pumping, and unmeasured applied water. Some data of the second group can be estimated based on other measurable data; for example, evapotranspiration can be estimated based on temperature, relative humidity, wind speed, net radiation, and crop type.

Historical data are used in groundwater models for various purposes, primarily for direct model inputs and model calibration. Some historical data are indirectly used to estimate parameters or boundary conditions in the model (e.g., using historical groundwater levels and borehole lithology to infer the hydraulic properties of a fault barrier). The quality of data used to build a model directly affects the quality of the model projection. Some of the types of historical data and their uses are listed in Table 1 below.

Model uncertainties related to historical data may exist due to: measurement error (e.g., inaccurate measurements of groundwater levels which hampers model calibration); lack of records (e.g., inadequate borehole data to describe the aquifer geometry and composition); inconsistent spatial resolution (e.g., paucity of groundwater-level data in areas or depths of the basin which hampers model calibration); and inconsistent temporal resolution (e.g., paucity of historical groundwater-level data which hampers model calibration).

<b>Table 1. Typical Historical Data used in Groundwater Models</b>				
Data Type	Purpose of Data	Use of Data in Model		
		Direct Input	Indirect Input	Model Calibration
Groundwater levels	Groundwater simulation		X	X
Groundwater pumping	Groundwater simulation	X		
Groundwater well locations and construction	Groundwater simulation	X	X	
Lithology, geologic, and geophysical data	Groundwater simulation	X	X	
Climatic data (precipitation, ET <sub>0</sub> , temperature, evaporation, etc.)	Recharge estimation	X		
Ground elevation data	Recharge estimation		X	
Land use	Recharge estimation	X		
Stream discharge (including non-tributary discharge)	Recharge estimation	X		X
Wastewater treatment plant influent	Recharge estimation (via calibration of areal recharge)			X
Water and wastewater infrastructure (sewersheds, water supply maps)	Recharge estimation		X	
Managed aquifer recharge	Recharge estimation/ groundwater simulation	X		X
Stream geometry	Recharge estimation/ groundwater simulation	X		
Wastewater treatment plant effluent	Recharge estimation/ groundwater simulation	X		

### **2.1.2 Surface Water and Groundwater Model Parameters**

Uncertainty exists in the ways that the physical environment is represented in a model. This includes: (1) hydraulic parameters (e.g., hydraulic conductivity, specific storage, specific yield) that govern the simulated behavior of the groundwater-flow system; (2) hydrogeologic features (e.g., aquifer geometry, hydrostratigraphy, barriers to groundwater flow) that are underground and are often not well understood; and (3) hydrologic processes (e.g., evapotranspiration, streambed recharge, and deep infiltration of precipitation and applied water) that are typically not measured directly. Initial estimated values of hydraulic parameters and parameters representing hydrogeologic features are usually assigned to a groundwater model during model construction. Parameters governing hydrologic processes are assigned to the surface-water and groundwater models. Hydraulic parameters, parameters representing



hydrogeologic features, and parameters governing hydrologic processes are then adjusted during the calibration process that attempts to minimize the differences between observed historical data and the model-simulated data.

Another related problem regarding uncertainty in model parameters is the existence of non-unique solutions as demonstrated by Freyberg (1988) and Hunt et al. (2020). Non-unique solutions of parameter combinations occur when there is more than one option for an unknown parameter that is being solved during the calibration process. The problem of non-uniqueness can result a model that meets calibration criteria but fails to adequately represent the real system.

### ***2.1.3 Demand and Supply Plan Projections***

The ability of a model to forecast the response of a groundwater system is not only dependent on the quality of the model calibration but is also dependent on future surface water and groundwater management projections. Long-term forecasts of water demand and available water supplies are critical inputs to water utility planning efforts and decision making (Kiefer, 2016). Forecasting water demands and supply plans is uncertain and influenced by macro-socioeconomic and climatic factors, as well as local behavior of consumers (Bruce, Brown, and Dufour, 2019).

In groundwater modeling, the projected water demand is coupled with a water-supply plan that assumes the use of various quantities of the available water sources, including groundwater pumping, local surface water, imported water, and recycled water. Wastewater disposal plans that describe the fate of the water supplied are also required to simulate the feedback between wastewater disposal and groundwater recharge. Translating the water supply and wastewater plans into groundwater model inputs also translates the uncertainty in these plans.

### ***2.1.4 Projected Climate Impacts on Land Surface Processes***

The climate directly and indirectly impacts the groundwater system through recharge and changes in water use in response to climate.

Currently, many studies on climate impacts rely on the projections of Global Circulation Models or Global Climate Models (GCMs) involved in the fifth phase of the Coupled Model Intercomparison Project (CMIP5) (Taylor and others, 2012). CMIP5 assumes four Representative Concentration Pathways (RCPs) that describe different climate futures, all of which are considered possible. The projections of updated GCMs of the sixth phase of the Coupled Model Intercomparison Project (CMIP6) (PCMDI, 2021) will soon replace those of CMIP5.

For use in SGMA-related water budget development and groundwater modeling, DWR provides climate change datasets in the form of change factors of precipitation, reference evapotranspiration ( $ET_0$ ), and surface runoff based on 20 projections composed of 10 GCMs, each with two RCPs. According to the Guidance for Climate Data Change Use During Groundwater Sustainability Plan Development (DWR, 2018), change factor ratios were calculated as the future scenario (2030 or 2070) divided by the 1995 historical temperature detrended (1995 HTD) scenario. The 1995 HTD scenario represents historical climate conditions where the observed increasing temperature trend is removed. Review of the change factors for the Chino Valley indicated that average precipitation is projected to decrease and average  $ET_0$  is projected to increase (WEI, 2020). As with all model projections, the GCM projections are inherently uncertain.

Groundwater demands can change in response to climate, and the feedbacks between groundwater demands and climate must be considered in groundwater management. For example, California has taken

multiple actions to address the recent drought. On April 1, 2015, Governor Jerry Brown signed Executive Order B-29-15, which mandated a statewide reduction in urban potable water usage of 25 percent through February 2016. This resulted in several Chino Basin Parties reducing their groundwater pumping, even though groundwater rights and storage accounts were unaffected by the order.

In 2018, the California legislature passed, and the Governor signed, two pieces of legislation (AB 1668 & SB 606) collectively known as “Making Conservation a California Way of Life” to establish new water efficiency standards for purveyors in response to the California drought. The legislation requires water suppliers to meet their supplier-specific urban water use objective starting in 2027, which is defined as a combination of objectives set for indoor residential water use, outdoor residential water use (ORWU), as well as other uses. The ORWU objective, which takes direction from previous legislation establishing California’s Model Water Efficient Landscape Ordinance (MWELO), has not yet been approved by the State Water Board. However, DWR has proposed the following provisional method to calculate a supplier’s ORWU (gallons) objective<sup>10</sup>:

$$\text{ORWU} = (\text{ET}_0 - \text{P}_{\text{eff}}) * \text{ETF} * \text{LAs} * 0.62$$

where,  $\text{ET}_0$  is reference evapotranspiration (inches),  $\text{P}_{\text{eff}}$  is effective precipitation (inches), ETF is the supplier level evapotranspiration (ET) factor, LAs is landscape area (square ft) for a water supplier, and 0.62 is the unit conversion factor. If a supplier does not meet their ORWU objective by 2027, they may be required to reduce outdoor water use or be subject to penalties. A reduction in outdoor water use will reduce return flows from irrigation and precipitation (i.e., deep infiltration of precipitation and applied water [DIPAW]). In 2021, the DWR proposed a value of 0.7 for ETF. Additionally, the DWR is considering recommending that the value of ETF be reduced to 0.55 for any new development.

## 2.2 Modeling Best Management Practices for the Sustainable Groundwater Management Act

The Sustainable Groundwater Management Act (SGMA) was passed by the California legislature in 2014 “to support the long-term sustainability of California’s groundwater basins.” SGMA requires that uncertainty be addressed in the development and application of models to inform groundwater management actions. The DWR published a series of Best Management Practices (BMPs) to aid Groundwater Sustainability Agencies (GSAs) and other stakeholders in efforts to meet the Groundwater Sustainability Plan (GSP) Regulations (DWR, 2016). The DWR’s Modeling BMP (Modeling BMP) is meant to “assist with the use and development of groundwater and surface water models.”

The Modeling BMP includes the following two recommendations for characterizing and addressing uncertainty:

1. ***Develop and run predictive scenarios that establish expected future conditions under varying climatic conditions and implementing various projects and management actions. Predictive scenarios should be designed to assess whether the GSP’s projects and management actions will achieve the sustainability goal, and the anticipated conditions at five-year interim milestones. Predictive scenarios for the GSP should demonstrate that the sustainability goal will be maintained over the 50-year planning and implementation horizon.***

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<sup>10</sup> DWR’s proposed method is provisional because DWR is still finalizing the landscape area measurement data and considering stakeholder input.

2. ***Conduct an uncertainty analysis of the scenarios.*** *This is to identify the impact of parameter uncertainty on the use of the model’s ability to effectively support management decisions and use the results of these analyses to identify high priority locations for expansion of monitoring networks. Predictive uncertainty analysis provides a measure of the likelihood that a reasonably constructed and calibrated model can still yield uncertain results that drive critical decisions. It is important that decision makers understand the implications of these uncertainties when developing long-term basin management strategies. As discussed in other sections of this BMP, this type of analysis can also identify high-value data gaps that should be prioritized to improve confidence in model outputs and yield a tool that has an increased probability of providing useful information to support effective basin management decisions. A formal optimization simulation of management options may be employed, taking advantage of the predictive uncertainty analysis to minimize economic costs of future actions, while meeting regulatory requirements at an acceptable risk level.*

The Chino Basin is adjudicated and therefore exempt from many of the requirements of SGMA including the need to develop a GSP. The groundwater and surface-water models used in the Chino Basin have been approved for use by the Court. Furthermore, the groundwater models developed for GSPs are designed and interpreted to meet specific requirements of SGMA that are not entirely applicable to the Chino Basin. However, it is instructive to consider the above two recommendations when updating the Safe Yield Reset methodology, as they represent “best management practices” which are referenced in the 2017 Court Order.

### **3.0 UNCERTAINTY IN THE INPUT DATA TO THE 2020 CVM**

The previous section summarized the general sources of uncertainty in surface-water and groundwater modeling. This section identifies the sources of uncertainty specific to the model inputs for the CVM, including historical data, model parameters, water demand and supply plan projections, and projected climate impacts on land surface processes. Each model input described below includes a brief description of how the model inputs were estimated for use in the 2020 SYR and a qualitative description of how each input introduces uncertainty into the CVM. Refer to the 2020 SYR Report for a more detailed description of each model input.

#### **3.1 Historical Data**

The following subsections describe the historical data sets that were collected or developed for use in the CVM, not including any historical data used to develop model parameters. Uncertainty in historical data originates from measurement error or bias, incomplete or inconsistent spatial or temporal measurements, and the methods used to interpret measurements for use in a model.

##### **3.1.1 Precipitation**

Precipitation is the primary source of water for the Chino Basin watershed. Estimates of precipitation over the 2020 CVM model domain were developed from precipitation stations operated and/or reported by the Los Angeles, San Bernardino, and Riverside County Flood Control Districts, NOAA, and others, and gridded precipitation data products produced by the PRISM Climate Group and NOAA. The monthly gridded precipitation estimates from the PRISM Climate Group were used to inform the spatial distribution of daily precipitation developed from precipitation stations for the period prior to the availability of gridded daily precipitation estimates from NEXRAD. NEXRAD estimates of daily precipitation were used starting in 2002.

### **3.1.2 Stream Discharge**

Daily discharge estimates were obtained from the USGS through the USGS National Water Information System for the streams and channels tributary to and including the Santa Ana River. These discharge data were used in calibration of multiple parts of the 2020 CVM, including mountain-front runoff from the San Gabriel Mountains (the HSPF model) and the rest of the Chino Basin watershed tributary to Prado Dam (the R4 model).

### **3.1.3 Pumping**

With one exception, groundwater pumping estimates were obtained from all pumpers through the Chino Basin and Six Basins Watermasters, the City of Corona, and the Cucamonga Valley Water District. The exception is overlying agricultural pumping in the Chino Basin which was estimated with the R4 model for the period 1978 through 2004.

### **3.1.4 Managed Aquifer Recharge**

With one exception, estimates of Managed Aquifer Recharge (MAR) in the 2020 CVM domain were obtained from the entities that conduct recharge operations. The exception was estimates of stormwater captured at the major stormwater detention and recharge facilities in the Chino Basin which was estimated with the R4 model for the period 1978 through 2004. Starting in 2005, IEUA prepared estimates of stormwater captured at these facilities.

### **3.1.5 Wastewater Discharges**

Wastewater discharges to stream channels in the 2020 CVM watershed. Data was obtained from the California Integrated Water Quality System, annual reports of the Santa Ana River Watermaster, the Cities of Corona, Riverside, and San Bernardino, and IEUA.

### **3.1.6 Groundwater Levels**

Groundwater level measurements were obtained from the Chino Basin and Six Basins Watermasters, the Cities of Corona and Riverside, Cucamonga Valley Water District, the USGS, and the West Valley Water District.

### **3.1.7 Land Use**

Historical land use datasets were acquired from the Southern California Association of Governments (SCAG), the DWR, and San Bernardino County. These land use datasets were available for specific years, and historical data before 1990 have gaps of six years or more between datasets. The R4 surface water model was run to simulate Deep Infiltration of Precipitation and Applied Water (DIPAW) and stormwater recharge (when data were unavailable) for each of these land use years, and the R4 model outputs were linearly interpolated between land use years.

### **3.1.8 Potential ET**

ET<sub>0</sub> estimates for the 2020 CVM watershed were obtained from the California Irrigation Management Information System (CIMIS) stations located in Pomona and Riverside. The spatial distribution of daily ET<sub>0</sub> across the 2020 CVM watershed was estimated from the Pomona and Riverside CIMIS station ET<sub>0</sub> estimates using a spatial-temperature interpolation algorithm. For the period prior to these CIMIS stations becoming active, ET<sub>0</sub> was estimated by regression relationships developed at these stations with evaporation at Puddingstone reservoir.

### **3.1.9 Evaporation**

Pan evaporation data from an evaporation pan at Puddingstone reservoir, operated by Los Angeles County Department of Public Works, was used to estimate evaporation losses from free water surfaces from surface water impounded in flood control and conservation basins and streamflow in channels.

### **3.1.10 Subsurface Inflow from Adjacent Groundwater Basins**

Subsurface inflow from the Riverside Basin to the Chino Basin through the so-called Bloomington Divide area was set as a time-variant specified head boundary for the calibration period. The hydraulic conductivity of Layers 1, 3, and 5 adjacent to this boundary and the subsurface inflow from the Riverside Basin were estimated in calibration using the observed groundwater levels located in the Riverside Basin near the boundary.

Subsurface inflow from the Rialto Basin that occurs across the Rialto-Colton Fault was assumed to be the same value estimated in the calibration of the 2013 Chino Basin Model (WEI, 2015). The flux across the Rialto Fault is assumed to be either a constant inflow rate to the Chino Basin or a no-flow boundary depending on the geology along the fault. The range of subsurface inflow from the Arlington Basin to the Temescal Basin was estimated based on the Arlington Basin Model (WEI, 2009).

### **3.1.11 Unmanaged and Unintentional Recharge**

Maliva (2019) defines unmanaged and unintentional recharge as “recharge incidental to other human activities. Unmanaged and unintentional urban recharge includes leakage from water and wastewater mains, discharges from on-site sewage systems, recharge from stormwater management infrastructure, and return flows from the irrigation of parks, lawns, and other vegetated areas.” The recharge estimates from on-site sewage systems and irrigation return flows are described below. The leakage from water and wastewater mains are not explicitly accounted for in the groundwater model for multiple reasons: 1) the inability to quantify the magnitude and geographic distribution of these losses and the proportion of losses that result in recharge, and 2) the likely small magnitude of these losses compared to the other recharge components in the Chino Basin. Recharge from stormwater management infrastructure (i.e., Municipal Separate Storm Sewer Systems) beyond the MAR facilities is minor (WEI, 2018a) and not explicitly accounted for in the 2020 CVM.

### **3.1.12 Septic Tank Discharge**

Data for parcels with septic tanks were collected for the entire 2020 CVM model domain. The septic tank parcel data were overlaid on the groundwater model, and the numbers of septic tank parcels within each model cell were determined. Various leakage rates from septic tanks were applied to account for the groundwater recharge flux of each model cell with septic tanks. These rates were based on observed in wastewater inflows to nearby wastewater treatment plants.

### **3.1.13 Applied Water**

The initial estimate of applied water for urban areas was estimated from reports prepared by the IEUA. Final estimates of applied water for urban irrigation were developed by calibrating the R4 model and extending the calibration results to non-IEUA areas in the Chino Basin. Estimates of DIPAW for agricultural, native, and undeveloped areas (land in transition from vacant and agricultural uses to urban uses) were made with the R4 model using historical information on vegetation type and associated root zone depth, soil type, permeable area, irrigable area, evapotranspiration, and precipitation.

## **3.2 Model Parameters**

The following subsections describe the data sets and processes used to develop the model parameters for the CVM. Uncertainty in the model parameters originates from the uncertainties of the historical datasets used to derive the parameters, the methods used to derive parameter estimates from these datasets, and the distribution and ranges over which the parameters are adjusted through model calibration.

### ***3.2.1 Hydraulic Conductivity, Specific Storage, and Specific Yield***

The following procedure was used to estimate horizontal hydraulic conductivity, vertical hydraulic conductivity, specific storage, and specific yield in the groundwater model. First, data collected from multiple well boreholes was used to estimate the aquifer-system properties at the well locations. The Kriging method was used to spatially interpolate the estimates across the model domain. The model domain was then subdivided into several parameter zones based on an estimate of logical depositional environments. Each parameter zone was assigned a scaling factor which was adjusted during the model calibration process. The final calculated parameter value for any model cell (by model layer) was the product of the adjusted scaling factor and the initial hydraulic parameter value.

### ***3.2.2 Hydraulic Characteristics of Faults***

The faults that separate the Chino Basin, Cucamonga and Six Basins as well as internal faults and barriers within these basins, were simulated as horizontal flow barriers with the MODFLOW Horizontal-Flow Barrier (HFB) package. The estimated hydraulic conductivity values for these barriers were adjusted through model calibration. The sensitivity analysis conducted during calibration of the 2020 CVM indicated that the hydraulic characteristics of several faults are sensitive parameters in the model.

### ***3.2.3 Stream Properties***

For use in the surface water simulations, as-built drawings and field surveys from prior investigations were used to develop sub-watershed boundaries, channel and flood control and conservation basin geometry and facility operating schemes. For the groundwater model, the streambed elevations and geometry along creeks and channels were extracted from the 2015 LiDAR data along Santa Ana River with 1-meter resolution (US Army Corps of Engineers, 2015). Other streambed properties (e.g., conductance) were defined based on the streambed characteristics of the Santa Ana River and its tributaries. The stream properties were determined to be insensitive and were not adjusted through model calibration.

### ***3.2.4 Groundwater Evapotranspiration***

Groundwater ET was simulated with the MODFLOW Evapotranspiration Segments Package (ETS). This package requires the user to define the spatial extent of the riparian vegetation, the maximum ET rate for each model cell within the spatial extent, and a relationship between ET rate and depth to groundwater. The spatial extent of the riparian vegetation and the maximum ET rates were estimated based on aerial photos and the evaporation analysis of the Prado Basin prepared by Merkel (2006). The relationship between the ET rate and depth to groundwater was based on other modeling studies with similar climate and riparian vegetation. The groundwater ET parameters were determined to be insensitive and were not adjusted through model calibration.



### ***3.2.5 Vadose Zone Travel (Lag) Time***

The HYDRUS-2D model was used to estimate lag time (i.e., travel time of water from the ground surface to the saturated zone) at several boreholes with detailed lithologic descriptions. For the boreholes that were investigated, the primary factor contributing to lag time was vadose zone thickness. These lag times were then generalized throughout the Chino Basin model domain based on vadose thickness and individual lag times were estimated for each model cell. Vadose zone travel (lag) time from the root zone to the water table ranges from about one to four years near the Santa Ana River to over 30 years in the City of Upland area, and typically ranges from 5 to 30 years in other areas. Vadose zone travel (lag) time was not adjusted through model calibration.

### ***3.2.6 Land Use and Related Parameters***

Land use and related parameters that characterize hydrologic properties (hydrologic soil type, crop coefficient, irrigation efficiency, curve numbers, etc.) were obtained from the Department of Water Resources, Natural Resources Conservation Service (NRCS), San Bernardino County, and the Southern California Association of Governments. Land use type parameters were not adjusted through model calibration.

## **3.3 Demand and Supply Plan Projections**

The following subsections describe the assumptions and data used to develop future projections for water demands and supply plans for the projection scenario of the CVM. Beyond the uncertainties that exist in model parameters, uncertainty in demand and supply plan projections is introduced by the incomplete knowledge of future conditions and behaviors.

### ***3.3.1 Projected Groundwater Pumping***

Watermaster submitted a comprehensive data request to each Appropriative Pool Party and some of the larger Overlying Non-Agricultural Pool pumpers. The data requested included projected monthly water supplies and demands, well information, and projections of use of storage in the Basin. Watermaster staff reviewed the Parties' responses and followed up for clarification, if necessary. The data provided by the Parties represents the best estimates of their demands and associated water supply plans. Individually and in aggregate, these water demands, and associated supply plans were the most reliable planning information available at that time. Watermaster translated the Parties' groundwater pumping projections included in the supply plans based on information regarding well priorities and the timing of groundwater pumping provided by each Appropriative Pool Party.

### ***3.3.2 Projected Managed Artificial Recharge***

Projected stormwater recharge in flood control and conservation basins was estimated with the R4 model based on existing and planned 2013 RMPU facilities that are assumed to be fully operational in 2023. Projected recycled water recharge is based on IEUA projections modified in the near term based on recent recharge history. Imported water was assumed to be recharged to meet Watermaster's replenishment obligations only.

### ***3.3.3 Projected Wastewater Discharge***

With one exception, the projected wastewater discharges were based on the "Most Likely Discharge" scenario documented in the Santa Ana River Waste Load Allocation Model Update Report (Geoscience, 2020). These projected discharges were based on estimates provided by the owners of each of the Publicly Owned Treatment Works (POTWs) that discharges wastewater to the Santa Ana River or its tributaries.

### **3.3.4 Land Use**

Land use was assumed to transition from 2018 conditions to “built-out” conditions by 2040. Built-out conditions assumes 2018 land use with vacant and non-urban land uses to converted to land uses shown in the General Plans of the counties and municipalities that overlie the Chino Basin.

### **3.3.5 Subsurface Inflow from Adjacent Groundwater Basins**

Subsurface inflow from the Rialto Basin that occurs across the Rialto-Colton Fault and subsurface inflow from the Arlington Basin to the Temescal Basin are modeled as they were in the calibration period. Groundwater discharges from the Riverside Basin to the Chino Basin through the so-called Bloomington Divide area was set as a constant specified flow boundary was assumed equal to the average subsurface inflow from the last five years of the calibration period.

### **3.3.6 Unmanaged and Unintentional Recharge**

Future assumptions for unmanaged and unintentional recharge (with the exceptions identified below) are identical to the assumptions used in the historical data.

### **3.3.7 Septic Tank Discharge**

Future locations of septic tank parcels are based on the land use planning data. The leakage rates from septic systems are assumed identical to the leakage rates assumed at the end of the calibration period.

### **3.3.8 Applied Water**

Future assumptions for outdoor applied water are derived from the future water demand and water supply estimates discussed above and the irrigation assumptions for outdoor water use developed in model calibration. Given the uncertainties of the implementation and effects of the “Making Conservation a California Way of Life” legislation, any prescribed changes due to this legislation were not considered in the 2020 SYR projection scenario.

### **3.3.9 Projected Replenishment Obligation**

Projected future replenishment obligations are based on current and projected Safe Yield and assumptions of the transfer activity among the Parties. This process is described in detail in the 2020 SYR Report.

### **3.3.10 Future Management Programs**

Beyond recalculation of the Safe Yield, the CVM is used to support other management goals pursuant to the Program Elements of the Chino Basin Optimum Basin Management Plan. These management goals include maximizing recharge in the basin, managing land subsidence, ensuring the management of water quality, and supporting riparian habitat. To address these management goals, future management actions may be required that would alter the projected supplies and demands (e.g., reducing pumping to mitigate subsidence).

## **3.4 Projected Climate Impacts on Land Surface Processes**

The DWR (2018) climate change datasets in the form of change factors of precipitation,  $ET_0$ , and surface runoff for 2030 and 2070 were used to model climate change in the 2020 Safe Yield Recalculation. The impact of new conservation legislation was not included in the 2020 Safe Yield Recalculation. Uncertainty in projected climate impacts on land surface processes originates from the incomplete knowledge of future conditions and behaviors.



## 4.0 POTENTIAL APPROACHES FOR CHARACTERIZING AND ADDRESSING UNCERTAINTY

This section presents a summary of the tools and approaches for characterizing model-parameter and predictive uncertainties that may exist in groundwater models, including errors introduced by model-design and process-simulation assumptions, incomplete knowledge of model parameters, and contributions to predictive uncertainty from estimated future system stresses, such as water demands, supply plans, policies, and climate (Doherty, Hunt, and Tonkin, 2011; Hunt and Welter, 2010).

Approaches to characterize uncertainty in simulation models range in complexity and include the following categories:

1. **Deterministic:** A deterministic approach assumes and simulates one possible future. For example, the 2020 CVM that was used to calculate Safe Yield assumed a single physical groundwater system realization (aquifer parameter distribution) and a future scenario that was developed based on the climate change factors provided by the DWR and the water suppliers' best estimates of the future water demand and supply plans.
2. **Robust Decision Making (RDM):** In this approach, numerous model scenarios are run with various input datasets to determine the possible outcomes against a wide range of plausible futures. The input datasets may include one or more of the following:
  - Alternate physical groundwater system realizations that meet the calibration criteria.
  - Alternate future climate projections (e.g., precipitation and  $ET_0$  projections based on climate models).
  - Alternate water demand and supply plans based on various assumptions of future population, water management policy implementation, and expected behavior of individual pumpers.
  - Predetermined management actions or anticipated projects affecting the stresses in the model (e.g., additional wells or recharge basins). Most of the approved GSPs and Alternative GSPs simulate the groundwater responses to scenarios including management actions pursuant to the SGMA (e.g., Dudek, 2019; Santa Cruz Mid-County Groundwater Agency, 2019; MWH, 2016).
3. **Dynamic Planning:** In a dynamic planning framework, management actions are triggered by the state of the system, which can be a single variable or a combination of variables. For example, well field pumping can be dynamically adjusted based on the simulated groundwater level to prevent the groundwater level from dropping below a threshold level. In another example, stream flow diversion can be dynamically adjusted to ensure a minimum stream flow is maintained. Dynamic planning frameworks require a thorough understanding of potential triggers and actions which often assume centralized planning, where a single decision-maker determines management actions, which is often unrealistic in a real-world planning process (Giuliani et al., 2015). A dynamic planning framework may require iterative input from different sets of stakeholders (Quinn et al., 2017; Wu et al., 2016) and could be revised to represent a decentralized process in which multiple agents optimize for their individual benefits (Jenkins et al., 2017).

The current practice of periodic recalculations of the Safe Yield that involves periodic methodology review and stakeholder involvement is an example of a dynamic planning framework. However, the current deterministic approach of using a single calibrated realization and projection scenario does not allow for an assessment of the uncertainties in model projections. The RDM approach is recommended for the development of groundwater models for SGMA compliance (Moran, 2016) without introducing additional

complexities and potential uncertainties that may be present in a dynamic planning framework. Therefore, the recommended approaches in this TM are based on RDM principles.

## 4.1 Historical Data

Historical data includes records of precipitation, stream discharge, pumping, and other data sets described in Section 3.1. While there is some uncertainty in the historical data, it is our professional judgement that an uncertainty analysis of the historical data would be of limited value to the calibration of the model and the calculation of the Safe Yield. The 40 years of measured data used for calibration of the 2020 CVM was collected by numerous entities and it is appropriate to assume that these measurements have random errors overall. Therefore, for the uncertainty analysis of the calibration parameters, the uncertainty in observed data will not be addressed. This approach was agreed upon by the peer review committee at its October 26, 2021 meeting.

## 4.2 Model Parameters

The 2020 CVM (WEI, 2020) consists of HSPF and R4 surface-water models and a groundwater model based on MODFLOW-NWT (Niswonger et al., 2011). The surface-water models were calibrated manually. R4 was used to estimate DIPAW at the root zone, to estimate stormwater runoff and stormwater recharge, and to simulate the routing of water through lined and unlined channels across the model domain. The estimated DIPAW was used as groundwater recharge to the groundwater model by considering storage and travel time through the vadose zone. The estimated runoff values were diverted to applicable stream reaches. The routed water was sent to recharge basins or stream reaches. The groundwater model was calibrated by conducting a sensitivity analysis of model parameters using the parameter estimation code PEST (Doherty, 2018) to adjust sensitive parameters to improve the model representation of the groundwater system by minimizing the differences between the historical and the model-calculated groundwater level elevations and discharge of the Santa Ana River at Prado Dam. A residual analysis of the observed versus simulated data was conducted to evaluate and characterize model error.

A single calibrated model (i.e., a deterministic model) is a non-unique representation of the physical system and associated processes that can produce plausible calibration results. Uncertainties in model projections are unavoidable as they are caused by the simplifications introduced into the model, the occurrence of non-unique model solutions, and unknown future conditions. Models used for environmental management are most useful when they can inform the decision-making process by quantifying predictive uncertainties and associated risk.

### 4.2.1 Approaches to Characterizing Uncertainty in Model Parameters

This section presents three selected methods to quantify predictive model parameter uncertainties and discusses each method's associated computational framework. The focus of each of the methods is to efficiently generate a sufficient number of calibrated groundwater system realizations (calibrated realizations). Each realization comprises a set of model parameters that meet the model calibration criteria. Once this is done, an ensemble of projection realizations can be generated by replacing the parameters of the projection model with the parameters of the calibrated realizations. The result of the ensemble of projection realizations is an ensemble of probable outcomes that can be used to determine the central tendency of projected Safe Yield and to quantify the uncertainty of the projected Safe Yield due to uncertainties in model parameters.

#### 4.2.1.1 Generalized Likelihood Uncertainty Estimation (GLUE)

GLUE (Beven and Binley, 1992) is a statistical method used in hydrology for quantifying the uncertainty of model predictions. GLUE assumes the concept of equifinality of models, parameters, and variables. Equifinality originates from the imperfect knowledge of the system under consideration, and many sets of models, parameters, and variables may therefore be considered equal or almost equal simulators of the system. The GLUE methodology can be implemented in the following steps.

1. Select a group of model parameters with the highest relative sensitivity and define the distribution function of each selected parameter.
2. Conduct a Monte Carlo (Eckhardt, 1987; Tarantola, 2005) sampling analysis in the following steps:
  - a. Randomly pick a set of parameters within their respective bounds.
  - b. Modify the calibration model with the random set of parameters.
  - c. Run the modified model and check for the calibration criteria. If the calibration criteria are met, save the set of parameters as a calibrated parameter realization.
  - d. Repeat steps (a) to (c) until a defined number of realizations is reached.
3. Generate projection realizations. A projection realization is based on the parameters of a calibrated parameter realization and incorporates climate, hydrology, and supply/demand projections.
4. Conduct simulation runs of the projection realizations. Develop recommendations based on the simulation results of the realizations.

White (2018) applied the GLUE method on a synthetic model (Freyberg, 1988) with 100,000 realizations of five model parameters (i.e., hydraulic conductivity, historical recharge, future recharge, historical pumping rate multiplier, and future pumping rate multiplier) to quantify the efficacy of the Monte Carlo sampling analysis and to compare it with PESTPP-IES (see below). The Monte Carlo sampling analysis identified 275 calibrated realizations (an acceptance rate of 0.275 percent) that met a predefined calibration criterion. Had this method been applied to the 2020 CVM, which took four hours to complete a model run, it would take 45 years to obtain 275 realizations for the same acceptance rate. Due to the low acceptance rate, this method is often not practical for complex models with a long run time.

#### 4.2.1.2 Null-Space Monte Carlo (NSMC)

NSMC (Tonkin and Doherty, 2009) is a method for generating calibrated realizations. Instead of creating a single calibrated realization, NSMC can be used to create multiple calibrated realizations. The NSMC methodology can be implemented in the following steps (Doherty, Hunt, and Tonkin, 2011).

1. Prior to implementation of a NSMC analysis, it is assumed that a model has been calibrated, a set of calibrated model parameters is available, and the distribution functions of each parameter are defined.
2. Conduct a NSMC sampling analysis in the following steps with the help of multiple programs (RANDPAR, FIELDGEN, PPSAMP, PNULPAR, FAC2REAL, and TWOARRAY) included in the PEST Groundwater Data Utility (Watermark Numerical Computing, 2020).
  - a. Randomly pick a set of parameters within their respective bounds.
  - b. The calibrated parameters are subtracted from the stochastically generated parameters.

- c. The result of step (b) is projected onto the calibration null space.
  - d. The solution-space component of the stochastically generated parameters is replaced by the parameter field arising from the calibration.
  - e. Recalibrate the model and save the set of parameters as a calibrated parameter realization. Ideally, because null-space parameter components do not appreciably affect model outputs that correspond to elements of the calibration dataset, the null-space processing of the optimal parameter set in step (d) should result in a calibrated model. In practice, however, the null-space-processed parameters commonly result in a slightly de-calibrated model. Recalibration of such a model normally requires only a fraction of the number of model runs per iteration as there are adjustable parameters.
  - f. Repeat steps (a) to (e) until a desired number of calibrated parameter realizations is reached.
3. Generate projection realizations. A projection realization is based on the parameters of a calibrated parameter realization and incorporates climate, hydrology, and supply/demand projections.
  4. Conduct simulation runs of the projection realizations. Develop recommendations based on the simulation results of the realizations.

Overall, the NSMC sampling analysis involves many computational steps that require specific programs and input parameters. A conceptual example for implementing the second level of parameterization is given in Part B of the Groundwater Data Utility (Watermark Numerical Computing, 2020).

#### 4.2.1.3 Iterative Ensemble Smoother (iES)

Most algorithms for model parameter estimation (PE) and uncertainty quantification (UQ) are computationally constrained by number of adjustable parameters. Because of this constraint, assumptions must be employed to reduce the number of parameters, which is a form of model simplification. This simplification can lead to model error phenomena such as parameter compensation and undetectable forecast bias (White, 2018; Doherty and Christensen, 2011).

To relax or eliminate the computational bounds induced by the number of parameters, iterative ensemble smoothers (iES) have emerged as a class of algorithms for PE and UQ. Chen and Oliver (2012, 2013) introduced an efficient iES formulation, which was implemented by White (2018) and White et al. (2020) in the open-source code PESTPP-IES. Based on the nature of the iES algorithm, the number of model runs per estimation iteration depends on the number of desired calibrated groundwater system realizations and does not depend on the number of adjustable parameters. Additionally, the iES algorithm yields an ensemble of the calibrated parameter realizations that can be used to quantify uncertainty in forecasts of interest.

PESTPP-IES can be applied in the following steps.

1. Construct a model and prepare for parameter estimation according to the input instructions of PEST and PESTPP-IES, including the pilot points as well as variograms and covariance matrices of adjustable model parameters. Covariance matrices can be generated based on the variograms of adjustable parameters.
2. Run PESTPP-IES to generate the desired number of calibrated parameter realizations. In order to achieve a good fit between model outputs and the calibration dataset, the number of the desired calibrated parameter realizations (and hence the number of model runs) must be greater than the dimensionality of the solution space of the inverse problem. The dimensionality

of the solution space often must be guessed. An ensemble size of a few hundred (and often less) is suitable for most occasions (Doherty, 2019).

3. Generate projection realizations. A projection realization is based on the parameters of a calibrated parameter realization and incorporates climate, hydrology, and supply/demand projections.
4. Conduct simulation runs of the projection realizations. Develop recommendations based on the simulation results of the realizations.

In comparison with the NSMC method, the iES-based solution is relatively straightforward. The required utility programs for preparing required input data for PESTPP-IES are readily available as well.

#### 4.2.2 Recommendation

All methods described above can be used to address parameter uncertainties. However, a comparison of the major criteria shown in Table 2 suggests that the iES is the most favorable method due to the computation time being independent of the number of adjustable parameters, which results in a relatively lower computing cost. The iES method and its software implementation PESTPP-IES are recommended to be used for quantifying parameterization-related uncertainties. Attachment A documents the use of a synthetic model to illustrate the detailed steps to generate calibrated parameter realizations with PESTPP-IES and other utility programs.

To reduce the complexity of combining calibrated realizations of the HSPF, R4, and MODFLOW models, it is recommended to run a deterministic simulation of the HSPF and R4 models, and then include the R4-estimated DIPAW and subsurface inflows to the MODFLOW model as adjustable parameters in PESTPP-IES.

Table 2. Comparison of Methods to Quantify Predictive Uncertainties			
Criteria	GLUE	NSMC	iES
Simplicity of the Method	Simple	Complex	Moderate
Computing Cost (relative number of required model runs)	High (due to low acceptance rate)	Moderate (due to the requirement of recalibration of each parameter set)	Low
Does the computing cost grow with the number of adjustable parameters?	Yes	Yes	No
Ability to incorporate heterogeneity in calibrated realizations	Yes (at a very high computing cost)	Yes (at a very high computing cost)	Yes

### 4.3 Demand and Supply Plan Projections

Water demand and supply plans depend on various assumption of future conditions, such as population, climate, and regulatory requirements. The uncertainty associated with water demand and supply plans should be quantified because water demand and supply plans include projections of pumping, recharge, and storage which can affect groundwater levels and the net recharge of the Chino Basin.

#### **4.3.1 Approaches to Characterizing Uncertainty in Demand and Supply Plan Projections**

Several water resource planning studies in the Santa Ana River watershed and North America have employed RDM or similar approaches to address uncertainties in future water demands and supply plans (USBR, 2012; Dennehy, 2021; Miro et al., 2021; Valley Water, 2022). The planning studies that employ RDM generally have the objective of evaluating uncertainties in future conditions to inform management or planning decisions. The amount of detail applied to develop scenarios using RDM is not prescribed and depends on the available data to characterize external drivers, management schema, and planning objectives (Groves et al., 2019).

San Bernardino Valley Municipal Water District (Valley District) recently employed RDM in their water resources planning (Miro et al., 2021), which included development of four scenarios of future demands and nine scenarios of future imported water supply. The demand futures were developed with the Valley District’s retail agencies to understand the drivers in water demand and the uncertainties in projecting changes in water demand. The range in potential future imported water supplies were derived from the Metropolitan Water District of Southern California’s simulated operational scenarios of the State Water Project, the imported water supply in the region.

#### **4.3.2 Recommendation**

The current Safe Yield Reset methodology would be improved by shifting from a deterministic approach to an RDM approach involving multiple discrete demand and supply plan scenarios. To quantify the uncertainty in demands and supply plans in the Chino Basin and develop demand and supply plan scenarios, a method similar to what Valley District employed to implement the RDM approach (Miro, et al., 2018; Miro, et al., 2021) is recommended. The proposed method to execute this approach includes the following:

1. Develop a list of the drivers of changes to future water demands and supplies. Examples of these drivers include population growth, land use, policies (e.g., conservation mandates), and climate change. Conduct one to three workshops with the Parties and wholesale agencies that serve the Chino Basin to ensure that the most significant drivers are considered.
2. Use the drivers identified in step 1 above to develop demand and supply plan scenarios. These scenarios will include assumptions of each driver and its effect on future demands and water supply plans.
3. Select a subset of the demand and supply scenarios developed in step 2 that will be incorporated into the projection realizations.
4. Develop quantitative water supply plans for the selected demand and supply scenarios. This will rely on a review of relevant planning information (e.g., Urban Water Management Plans, regional water resources planning studies [Groves and Syme, 2022], and data on cultural conditions collected pursuant to the 2017 Court Order) and workshops with the Parties and wholesale agencies. This effort will leverage existing planning studies to define the scenarios and will not include the development of any new planning studies (e.g., Oxnard, 2017; Miro, et al., 2018; Valley Water, 2022).
5. Conduct at least two workshops with the Parties and wholesale agencies to refine and iterate the water supply plans. If desired, the Parties may provide feedback to aid in the assignment of non-uniform likelihoods to the chosen water demand and supply plan scenarios. For example, one scenario could be chosen as the “most likely” scenario, the results of which may be assigned a higher weight than the results of other scenarios in the interpretation of the ensemble (see Section 5.0).



6. Translate the demand and supply scenarios and water supply plans into model inputs (e.g., groundwater pumping, outdoor urban water use, managed recharge, imported water, others) and integrate into projection realizations.

Demand and supply plan scenarios should be developed to be consistent with the chosen climate scenarios to capture plausible combinations of drivers (e.g., population growth, water conservation, and restriction of imported water) and their effect on water demand and supply plans.

## 4.4 Climate Projections

As described in Section 2.1.4, the climate directly and indirectly impacts the groundwater system through recharge and changes in groundwater use. To incorporate the climate impacts in a groundwater model projection, future precipitation and  $ET_0$  values must be estimated. In the 2020 CVM, future precipitation and  $ET_0$  values were obtained by adjusting the historical records by the DWR Change Factors (DWR, 2018). Since the DWR Change-Factors were derived based on the ensemble average of 20 selected model runs from CMIP5, the 2020 CVM implemented a deterministic climate scenario representing the projected central tendency of future climate. In this approach, the uncertainty in the projected Safe Yield due to individual climate projections could not be characterized.

To overcome this limitation, relevant literature was reviewed to explore the feasibility of estimating future precipitation and  $ET_0$  values based on the available climate model datasets. The following sections document the findings and recommendations from the literature review.

### 4.4.1 Approaches to Characterizing Uncertainty due to Climate Change

This section provides an overview of the state of global climate model research and the available datasets from the climate models.

#### 4.4.1.1 State of Global Climate Models (GCMs)

GCMs are numerical models and are the most advanced tools currently available for simulating the response of the global climate system to increasing greenhouse gas concentrations. Many GCMs were developed in the past decades by research institutes across the world. GCMs vary in their capabilities, including algorithms, grid resolutions, and simulated earth system processes. Global climate research efforts are coordinated by the Intergovernmental Panel on Climate Change (IPCC) through a series of the Coupled Model Intercomparison Projects (CMIPs). In each iteration of the CMIPs, prescribed assumptions of future climate forcing factors and boundary conditions are implemented by various GCMs. As a result of variations in GCMs, their projected outcomes are different despite having the same prescribed forcing assumptions and boundary conditions.

The change factors provided by DWR are based on the GCMs from the fifth iteration of CMIP (CMIP5) that was completed in 2012 (Taylor and others, 2012). The sixth iteration of CMIP (CMIP6) (PCMDI, 2021) is the most recent update. The models included in CMIP6 improve the representation of atmospheric and biogeochemical processes (e.g., cloud formation), have denser grids, and are better able to simulate historical conditions than the CMIP5 models (Thorarinsdottir et al., 2020). Furthermore, there are more future scenarios available for CMIP6 that can be chosen to couple with the water demand and supply plan scenarios.

#### 4.4.1.2 Downscaled Climate Model Datasets

All GCMs of each CMIP are required to produce a set of simulation results, including time series of precipitation and near-surface temperature at each model grid cell. Raw GCM output, however, is not always adequate to be used directly in groundwater and surface-water models. Two primary impediments to impacts studies are the coarse spatial scales represented by the GCM (grid cells are typically between 150 and 400 miles long on the ground surface), and the GCM raw output contain biases relative to observational data, which preclude its direct use. A variety of downscaling methods can be used to process and refine GCM output with the aim of producing output more suitable for planning models. The refined output aims to address the limitations of coarse resolution and/or regional biases in the GCM output.

Downscaling methods can be divided into two broad categories: dynamical and statistical. Dynamical downscaling refers to the use of high-resolution regional simulations to dynamically interpolate the effects of large-scale climate processes to regional or local scales of interest. Statistical downscaling involves the use of various statistics-based techniques to determine relationships between large-scale climate patterns resolved by global climate models and observed local climate responses. These relationships are applied to GCM results to transform climate model outputs into statistically refined products. The available downscaled climate model datasets are summarized below.

##### Statistical Downscaled Datasets

- NASA Earth Exchange (NEX) Downscaled Climate Projections (NEX-DCP30)
  - Description: This dataset comprises downscaled climate scenarios for the conterminous United States that are derived from the GCM runs conducted under CMIP5 and across the four greenhouse gas emissions scenarios known as Representative Concentration Pathways (RCPs). Each of the climate projections includes monthly averaged maximum temperature, minimum temperature, and precipitation at a resolution of 800 meters for the periods from 1950 through 2005 (Retrospective Run) and from 2006 to 2099 (Projection Run).
  - Website: <https://ds.nccs.nasa.gov/thredds/catalog/bypass/NEX-CP30/bcsd/catalog.html>
  - Data access: <https://www.nccs.nasa.gov/services/data-collections/land-based-products/nex-dcp30>
- NASA Earth Exchange Global Daily Downscaled Projections (NEX-GDDP-CMIP6)
  - Description: This dataset comprises global downscaled climate scenarios derived from the GCM runs conducted under CMIP6 and across two of the four “Tier 1” greenhouse gas emissions scenarios known as Shared Socioeconomic Pathways (SSPs). Each of the climate projections includes daily averaged maximum temperature, minimum temperature, and precipitation at a resolution of 0.25 degrees (approximately 17.5 miles at equator) for the periods from 1950 through 2014 (Retrospective Run) and from 2015 to 2100 (Projection Run).
  - Website: <https://ds.nccs.nasa.gov/thredds/catalog/AMES/NEX/GDDP-CMIP6/catalog.html>
  - Data access: <https://www.nccs.nasa.gov/services/data-collections/land-based-products/nex-gddp-cmip6>

##### Dynamical Downscaled Datasets

- CMIP6 Downscaling Using the Weather Research and Forecasting model (WRF-CMIP6).
  - Description: This dataset comprises dynamically downscaled climate scenarios derived from the GCM runs conducted under CMIP6 using the WRF model. Each of the climate projections



consists of 37 daily variables including temperature, precipitation, evapotranspiration, wind speed at a resolution of 2 miles (3 km) for the periods from 1980 through 2100.

— Website: <https://dept.atmos.ucla.edu/alexhall/downscaling-cmip6>

— Data access:  
[https://dept.atmos.ucla.edu/sites/default/files/alexhall/files/aws\\_tiers\\_dirstructure\\_Jan22.pdf](https://dept.atmos.ucla.edu/sites/default/files/alexhall/files/aws_tiers_dirstructure_Jan22.pdf)

#### **4.4.2 Recommendation**

Given the range of improvements in the CMIP6 models and the greater variety of scenarios, using data sets derived from the CMIP6 models is the most defensible approach to apply to the CVM. Two options for applying the CMIP6 datasets to the CVM are using the Change Factors or using the dynamically downscaled datasets. The former is infeasible as CMIP6-based Change Factors are not yet available. The remaining option is to use the dynamically downscaled datasets.

The two available CMIP6-based downscaled datasets are the NEX-GDDP-CMIP6 and WRF-CMIP6 datasets. The statistically downscaled dataset NEX-GDDP-CMIP6 is only available at a spatial resolution of 0.25 degrees, which is not sufficient to capture the topographic and orographic drivers of precipitation and temperature patterns across the Chino Valley watershed. The dynamically downscaled dataset WRF-CMIP6 is available at a 3-km resolution and is appropriate to apply to the CVM. The development of the WRF-CMIP6 datasets is an ongoing project. Currently, the downscaled datasets of nine GCM scenarios are available, and it is expected that additional datasets for other GCM scenarios will be available when the projections for the forthcoming Safe Yield recalculation will be developed.<sup>11</sup> Therefore, the WRF-CMIP6 datasets are recommended to be used in the updated Safe Yield calculation methodology to account for the effects of future climate variations.

Results of available historical runs of UCLA WRF-CMIP6 models will be compared to historical PRISM dataset over the concurrent time period. The results of each comparison will be used to rank the WRF-CMIP6 models. The ranking will be used for model selection. The proposed selection of GCMs and scenarios will be presented at a peer review workshop for feedback prior to implementation.

As climate conditions are coupled with water demands and supplies, combinations of climate scenarios and the water demand and supply plan scenarios should be chosen to ensure consistency. For example, a warmer and drier climate generally drives increased demand, assuming no additional water conservation. Therefore, the WRF-CMIP6 model projections that are warmer and drier should be coupled with demand and supply plan scenarios that reflect a warmer and drier climate. The proposed selection of projection scenarios (climate and water demand and supply plans) will be presented at a peer review workshop for feedback prior to implementation.

The following method is proposed to implement the dynamically downscaled CMIP6 data into the CVM.

1. Review and select a subset of the available dynamically downscaled datasets (i.e., combinations of GCMs and scenarios). The selected subset should be representative of plausible future patterns of precipitation,  $ET_0$ , and temperature of the CVM watershed. Watermaster will host a peer review workshop to present the proposed selected datasets and gather feedback.

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<sup>11</sup> Correspondence with Stefan Rahimi-Esfarjani, March 31, 2022

2. Review and select representative future cultural conditions consistent with the water demand and supply plan scenarios. This includes a combination of future land use and applied water patterns. As the Chino Basin is expected to be built out by 2040, and the land use change from agricultural to urban uses is not expected to significantly affect DIPAW, it is practical to assume a single future land use to combine with the selected range of applied water patterns to characterize representative future cultural conditions.
3. Incorporate the chosen combinations of climate datasets and cultural conditions into the CVM:
  - Execute the HSPF and R4 models with the land use data, precipitation, and  $ET_0$  datasets from the climate projection. The results of the HSPF and R4 simulation (including DIPAW, stormwater discharge to streams, and stormwater recharge) will be used as input data of the MODFLOW model of CVM.
  - Develop SAR discharges from the upper SAR watershed at Riverside Narrows based on results from other regional models that include the same or similar climate projections as part of the model input. If appropriate regional models are unavailable, then a method will be developed to estimate future discharges. The estimated SAR discharges at Riverside Narrows will be used as input data to the MODFLOW model of CVM.

## 5.0 RECOMMENDED PROCESS TO CALCULATE THE SAFE YIELD

Section 4.0 outlined the potential approaches and recommended methods for addressing uncertainty in the model parameterization, future water demands and supply plans, and future climate scenarios. This section describes the proposed updated Safe Yield Reset methodology.

### 5.1 Update Model and Generate Calibrated Realizations

The process to update the model and generate calibrated realizations will include the following steps:

- Update the HSPF and R4 surface-water models for the historical period. The HSPF and R4 models may not need to be recalibrated for this model update; at a minimum, surface-water model outputs will be compared to measured data (e.g., discharge, applied water, stormwater recharge) to verify the models.
  - Note: To simplify the uncertainty analysis and the model update, the proposed process includes deterministic runs of the HSPF and R4 models to generate MODFLOW model input data (e.g., DIPAW, boundary fluxes) which will be treated as adjustable parameters during model calibration using PESTPP-IES.
- Update the MODFLOW model for the historical period based on observation data and the results of HSPF and R4.
- Select adjustable model parameters (e.g., horizontal hydraulic conductivity) and prepare input files to incorporate characteristics of those parameters for PESTPP-IES (such as pilot points, variograms, and covariance matrices).
- Prepare observation data as calibration targets, such as time series of groundwater elevations at wells and stream discharge.
- Use PESTPP-IES to estimate model parameters and generate a set of calibrated model realizations. Prepare statistics and water budgets to characterize each realization.
- Review the outputs and water budgets from the calibrated realizations to rank the calibrated realizations. Determine which calibrated realizations should be selected and whether more

calibrated realizations should be added. Conduct peer review process to share calibration results. Repeat the PESTPP-IES process and review outputs until enough calibrated model realizations are developed.

## 5.2 Prepare Projection Realizations

Implementing the recommended methods in Section 4.0 will result in the development of multiple projection scenarios, which are unique combinations of future demands, water supply plans, and climate scenarios. The chosen projection scenarios must comprise consistent combinations of demands, water supply plans, and climate/hydrology as defined in Section 4.2.2. The peer review process will be critical to the successful development of the projection scenarios, particularly to define the plausible range of future water demands and supply plans.

A projection realization is a unique combination a calibrated realization and a projection scenario. An “ensemble of projection realizations” will be developed which includes all the calibrated realizations and associated projection scenarios.

## 5.3 Simulate Ensemble of Projection Realizations

The steps to simulate the ensemble of projection realizations are:

1. Randomly select a calibrated realization from the pool of generated calibrated realizations.
2. Generate projection realizations by combining the selected calibrated realization with the developed projection scenarios.
3. Simulate the projection realizations generated in step 2 and calculate average net recharge of all simulated realizations.
4. Check for convergence of the average net recharge.
5. Repeat steps 1 to 4 until (1) a specified minimum number of calibrated realizations are simulated, and the convergence of average net recharge is reached or (2) a specified maximum number of calibrated realizations are simulated. The minimum and maximum numbers of calibrated realizations will be determined with input from the peer review committee prior to implementation.

### 5.3.1 Computational Feasibility of Simulating Projection Realizations

The following hypothetical example illustrates the computational feasibility of simulating the ensemble of projection realizations. A total of 40 calibrated model realizations and 15 projection scenarios would result in  $40 \times 15 = 600$  projection realizations. If the simulation of each realization takes a day to complete, a single computer CPU will need 600 days to simulate the ensemble of 600 realizations. Simulating several hundred projection realizations will require significant computing power, which can be acquired from commercial cloud computing services. For example, Amazon Web Services (AWS) currently charges a monthly cost of \$94 for a 4-CPU-Workspace that can simulate three realizations simultaneously (1 CPU is needed for the operating system). A total number of 40 4-CPU-WorkSpaces will be needed to complete the simulation of 600 realizations in five days. The total monthly cost for 40 4-CPU-WorkSpaces will be \$3,760. It is anticipated that three to six months of the computing services will be needed. Minimal staff time will be required to maintain and debug the model runs on the remote workspaces.

### **5.3.2 Storing Input and Output Files for the Model Ensemble**

Since a projection realization can produce about 50 gigabytes of simulation results, it is impractical to store complete model outputs for several hundred to thousands of simulations. Therefore, an automated process will need to be developed to simulate all realizations and to extract/post-process only the model results necessary to quantify net recharge, potential Material Physical Injury (MPI), and the state of hydraulic control. After the simulation of each projection realization, the time series of annual water budget components (e.g., change in storage) and net recharge will be calculated, the potential MPI will be assessed, and the state of hydraulic control will be determined based on the same approach that has been implemented in prior Chino Basin modeling studies (WEI, 2018b; WEI, 2020; WY, 2021). To preserve the reproducibility of the model results without having to store all input and output files, computer scripts or tools that are used to develop input files will be saved.

### **5.4 Quantify Results of Projection Realizations**

The water budget, net recharge, Safe Yield, the potential for MPI, and the state of hydraulic control will be quantified for each projection realization. The model results will be stored for each projection realization for subsequent statistical analyses.

### **5.5 Conduct Statistical Analyses of the Results of Projection Realizations**

The statistical analyses will be conducted to include:

- The annual water budget for the Chino Basin including the annual net recharge and annual change in groundwater storage over the planning period, including the range and distribution of ensemble results. The planning period will be no less than 50 years which is consistent with the planning period required by SGMA and long enough to evaluate the long-term response of the Chino Basin to evaluate for MPI and undesirable results.
- Determination of the Safe Yield over a specified 10-year period (e.g., 2026-2035) as the 10-year average of the ensemble mean annual net recharge. If the water demand and supply plan scenarios are weighted with non-uniform likelihoods, then the Safe Yield would be calculated as the likelihood-weighted 10-year average of the ensemble mean annual net recharge.
- The potential for MPI. The statistics will include the extent of potential MPI as well as details of the projection realization, including type of demand/supply plans, climate/hydrology, or parameter realizations. These statistics will allow for identifying the factors causing MPI.
- The state of hydraulic control. The statistics will include the projection scenarios and their projected time series of groundwater discharge from the Chino-North Groundwater Management Zone to the Prado Basin Management Zone. Hydraulic control is maintained if the groundwater discharge is less than the de minimis threshold of 1,000 acre-ft per year.

### **5.6 Evaluate the Risk of MPI and Undesirable Results**

The risk of potential MPI and undesirable results associated with the ensemble of projection realizations will be evaluated based on the statistics generated in 5.5. If the water demand and supply plan scenarios are weighted with non-uniform likelihoods, then the risk of potential MPI and undesirable results would be calculated as the weighted ensemble statistics. If the risk of MPI and undesirable results is significant (based on a defined threshold), then Watermaster will “identify and implement prudent measures necessary to mitigate [MPI and undesirable results], set the value of Safe Yield to ensure there is no [MPI

and undesirable results], or implement a combination of mitigation measures and a changed Safe Yield.” Mitigation measures should be guided by an examination of the projection realizations that indicate MPI and/or undesirable results.

### ***5.6.1 Considerations for Interpreting Ensemble Results***

Figure 1 shows a hypothetical time series of calculated annual net recharge for all projection realizations in the ensemble. The solid blue line represents the ensemble mean annual net recharge, and the shaded blue band indicates the spread in annual net recharge of all the projection realizations. The solid red line represents the annual mean net recharge of the ensemble for the period of 2026 through 2035.

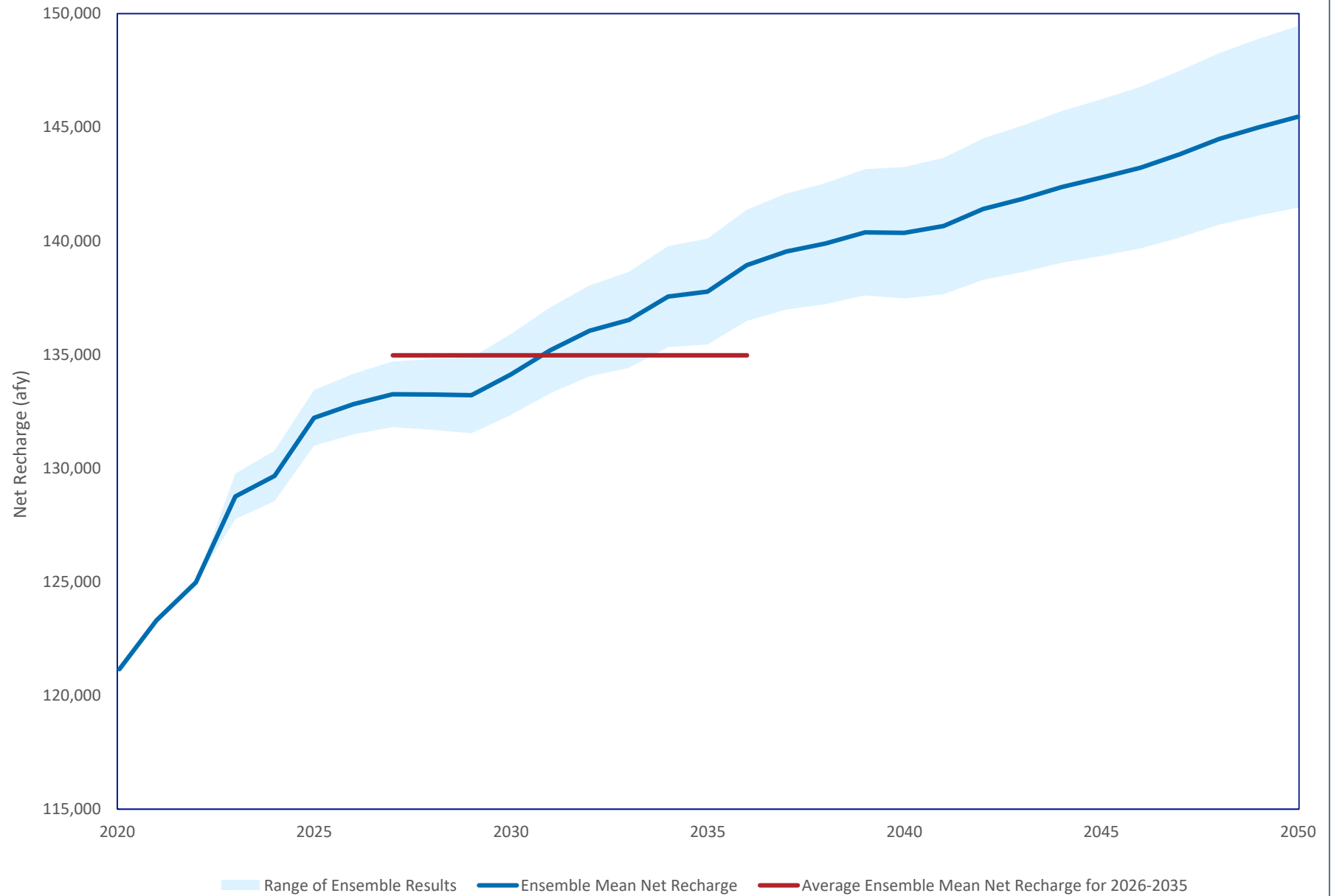
For a single projection realization, the Safe Yield for a given period (e.g., 2026 to 2035) will be calculated as the annual mean net recharge of that realization over the given period. The Safe Yield for the ensemble of projection realizations will be calculated as the 10-year average of the ensemble mean net over the given period, weighted by likelihood (see the solid red line on Figure 1). The range and standard deviation of the Safe Yield for the ensemble will be calculated based on the Safe Yield of individual projection realizations.

The probability of MPI and undesirable results will be derived from the likelihood-weighted time series of the state of hydraulic control and the potential for MPI. The results of the projection realizations will be examined to determine the drivers of any losses of hydraulic control or the occurrences of MPI (e.g., high groundwater pumping, lower precipitation, etc.). This analysis can inform planning for potential mitigation actions. To guide the analysis, thresholds of significance will be defined to determine the risk of MPI and undesirable results. For example, if less than five percent of the projection realizations in the ensemble indicate a loss of hydraulic control, then the risk that hydraulic control would be lost at the ensemble mean Safe Yield would be considered insignificant. Thresholds for defining risk of MPI and undesirable results should be determined in advance of simulating the projection ensemble.

## **5.7 Identify Data Gaps**

The BMPs for modeling under SGMA (see Section 2.2) point out that an uncertainty analysis can “identify high-value data gaps” that can improve the model’s ability to “[provide] useful information to support effective basin management decisions.” During the execution of the proposed updated Safe Yield Reset methodology, it is likely that data gaps will be identified that would improve the model calibration, reduce the uncertainty of an aspect of the model, or both. These data gaps will be documented in the final model documentation.

Figure 1. Hypothetical Projected Net Recharge Using Ensemble Approach



## 5.8 Comparison of the Current and Proposed Safe Yield Reset Methodologies

Table 3 compares the major differences between the current and proposed Safe Yield Reset methodologies.

Table 3. Comparison of Current and Proposed SY Reset Methodologies		
Step	Current SY Reset Methodology	Proposed SY Reset Methodology
Calibration of groundwater model	Calibrate groundwater model with parameter zones and PEST to generate one calibrated model realization.	Calibrate groundwater model using pilot points and PESTPP-IES to generate multiple calibrated model realizations.
Incorporation of demand and supply plans in scenario development	Using the current planning data collected from the Parties and other sources to develop a single projection scenario of future demands and water supply plans. Minimal stakeholder engagement beyond clarifying the collected data.	Collecting the same data sets as in the current SY Reset methodology. A stakeholder process will be implemented using RDM principles to understand the drivers and potential responses to stresses to aid in the development of multiple plausible projections for demand/supply plans.
Projection realization development	One projection scenario is developed based on a combination of the best estimates of future demands, supply plans, and long-term expected value hydrology adjusted for climate change.	Multiple projection realizations will be developed as unique combinations of calibrated model realizations, future demands and water supply plans, and future climate and hydrology.
Evaluation of model results	The projection scenario is evaluated based on whether the projected groundwater pumping “will cause or threaten to cause ‘undesirable results’ or ‘Material Physical Injury’.”	The method to evaluate model results is like the current SY Reset methodology, but the method is automated and applied to the ensemble of projection scenarios. Ensemble statistics are generated to characterize the potential for MPI and state of hydraulic control and identify the drivers that may cause MPI or loss of hydraulic control.
Calculation of Safe Yield based on model results	Safe Yield is calculated as the 10-year average of net recharge for a single model projection realization.	Safe Yield is calculated as the ensemble mean of the 10-year average net recharge for the ensemble of projection scenarios, possibly weighted by assigned likelihood of water demand and supply plan scenarios.

## 6.0 COST ESTIMATE AND SCHEDULE

Implementing the proposed updated Safe Yield Reset methodology will occur as part of the Court-ordered reevaluation of the Safe Yield that must be completed by June 30, 2025<sup>12</sup> (2025 Safe Yield Reevaluation). A cost estimate to implement the 2025 Safe Yield Reevaluation has been prepared and is based on (i) an understanding of the cost of implementing the uncertainty analysis (based on the process documented in Attachment A), (ii) prior modeling experience in the Chino Basin, and (iii) estimates of future billing rates. A table detailing the anticipated tasks and their estimated costs is included as Attachment D. The cost estimate is broken down into seven tasks:

<sup>12</sup> Page 17 of the 2017 Court Order

- Task 1. Update Hydrogeologic Conceptual Model and Surface Water Models
- Task 2. Recalibrate Groundwater Model and Generate Calibrated Realizations
- Task 3. Prepare Ensemble of Projection Scenarios
- Task 4. Simulate Ensemble of Projection Scenarios and Calculate Safe Yield
- Task 5. Prepare Safe Yield Reevaluation Report
- Task 6. Support Court Approval Process for Updated Safe Yield
- Task 7. Project Management

Task 6 will only be necessary if this work causes the Watermaster to recommend to the Court that the Safe Yield be changed by an amount greater (more or less) than 2.5 percent of the current Safe Yield<sup>13</sup>. The cost estimate to perform the entire scope of work is \$1.46 million over three years. The annual costs are expected to occur as follows:

- **FY 2022/23:** \$259,000
- **FY 2023/24:** \$540,000
- **FY 2024/25:** \$659,000

These cost estimates are preliminary. Some tasks are dependent on the results of prior tasks and recommendations coming out of the peer review process. Before each fiscal year, Watermaster will refine the cost estimates as part of its normal annual budgeting process.

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<sup>13</sup> Pages 15-16 of the 2017 Court Order



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## Attachment A

### Applying PESTPP-IES to Generate Calibrated Parameter Realizations

## ATTACHMENT A. APPLYING PESTPP-IES TO GENERATE CALIBRATED PARAMETER REALIZATIONS

Attachment A documents the effort to understand and demonstrate the applicability of using PESTPP-IES to calibrate and generate calibrated realizations of the Chino Valley Model (CVM), as demonstrated on a smaller, idealized (synthetic) model. Our goal is to understand (1) how to generate horizontal hydraulic conductivity (HK) distribution fields from pilot points that can be used by PEST and PESTPP-IES as input parameters, (2) how to generate calibrated parameter realizations with PESTPP-IES, and (3) how to run a model using the ensemble of calibrated parameter realizations.

This synthetic model, adapted from Using PESTPP-IES (Doherty, 2021), is used as an example to illustrate the steps generate an ensemble of calibrated parameter realizations and to conduct model simulations with the ensemble of calibrated parameter realizations.

### A.1 Overview of the Synthetic Model

The model has three layers and several observation points in each model layer, as shown in Figure A-1. The elevation of the top of the first model layer ranges from 137.5 to 178 meters and each model layer has a constant thickness of 50 meters. The western (left) boundary of the first model layer is a constant head boundary with the head value of 150 [m]. The model cells in an impervious area on the eastern (right) boundary are set as inactive cells and excluded from the flow simulation. All other model boundaries are impervious boundaries. The model is configured for a steady-state simulation with a single stress period. The model domain has a constant recharge rate of 0.002 [m/day]. There are two pumping wells in layer 3 with the pumping rates of 30,000 [m<sup>3</sup>/day] and 40,000 [m<sup>3</sup>/day], respectively.

The observed head values at the observation points are specified. The values and distribution of the horizontal hydraulic conductivity (HK) and vertical hydraulic conductivity (VK) in the model layers need to be adjusted to minimize the difference between the model-calculated and observed head values. A variogram is available and is assumed to be applicable to HK and VK in all model layers.

The parameter estimation software PESTPP-IES will be used to calibrate the model and generate calibrated parameter realizations. Many commercial graphical user interface software (GUI) for MODFLOW can be used to develop model input files. The files of the present example are available upon request.

### A.2 The Pilot Point Method

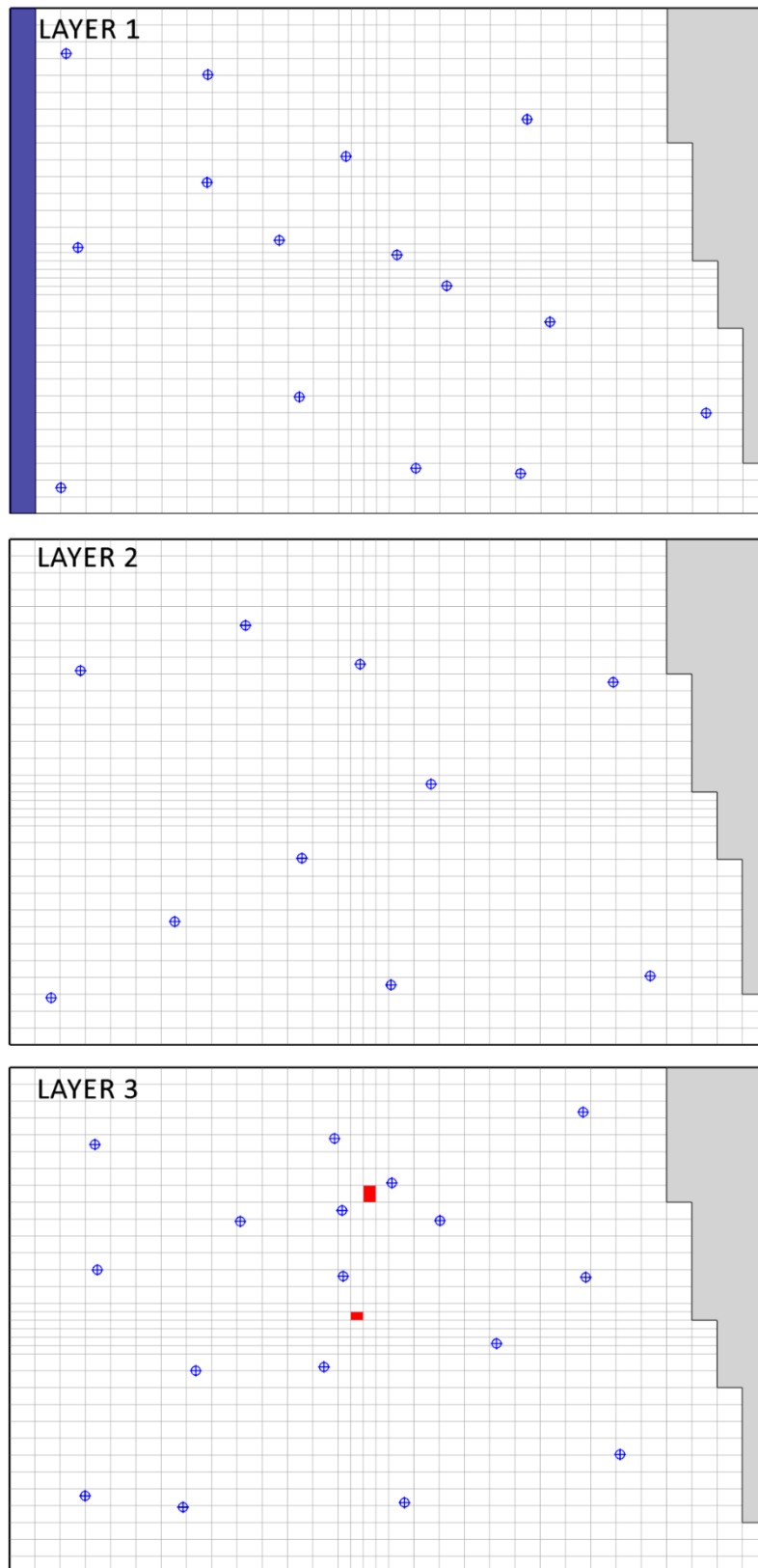
Conventional calibration uses the method of parameter zones. This methodology involves defining a limited number of zones in each model layer and assigning parameters within each zone as constant values. Parameters are then adjusted to calibrate the parameters until the fit between model-calculated and observed data is as good as possible. If the goodness of fit obtained based on these zones was not acceptable, then extra zones would be introduced into the model domain and calibration process would be repeated.

There are several shortcomings associated with the parameter zone approach. First, the procedure can be time-intensive. Second, zones of piecewise uniformity are a coarse approximation of the nature of the aquifer material, and using zones limits the ability to explore the effects of small-scale heterogeneities on model predictive uncertainty.

## Attachment A

### Applying PESTPP-IES to Generate Calibrated Parameter Realizations

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**Figure A-1. Layers and Head Observation Points of the Synthetic Model. Red blocks in Layer 3 represent the pumping wells.**

## Attachment A

### Applying PESTPP-IES to Generate Calibrated Parameter Realizations

The Pilot Point Method can be used to overcome these problems. In this method, several points with hydraulic parameters (i.e., HK and VK values in the present example) are introduced to the model domain, such as shown in Figure A-2. PEST is used to adjust the hydraulic parameters at each pilot point.

Two utility programs, PPK2FAC and FAC2REAL, from the PEST Groundwater Data Utility suite (Watermark Numerical Computing, 2020) can be used to spatially interpolate hydraulic properties associated with the pilot points to the model cells based on the Kriging method. Details of these utility programs are given in the next section.

PPK2FAC undertakes the first stage of the Kriging method. PPK2FAC generates a set of Kriging factors based on the pilot point locations and user-supplied, nested variograms, each with an arbitrary magnitude and direction of anisotropy. Individual pilot points can be assigned to different zones within the model domain. Only those points assigned to a particular zone can be used in calculating parameter values throughout that zone using the Kriging interpolation procedure. The variogram upon which Kriging is based can be different in each zone, reflecting differences in the geology, or in the level of heterogeneity, expected within each geological unit. If only one pilot point is assigned to a particular zone, then a uniform parameter value is assigned to all cells within that zone.

FAC2REAL undertakes the second stage of the Kriging method. FAC2REAL calculates the interpolated value at each model cell as the sum of the products of the Kriging factor and hydraulic property of the pilot points within the search range of the cell. Upper and lower limits can be applied to interpolated values if desired. The calculation results are saved in a MODFLOW-compatible real array file.

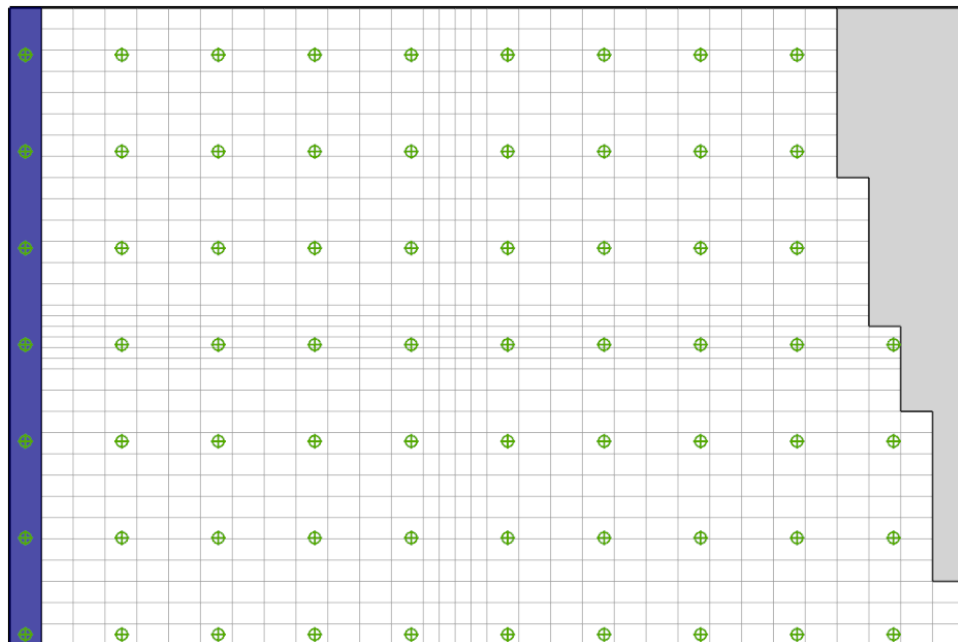


Figure A-2. Pilot points

## A.3 Spatial Interpolation with Pilot Points

This section demonstrates the use of the utility programs PPK2FAC and FAC2REAL. First, PPK2FAC will be used to create a Kriging factor file, and then FAC2REAL will be used to spatially interpolate HK values associated with pilot points to model cells. The required input data files for these programs are shown below. The formats of these files are specified in the PEST suite (Doherty, 2018) and PEST Groundwater Data Utility suite (Watermark Numerical Computing, 2020).

- PPK2FAC input files:
  - Grid specification file: defines the grid location and column/row spacing.
  - Pilot points file: defines the location of pilot points.
  - Zonal integer array file: an integer array containing the pilot point zones.
  - Structure file: defines structures with variograms.
- FAC2REAL input files:
  - Kriging factor file: contains kriging factors calculated by PPK2FAC
  - Pilot points file: defines the location of pilot points.

Calculation of Kriging factors can be a very time-consuming task if the number of pilot points is large. Fortunately, Kriging factors are independent of the values assigned to the pilot points and therefore just need to be calculated once for each set of pilot points.

### A.3.1 Running PPK2FAC

The utility program can be started by double-clicking the executable file “ppk2fac.exe” in Windows Explorer. Once the program is started, it will prompt for user’s input. Figure A-3 shows the prompts and the corresponding user’s inputs in red. In the present example, the calculated kriging factors are stored in the file “krigingfactor1.dat.”

The utility program can also be started in a Windows Command Prompt by typing “ppk2fac < ppk2fac.in” followed by Enter. This instructs PPK2FAC to read the user’s input from the text file “ppk2fac.in” that contains the pre-recorded user’s inputs.

Generation of MODFLOW and MT3D input arrays based on PPK2FAC-generated Kriging factors is carried out by FAC2REAL. Separation of the time-consuming, factor-generation process from the array construction process facilitates automatic parameter estimation based on pilot points using software such as PEST, for Kriging factors are unchanged as values assigned to the pilot points are adjusted through the parameter estimation process (Watermark Numerical Computing, 2020).

### A.3.2 Running FAC2REAL

The utility program FAC2REAL can be started by double-clicking the executable file “fac2real.exe” in Windows Explorer. Once the program is started, it will prompt for user’s input. Figure A-4 shows the prompts and the corresponding user’s inputs in red. The pilot point file “points1.dat” and the output file “krigingfactor1.dat” from PPK2FAC is used as input to FAC2REAL. The interpolation results are stored in the file “kx1.dat”. Figure A-5 shows a contour map based on the interpolation results of the synthetic model.



## Attachment A

### Applying PESTPP-IES to Generate Calibrated Parameter Realizations

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The utility program can also be started in a Windows Command Prompt by typing “fac2real < fac2real.in” followed by Enter. This instructs FAC2REAL to read the user’s input from the text file “fac2real.in” that contains the pre-recorded user’s inputs.

The hydraulic property values assigned to the pilot points can be different from those provided in the pilot points file read by PPK2FAC. Nevertheless, it must list the same points in the same order, and each point must be assigned to the same zone.

Program PPK2FAC calculates point-to-cell factors by which kriging is undertaken from a set of pilot points to the finite-difference grid.

Enter name of grid specification file: **pest.gridspecification**  
– grid specifications read from file pest.gridspecification

Enter name of pilot points file: **points1.dat**  
– data for 67 pilot points read from pilot points file points1.dat

Enter minimum allowable points separation: **0**

Enter name of zonal integer array file: **zones.dat**

Is this a formatted or unformatted file? [f/u]: **f**  
– integer array read from file zones.dat

Enter name of structure file: **struct.dat**

The following zones have been detected in the integer array:  
For zone characterized by integer value of 1:-  
Enter structure name (blank if no interpolation for this zone): **struct1**  
Perform simple or ordinary kriging [s/o]: **o**  
Enter search radius: **2970**  
Enter minimum number of pilot points to use for interpolation: **1**  
Enter maximum number of pilot points to use for interpolation: **12**

Enter name for interpolation factor file: **krigingfactor1.dat**

Is this a formatted or unformatted file? [f/u]: **f**

Enter name for output standard deviation array file: **standarddeviation.dat**

Write a formatted or unformatted file? [f/u]: **f**

Enter name for regularization information file: **regularizationinfo.dat**

Carrying out interpolation for integer array zone 1....  
Number of pilot points for this zone = 67  
Mean data value for these pilot points = 44.849  
Data standard deviation for these points = 31.894  
Working...

**Figure A-3. Screen prompts of the utility program PPK2FAC and the user’s inputs in red.**

## Attachment A

### Applying PESTPP-IES to Generate Calibrated Parameter Realizations

Program FAC2REAL carries out spatial interpolation based on interpolation factors calculated by PPK2FAC and pilot point values contained in a pilot points file.

Enter name of interpolation factor file: **krigingfactor1.dat**

Is this a formatted or unformatted file? [f/u]: **f**

Enter name of pilot points file [points1.dat]: **points1.dat**

– data for 67 pilot points read from pilot points file points1.dat

Supply lower interpolation limit as an array or single value? [a/s]: **s**

Enter lower interpolation limit: **1e-10**

Supply upper interpolation limit as an array or single value? [a/s]: **s**

Enter upper interpolation limit: **1e10**

Enter name for output real array file: **kx1.dat**

Write a formatted or unformatted file? [f/u]: **f**

Figure A-4. Screen Prompts of the utility program FAC2REAL and user's inputs in red

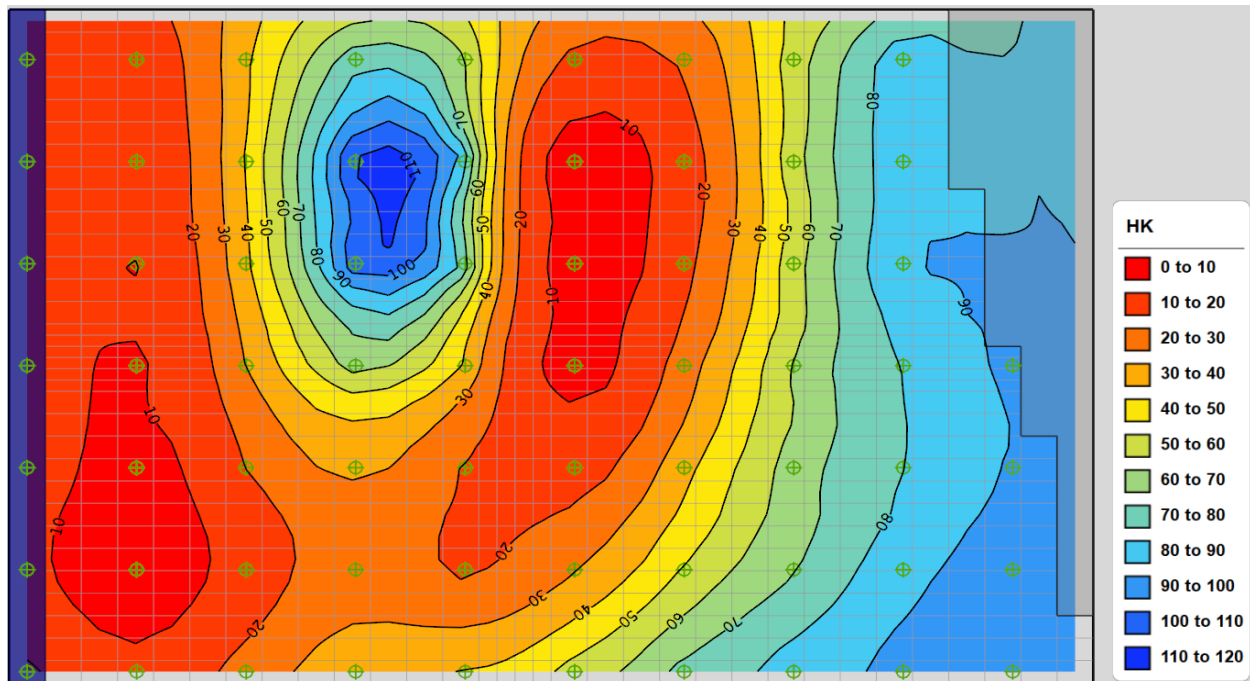


Figure A-5. A contour map based on the interpolation results created by FAC2REAL

## A.4 Using the Pilot Point Method with PEST

Pilot points are integrated to a model by creating a batch file and inserting the name of a batch file to the “\* model command line” section of a PEST control file. The batch file contains several instructions that together form a “composite model” used by PEST. Such a “composite model” includes instructions to manipulate data (such delete files, invoke utility programs, start model run, and postprocess model results) for a PEST iteration.

### A.4.1 A Simple Composite Model

A simple composite model can consist of just a few instruction lines shown below.

```
del hk1.dat
fac2real < fac2real.in
mf2005 mymodel.nam
targpest
```

The lines of the simple composite model are as follows.

- The first line “del hk1.dat” deletes the “hk1.dat” file that contains the interpolated HK values from the previous calibration iteration.
- The second line “fac2real < fac2real.in” instructs FAC2REAL to read input values from the fac2real.in file. FAC2REAL generates the hk1.dat file based on the values associates with the pilot points that are updated by PEST for the current iteration of the calibration process. Note that the same kriging factor file cited in fac2real.in is reused for each iteration.
- The line “mf2005 mymodel.nam” starts MODFLOW-2005 with the Name file “mymodel.nam”. The hk1.dat file is included in the “mymodel.nam” file as a part of the model input.
- The last line “targpest” runs the utility program Targpest, which extracts the model output data and save them in a form that can be read by PEST through specific instruction files need to be designed to match the output format of targpest. TARGPEST is distributed with the commercial software Groundwater Vistas. See its manual for details.

### A.4.2 A Complex Composite Model

The batch file shown in Figure A-6 is an example of a complex composite model. Note that “mod2obs.exe,” “layerweight.exe,” “streamgage.exe,” and “lakestage.exe” are utility programs of Processing Modflow (Chiang, 2022) that are designed to extract the model results and store the extracted data in the formats that can be read by PEST. Specific instruction files are designed in Processing Modflow to match the output of those utility programs.

## Attachment A

### Applying PESTPP-IES to Generate Calibrated Parameter Realizations

---

```
del kx_array
del kz_array
fac2real < fac2real1.in
fac2real < fac2real2.in
MODFLOW-NWT_64.exe mymodel.nam
mod2obs.exe < pest.mod2obsheadinput
layerweight.exe pest.boreinfo pest.mod2obsheadoutput pest.headoutput
mod2obs.exe < pest.mod2obsdrawdowninput
```

**Figure A-6. A complex composite model**

The lines of the above example are as follows.

- The lines “del kx\_array” and “del kz\_array” respectively delete the kx\_array and kz\_array files that contain the interpolated HK and VK values from the previous calibration iteration.
- The line “fac2real < fac2real1.in” instructs FAC2REAL to read input values from the “fac2real1.in” file. FAC2REAL generates the kx\_array file based on the values associates with the pilot points that are updated by PEST for the current iteration of the calibration process.
- The line “fac2real < fac2real2.in” instructs FAC2REAL to read input values from the “fac2real2.in” file. FAC2REAL generates the kz\_array file based on the values associates with the pilot points that are updated by PEST for the current iteration of the calibration process.
- The line “MODFLOW-NWT\_64.exe mymodel.nam” starts MODFLOW-NWT with the Name file “mymodel.nam.” The kx\_array and kz\_array files are cited in the “mymodel.nam” file as a part of the model input.
- The line “mod2obs.exe < pest.mod2obsheadinput” instructs MOD2OBS to read input values from the pest.mod2obsheadinput file. MOD2OBS interpolates model calculated cell-based head values to specific observation point locations and times.
- The line “layerweight.exe pest.boreinfo pest.mod2obsheadoutput pest.headoutput” instructs LAYERWEIGHT to read input values from the files cited in the line. LAYERWEIGHT calculates layer-weighted average head values for multi-layer head observations.
- The line “mod2obs.exe < pest.mod2obsdrawdowninput” instructs MOD2OBS to read input values from the pest.mod2obsdrawdowninput file. MOD2OBS interpolates model calculated cell-based drawdown values to specific observation point locations and times.
- The line “layerweight.exe pest.boreinfo pest.mod2obsdrawdownoutput pest.drawdownoutput” instructs LAYERWEIGHT to read input values from the files cited in the line. LAYERWEIGHT calculates layer-weighted average drawdown values for multi-layer drawdown observations.
- The line “streamgage.exe modflow.streamout pest.reach pest.strflowobstimes pest.streamout” instructs STREAMGAGE to read input values from the files cited in the line. STREAMGAGE calculates the weighted streamflow values at the times of interest for each observation point.

## Attachment A

### Applying PESTPP-IES to Generate Calibrated Parameter Realizations

---

- The line “lakegag.exe modflow.lakeout pest.lakeobspt pest.stageobstimes pest.lakeoutput” instructs LAKEGAGE to read input values from the files cited in the line. LAKEGAGE calculates the weighted stage values at the times of interest for each observation point.

#### ***A.4.3 A Complete PEST Control File***

Figure A-7 shows a complete PEST control file that includes the batch file “modelrun.bat” in the “\* model command line” section. The modelrun.bat represents a complex composite model as shown in Figure A-6.

The lines in the “parameter data” section of the PEST control file list the names, initial values, and minimum/maximum bounds of parameters.

The first six lines in the “model input/output” section of the PEST control file list two pairs of “pilot point template file and pilot point file.” A template file contains the parameter names that PEST will replace with estimate values of the corresponding parameters. Once the parameter names in a template file are replaced with values, PEST writes the results to the corresponding pilot point file. The pilot point files with updated parameter values are interpolated to model cells by FAC2REAL in the next iteration.

The last line in the “model input/output” section of the PEST control file list pairs of the instruction file and corresponding output file from the composite model. This instruction file is tailored to instruct PEST to correctly read desired model output data from the matching output file. Those model output data are compared with the observed counterparts during the parameter estimation process. For details of the PEST control file, template file, and instruction file, see the PEST manual (Doherty, 2018).

## Attachment A

### Applying PESTPP-IES to Generate Calibrated Parameter Realizations

```
pcf
* control data
restart estimation
      402      42      2      0      3
6 1 single point 1 0 0
20 -3.0 0.3 0.01 7 999 lamforgive
10 10 0.001
0.1 1 noai noboundscale
50 0.01 3 3 0.01 3
0 0 0 PARSAVEITN
* singular value decomposition
      1
      402 5.0e-007
      1
* parameter groups
Kp      relative  0.01 0   switch 2 parabolic
Kz      relative  0.01 0   switch 2 parabolic
* parameter data
KpKp1 log factor 100 1 10000 Kp 1.0 0.0 1
      [lines deleted]
KzKz200 log factor 10 0.1 1000 Kz 1.0 0.0 1
KzKz201 log factor 10 0.1 1000 Kz 1.0 0.0 1
* observation groups
head1
head2
head3
* observation data
o1 163.04 1 Head1
o2 154.00 1 Head1
      [lines deleted]
o42 156.90 1.5 Head3
* model command line
modelrun.bat
* model input/output
points1.tpl points1.dat
points2.tpl points2.dat
```

Figure A-7. A Complete PEST Control File

## A.5 Steps to Calibrate Model and Generate Calibrated Parameter Realizations

PESTPP-IES can be used to calibrate a model and generate calibrated parameter realizations for the model at the same time. Two types of files are required to enable this feature of PESTPP-IES — a Parameter Uncertainty File and a Covariance Matrix File. The Parameter Uncertainty File acts as a container of all covariance files of a model. The Covariance Matrix File contains the covariance of pairs of parameters.

### A.5.1 Covariance Matrix File

Covariance matrix files can be generated by using the PPCOV utility from the PEST Groundwater Data Utility suite. The utility program PPCOV can be started by double-clicking the executable file “ppcov.exe” in the Windows Explorer. Once the program is started, it will prompt for user’s input. Figure A-8 shows the prompts and the corresponding user’s inputs in red. The pilot point file “points1.dat” and the “struct.dat” files are used as input to PPCOV and the calculated covariance matrix is stored in the “cov\_kx1.mat” file.

Program PP2COV prepares a covariance matrix file for pilot point parameters based on a geostatistical structure file.

Enter name of pilot points file: **points1.dat**

– data for 67 pilot points read from pilot points file points1.dat

Enter minimum allowable separation for points in same zone: **0**

Enter name of structure file: **struct.dat**

Enter structure to use for pilot point zone 1: **struct1**

Enter name for output matrix file: **cov\_kx1.mat**

Enter pilot point prefix for parameter name (<Enter> if none): **kp**

Filling covariance matrix....

– file cov\_hk1.mat written ok.

Warning: in any future processing of this covariance matrix, sensitivities for parameters with a log-variogram must be taken with respect to the log of the parameters.

**Figure A-8. Screen prompts of the utility program PP2COV and the user’s inputs in red.**

### A.5.2 Parameter Uncertainty File

PESTPP-IES requires a parameter uncertainty file that defines the covariance matrices of the estimable parameters. Figure A-9, for example, shows a parameter uncertainty file that contains two covariance matrix files for the first model layer of the example model – “cov\_kx1.mat” for the HK parameters and “cov\_kz1.mat” for the VK parameters. The product of a matrix and the corresponding variance\_multiplier is the covariance between parameter pairs that is used by PESTPP-IES.

## Attachment A

### Applying PESTPP-IES to Generate Calibrated Parameter Realizations

---

```
START COVARIANCE_MATRIX
    file cov_kx1.mat
    variance_multiplier 0.25
END COVARIANCE_MATRIX

START COVARIANCE_MATRIX
    file cov_kz1.mat
    variance_multiplier 0.25
END COVARIANCE_MATRIX
```

**Figure A-9. A Parameter Uncertainty File that defines covariance matrices of estimable parameters**

### A.5.3 Running PESTPP-IES

Once a parameter uncertainty file and its related covariance matrix files are created, they can be included in a PEST control file that can be used by PESTPP-IES to calibrate and generate calibrated parameter realizations in the following way.

First, insert the lines shown in Figure A-10 to the end of a PEST control file. The line “++ies\_num\_reals(80)” set the desired number of calibrated parameter realizations; the line “++parcov(param.unc)” informs PESTPP-IES the name of the Parameter Uncertainty file; the line “++ies\_subset\_size(2)” instructs PESTPP-IES to devote two realizations to determining the best Marquardt lambda and line search factor to use during each iteration; the last line “++ies\_save\_binary(true)” instructs PESTPP-IES to record iteration-specific, updated parameter ensembles, as well as corresponding iteration-specific, updated model output ensembles, in binary JCB files (use “++ies\_save\_binary(false)” to save ASCII files). If the parcov() control variable is omitted from a PEST control file, then PESTPP-IES calculates prior uncertainties from parameter bounds supplied in that control file.

```
++ ies_num_reals(80)
++ parcov(param.unc)
++ ies_subset_size(2)
++ ies_save_binary(true)
```

**Figure A-10. Lines to invoke the iterative ensemble smoother of PESTPP-IES**

Once the lines shown in Figure A 10 are inserted to the PEST control file, PESTPP-IES can be started by running the following command in Command Prompt. This line starts the executable “ipestpp-ies.exe” and instructs it to read the PEST control file “example.pst”.

```
ipestpp-ies example.pst
```



## A.6 PESTPP-IES Output Files

All output files written by PESTPP-IES use the same filename base as the PEST control file. In our present example, some of the output files are JCB files as the line “++ies\_save\_binary(true)” was included in the PEST control file. The JCB files contain parameter and observation values comprising each parameter and observation realization; the iteration number to which these values pertain is included in the filename extension, “example.N.par.jcb” and “example.N.obs.jcb” respectively, where N is the iteration number.

PESTPP-IES also writes the “example.phi.actual.csv” file that stores the iteration-by-iteration history of the objective functions. Inspecting of this file allows the modeler to determine the goodness of the fit.

## A.7 Inspecting Parameter Ensembles

The program JCB2CSV (a member of the PEST suite of utility support programs) can be used to convert the contents of a JCB file to a CSV file. To obtain a CSV file listing parameter values comprising all realizations updated during iteration 10, use the command:

```
jcb2csv example.10.par.jcb example.10.par.csv nt
```

The “nt” component of the above command stands for “no transpose”. Each row of the resulting CSV file contains a single parameter realization. If you prefer that parameter realizations be ascribed to columns rather than rows, use the above command with “t” (for transpose) instead of “nt”.

If you import file “example.10.par.csv” into EXCEL, you will note that realizations are named “base” and then “0” to “78”, this amounting to 80 realizations in all. Initial parameter values for the base realization are initial parameter values in the PEST control file.

## A.8 Running a Model using Ensembles

Individual parameter realizations stored in a JCB file can be extracted and applied to a calibration or projection model in the following steps. A simple script (for example, written in Python) can be used to automate the process.

1. The JCB2PAR utility (supplied with the PEST suite) is used to extract an individual parameter realization from a JCB file and save the parameters in a PEST parameter value file (i.e., a PAR file). The following command, for example, extract the 60th parameter realization from iteration 10 to the PEST parameter value file “realization60.par”.  

```
jcb2par example.10.par.jcb 60 realization60.par
```
2. Replace the parameter values in the pilot points files (for the present example, “points1.dat”, “points2.dat”, etc.) with the parameter values in the PEST parameter value file.
3. Use FAC2REAL as shown in Section A.3.2 to create MODFLOW-compatible parameter matrix files with the updated Pilot Points files.
4. Finally, the parameter matrix files can be applied to a MODFLOW model with the REPARRAY utility program or through the MODFLOW Open/Close option in the model’s NAME file.

## Attachment A

### Applying PESTPP-IES to Generate Calibrated Parameter Realizations

---

5. The model result (for example, a safe yield time series) of the parameter realization is calculated.
6. Repeat the steps 1 to 5 for all parameter realizations.

Running a model using the ensemble of parameter realizations will yield an ensemble of model results that can be used to quantify the predictive mean and uncertainties.

## Attachment B

Response to Party Comments on the Draft Technical  
Memoranda dated May 5, 2022, July 12, 2022, and  
September 1, 2022

**STATE OF CALIFORNIA DEPARTMENT/JOHN WOOD GROUP PLC  
(RICHARD REES, PG, CHG)****Comment No. 1 (May 5, 2022 Draft)**

The Revised Safe Yield Reset Methodology Watermaster and its Engineer have proposed in the Technical Memorandum (TM) appears to be a technically sound response to previous comments and requests made by parties, but it is relatively complex. We believe that groundwater modeling should follow the simplest approach that meets the modeling objectives. Based on the scale and complexity of the Chino Basin and the various requests made by parties, we understand the initially proposed methodology is complex, but believe that the proposed methodology could be simplified during implementation, with additional complexity added only if necessary.

**Response:** We generally agree with the comment. We have updated the Draft TM to address your and others' requests for simplification.

**Comment No. 2 (May 5, 2022 Draft)**

(Section 3: Uncertainty in the CVM and its Use in the Safe Yield Reset) This section describes the nature and sources of available data for model inputs and uncertainties associated with the data. Based on previous work, Watermaster and its Engineer should be very familiar with the model and should have a clear picture of the model's sensitivity to each parameter or type of input. Although a description of sensitivity is provided for some parameters, it is not described for most parameters. It would be very helpful to include information in this section to indicate the relative importance and sensitivity associated with each parameter or type of data. This would help the reader understand the extent to which uncertainty associated with an individual parameter or type of data would be expected to have a major influence on model results. For example, some parameters with a high level of uncertainty may not matter (e.g., stream properties), while other parameters are much stronger drivers of model results such that even relatively small changes in parameter value makes a notable difference in model results (e.g., storage coefficient). Some discussion of this nature is included in Section 4, and is helpful, but introducing this information in Section 3 would provide context for the rest of the TM.

**Response:** The relative sensitivity of the model parameters is discussed in Section 3.2. Beyond the discussion provided in Section 3.2 and the sensitivity analysis of the model parameters documented in the 2020 SYR Report, we have not performed a sensitivity analysis of the historical data or data used for projections.

**Comment No. 3 (May 5, 2022 Draft)**

(Section 4: Potential Approaches for Characterizing and Addressing Uncertainty) of the three approaches to uncertainty described (deterministic, robust decision-making [RDM], and dynamic), we agree RDM appears to be the appropriate approach. The details and level of complexity that go along with this approach may vary, however, from those recommended in the TM.

**Response:** This comment does not require a response.

#### **Comment No. 4 (May 5, 2022 Draft)**

(Section 4.2: Model Parameters) We agree an Iterative Ensemble Smoother (IES) is an appropriate tool for use in addressing uncertainty in model parameter values. The TM states, “Based on the nature of the IES algorithm, the number of models runs per estimation iteration depends on the number of desired calibrated groundwater system realizations and does not depend on the number of adjustable parameters.” Please examine whether limiting the number of adjustable parameters (perhaps to those selected based on previous sensitivity analysis results) could reduce the complexity and effort of future steps? Also, this section appears focused on parameters in the groundwater flow model but does not appear to explain parameters and uncertainties associated with the HPSF and R4 models. During the May 19<sup>th</sup> Workshop, there was some discussion on how parameters of the HPSF and R4 model output would be incorporated into the model. Additional information on this approach should be provided.

**Response:** As stated in the draft TM, increasing the number of adjustable parameters does not increase the effort of implementing IES for the uncertainty analysis. We do not plan to conduct an uncertainty analysis on the HSPF and R4 models. We plan to update the HSPF and R4 models and use them like our current methodology. It is not recommended that the HSPF or R4 models be subject to the uncertainty analysis. Rather, the HSPF/R4 estimated DIPAW and subsurface inflows to CVM will be included as adjustable parameters in PESTPP-IES. We have updated the draft TM to clarify the proposed process.

#### **Comment No. 5 (May 5, 2022 Draft)**

(Section 4.3: Demand and Supply Projections) The process described in this section seems reasonable. The number of scenarios (up to 6) resulting from this process may be greater than necessary and may lead to unnecessary effort in this and subsequent steps (only 3 demand and supply scenarios are noted in the example given in Section 5.1). We recommend a smaller number of scenarios be targeted with more scenarios added only if necessary. Also, in this and subsequent sections, consider whether the selected demand and supply scenarios should be weighted differently in subsequent steps based on whether the participating agencies deem them to be more likely/best estimates or less likely/bracketing scenarios.

**Response:** We agree with your recommendation to target a smaller number of scenarios. The number of demand and supply projection scenarios will be recommended based on workshops with the Parties and wholesale agencies. As reflected in Section 5.2 of the updated draft, we propose to first simulate a limited subset of projection realizations, adding additional simulations only if necessary. We will define the limit of projection realizations prior to simulations with input from the peer review committee. We respond to your recommendation of weighting scenarios in response to Comment No. 7.

#### **Comment No. 6 (May 5, 2022 Draft)**

(Section 4.4: Climate Projections) The procedure recommended in the TM includes, “Review and select a subset of the available dynamically downscaled datasets (i.e., combinations of GCMs and scenarios). The selected subset should be representative of plausible future patterns of mean precipitation, ET<sub>0</sub>, and temperature of the CVM watershed.” For consistency with the previous section, we recommend that an

approximate or maximum number of datasets be proposed, as this will impact the level of effort for subsequent steps. We also suggest that some explanation be provided for how plausibility will be determined and agreed. In addition, we note that other modeling being conducted by Watermaster's Engineer to support an update to the Salt and Nutrient Management Plan for the Chino Basin involves incorporation of assumed future climate conditions as requested by the RWQCB. We recommend that those same assumed future climate conditions be included in one or more of the simulations conducted as part of the Safe Yield Reset process.

**Response:** We have updated the draft TM to describe our proposal to select climate scenarios and gradually increase the number of simulated projection realizations until the results of the simulated net recharge of the ensemble converge. We will present the available climate datasets and our proposed selected datasets at a peer review workshop to gather feedback before implementation. We will ensure consistency in the planning scenarios, including future climate, across other Chino Basin planning studies.

### **Comment No. 7 (May 5, 2022 Draft)**

(Section 5.1: Recommended Implementation of Ensemble Approach) While the approach described seems reasonable for some types of uncertainties, it may not consider likelihood or weighting that might be appropriate for others. Specifically, it may be feasible for parties to assign a degree of likelihood or certainty to various water demand and supply projections. If so, would the recommended approach include weighting or other methods to account for this? What is the basis for the stated 40 calibrated model realizations? Would it be possible to start with a smaller number of realizations, review results, add more realizations, and identify statistically when increasing the number of realizations resulted in a change in the overall range of results that did not exceed a pre-determined threshold?

**Response:** We have added text in the referenced section and other sections to include provisions for weighting the likelihood of the water demand and supply plan scenarios. It is possible for Parties to assign likelihoods to the demand and supply plan scenarios, which may aid in constraining the plausible outcomes when recalculating the Safe Yield. Weighting the likelihood of these demand and supply plan scenarios would add some complexity to the interpretation of the model results but may be valuable.

40 calibration realizations were suggested as an example to demonstrate the process to generate calibrated realizations and the scale of resources necessary to implement the proposed methodology. There is no way to know the distribution of potential model results before conducting the uncertainty analysis, and there is therefore no way to identify an adequate number of model realizations to characterize the plausible range of model parameters beforehand. The actual number of calibrated realizations will be determined based on the pattern of results. We propose to start with a smaller number of calibrated realizations, review the results with the peer review committee, and add complexity only if necessary. We have updated the draft TM to clarify the proposed process.

### **Comment No. 8 (May 5, 2022 Draft)**

(Section 5.1.1: Simulation Process and Results) Although saving complete output files for all simulations may not be practical or necessary, saving output files for specific simulations (or at least saving input files or

enough information to allow re-creating the results) may provide value for purposes not specifically related to the Safe Yield Reset envisioned at this time. As noted in the following comment on Section 5.2, we recommend that time-series storage and change in storage values be saved for each realization.

**Response:** We agree with your comment. We plan to save the software codes and adequate data to re-create the input files sufficient to regenerate the results of the model ensemble. We have updated the draft TM to clarify.

### **Comment No. 9 (May 5, 2022 Draft)**

(Section 5.2: Proposed Updated Methodology to Calculate the Safe Yield) Section 5.2 indicates the water budget will be quantified for each realization. It is not clear whether this includes time-series output for all individual water budget terms. We recommend the methodology in this topic be clarified and that time-series storage and change in storage be saved for each realization. In addition, the methodology used for calculation of Safe Yield should account for any weighting of more-likely or less-likely scenarios as noted above in the comments on Section 5.1.

**Response:** We propose to save the time series of storage and storage change as one of the water budget components saved in each realization. We have updated the draft TM to clarify.

### **Comment No. 10 (July 12, 2022 Draft)**

P. 9, first enumerated paragraph. This paragraph identifies that the uncertainty analysis can also identify high-value data gaps that could be “prioritized to improve confidence in the model outputs.” We believe that Watermaster is evaluating data gaps every time it updates the model. Consider adding identification of high-value data gaps as a step in the methodology in Section 5.3 to take credit for work that Watermaster already plans to do. Data gap evaluation could be added as a final step of the methodology as suggestions to improve the model in future iterations if high-value data gaps are identified.

**Response:** We have added Section 5.7 to the TM to explicitly include the identification of data gaps into the proposed updated Safe Yield Reset methodology.

### **Comment No. 11 (July 12, 2022 Draft)**

P. 24, last paragraph, fourth sentence. Should this be “... converge or a specified maximum number of projection realizations is reached”?

**Response:** You are correct. We have updated the TM accordingly.

### **Comment No. 12 (July 12, 2022 Draft)**

P. 27, first paragraph, last sentence. This sentence is a double negative. It should be “...if less than five percent of the models in the ensemble indicate a violation...”

**Response:** You are correct. We have updated the TM accordingly.

### **Comment No. 13 (July 12, 2022 Draft)**

P. 27, enumerated bullet number 5. Like the comment on page 24, should this be “Repeat steps 3 and 4 until convergence is reached or a specified maximum number of projection realizations are simulated.”

**Response:** You are correct. We have updated the TM accordingly.

### **Comment No. 14 (September 1, 2022 Draft – 2022 Reset TM [Attachment C])**

First sentence: This first sentence makes it clear that this is a summary of a methodology. We suggest referencing the document on which this summary is based (i.e., the Technical Memorandum proposed Updated Methodology to Calculate the Safe Yield of the Chino Basin). Or at a minimum, expand the description of how the updated methodology was developed (e.g., workshops, preparation of draft reports, addressing comments, etc.).

**Response:** We have included a footnote referencing the detailed TM.

### **Comment No. 15 (September 1, 2022 Draft – 2022 Reset TM [Attachment C])**

First sentence: In the September 15, 2022 Advisory Committee meeting, Mr. Kavounas indicated that this methodology will be used for scheduled Safe Yield reevaluations (e.g., 2025 and 2030) and any future interim Safe Yield evaluation triggered by the opinion of Watermaster’s Engineer that Safe Yield is of more or less than 2.5% of the then current Safe Yield. We suggest modifying this statement to clarify that the methodology applies to both scheduled Safe Yield evaluations and interim Safe Yield Reset evaluations or clarify if it does not.

**Response:** The 2022 Reset TM will be an attachment to the Watermaster Rules and Regulations and will replace the current 2015 Safe Yield Reset TM (Exhibit A to the current Rules and Regulations). We believe it’s clear that the methodology in the 2022 Reset TM is to be used for all future Safe Yield reevaluations. Hence, we have not changed the sentence.

### **Comment No. 16 (September 1, 2022 Draft – 2022 Reset TM [Attachment C])**

Step 1 of the methodology: The first sentence of this bullet is very specific to use the data since implementation of the OBMP. For the 2020 model, the calibration period started on July 1, 1977, which is significantly different than the OBMP Implementation (1999/2000) date proposed here. The second sentence is ambiguous in two ways: (1) "wet and dry" is subjective and (2) what is the long-term historical precipitation record? Is this the record since the implementation of the OBMP or something else? Could this sentence be interpreted as allowing the re-calibration period to extend earlier than the implementation of the OBMP or does the first sentence preclude that possibility? If the sentence allows for an earlier re-calibration period, should there be limits based on the quantity and quality of the information available (e.g., production and water level data)?

**Response:** This step was described to allow flexibility for the Engineer to apply professional judgement to determine the appropriate calibration period with feedback from the peer review process. However, the calibration period must include data collected since the implementation of the OBMP. It does not require



that the calibration period begin in 1999/2000 or preclude the possibility of the calibration period extending earlier than 1999/2000.

## **APPROPRIATIVE POOL (THOMAS HARDER, PG, CHG)**

### **Comment No. 1 (May 5, 2022 Draft)**

In general, the Watermaster's engineer, West Yost (WY), is following an approach and methodology for applying uncertainty analysis to reevaluate the Chino Basin Safe Yield that is responsive to my recommendation following the previous Safe Yield Reset process (letter dated April 23, 2020) and is consistent with the California Department of Water Resources (CDWR) Best Management Practices for predictive model analysis. What was not anticipated was that the cost to implement the analysis is estimated to be \$1.75 million to \$2.3 million over the cost of analyzing the Safe Yield without it. At the workshop, most of our comments to the proposed methodology were associated with recommendations to streamline the uncertainty analysis with the goal of reducing the amount of time, and therefore the cost, to conduct the analysis, considering the planning estimate. Those recommendations, and some additional ones, are described below.

While we have not had access to the detailed work breakdown that resulted in the planning level cost estimate for the uncertainty analysis, two aspects of the Chino Valley Model (CVM) appear to be factoring into long analysis times, which presumably result in higher cost of analysis. These are:

- The relatively long runtime of the MODFLOW model (approximately four hours), and
- The complicated configuration of the CVM (it is comprised of four models – MODFLOW, R4, HSPF, and HYDRUS).

**Response:** We agree that the uncertainty analysis should be streamlined where practical. To clarify the reference to the cost estimates:

- The total cost of the 2020 Safe Yield Recalculation was about \$1 million.
- The total cost to implement the updated Safe Yield Reset methodology is estimated to be about \$1.75 million to \$2.3 million over three years.<sup>1</sup>

The planning-level cost estimate was partially based on the proof-of-concept of the PESTPP-IES method documented in Attachment A of the first draft TM. We anticipate the cost due to the additional runtime of the ensemble to be a small, as there is little staff time necessary to track and debug the model runs once, they are initiated. The primary reasons for the increase in cost and effort to implement the proposed updated SY Reset methodology compared to the 2020 SY Recalculation are the following:

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<sup>1</sup> This cost estimate has been revised since the responses to comments on the May 5, 2022 Draft TM. See Attachment D.

- Conversion of the CVM to a pilot point method of calibration to facilitate the use of PESTPP-IES.
- Development and application of PESTPP-IES tools.
- Development of tools to generate scenarios for projection realizations.
- Development of tools and methods to systematically assess MPI and undesirable results for the ensemble of projection realizations.
- Additional peer review to ensure stakeholder understanding during the uncertainty analysis, development of the projection scenarios, and the interpretation of the ensemble results.
- Added complexity and content of reporting.

The uncertainty analysis is proposed to only cover the MODFLOW model. The other models will be used as they have in the past for calibration. The HSPF and R4 models will be used to simulate the effects of the chosen climate datasets and water demand and supply plan scenarios. The HYDRUS model was used to determine the vadose zone travel times across the Chino Basin. We propose to use the existing data from the HYDRUS model. The draft TM has been updated to clarify the proposed use of the HSPF, R4, and HYDRUS models.

## **Comment No. 2 (May 5, 2022 and July 12, 2022 Drafts)**

The following are recommendations to speed up run times and simplify the configuration.

### **Comment No. 2.1**

Increase the cell size - The current cell size is a uniform 200 ft by 200 ft across the model area. Increasing the cell size would reduce the number of cells through which the model has to perform calculations, which will reduce run times.

**Response:** The cell size of the CVM was determined based on a balance of tractable computation time with the precision necessary to adequately represent the locations of wells, recharge basins, and streams. Choosing a cell size larger than this would reduce its precision and applicability to be used for other studies, such as the simulation of salinity transport or subsidence management alternatives. Based on our prior modeling experience, the work to coarsen the model grid is greater than the additional cost of conducting the uncertainty analysis using the current grid cell size.

*Response by Thomas Harder on July 12, 2022 Draft:* We disagree with this assessment. While this model, or a version thereof, may be used in other applications, its primary purpose here is for updating the Safe Yield of the Basin, which does not have a water quality or land subsidence component. Increasing the cell size from 200 foot squares to 400 foot squares would significantly reduce the number of model computations and associated run time without compromising the representation of wells (very few wells in the basin are located within 400 feet of each other and if they are, their combined pumping can be simulated in a single cell), recharge basins, and streams (the Stream Flow Routing package in MODFLOW simulates stream width independent of cell size). Increase the cell size - The current cell size is a uniform 200 ft by 200 ft across the model area. Increasing the cell size would reduce the number of cells through which the model has to perform calculations, which will reduce run times.

**Response:** We have developed a cost estimate to coarsen the model grid at about \$90,000 to \$100,000. The steps to coarsen the model grid would include the following:

- Updating the model geometry and aquifer properties
- Updating each of the MODFLOW packages for the calibration and the projection scenarios. The MODFLOW packages that would need to be updated include DRN, ETS, FHB, HFB, RCH, WEL, and SFR
- Running the model and debugging as necessary
- Comparing the results of the calibration model and the projection scenario to the model used in the 2020 SYR to verify the efficacy of the coarsened model

It would be necessary to manually review and revise the coarsened layer geometry along the faults in the model, and to compare the results of the coarsened model grid to the results of the 2020 SYR model, as the model coarsening and the assumptions made in the processing may result in differences in the model results. These differences and this comparison should be documented to support the use of the new model.

While it is possible to coarsen the model grid as described above, we do not recommend doing so for several reasons. First, a coarser model grid does not allow for a more precise assessment of MPI. By averaging groundwater-level impacts due to transient groundwater pumping over a larger area, potential drawdown due to transient groundwater pumping may be less visible. Coarsening the model renders the CVM a less useful tool to quantify MPI, which is a required element to calculate the Safe Yield.

Second, coarsening the model grid will result in a new separate model, rather than an update to the existing model as contemplated in the 2025 Safe Yield Reevaluation (see Attachment D). A new separate model may lead to challenges to conclusions derived from prior models. Furthermore, this would result in the maintenance of multiple models for multiple applications (e.g., one model with 200-ft cells for salinity modeling and one model with 400-ft cells for the Safe Yield evaluations). This would increase the work required to maintain and document these models and would increase the cost to the Parties. Finally, the cost of coarsening the model will likely be greater than the cost savings of the reduced run times due to a coarser model. As noted in the TM, the costs of staff time due to model run time are minimal; most of the cost savings would be due to saving time in model debugging and some post-processing. We estimate that the time saved with a coarser model would amount to around \$80,000, which is less than the estimated cost of coarsening the model (i.e., \$90,000 to \$100,000).

For the reasons stated above, West Yost does not recommend coarsening the model.

## **Comment No. 2.2**

Reduce the number of model layers - The model currently has five layers. Two of the layers were added during the 2020 SYR to accommodate simulation of land subsidence in the MZ-1 area. As use of the CVM for land subsidence simulations is no longer proposed, the layers could be removed, which would increase model run times significantly. Based on conversations at the Workshop, it is understood that removing model layers would, in and of itself, require time and effort. However, if cost savings from run times outweigh the cost increase to remove the layers, this may still be a cost-effective step to consider.

**Response:** The cost of reducing the model layers will increase the overall cost of the modeling and may be greater than the cost of increased simulation time if the layering was not simplified. Reducing the number of model layers will increase the numerical dispersion of the salinity transport simulations that are conducted for the salt and nutrient management planning. Therefore, reducing the number of model layers will result in a less realistic vertical mix of groundwater and increase the uncertainty of the simulation results.

*Response by Thomas Harder on July 12, 2022 Draft:* It is acknowledged that this structural change to the model could result in work that costs more than the time saved in reduced simulation time. However, it is emphasized that the primary purpose of this model is for updating the Safe Yield of the Basin, not for salt and nutrient management.

**Response:** This does not necessitate a response.

### **Comment No. 2.3**

Discontinue use of the HSPF and R4 surface water routing models – These ‘ancillary models’ provide estimates of deep infiltration of precipitation and applied water, which are used as input to MODFLOW via the standard packages. Incorporating them into the PEST calibration will slow down the process significantly. Alternatively, use the HSPF and R4 values from previous model runs as “initial values” in PEST and let IES vary the parameters during calibration.

**Response:** The HSPF and R4 models will need to be updated and run to estimate DIPAW for the historical calibration period and develop DIPAW projections for the projection realizations. We do not plan to include these models in the PEST calibration. We have updated the draft TM to reflect this response.

*Response by Thomas Harder on July 12, 2022 Draft:* It’s our understanding the HSPF and R4 models provide input to MODFLOW packages. It’s our further understanding that the parameters within those MODFLOW packages are varied within plausible ranges as part of PESTPP-IES. If our understanding is correct, we agree with the recommendation to use a single realization of HSPF and R4. This should simplify the uncertainty analysis significantly.

**Response:** Your understanding is correct. No further response is required.

### **Comment No. 2.4**

Reduce timesteps – Some models can run successfully with one time step per stress period. If this is the case with the CVM, it would reduce model run time.

**Response:** The CVM currently runs with one time step per stress period.

**Comment No. 2.5**

Change the configuration of the solver – The MODFLOW portion of the CVM utilizes the NWT solver. Start with the ‘SIMPLE’ configuration of the NWT solver and ramp up to ‘MODERATE’ and ‘COMPLEX’ settings as necessary.

**Response:** Thank you for the suggestion. We will consider using this in our calibration and uncertainty analysis.

*Response by Thomas Harder on July 12, 2022 Draft:* In the upcoming detailed cost estimate we are requesting for implementing the revised Safe Yield Reset Methodology, we would like it noted in the estimate if it reflects our recommendation.

**Response:** We intend to implement this recommendation. It is reflected in Task 2 of our cost estimate (Attachment D).

**Comment No. 2.6**

Implement PLPROC Kx relationship equations - These seem to do a good job of stabilizing the model and reducing run times.

**Response:** Thank you for the suggestion. We will consider using this in our calibration and uncertainty analysis.

*Response by Thomas Harder on July 12, 2022 Draft:* In the upcoming detailed cost estimate we are requesting for implementing the revised Safe Yield Reset Methodology, we would like it noted in the estimate if it reflects our recommendation.

**Response:** We have reviewed the PLPROC documentation, and several of the functions in PLPROC may be applicable to our model. Our cost estimate assumes that we can identify efficiencies to reduce run times, possibly including PLPROC.

**Comment No. 2.7**

Remove outlier observations – Assign a zero weight to groundwater level observations that are considered outliers. This will help constrain IES and reduce run times.

**Response:** Thank you for the suggestion. We will consider using this in our calibration and uncertainty analysis.

*Response by Thomas Harder on July 12, 2022 Draft:* In the upcoming detailed cost estimate we are requesting for implementing the revised Safe Yield Reset Methodology, we would like it noted in the estimate if it reflects our recommendation.

**Response:** We will not use outlier observations when selecting groundwater level calibration targets.

### Comment No. 3 – Incorporation of Distribution System Losses into the Water Budget for the Model (May 5, 2022 and July 12, 2022 Drafts)

As stated in my review letter on the Draft Data Collection and Evaluation Report for Fiscal Year 2020/21, dated April 28, 2022, and discussed at the Workshop, the AP would like to account for water distribution losses explicitly in the water budgets for the model analysis to reset the Chino Basin Safe Yield. Adding this input, which is currently missing from the water budget, would make the other less constrained aspects of the model (e.g., boundary conditions) more representative. We would like a cost estimate to incorporate system losses into the CVM for the upcoming Safe Yield Reset.

**Response:** As discussed in the May peer review meeting, any potential work to include system losses (water main leaks) in the updated CVM is not necessary to finalize the Safe Yield Reset methodology.

To incorporate water main leaks into the CVM, we would need to develop defensible assumptions for the location and magnitude of recharge resulting from these leaks over the calibration and planning periods. While the ability of the water agencies to calculate the location and magnitude of these leaks is improving,<sup>2</sup> there remains a high degree of uncertainty in developing historical and projected estimates. We have yet to receive sufficient information to quantify water main leaks, and information that we have reviewed in the Basin (e.g., 2020 Urban Water Management Plans) does not indicate enough certainty in the magnitude and location of water main leaks to warrant inclusion in the CVM.

We will develop a cost estimate in FY 2022/23 to include water main leaks in the CVM during the forthcoming model update. The ability to incorporate water main leaks in the model update is contingent on receiving reliable data on the magnitude and location of water main leaks from the Appropriate Pool Parties. This process will include additional data collection, data processing, and peer review to develop estimates of the location and magnitude of the historical and projected water main leaks that result in groundwater recharge.

*Response by Thomas Harder on July 12, 2022, Draft:* Application of water distribution losses explicitly into the water budgets for groundwater flow models can be accomplished and the required assumptions do not result in any less certainty than other recharge components that are already explicitly included in the model water budget (e.g., individual septic return flow, vadose zone travel times via HYDRUS, horizontal flow barrier permeability at the Redhill Fault, etc.). We look forward to providing input into how this water budget component can be added to the Safe Yield Reset model and reviewing the cost estimate to incorporate water distribution system losses into the model.

**Response:** We have developed a cost estimate to update the CVM to explicitly include recharge from water distribution losses, which is summarized in the table below:

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<sup>2</sup> Amanda Coker (on behalf of Cucamonga Valley Water District) suggested at the May 19, 2022, peer review meeting that the data for water main leaks has improved recently. We will follow up with Amanda to acquire more detail and determine whether this could be considered in our CVM update.

<b>Cost estimate to update the CVM to explicitly include recharge from water distribution losses</b>			
<b>Task</b>	<b>Description</b>	<b>Labor Hours</b>	<b>Budget, dollars</b>
1.1	Prepare data request for information on historical/future water main leaks	16	3,080
1.2	Collect historical data and future projections of water main leaks (location, magnitude)	20	3,664
1.3	Review data and determine applicability to CVM	30	6,288
1.4	Prepare draft TM documenting data and recommendations	48	10,048
1.5	Prepare presentation materials	34	7,120
1.6	Meet with Watermaster staff to review presentation materials	12	3,056
1.7	Conduct workshop	32	7,528
1.8	Review stakeholder comments with Watermaster staff	12	3,056
1.9	Prepare responses to comments	20	5,000
1.10	Develop method and tools to convert data to RCH package	44	8,936
1.12	Update RCH file for calibration scenario	20	4,440
1.13	Update RCH file for projection scenario	20	4,440
1.14	Prepare report appendix documenting process and data to incorporate water distribution losses into the CVM	40	8,384
<b>Total (Plus 20 percent contingency)</b>			<b>\$90,048</b>

This cost estimate is dependent on receiving sufficient data to develop defensible estimates of historical and future water distribution losses in the Chino Basin. The cost estimate also assumes that this work would occur in FY 2022/23 concurrent with the update of the hydrogeologic conceptual model, and a budget amendment would be required.

### **Comment No. 4 – 2022/23 Budget for Conceptual Model Updates (May 5, 2022, Draft)**

In the January 24, 2022, letter from WY entitled “Planning-Level Scope, Schedule, and Budget for Engineering Support of the Implementation of the 2017 Court Order through Fiscal Year 2025,” a budget of \$270,000 is described for Task 3 “Update Model and Reevaluate Safe Yield” in Table 1 (pg. 6). On page 4 of the same letter, while there are seven subtasks under Task 3, the only subtask that appears to be scheduled for FY 2023 is Task 3.01 – Update Hydrogeologic Conceptual Model. As such, it is assumed that the budget of \$270,000 for Task 3 in Fiscal Year 2023 is for the hydrogeological conceptual model. During the Workshop, I requested the details of what specific work was included for the \$270,000 budgeted for this task. To date, we have not received that detail.



**Response:** The planning-level budget for FY 2022/23 that you reference has been superseded by Watermaster's Engineering budget for FY 2022/23 that was approved by the Watermaster Board on May 26, 2022. The approved budget included about \$260,000 budget for the update of the CVM, which generally comprises the following tasks:

- Routine collection and evaluation of data/reports related to the Chino Basin hydrogeology, such as borehole data, remote sensing data, water quality data, and studies of the area conducted by outside agencies.
- Identification of assumptions that may be updated in the hydrogeologic conceptual model based on new information.
- Begin reconfiguration of the CVM to use pilot points and facilitate the uncertainty analysis tool (PESTPP-IES).
- Collection of data to update the R4 model (zero cost – data are already collected through existing Watermaster tasks).
- Extend the HSPF and R4 models over the historical period to calculate initial estimates of DIPAW (some overlap with concurrent Watermaster efforts; cost of overlapping scope is not included in this budget).
- Develop initial estimates of subsurface inflow from adjacent basins and mountain/hillside boundaries.
- Prepare materials for and facilitate peer review meeting to present the updated hydrogeologic conceptual model.
- Prepare materials for and facilitate one stakeholder workshop to identify drivers of changes to future water demands and supplies.

### **Comment No. 5 – Additional Recommendations (July 12, 2022 Draft)**

Based on Section 5.2 Recommended Implementation of Ensemble Approach in the July 12, 2022 TM, it appears that WY is planning on running 40 calibrated model realizations against 15 projection scenarios. While multiple calibrated model realizations will be obtained during the PESTPP-IES process for the historical model calibration, there is only a need to use one historical calibration realization for the projection scenarios. Our recommended approach to determine the historical calibration for use in analyzing the projection scenarios is as follows:

- Assuming our recommendations regarding cell size are implemented, we recommend an ensemble size of no less than 500 for the PESTPP\_IES model calibration. In the PESTPP\_IES setup, suppress as much output as possible as this will reduce run times because the model doesn't have to write large files during the process. For example, configure the output control file to not write the head and drawdown files and suppress writing arrays to the list file.
- Assuming a 3-hour model run time during parallel processing and 25 agents, one iteration is expected to be on the order of 60 hours of run time. Further assuming the model is sufficiently calibrated after 5 iterations, the total run time for the calibration is expected to



be on the order of 300 hours (12.5 days or two weeks; models run 24/7). This is a conservatively long estimate as some members of the ensemble will likely drop out during the process thereby reducing the run time required to complete each iteration.

- Given our understanding of the model, it is reasonable to expect that approximately half of the original members of the original ensemble will drop out during the calibration process.
- After PESTPP\_IES has completed the calibration process, each of the remaining calibrated members of the ensemble (realizations) will need to be run in MODFLOW to process the water budget information necessary to estimate the historical Safe Yield from the data. Assuming the PESTPP\_IES process results in 250 acceptable calibrated realizations and each model requires three hours to run, the total model run time is expected to be on the order of 750 hours or 62.5 days. Assuming 25 agents can be run in parallel, this run time is reduced to 2.5 days. Again, suppress as much output as possible. Everything needed to estimate historical Safe Yield for each run is available from the List files and spreadsheets of imported water deliveries.
- The historical Safe Yield for each calibrated model realization should be plotted on a cumulative probability curve. The Safe Yield value selected from the probability curve would be the value used for analysis of the 15 projection simulations.
- Typically, the 50th percentile historical Safe Yield is selected for use in the projection simulations. However, we would like to review the results of the historical calibration prior to analyzing the projection scenarios.

This process will be far less work than is implied by Section 5.2 of the TM, which suggested running 40 calibrations against 15 projection scenarios (600 projection realizations). The approach described above will result in 1 model calibration run against the 15 projections (15 projection realizations).

**Response:** As we note in Section 5.2, the 40 calibration realizations and 15 projection scenarios are used as a hypothetical number to demonstrate the computational feasibility of the proposed approach. As outlined in the proposed methodology and emphasized in response to others' comments (see response to Rick Rees' Comment 7), we propose to select a smaller number of calibration realizations initially, review with the peer review committee, and add more calibration realizations, if necessary, as we aim to make the process as efficient as possible.

To address the uncertainty in the Safe Yield calculation, the uncertainty in the model parameters should be included in the analysis. Using only one calibration realization undermines the objective of the uncertainty analysis, and therefore we disagree with the use of only one calibrated realization. Our recommended process efficiently achieves the desired outcome of an uncertainty analysis.

Regarding bullet 1: We will be suppressing outputs as much as possible.

Regarding bullets 1 through 4: We have considered these estimates in the development of our cost estimate and schedule in response to your subsequent comment.

Regarding bullet 5: We plan to use multiple calibration realizations in the projection simulations to characterize the uncertainty in model parameters. We plan to select calibration realizations based on statistics derived from the model results.

Regarding the final two paragraphs: We will be reviewing the calibration results with the peer review committee before choosing the calibration realizations that will be included in the projection realizations. As noted earlier, 600 projection realizations are a hypothetical number used for demonstration. We believe that our recommended process is responsive to the Court Order and the Parties' comments, is cost-efficient, and is consistent with best management practices.

### **Comment No. 6 – Final Comments (July 12, 2022 Draft)**

As Watermaster finalizes the Safe Yield calculation methodology with the uncertainty analysis, we would like to see a detailed scope of work, cost estimate and schedule to implement the methodology. This would include a detailed work breakdown structure of line items for the uncertainty analysis and their associated cost. Based on discussions at the most recent workshop, it is our understanding that a fully functional IES setup can be developed in the range of three to four weeks. The above approach should require on the order of an additional month to accomplish. That is, it is expected that a cumulative probability curve of historical safe yield values can be developed in roughly 2 months. The projection simulations used to estimate the Safe Yield of the Chino Basin for the next 10 years would follow.

**Response:** We have updated the TM to include the requested scope, schedule, and budget estimate to implement the methodology. See Attachment D.

## **CITY OF CHINO/GEOPENTECH (DAVE CROSLEY, PE; ERIC FORDHAM, PG, CEG, CHG) – MAY 5, 2022 DRAFT**

### **Paragraph 1**

Comments previously provided to the Watermaster regarding the Safe Yield Reset methodology, identified, and requested the need to include uncertainty analysis in the groundwater flow modeling process as a best management practice. All conceptual and numerical models have some level of uncertainty that is the result of simplifying a complex hydrologic system. The Chino Valley Model (CVM) is no different and includes parameter and prediction uncertainty despite the quality of model calibration. The CVM model is used to assess the basin's safe yield for various planned demand and supply scenarios and whether hydraulic control is maintained, and material physical injury (MPI) would occur. The benefits and risks of the various demand and supply scenarios should be weighed by decision makers that are able to consider a quantified understanding of the safe yield uncertainty and probability of associated outcomes associated with those predictions.

**Response:** This paragraph does not necessitate a response.

## Paragraph 2

Watermaster's consultant is planning on updating the existing CVM model by extending the calibration period to include recently collected data for the hydrologic models (HSP4 and R4) and the MODFLOW flow model, selecting adjustable parameters for calibration and assigning values to those parameters using improved numerical methods that incorporate pilot points, variograms and covariance matrices. The model should also be updated by including water distribution system losses as quantified by the Chino Basin water purveyors. The addition of this recharge function to the CVM would likely influence the resulting basin net recharge and aquifer parameter calibration. The recharge associated with distribution system losses is an important part of the Chino Basin water budget.

**Response:** Our response to the recommendation to include system losses in the CVM remains the same as prior responses (see the response to Thomas Harder's Comment 3 herein and our response to Thomas Harder's Comment 2 on the *Data Collection and Evaluation Report for FY 2020/2021*<sup>3</sup>).

## Paragraph 3

Watermaster's consultant plans to conduct the calibration process using PESTPP-IES, a robust and efficient numerical solver that will estimate model parameter probability distributions and generate a specified number of calibrated model realizations with associated net groundwater recharge. The calibrated model realizations will then be run with up to three (3) supply plan scenarios and five (5) climate scenarios to generate multiple model results that will provide net recharge probability distributions that can be used to evaluate safe yield and compare against hydraulic control and MPI. While we agree with this approach for model calibration and uncertainty assessment, Watermaster's consultant may be over scoping the process to achieve the intended results as they provide an estimate to implement the analysis at \$1.75 million to \$2.3 million.

**Response:** This paragraph does not necessitate a response.

## Paragraph 4

To successfully conduct an uncertainty analysis for the Chino Basin safe yield, and associated demand and supply scenarios, we request that Watermaster's consultant seek out means and methods to minimize the implementation cost. Mr. Tom Harder, in his June 23, 2022, letter to the Appropriate Pool provides 7 recommendations that should be considered to streamline the model analysis and reduce cost. We also recommend exploring means to reduce the number of calibrated model realizations to develop the net recharge probability distribution. Rather than using up to 40 realizations as an example suggested by Watermaster's consultant, a subset of the calibrated realizations could be ranked by net recharge and used for the analysis. An example would be to include realizations representing the maximum, mean and

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<sup>3</sup> The Data Collection and Evaluation Report for FY 2020/2021 can be found here [https://cbwm.syncedtool.com/shares/folder/PaausoQapiZ/?folder\\_id=303197856](https://cbwm.syncedtool.com/shares/folder/PaausoQapiZ/?folder_id=303197856). Comments and responses can be found in Appendix C of the report.

minimum modeled net recharge to sufficiently bracket the range of safe yield outcomes. In this case the number of model realizations could be reduced from 40 to perhaps 9 model realizations and when combined with the demand and supply scenarios (3) and climate predictions (5), would result in 135 projection realizations versus the 600 envisioned. Fewer projection realizations would reduce computing time, storage requirements, and post processing while preserving the intention of the uncertainty analysis by providing the range and probability of possible safe yield outcomes.

**Response:** We have responded to each of Mr. Harder’s recommendations for reducing the cost and runtime of the uncertainty analysis above. We agree that it is desirable to limit the number of calibrated realizations while conducting a complete uncertainty analysis that covers the plausible range of parameters and model results. Please refer to our response to Rick Rees’ Comment No. 7 herein.

## **Paragraph 5**

In addition, it is our understanding that Watermaster’s consultant has not conducted an uncertainty analysis for a hydrologic model as complicated as the CVM and unfamiliarity with the process may have led to an overly conservative scoped level of effort and associated costs. We recommend the consultant conduct independent research and process development to better understand the mechanics of their planned approach such that only the essential steps required for the CVM uncertainty analysis are recognized and the associated level of effort and costs can be defined. A detailed cost estimate should be prepared to conduct the CVM uncertainty analysis for the basin’s safe yield that should be presented to the Chino Basin groundwater producers for their consideration.

**Response:** The draft TM documents the results of our research and process development on the proposed methodology to calculate the Safe Yield. The purpose of the TM and the current peer review process is to develop an updated Safe Yield Reset methodology to address Party comments and the requirements of the 2017 Court Order. While we have a confident understanding of the implementation process, there are inherent unknown variables in the process (e.g., number of calibration realizations) that warrant the range in cost estimate. More detailed annual budgets, such as the current budget for FY 2022/23, are presented for approval by the Advisory Committee and Board in the spring prior to the new FY. We present these budgets with clear assumptions on scope, schedule, and deliverables, and we will continue to do so during the implementation of the updated Safe Yield Reset methodology.

## 2022 Reset Technical Memorandum

## RESET TECHNICAL MEMORANDUM

DATE: October 6, 2022

Project No.: 941-80-22-32

SENT VIA: EMAIL

TO: Peter Kavounas, Chino Basin Watermaster

FROM: Garrett Rapp, PE, RCE #86007  
Andy Malone, PG

SUBJECT: 2022 Methodology to Reset the Safe Yield of the Chino Basin



### 2022 UPDATED SAFE YIELD RESET METHODOLOGY

This technical memorandum summarizes the methodology<sup>1</sup> to calculate the Safe Yield of the Chino Basin for the 2025 Safe Yield Reevaluation and subsequent Safe Yield evaluations. The methodology: (i) is consistent with professional custom, standard, and practice; (ii) incorporates current best management practices and hydrologic science; and (iii) is consistent with the definition of Safe Yield in the Judgment and the Physical Solution.

1. Use data collected since the implementation of the OBMP to re-calibrate the Watermaster's groundwater-flow model. The re-calibration period should be long enough to include wet and dry periods relative to the long-term historical precipitation record.
2. Conduct an uncertainty analysis of the re-calibrated groundwater-flow model to identify a plausible range of calibrated models.
3. Describe current and projected future cultural conditions, including but not limited to land use and water-management practices, such as: pumping, managed recharge, managed groundwater storage, impervious land cover, water recycling, and water conservation practices. Identify a possible range of projected future cultural conditions.
4. Using the most current research on future climate and hydrology, identify a possible range of projected future climatic conditions in the Santa Ana River watershed.
5. Using the results of [3.] and [4.] above, prepare an ensemble of multiple projection scenarios of combinations of future climate/hydrology and cultural conditions (herein called the "Projection Ensemble"). Assign likelihoods to each scenario in the Projection Ensemble.
6. Simulate the range for the potential future water budget and groundwater conditions in the Chino Basin over no less than a 50-year future period. This is accomplished by using:
  - i. The range of calibrated models developed in [2.], and
  - ii. The Projection Ensemble developed in [5.] as model input data.

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<sup>1</sup> A detailed description of the methodology summarized here can be found in the technical memorandum titled "2022 Update of the Chino Basin Safe Yield Reset Methodology," dated October 6, 2022.

7. Using the results of [6.] above, characterize the range in the model results for:
  - i. Groundwater conditions, including: groundwater elevations, groundwater in storage, and groundwater flow directions, and
  - ii. The water budget, including: basin inflows, outflows, change in storage, and net recharge.
8. Using the set of net recharge results from [7.ii], determine a tentative Safe Yield as the likelihood-weighted average net recharge over the 10-year prospective period for which the Safe Yield is being redetermined (Tentative Safe Yield).
9. Evaluate whether the groundwater production at the Tentative Safe Yield estimated in [8] above will cause or threaten to cause "undesirable results" or "Material Physical Injury." If groundwater production at Tentative Safe Yield will cause or threaten to cause "undesirable results" or "Material Physical Injury," then Watermaster will identify and implement prudent measures necessary to mitigate "undesirable results" or "Material Physical Injury," set the value of Safe Yield to ensure there is no "undesirable results" or "Material Physical Injury," or implement a combination of mitigation measures and a changed Safe Yield.

## Attachment D

### Cost Estimate for the 2025 Safe Yield Reevaluation



Table D-1. Cost Estimate for 2025 Safe Yield Reevaluation							
Task/Subtask	Description	Year Completed	Is the Subtask Strictly Necessary for Uncertainty Analysis?	Labor Hours	Labor Cost <sup>1</sup>	Other Direct Costs <sup>2</sup>	Total Cost
<b>Task 1. Update Hydrogeologic Conceptual Model and Surface Water Models</b>							
1.1. Update geology - collect/compile/review historical information							
1.1.1	New well information (location, borehole lithology, geophysical logs, well construction, aquifer stress test, others)	FY 2022/23	No	40	\$8,880		\$8,880
1.1.2	New groundwater level, pumping and water quality data	FY 2022/23	No	56	\$11,216		\$11,216
1.1.3	Data collection and investigations conducted by others (USGS, OCWD, ACOE, RWQCB, DTSC, HCP, others)	FY 2022/23	No	52	\$11,860		\$11,860
1.1.4	Remote sensing data (InSAR, aerial photographs, others)	FY 2022/23	No	18	\$3,388		\$3,388
1.2. Update geology along Rialto/Colton boundary							
1.2.1	Review reports and GIS shape files from USGS	FY 2022/23	No	20	\$3,944		\$3,944
1.2.2	Review other new data and reports	FY 2022/23	No	20	\$4,348		\$4,348
1.2.3	Integrate new information into hydrostratigraphic sections	FY 2022/23	No	32	\$7,528		\$7,528
1.3. Update surface topo along the SAR and lower tributaries							
1.3.1	Acquire Lidar data sets from USGS, ACOE, and OCWD	FY 2022/23	No	28	\$5,328		\$5,328
1.3.2	Review Lidar data sets and prepare information for updating the geometry of SAR	FY 2022/23	No	48	\$10,048		\$10,048
1.4. Review geology, groundwater level, and chemistry data to infer flow system dynamics							
1.4.1	MZ1/subsidence (Includes new Pomona extensometer data)	FY 2022/23	No	40	\$10,560		\$10,560
1.4.2	Prado basin area	FY 2022/23	No	48	\$11,664		\$11,664
1.4.3	Groundwater basin boundaries subsurface inflows	FY 2022/23	No	8	\$2,224		\$2,224
1.4.4	Mountain and hillside surface water discharge and subsurface inflow	FY 2022/23	No	16	\$3,888		\$3,888
1.4.5	Stringfellow area paleo channel	FY 2022/23	No	8	\$2,224		\$2,224
1.4.6	Others	FY 2022/23	No	32	\$7,248		\$7,248
1.5. Update historical hydrology for calibration period (FY1978-2022) - collect/compile/review historical information							
1.5.1	Land use data (completed via other work)	FY 2022/23	No	0	\$0		\$0
1.5.2	Groundwater pumping data (completed via other work)	FY 2022/23	No	0	\$0		\$0
1.5.3	Artificial recharge data (completed via other work)	FY 2022/23	No	0	\$0		\$0
1.5.4	Non-tributary and tributary discharges (completed via other work)	FY 2022/23	No	0	\$0		\$0
1.5.5	Precipitation, evaporation, ET (completed via other work)	FY 2022/23	No	0	\$0		\$0
1.5.6	Livestock population data (completed via other work)	FY 2022/23	No	0	\$0		\$0
1.5.7	Supplemental water source and use data (completed via other work)	FY 2022/23	No	0	\$0		\$0
1.5.8	Riparian vegetation mapping and ET requirements	FY 2022/23	No	40	\$8,136		\$8,136
1.6. Update historical hydrology for calibration period (FY1978-2022) - Update recharge and discharge estimates							
1.6.1	Update groundwater pumping and artificial recharge estimates (completed via other work)	FY 2022/23	No	0	\$0		\$0
1.6.2	Update DIPAW	FY 2022/23	No	36	\$8,328		\$8,328
1.6.3	Update initial estimates of subsurface inflow from adjacent basins	FY 2022/23	No	32	\$8,336		\$8,336
1.6.4	Update subsurface inflow estimates from mountain and hillside boundaries	FY 2022/23	No	32	\$7,496		\$7,496
1.7. Update hydrostratigraphic characterization and convert to pilot points							
1.7.1	Finalize hydrostratigraphic sections, develop layering scheme	FY 2022/23	No	56	\$12,024		\$12,024
1.7.2	Generate pilot points on model area and assign initial parameter values	FY 2022/23	No	40	\$11,120		\$11,120
1.7.3	Determine variograms for aquifer parameters	FY 2022/23	No	76	\$16,808		\$16,808
1.8. Conduct workshop for stakeholders/consultants on conceptual model update							
1.8.1	Prepare materials for for review by peer reviewers	FY 2023/24	No	58	\$13,924		\$13,924
1.8.2	Prepare presentation materials	FY 2023/24	No	56	\$13,345		\$13,345
1.8.3	Meet with Watermaster staff to review presentation materials	FY 2023/24	No	16	\$4,189		\$4,189
1.8.4	Conduct workshop	FY 2023/24	No	40	\$9,851	\$200	\$10,051
1.8.5	Review stakeholder comments with Watermaster staff	FY 2023/24	No	16	\$4,189		\$4,189
1.8.6	Prepare responses to comments	FY 2023/24	No	28	\$7,222		\$7,222
<b>Subtotal for Task 1</b>							<b>\$229,516</b>

Table D-1. Cost Estimate for 2025 Safe Yield Reevaluation							
Task/Subtask	Description	Year Completed	Is the Subtask Strictly Necessary for Uncertainty Analysis?	Labor Hours	Labor Cost <sup>1</sup>	Other Direct Costs <sup>2</sup>	Total Cost
<b>Task 2. Recalibrate Groundwater Model and Generate Calibrated Realizations</b>							
<i>2.1. Extend the calibration period from FY 2018 to FY 2022</i>							
2.1.1	Convert the WEL Package to Multi-Node (MNW) well package through FY 2022	FY 2022/23	No	64	\$15,248		\$15,248
2.1.2	Revise and extend the SFR package through FY 2022	FY 2022/23	No	48	\$12,072		\$12,072
2.1.3	Extend the DRN Package through FY 2022	FY 2022/23	No	8	\$2,012		\$2,012
2.1.4	Extend the ETS Package through FY 2022	FY 2023/24	No	26	\$6,415		\$6,415
2.1.5	Extend the FHB Package through FY 2022	FY 2023/24	No	40	\$9,801		\$9,801
<i>2.2. Generate calibrated realizations</i>							
2.2.1	Establish calibration targets (time series of head and stream discharge observations)	FY 2023/24	No	58	\$15,115		\$15,115
2.2.2	Prepare input files to PEST/PESTPP-IES	FY 2023/24	No	84	\$21,420		\$21,420
2.2.3	Get PESTPP-IES to run, debug as needed	FY 2023/24	No	108	\$27,477		\$27,477
2.2.4	Execute PESTPP-IES to generate calibrated realizations	FY 2023/24	No	100	\$26,046		\$26,046
2.2.5	Run flow simulation with the calibrated realizations and conduct residual analysis of calibrated realizations and develop a script to automate the process. Results will be used for selecting a subset of calibrated realizations.	FY 2023/24	No	110	\$28,386		\$28,386
2.2.6	Ranking calibrated realizations based on the results of residual analysis and other criteria	FY 2023/24	No	32	\$8,039		\$8,039
<i>2.3. Prepare draft TM on calibration and generate calibration results</i>							
2.3.1	Prepare draft TM with exhibits from Task 2.2	FY 2023/24	No	64	\$16,299		\$16,299
2.3.2	Create maps of selected parameters of selected realizations	FY 2023/24	No	36	\$8,644		\$8,644
2.3.3	Create maps of residuals of selected calibrated realizations	FY 2023/24	No	34	\$8,176		\$8,176
2.3.4	Groundwater hydrographs and scatter plots of selected calibrated realizations	FY 2023/24	No	34	\$8,176		\$8,176
2.3.5	Surface water hydrographs and scatter plots of selected calibrated realizations	FY 2023/24	No	20	\$4,900		\$4,900
2.3.6	Assess calibration statistics and water budgets and select set of calibrated realizations	FY 2023/24	No	44	\$10,957		\$10,957
<i>2.4. Workshop to review draft TM on model calibration</i>							
2.4.1	Prepare exhibits and presentation materials for workshop	FY 2023/24	No	58	\$14,753		\$14,753
2.4.2	Meet with Watermaster staff to review presentation materials	FY 2023/24	No	6	\$1,624		\$1,624
2.4.3	Conduct workshop	FY 2023/24	No	24	\$6,498	\$200	\$6,698
2.4.4	Review stakeholder comments with Watermaster staff	FY 2023/24	No	16	\$4,295		\$4,295
2.4.5	Respond to comments	FY 2023/24	No	24	\$6,498		\$6,498
<i>2.5. Follow-up workshop, finalize TM</i>							
2.5.1	Prepare exhibits and presentation materials for workshop	FY 2023/24	No	52	\$13,129		\$13,129
2.5.2	Meet with Watermaster staff to review presentation materials	FY 2023/24	No	6	\$1,624		\$1,624
2.5.3	Conduct workshop	FY 2023/24	No	32	\$8,228	\$200	\$8,428
2.5.4	Respond to comments and prepare final TM	FY 2023/24	No	22	\$5,809		\$5,809
2.5.5	Meet with Watermaster staff to review final TM	FY 2023/24	No	12	\$3,249		\$3,249
2.5.6	Finalize TM and distribute to Parties	FY 2023/24	No	22	\$5,040		\$5,040
<b>Subtotal for Task 2 with 20 percent contingency</b>							<b>\$360,401</b>
<b>Task 3. Prepare Ensemble of Projection Scenarios</b>							
<i>3.1. Initial workshop to identify drivers for water demand and supply plans</i>							
3.1.1	Prepare exhibits and presentation materials for workshop	FY 2022/23	Yes	52	\$12,624		\$12,624
3.1.2	Meet with Watermaster staff to review presentation materials	FY 2022/23	Yes	12	\$3,124		\$3,124
3.1.3	Conduct workshop	FY 2022/23	Yes	32	\$7,912	\$200	\$8,112
3.1.4	Review stakeholder comments with Watermaster staff	FY 2022/23	Yes	12	\$3,124		\$3,124
<i>3.2. Assess climate data for development of scenarios</i>							
3.2.1	Download and organize available WRF-CMIP6 data	FY 2023/24	No	8	\$1,731		\$1,731
3.2.2	Prepare and test tools for processing and visualizing WRF-CMIP6 data for the Chino Basin watershed	FY 2023/24	No	68	\$17,014		\$17,014
3.2.3	Characterize WRF-CMIP6 data for the Chino Basin watershed	FY 2023/24	No	36	\$9,085		\$9,085
3.2.4	Review and select climate scenarios for use in model	FY 2023/24	No	44	\$11,398		\$11,398
<i>3.3. Develop supply and demand scenarios, document in draft TM, and conduct workshop</i>							
3.3.1	Develop qualitative descriptions of projection scenarios (water demands/supply plans and climate)	FY 2023/24	Yes	8	\$1,872		\$1,872
3.3.2	Develop quantitative water supply plans for selected projection scenarios	FY 2023/24	No	68	\$16,149		\$16,149
3.3.3	Prepare draft TM documenting proposed projection scenarios	FY 2023/24	Yes	52	\$11,960		\$11,960
3.3.4	Review draft TM with WM staff	FY 2023/24	Yes	8	\$2,057		\$2,057

Table D-1. Cost Estimate for 2025 Safe Yield Reevaluation							
Task/Subtask	Description	Year Completed	Is the Subtask Strictly Necessary for Uncertainty Analysis?	Labor Hours	Labor Cost <sup>1</sup>	Other Direct Costs <sup>2</sup>	Total Cost
3.3.5	Finalize draft TM and distribute to Parties	FY 2023/24	Yes	10	\$2,232		\$2,232
3.3.6	Prepare exhibits and presentation materials for workshop	FY 2023/24	No	28	\$7,143		\$7,143
3.3.7	Meet with Watermaster staff to review presentation materials	FY 2023/24	No	6	\$1,624		\$1,624
3.3.8	Conduct workshop	FY 2023/24	No	32	\$8,228	\$200	\$8,428
3.3.9	Prepare responses to comments	FY 2023/24	No	14	\$3,607		\$3,607
3.3.10	Review stakeholder comments with Watermaster staff	FY 2023/24	No	6	\$1,624		\$1,624
<i>3.4. Follow-up workshop, finalize TM</i>							
3.4.1	Prepare exhibits and presentation materials for workshop	FY 2023/24	Yes	24	\$6,207		\$6,207
3.4.2	Meet with Watermaster staff to review presentation materials	FY 2023/24	Yes	12	\$3,249		\$3,249
3.4.3	Conduct workshop	FY 2023/24	Yes	32	\$8,228	\$200	\$8,428
3.4.4	Respond to comments and prepare final TM	FY 2023/24	Yes	12	\$3,249		\$3,249
3.4.5	Meet with Watermaster staff to review final TM	FY 2023/24	Yes	6	\$1,624		\$1,624
3.4.6	Finalize TM and distribute to Parties	FY 2023/24	Yes	10	\$2,232		\$2,232
<b>Subtotal for Task 3 including 20 percent contingency</b>							<b>\$177,479</b>
<b>Task 4. Simulate Ensemble of Projection Scenarios and Calculate Safe Yield</b>							
<i>4.1. Prepare model runs</i>							
4.1.1	Define the required results and define file formats for storing the results	FY 2024/25	No	20	\$5,555		\$5,555
4.1.2	Convert the Well package of the projection period to the MNW package	FY 2024/25	No	52	\$13,113		\$13,113
4.1.3	Develop method to generate future flows at Riverside Narrows (RN) based on climate projections	FY 2024/25	No	32	\$8,246		\$8,246
4.1.4	Prepare MODFLOW input files for the initial projection scenario	FY 2024/25	No	52	\$13,113		\$13,113
4.1.5	Prepare MT3D input files for the initial projection scenario	FY 2024/25	No	32	\$8,246		\$8,246
4.1.6	Prepare ZoneBudget input files for the hydraulic control assessment	FY 2024/25	No	20	\$5,096		\$5,096
<i>4.2. Develop tools to generate projection realizations</i>							
4.2.1	Tool to update the input file to the UPW package with the aquifer parameters from a calibrated realization (generate matrices based on the calibrated pilot point data, replace the matrices in UPW with the new ones)	FY 2024/25	Yes	72	\$17,981		\$17,981
4.2.2	Tool to update HSPF input file with climate data (precip & ET) and execute HSPF	FY 2024/25	Yes	48	\$12,140		\$12,140
4.2.3	Tool to update R4 input file with climate data (precip, ET, flow at RN), water demand (applied water assumptions), and HSPF output, and to execute R4	FY 2024/25	Yes	56	\$14,087		\$14,087
4.2.4	Tool to update input files to the RCH, FHB, and SFR packages with R4 output and flow at RN	FY 2024/25	Yes	56	\$14,087		\$14,087
4.2.5	Tool to update input file to the ETS package with climate data	FY 2024/25	Yes	48	\$12,140		\$12,140
4.2.6	Tool to update the input files to the MNW and FHB packages based on water supply plan	FY 2024/25	Yes	72	\$17,981		\$17,981
<i>4.3. Develop tools to conduct flow simulations and process results</i>							
4.3.1	Tool to execute MODFLOW-NWT, including iterations to calculate net recharge time series, to stabilize imported water estimates, and to calculate safe yield	FY 2024/25	No	28	\$7,043		\$7,043
4.3.2	Tool to update MT3D input file (with specific yield as effective porosity in the BTN package), to execute MT3D, and to extract the desired simulation results	FY 2024/25	No	28	\$7,043		\$7,043
4.3.3	Tool for Hydraulic Control assessment (i.e., calculate groundwater discharge from Chino North MZ to Prado with ZoneBudget)	FY 2024/25	No	24	\$6,299		\$6,299
4.3.4	Tool for pumping and subsidence sustainability assessment (i.e., calculate sustainability metric values)	FY 2024/25	No	18	\$4,495		\$4,495
<i>4.4. Execute the developed tools for the first scenario</i>							
4.4.1	Generate projection realization (executing, reviewing generated files, and debugging)	FY 2024/25	No	96	\$23,536		\$23,536
4.4.2	Conduct flow and transport simulation and postprocess results (executing, reviewing results, and debugging)	FY 2024/25	No	96	\$23,536		\$23,536
<i>4.5. Execute the developed tools for the remainder of the ensemble</i>							
4.5.1	Generate projection realization on AWS (setting up AWS instances, executing, reviewing generated files, and debugging)	FY 2024/25	Yes	92	\$23,856		\$23,856
4.5.2	Conduct flow and transport simulation and postprocess results on AWS (setting up AWS instances, executing, reviewing results, and debugging)	FY 2024/25	Yes	92	\$23,856	\$40,000	\$63,856
4.5.3	Evaluate results, create statistics of safe yield, prepare output charts and graphics	FY 2024/25	Yes	108	\$27,152		\$27,152
<i>4.4. Workshop to review the results of the model runs</i>							
4.6.1	Prepare exhibits and presentation materials for workshop	FY 2024/25	No	60	\$15,380		\$15,380
4.6.2	Meet with Watermaster staff to review presentation materials	FY 2024/25	No	16	\$4,279		\$4,279
4.6.3	Conduct workshop	FY 2024/25	No	32	\$8,558	\$200	\$8,758
4.6.4	Review stakeholder comments with Watermaster staff	FY 2024/25	No	24	\$6,758		\$6,758
4.6.5	Prepare responses to comments	FY 2024/25	No	36	\$9,907		\$9,907
<b>Subtotal for Task 4 with 20 percent contingency</b>							<b>\$448,420</b>

Table D-1. Cost Estimate for 2025 Safe Yield Reevaluation							
Task/Subtask	Description	Year Completed	Is the Subtask Strictly Necessary for Uncertainty Analysis?	Labor Hours	Labor Cost <sup>1</sup>	Other Direct Costs <sup>2</sup>	Total Cost
Task 5. Prepare Safe Yield Reevaluation Report							
5.1. Prepare Safe Yield Reevaluation Report							
5.1.1	Develop report outline and submit to Watermaster for review	FY 2024/25	No	24	\$6,758		\$6,758
5.1.2	Finalize report outline	FY 2024/25	No	8	\$2,176		\$2,176
5.1.3	Prepare admin draft report and submit to Watermaster staff for review	FY 2024/25	No	200	\$48,888		\$48,888
5.1.4	Review admin draft report with Watermaster staff and agree on changes	FY 2024/25	No	24	\$6,758		\$6,758
5.1.5	Prepare draft report and submit to stakeholders for review	FY 2024/25	No	60	\$14,991		\$14,991
5.1.6	Prepare presentation materials for Watermaster Board workshop	FY 2024/25	No	48	\$12,910		\$12,910
5.1.7	Conduct workshop	FY 2024/25	No	32	\$8,558	\$200	\$8,758
5.1.8	Review stakeholder and Board member comments with Watermaster staff	FY 2024/25	No	24	\$6,758		\$6,758
5.1.9	Prepare responses to comments	FY 2024/25	No	96	\$25,820		\$25,820
5.1.10	Prepare final report	FY 2024/25	No	36	\$8,540	\$1,000	\$9,540
Subtotal for Task 5 with 10 percent contingency							\$157,693
Task 6. Support Court Approval Process for Updated Safe Yield							
6.1. Support Court approval process for updated Safe Yield							
6.1.1	Support Court approval process for updated Safe Yield	FY 2024/25	No	104	\$28,978	\$600	\$29,578
Subtotal for Task 6 with 20 percent contingency							\$35,494
Task 7. Project Management							
7.1. Project management							
7.1.1	PM FY 2022/23	FY 2022/23	No	66	\$14,988		\$14,988
7.1.2	PM FY 2023/24	FY 2023/24	No	66	\$16,436		\$16,436
7.1.3	PM FY 2024/25	FY 2024/25	No	66	\$17,094		\$17,094
Subtotal for Task 7							\$48,518
Totals							
Total Estimated Cost for Subtasks in FY 2022/23 <sup>3</sup>							\$259,163
Total Estimated Cost for Subtasks in FY 2023/24							\$539,656
Total Estimated Cost for Subtasks in FY 2024/25							\$658,700
Total Estimated Cost of Tasks 1 through 7							\$1,457,519

<sup>1</sup> Staff billing rates are based on the Watermaster Engineer's approved billing rates for FY 2022/23 and assumes a four percent increase in rates for FY 2023/24 and FY 2024/25.

<sup>2</sup> Other direct costs include travel for workshops (multiple subtasks), renting cloud computing (subtask 4.5.2), and printing copies of final report (subtask 5.1.10).

<sup>3</sup> The currently approved engineering budget for groundwater modeling in FY 2022/23 is about \$260,000.

# EXHIBIT B

**Attachment: Peace Agreement, Section 7.2 ( e )(ii)**

Schedule for Use of Re-Operation Water\*\*, and

Calculation of Remaining Desalter Replenishment Obligation (DRO)

Production from 2017-18 through 2029-30 is estimated

Production Year	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
Peace I Desalter Production	29,227.997	29,541.300	27,008.810	26,275.588	30,000.000	30,000.000	30,000.000	30,000.000	30,000.000
Peace II Desalter Production	14.555	448.690	1,154.052	1,527.215	10,000.000	10,000.000	10,000.000	10,000.000	10,000.000
Appropriative Pool DRO Contribution	(10,000.000)	(10,000.000)	(10,000.000)	(10,000.000)	(10,000.000)	(10,000.000)	(10,000.000)	(10,000.000)	(10,000.000)
<b>Re-Operation Water**</b>	<b>(12,500.000)</b>	<b>(12,500.000)</b>	<b>(12,500.000)</b>	<b>(12,500.000)</b>	<b>(12,500.000)</b>	<b>(12,500.000)</b>	<b>(12,500.000)</b>	<b>(12,500.000)</b>	<b>(12,500.000)</b>
Non-Agricultural Pool Assessment	0.000	0.000	0.000	(735.000)	(735.000)	(735.000)	(735.000)	(735.000)	(735.000)
Remaining DRO	6,742.552	7,489.990	5,662.862	4,567.803	16,765.000	16,765.000	16,765.000	16,765.000	16,765.000

Production Year	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
Peace I Desalter Production	30,000.000	30,000.000	30,000.000	30,000.000	30,000.000	30,000.000	30,000.000	30,000.000
Peace II Desalter Production	10,000.000	10,000.000	10,000.000	10,000.000	10,000.000	10,000.000	10,000.000	10,000.000
Appropriative Pool "DRO Contribution	(10,000.000)	(10,000.000)	(10,000.000)	(10,000.000)	(10,000.000)	(10,000.000)	(10,000.000)	(10,000.000)
<b>Re-Operation Water**</b>	<b>(12,500.000)</b>	<b>(12,500.000)</b>	<b>(12,500.000)</b>	<b>(5,000.000)</b>	<b>(5,000.000)</b>	<b>(5,000.000)</b>	<b>(5,000.000)</b>	<b>(5,000.000)</b>
Non-Agricultural Pool Assessment	(735.000)	(735.000)	(735.000)	(735.000)	(735.000)	(735.000)	(735.000)	(735.000)
Remaining DRO	16,765.000	16,765.000	16,765.000	24,265.000	24,265.000	24,265.000	24,265.000	24,265.000

# EXHIBIT C

## Attachment: Peace II Agreement, Section 6.2(b)(ii)

## Allocation of Appropriative Pool Desalter Replenishment Obligation (DRO) Contributions (by agency)

Production Year 2013-14 Desalter Replenishment Obligation (DRO) Contribution:

10,000.000 AF

Appropriative Pool Party	Production Year 2013/14 Common Data (Headings from Approved 2014/2015 Assessment Package)			Methodology for 85/15 split between shares of Operating Safe Yield and % of Land Use Conversions		
	a	b	c = %b	d = (DRO Contrib*.85)*a	e = (DRO Contrib*.15)*c	f = d + e
	Percent of Operating Safe Yield (Column 2A)	Land Use Conversions (Page 12A)*	Percent of Land Use Conversions	85% DRO Contribution Based on Percent of Operating Safe Yield	15% DRO Contribution Based on Percent of Land Use Conversions	Desalter Replenishment Obligation Contribution
Arrowhead Mtn Spring Water Co	0.000%	0.000	0.000%	0.000	0.000	0.000
Chino Hills, City of	3.851%	1,133.906	4.334%	327.335	65.013	392.348
Chino, City of	7.357%	7,623.064	29.138%	625.345	437.074	1,062.419
Cucamonga Valley Water District	6.601%	598.364	2.287%	561.085	34.308	595.393
Fontana Union Water Company	11.657%	0.000	0.000%	990.845	0.000	990.845
Fontana Water Company	0.002%	834.000	3.188%	0.170	47.818	47.988
Fontana, City of	0.000%	0.000	0.000%	0.000	0.000	0.000
Golden State Water Company	0.750%	0.000	0.000%	63.750	0.000	63.750
Jurupa Community Services District	3.759%	13,876.196	53.040%	319.515	795.602	1,115.117
Marygold Mutual Water Company	1.195%	0.000	0.000%	101.575	0.000	101.575
Monte Vista Irrigation Company	1.234%	0.000	0.000%	104.890	0.000	104.890
Monte Vista Water District	8.797%	55.075	0.211%	747.745	3.158	750.903
Niagara Bottling, LLC	0.000%	0.000	0.000%	0.000	0.000	0.000
Nicholson Trust	0.007%	0.000	0.000%	0.595	0.000	0.595
Norco, City of	0.368%	0.000	0.000%	31.280	0.000	31.280
Ontario, City of	20.742%	2,041.095	7.802%	1,763.070	117.028	1,880.098
Pomona, City of	20.454%	0.000	0.000%	1,738.590	0.000	1,738.590
San Antonio Water Company	2.748%	0.000	0.000%	233.580	0.000	233.580
San Bernardino, County of (Shooting Park)	0.000%	0.000	0.000%	0.000	0.000	0.000
Santa Ana River Water Company	2.373%	0.000	0.000%	201.705	0.000	201.705
Upland, City of	5.202%	0.000	0.000%	442.170	0.000	442.170
West End Consolidated Water Co	1.728%	0.000	0.000%	146.880	0.000	146.880
West Valley Water District	1.175%	0.000	0.000%	99.875	0.000	99.875
	100.000%	26,161.700	100.000%	8,500.000	1,500.000	10,000.000



### Attachment: Peace II Agreement, Section 6.2 (b)(iii)

#### Allocation of Appropriative Pool Remaining Desalter Replenishment Obligation (RDRO)

<b>Production Year 2013-14:</b>	<b>acre-feet</b>
CDA Production - Peace I Allocation	<b>29,227.997</b>
CDA Production - Peace II Allocation	<b>14.555</b>
Total Desalter Replenishment Obligation (Total DRO):	<b>29,242.552</b>
Desalter Replenishment Obligation Contribution (DROC)	<b>(10,000.000)</b>
Re-Operation Water	<b>(12,500.000)</b>
RDRO	<b>6,742.552</b>

Appropriative Pool Party	Operating Safe Yield	Production Year 2013/14 Common Data (From Approved 2014/2015 Assessment Package - Appendix A)					Methodology for Calculation of Adjusted Physical Production (APP)	Methodology for Calculation of "RDRO"
	a	b	c	d	e	f	APP = [b+(c*50%)+d+e+f]	Individual Party RDRO = ((a+APP)/(Total a + Total APP)) * RDRO
	Assessment Paackage Page 2A: Column 2D	Physical Production	Voluntary Agreements (w/Ag)	Assignments (w/Non-Ag)	Storage and Recovery Programs	Other Adjustments	*Note: APP for City of Chino does not include "Other Adjustments" for this period	
Arrowhead Mtn Spring Water Co	0.000	379.111	0.000	0.000	0.000	0.000	379.111	15.905
Chino Hills, City of	2,111.422	2,150.925	(286.221)	0.000	0.000	5,359.300	7,367.115	397.669
Chino, City of	4,033.857	6,725.430	(6,686.440)	(104.278)	0.000	65.288	3,277.932	306.764
Cucamonga Valley Water District	3,619.454	16,121.550	0.000	0.000	0.000	0.000	16,121.550	828.227
Fontana Union Water Company	6,391.736	0.000	0.000	0.000	0.000	0.000	0.000	268.163
Fontana Water Company	1.000	15,377.579	0.000	0.000	0.000	0.000	15,377.579	645.203
Fontana, City of	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Golden State Water Company	411.476	736.362	0.000	0.000	0.000	0.000	736.362	48.157
Jurupa Community Services District	2,061.118	18,406.630	0.000	(379.499)	0.000	(8.784)	18,018.347	842.427
Marygold Mutual Water Company	655.317	1,314.734	0.000	0.000	0.000	0.000	1,314.734	82.653
Monte Vista Irrigation Company	676.759	0.000	0.000	0.000	0.000	0.000	0.000	28.393
Monte Vista Water District	4,823.954	12,521.892	(151.480)	0.000	0.000	(5,371.667)	7,074.485	499.195
Niagara Bottling, LLC	0.000	1,342.588	0.000	0.000	0.000	0.000	1,342.588	56.328
Nicholson Trust	4.000	0.000	0.000	0.000	0.000	0.000	0.000	0.168
Norco, City of	201.545	0.000	0.000	0.000	0.000	0.000	0.000	8.456
Ontario, City of	11,373.816	21,980.342	(4,428.101)	(1,855.196)	0.000	0.000	17,911.096	1,228.639
Pomona, City of	11,215.852	12,909.293	0.000	0.000	0.000	0.000	12,909.293	1,012.163
San Antonio Water Company	1,506.888	1,159.242	0.000	0.000	0.000	0.000	1,159.242	111.857
San Bernardino, County of (Shooting Park)	0.000	16.390	0.000	0.000	0.000	0.000	16.390	0.688
Santa Ana River Water Company	1,301.374	0.000	0.000	0.000	0.000	48.515	48.515	56.634
Upland, City of	2,852.401	2,822.046	0.000	0.000	0.000	0.000	2,822.046	238.070
West End Consolidated Water Co	947.714	0.000	0.000	0.000	0.000	0.000	0.000	39.761
West Valley Water District	644.317	0.000	0.000	0.000	0.000	0.000	0.000	27.032
	54,834.000	113,964.114	(11,552.242)	(2,338.973)	0.000	92.652	105,876.384	6,742.552

# **ADVISORY COMMITTEE RULES & REGULATIONS**

# WATERMASTER ADVISORY COMMITTEE

## RULES AND REGULATIONS

### ARTICLE 1

#### GENERAL PROVISIONS

1.01 Title/Code. This document shall be known and may be referred to as the “Watermaster Advisory Committee Rules and Regulations” adopted pursuant to Judgment entered in Chino Basin Municipal Water district v. City of Chino, et al., S. B. Sup. Ct. No. 164327, on January 27, 1978. To provide convenience in operating under the Judgment certain procedural matters contained therein have been set forth in these rules and regulations, however, should a conflict arise between the Judgment and these rules and regulations the language of the Judgment shall in all cases prevail. Designations hereinafter to “See Judgment” shall refer to verbatim quotations from the Judgment; whereas “Based on Judgment” shall refer to a paraphrase of the Judgment language.

1.02 Definitions. Unless otherwise expressly indicated or compelled by their context, words, phrases, and references appearing herein shall have the same meanings as set forth in the Judgment, including the additional definitions as follows:

(a) Committee(s) – Any of the Pool Committees or the Watermaster Advisory Committee as the context may compel.

(b) Judgment – The judgment entered in Chino Basin Municipal Water District v. City of Chino, et al., San Bernardino Superior Court No. 164327.

(c) Overlying (Agricultural) Pool – The pool consisting of the State of California and all overlying producers who produce water for other than industrial or commercial purposes.

(d) Overlying (Non-agricultural) Pool – The pool consisting of overlying producers who produce water for industrial or commercial purposes or who, at the request of Watermaster and with the consent of the Watermaster Advisory Committee, take substitute water in lieu of producing such ground water.

(e) Appropriative Pool – The pool consisting of owners of appropriative rights, as defined under the Judgment, and any person who produces water for other than overlying use.

1.03 Membership. This committee shall be composed of not to exceed ten (10) voting representatives from each pool, and such alternates as shall be designated by the respective Pool Committees. WMWD, PVMWD and SBVMWD shall each be entitled to one non-voting representative on the committee. [Based on Judgment, pages 17-18, Section 32.]

1.04 Term and Vacancy. Members from any Pool Committee, shall serve for the term, and vacancies shall be filled, as specified in the respective pooling plan and rules adopted pursuant thereto. Members of the Committee

shall serve at the will of their respective Pool Committee. [Based on Judgment, page 18, Section 33.]

1.05 Powers and Duties. This committee has the duty to study, and the power to recommend, review and act upon all discretionary determinations made by Watermaster. [Based on Judgment, page 21, Section 38(b).]

## ARTICLE 2

### PROCEDURES

2.01 Principal Office. The principal office of Watermaster Advisory Committee shall be the Chino Basin Municipal Water District business office, located at 8555 Archibald Avenue, Cucamonga, California 91730; telephone number (714) 987-1712, or at such other location or locations as may be designated from time to time by amendment to these rules and regulations.

2.02 Records. The records of the Committee shall be open to inspection and maintained at the Watermaster's office. [Based on Judgment, page 20, Section 37(d).] Copies of such records may be obtained upon payment of the duplication costs thereof.

2.03 Regular Meeting. The Committee shall meet from time to time throughout the year at Watermaster office, unless otherwise determined by Committee resolution, in order to transact the business of the Committee and to make such recommendations as may be necessary to properly advise Watermaster.

2.04 Special Meetings. Special meetings may be

called at any time by the Chairperson or by any three (3) member of the Committee.

[Based on Judgment, page20, Section 37(c).]

2.05 Adjournment. Any meeting may be adjourned to a time and place specified in the order of adjournment. Less than a quorum may so adjourn from time to time. A copy of the order or notice of adjournment shall be conspicuously posted forthwith on or near the door of the place where the meeting was held. [See Judgment, pages 20-21, Section 37(e).]

2.06 Public Meetings. All meetings, whether regular or special, shall be open to the public.

2.07 Notice. Notices of all regular and special meetings as well as any other notices required by the Judgment therein, shall be given in writing to all Active Parties and each person who has requested notice in writing, and shall specify the time and place of the meeting and the business to be transacted thereat.

Delivery of notice shall be deemed made on the date personally given or within 96 hours of deposit thereof in the United States mail, first class, postage prepaid, addressed to the designee and at the address in the latest designated filed by such person.

2.08 Quorum. A majority of the voting power of the Committee shall constitute a quorum for the transaction of its affairs. [Based on Judgment, page18, Section 35.]

2.09 Voting Procedures. The voting power attributable

to each Pool Committee shall be allocated among its representatives as provided in the respective pooling plans, rules, and actions of such Pool Committee adopted pursuant thereto. The voting power on the Committee shall be one hundred (100) votes allocated among the three Pools in proportion to the total assessments paid to Watermaster during the preceding year; provided, that the minimum voting power of each pool shall never be less than:

- |                                       |    |
|---------------------------------------|----|
| (a) Overlying (Agricultural) Pool     | 20 |
| (b) Overlying (Non-Agricultural) Pool | 5  |
| (c) Appropriative Pool                | 20 |

In the event any Pool is reduced to its minimum vote, the remaining votes shall be allocated between the remaining Pools on the basis of assessments paid to Watermaster by each such remaining pool during the preceding year. The method of exercise of each Pool's voting power on the Committee shall be as determined by the respective Pool Committees. [Based on Judgment, page18, Section 34.]

All actions may be adopted by voice vote, but upon demand of any member, the roll shall be called and the ayes and noes recorded in the minutes of the proceedings.

2.10 Agenda. Any person requesting that a matter be considered for action by the Committee, shall request such action in writing delivered to the secretary thereof at least fourteen (14) days prior to said meeting. The priorities of business shall be as stated in the agenda for a particular meeting, subject, however, to matters of business

which may arise on an urgency basis, and require the immediate attention and action of Watermaster.

2.11 Minutes. The secretary (or in the absence thereof) any person so designated at said meeting) shall prepare and subscribe the minutes of each meeting and make available a copy thereof to all Active Parties and each person who has filed a request for copies of all minutes or notices in writing. The minutes shall constitute notice of all actions therein reported. [Based on Judgment, page20, Section 37(d).] Unless a reading of the minutes of a meeting is ordered by a majority vote of the Committee minutes may be approved without reading.

2.12 Rules of Order. Except as may be provided herein, the procedures for the conduct of any meeting shall be governed by the latest revised edition of Roberts' Rules of Order. However, such rules, adopted to expedite the transaction of the business in an orderly fashion, are deemed to be procedural only and the failure to strictly observe such rules shall not affect the jurisdiction or invalidate any action taken at a meeting that is otherwise held in conformity with law.

2.13 Compensation. Members of the Committee may by resolution, allow themselves compensation for attendance at meetings, regular or special, in an amount not to exceed twenty-five (\$25.00) dollars per meeting, to a maximum of three hundred (\$300.00) dollars per year, together with reasonable expenses related to the respective activities



thereof, subject to applicable provisions of law. [Based on Judgment, page19, Section 36.]

2.14 Officers. At the first meeting, each year the members of the Committee shall elect one of their number to serve as Chairperson and another of their number to serve as Vice Chairperson. They shall also select a secretary or assistant secretaries as may be appropriate, any of whom may, but need not be members of the Committee, each to hold their respective offices subject to the vote of the majority voting power of the Committee. [Based on Judgment, page19, Section 37(a).]

The Chairperson shall preside over all meetings of the Committee. In the event of the Chairperson's absence, inability, or disability, those duties shall be performed by the Vice Chairperson. In the event of the Vice Chairperson's absence, inability, or disability as well, such duties shall be performed by one of their number so appointed, by majority vote, as temporary Chairperson for that meeting. The secretary shall prepare and maintain minutes of the meetings of the Committee and forwarding the originals for filing with Watermaster within ten (10) days of each meeting.

2.15 Amendment. These rules and regulations may be amended from time to time by majority vote of the voting power in attendance at any Watermaster Advisory Committee meeting.

# **AG POOL COMMITTEE RULES & REGULATIONS**

## OVERLYING (AGRICULTURAL) POOL COMMITTEE

### RULES AND REGULATIONS

#### ARTICLE 1

### GENERAL PROVISIONS

1.01 Title/Code. This document shall be known and may be referred to as the “Overlying (Agricultural) Pool Committee Rules and Regulations” adopted pursuant to Judgment entered in Chino Basin Municipal Water District v. City of Chino, et al., S.B. Sup. Ct. No. 164327, on January 27, 1978. To provide convenience in operating under the Judgment certain procedural matters contained therein have been set forth in these rules and regulations, however, should a conflict arise between the Judgment and these rules and regulations the language of the Judgment shall in all cases prevail. Designations hereinafter to “See Judgment” shall refer to verbatim quotations from the Judgment; whereas “Based on Judgment” shall refer to a paraphrase of the Judgment language.

1.02 Definitions. Unless otherwise expressly indicated or compelled by their context, words, phrases, and references appearing herein shall have the same meanings as set forth in the Judgment, including the additional definitions as follows:

- (a) Committee(s) – Any of the Pool Committees or the Watermaster Advisory Committee as the context may compel.

(b) Judgment – The judgment entered in Chino Basin Municipal Water District v. City of Chino, et al., San Bernardino Superior Court No. 164327.

(c) Overlying (Agricultural) Pool – The pool consisting of the State of California and all overlying producers who produce water for other than industrial or commercial purposes.

(d) Overlying (Non-agricultural) Pool – The pool consisting of overlying producers who produce water for industrial or commercial purposes or who, at the request of Watermaster and with the consent of the Watermaster Advisory Committee, take substitute water in lieu of producing such ground water.

(e) Appropriative Pool – The pool consisting of owners of appropriative rights, as defined under the Judgment, and any person who produces water for other than overlying use.

1.03 Membership in Pool. The pool shall include all producers of water for overlying uses other than industrial or commercial purposes. The State of California and all producers listed in Exhibit “C” to the Judgment shall be the initial members of the pool. [Based on Judgment, page 62, Section 1.]

1.04 Representation. The number of representatives on the Pool Committee shall be determined by a majority of the voting power of members of the Pool in attendance, in person or by proxy, at the annual Pool meeting. However, the Pool

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Committee shall not consist of less than nine (9) representatives selected at large by members of the Pool. Each member of the Pool Committee shall have one vote and shall serve for a two-year term. Members first elected shall classify themselves by lot so that approximately one-half shall serve an initial one-year term only. [Based on Judgment, page 62, Section4.]

1.05 Proxies. Every Overlying (Agricultural) Pool member shall vote either in person or by one or more persons authorized by a written proxy executed by such member and filed with the Watermaster. Any proxy duly executed continues in full force and effect until revoked by the person executing it, prior to the vote pursuant thereto, by a writing delivered to the Watermaster stating that the proxy is revoked or by a subsequent proxy executed by, or by attendance at the meeting and voting in person by, the member executing the proxy; provided, however, that no proxy shall be valid after the expiration of eleven (11) months from the date of its execution unless otherwise provided in the proxy. [Based on Judgment, page 62, Section 2.]

1.06 Powers and Duties. The Pool Committee shall have the power and responsibility for developing policy recommendations for administration of its Pool and to adopt an annual budget. All actions and recommendations which require Watermaster implementation shall first be noticed to the other two Pools. If no objection is received in writing within thirty (30) days, such action or recommendation shall

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be transmitted directly to Watermaster for action. If any such objection is received, such action or recommendation shall be reported to the Watermaster Advisory Committee before being transmitted to Watermaster. [Based on Judgment, page 21, Section 38(a).]

## ARTICLE 2

### PROCEDURES

2.01 Principal Office. The principal office of Pool shall be the Chino Basin Municipal Water District business office, located at 8555 Archibald Avenue, Cucamonga, California 91730; telephone number (714) 987-1712, or at such other location or locations as may be designated from time to time by amendment to these rules and regulations.

2.02 Records. The records of the Pool shall be open to inspection and maintained at the Watermaster's office. [Based on Judgment, page 20, Section 37(d).] Copies of such records may be obtained upon payment of the duplication costs thereof.

2.03 Regular Meetings. The Pool Committee shall meet annually, at the beginning of each year, and at such other times and places as the Pool Committee may determine from time to time by resolution, for purpose of conducting the business of the pool and to make such recommendations as may be necessary to properly advise Watermaster. If the time designated for regular meetings shall fall on a legal holiday, the regular meeting shall be held instead on the next succeeding regular business day at the same time and place,

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or such other day, time and place as may designated.

2.04 Special Meetings. Special meetings may be called at any time by the Chairperson or by any three (3) members of the Pool Committee. [Based on Judgment, page 20, Section 37(c).]

2.05 Adjournment. Any meeting may be adjourned to a time and place specified in the order of adjournment. Less than a quorum may so adjourn from time to time. A copy of the order or notice of adjournment shall be conspicuously posted forthwith on or near the door of the place where the meeting was held. [See Judgment, page 20-21, Section 37(e).]

2.06 Public Meetings. All meetings, whether regular or special, shall be open to be public.

2.07 Notice. Notices shall be given in writing to all Active Parties within the Pool and each such person who has requested notice in writing, and shall specify the time and place of the meeting and the business to be transacted thereat.

Delivery of notice shall be deemed made on the date personally given or within ninety-six (96) hours of deposit thereof in the United States mail, first class, postage prepaid, addressed to the designee and at the address in the latest designation filed by such person.

2.08 Quorum. A majority of the members of the Pool Committee shall constitute a quorum for the transaction of its affairs. [Based on Judgment, page 18, Section 35.]

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2.09 Voting. All voting at Pool Committee meetings shall be on the basis of one vote for each Committee member in attendance. [Based on Judgment, page 62, Section 3.]

Any action or recommendation taken by the Pool Committee shall be transmitted to Watermaster in writing within five (5) days of such action, together with a report of any dissenting vote or opinion. [Based on Judgment, page 19, Section 35.]

All actions may be adopted by voice vote, but upon demand of any member the roll shall be called and the ayes and noes recorded in the minutes of the proceedings.

2.10 Agenda. Any person requesting that a matter be considered for action by the Pool Committee, shall request such action in writing delivered to the secretary thereof at least fourteen (14) days prior to said meeting. The priorities of business shall be as stated in the agenda for a particular meeting, subject, however, to matters of business which may arise on an urgency basis, and require the immediate attention and action of the Pool Committee.

2.11 Minutes. The secretary (or in the absence thereof any person so designated at said meeting), shall prepare and subscribe the minutes of each meeting and make available a copy thereof to the appropriate Active Parties and each person who has filed a request for copies of all minutes or notices in writing. The minutes shall constitute notice of all actions therein reported. [Based on Judgment, page 20, Section 37(d).] Unless a reading of the minutes of meeting is ordered by a majority vote of its members, each such

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minutes may be approved without reading.

2.12 Rules of Order. Except as may be provided herein, the procedures for the conduct of any meeting shall be governed by the latest revised edition of Roberts' Rules of Order. However, such rules, adopted to expedite the transaction of the business in an orderly fashion, are deemed to be procedural only and the failure to strictly observe such rules shall not affect the jurisdiction or invalidate any action taken at a meeting that is otherwise held in conformity with law.

2.13 Compensation. Members of the Pool Committee may by resolution, allow themselves compensation for attendance at meetings, regular or special, in an amount not to exceed twenty-five (\$25.00) dollars per meeting, to a maximum of three hundred (\$300.00) dollars per year, together with reasonable expenses related to the respective activities thereof, subject to applicable provisions of law. [Based on Judgment, page 19, Section 36.]

2.14 Officers. Annually, members of the Pool Committee shall elect one of their number to serve as Chairperson and another of their number to serve as Vice Chairperson. They shall also select a secretary, a treasurer and such assistant secretaries and treasurers as may be appropriate, any of whom may, but need not be members of the Pool Committee. All officers are to hold their respective offices subject to the vote of the majority voting power of the Pool Committee in attendance. [Based on Judgment, page 19, Section 37(a).]

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The Chairperson shall preside over all meetings of the Pool Committee. In the event of the Chairperson's absence, inability, or disability, those duties shall be performed by the Vice Chairperson or, in the Vice Chairperson's absence, inability, or disability as well, by one of their number so appointed by majority vote as temporary Chairperson for that meeting. The secretary shall prepare and maintain minutes of the meetings of the Pool Committee, and forward the originals for filing with the Watermaster, within ten (10) days of each meeting.

2.15 Vacancy. Any vacancies of the Pool Committee shall be filled by a majority vote of the remaining members of the Pool Committee.

2.16 Advisory Committee Representatives. The number of representatives of the Pool Committee on the Watermaster Advisory Committee shall be as provided by resolution of the Pool Committee from time to time, but the number of said representatives shall at no time exceed ten (10) nor be less than three (3). The voting power of the pool on the Watermaster Advisory Committee shall be as apportioned by resolution of the Pool Committee from time to time, however, the voting power of the pool in toto shall be represented by the number of representatives attending any particular Watermaster Advisory committee meeting.

2.17 Replenishment. It shall be the responsibility of the Pool to provide the funds necessary for purchase of replenishment water to replace any production within the Basin

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by persons other than members of the Overlying (Agricultural) Pool or Appropriator Pool, in excess of the Overlying (Agricultural) Pool's share of the Safe Yield. During the first five (5) years of operations of the Physical Solution of the Judgment, the Pool shall make a reasonable effort to equalize annual assessments through the establishment of tentative yearly allocations.

2.18 Assessment. All assessments in the Pool whether for replenishment water costs, or the allocated share of Watermaster administration, shall be an amount uniformly applicable to all production in the pool during the preceding year on calendar quarter. The Pool Committee shall, during the first four (4) years of operation, adopt by majority vote of the voting power of members of the Pool Committee in attendance at the annual Pool Committee meeting, a tentatively yearly allocation upon which assessments for replenishment water costs and administrative expenses shall be based. Within fourteen (14) days of adoption of the tentative yearly allocation, the secretary of the Pool Committee shall notice the other Pools.

2.19 Modification of Replenishment Assessment Formula. The Pool Committee may recommend to the court modification of the method of assessing the Pool members inter se if necessary to obtain legitimate basin management objectives, including water conservation and avoidance of undesirable socio-economic consequences. Any such modification shall be initiated and ratified by one of the following methods:

(a) Excess Production. In the event total pool production exceeds 100,000 acre feet in any one year, the Pool Committee shall call and hold a meeting, after fourteen (14) days' notice to all Pool members, to consider remedial modification.

(b) Producer Petition. At any time after the fifth full year of operation under the Physical Solution, a petition of ten (10%) percent of the voting power or membership of the Pool shall compel the holding of a noticed meeting to consider modification.

In either event, a majority action of the voting power in attendance at such pool members' meeting shall be binding on the Pool Committee.

2.20 Amendment. The Pool Committee may amend these rules and regulations from time to time, but not inconsistent with its pooling plan, by majority vote of the voting power of the Committee in attendance at any meeting. [Based on Judgment, page 64, Section 8.]

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# **NON-AG POOL COMMITTEE**

## **RULES & REGULATIONS**

# OVERLYING (NON-AGRICULTURAL) POOL COMMITTEE

## RULES AND REGULATIONS

### ARTICLE 1

#### GENERAL PROVISIONS

1.01 Title/Code. This document shall be known and may be referred to as the “Overlying (Non-Agricultural) Pool Committee Rules and Regulations” adopted pursuant to Judgment entered in Chino Basin Municipal Water District v. City of Chino, et al., S.B. Sup. Ct. No. 164327, on January 27, 1978. To provide convenience in operation under the Judgment certain procedural matters contained therein have been set forth in these rules and regulations, however, should a conflict arise between the Judgment and these rules and regulations the language of the Judgment shall in all cases prevail. Designations hereinafter to “See Judgment” shall refer to verbatim quotations from the Judgment; whereas “Based on Judgment” shall refer to a paraphrase of the Judgment language. References herein to pages of the Judgment refer to the pagination of the original Judgment entered on January 27, 1978.

1.02 Definitions. Unless otherwise expressly indicated or compelled by their context, words, phrases, and references appearing herein shall have the same meanings as set forth in the Judgment, including the additional definitions as follows:

- (a) Committee(s) – Any of the Pool Committees or the Watermaster Advisory Committee as the context may compel.

(b) Judgment – The judgment entered in Chino Basin Municipal Water District v. City of Chino et al., San Bernardino Superior Court No. 164327.

(c) Overlying (Agricultural) Pool – The pool consisting of the State of California and all overlying producers who produce water for other than industrial or commercial purposes.

(d) Overlying (Non-agricultural) Pool – The pool consisting of (i) overlying producers who produce water for industrial or commercial purposes or who, at the request of Watermaster and with the consent of the Watermaster Advisory Committee, take substitute water in lieu of producing such ground water, and (ii) persons who own Safe Yield or storage water within the Pool, and have been admitted into the Pool following notice and hearing on a motion for intervention.

(e) Appropriative Pool – The pool consisting of owners of appropriative rights, as defined under the Judgment, and any person who produces water for other than overlying use.

1.03 Membership in Pool. The pool shall include (i) all producers of water for overlying industrial or commercial purposes, or such producers within the Pool who may hereafter take substitute water, at the request of Watermaster and with the consent of the Watermaster Advisory Committee, in lieu of producing ground water, and (ii) all owners of Safe Yield or storage water within the Pool who have been admitted into the Pool following notice and hearing on a motion for intervention. The initial members of the Pool are listed in Exhibit “D” to the Judgment. [Based on Judgment, page 65, Section 1.]



The Pool Committee may, by affirmative vote at any time, direct that Watermaster staff or Pool Counsel deliver a written notice (the "Non-Producing Member Notice") to the last known address and to the attention of the last known representative of any person who is then a Non-Producing Member (as hereafter defined) requesting that the Non-Producing Member state in writing whether it thereafter intends to produce water or take substitute water for overlying industrial or commercial purposes. If the Non-Producing Member delivers a written notice (a "Member Continuation Notice") to Watermaster staff or Pool Counsel within 30 calendar days after delivery or attempted delivery of the Non-Producing Member Notice stating an unambiguous present intent thereafter to produce water or take substitute water for overlying industrial or commercial purposes, or to acquire Safe Yield or storage water within the Pool, then such person shall remain a member of the Pool. Otherwise, such person shall automatically and irrevocably be deemed to have withdrawn as a member of the Pool. If such Non-Producing Member delivers a Member Continuation Notice but does not actually produce water or take substitute water for overlying industrial or commercial purposes, or does not actually acquire Safe Yield or storage water within the Pool, within three fiscal years after the fiscal year in which the Non-Producing Member Notice was delivered, then the Non-Producing Member shall automatically and irrevocably be deemed to have withdrawn as a member of the Pool, notwithstanding the Member Continuation Notice. For purposes hereof, the term "Non-Producing Member" shall mean, as of any date of determination, a member of the Pool (1) who owns no Safe Yield or storage water within the Pool; and (2) who has not produced water or taken substitute water for overlying industrial or commercial purposes at any time on or after the first day of the fiscal year

immediately preceding the fiscal year in which the date of determination falls. Nothing herein shall affect the right of any Non-Producing Member who is deemed to have withdrawn from the Pool to again become a member of the Pool, or any other person to become a member of the Pool, in any other manner permitted by the Judgment, the Pooling Plan and these Rules.

1.04 Representation. The Pool Committee shall consist of one representative designated by each member of the Pool. [Based on Judgment, page 65, Section 2.]

1.05 Powers and Duties. The Pool Committee shall have the power and responsibility for developing policy recommendations for administration of its Pool and to adopt an annual budget. All actions and recommendations which require Watermaster implementation shall first be noticed to the other two Pools. If no objection is received in writing within thirty (30) days, such action or recommendation shall be transmitted directly to Watermaster for action. If any such objection is received, such action or recommendation shall be reported to the Watermaster Advisory Committee before being transmitted to Watermaster. [Based on Judgment, page 21, Section 38(a).]

## ARTICLE 2

### PROCEDURES

2.01 Principal Office. The principal office of the Pool Committee shall be the office used by Watermaster staff, or such other location within the Chino Basin as may be designated from time to time by vote of the Pool Committee.

2.02 Records. The records of the Pool Committee shall be open to inspection and maintained at the Watermaster's office. [Based on Judgment, page 20, Section 37(d).] Copies of such records may be obtained upon payment of the duplication costs thereof.

2.03 Regular Meetings. The Pool Committee shall meet annually, at the beginning of each year, at such time and place as the Pool Committee may determine from time to time by resolution, for purpose of conducting the business of the pool and to make such recommendations as may be necessary to properly advise Watermaster. If the time designated for regular meetings shall fall on a legal holiday, the regular meeting shall be held instead on the next succeeding regular business day at the same time and place, or such other day, time and place as may be designated.

2.04 Special Meetings. Special meetings may be called at any time by the Chairperson or by any three (3) members of the Pool Committee. [Based on Judgment, page 20, Section 37(c).]

2.05 Adjournment. Any meeting may be adjourned to a time and place specified in the order of adjournment. Less than a quorum may so adjourn from time to time. A copy of the order or notice of adjournment shall be conspicuously posted forthwith on or near the door of the place where the meeting was held. [See Judgment, pages 20-21, Section 37(e).]

2.06 Public Meetings. All meetings, whether regular or special, shall be open to the public. A Pool Committee meeting may be held telephonically. Any meeting of the Pool Committee may contain a confidential session for the purpose of (1) considering any matter permitted to be considered in closed session under the Brown Act (it being acknowledged that the Pool Committee is not subject to the Brown Act), or (2) considering any other matter where the closed session is approved by vote of the Pool Committee. [Approved by Pool at its meeting on 11/30/2010.]

2.07 Notice. Notices shall be given in writing to all Active Parties within the Pool and each such person who has requested notice in writing, and shall specify the time and place of the meeting and the business to be transacted thereat. Delivery of notice shall be deemed made on the date personally given or within 96 hours of deposit thereof in the United States mail, first class, postage prepaid, addressed to the designee and at the address in the latest designation filed by such person.

2.08 Quorum

(a) any 2 or more members of the Pool Committee shall constitute a quorum for the transaction of its affairs, provided that if fewer than 4 members are present to establish a quorum, then such quorum must include the Chair or Vice Chair or both. For the purposes hereof, (1) attendance of the representative of a member, or the alternative of such representative, shall be included for purposes of establishing a quorum; and (2) such attendance may be in person, by telephone or by any other method that allows each representative or alternate in attendance to hear all other persons in attendance, and to be heard clearly by them, at all times while business of the Pool Committee is being conducted.

(b) The Secretary shall take a roll call of the members at or prior to the commencement of each meeting of the Pool Committee. If a quorum is not present at the beginning of a meeting or is lost during a meeting, the meeting shall immediately be adjourned.

(c) If a quorum is not present at the beginning of a meeting or is lost during a meeting, the members in attendance shall have no authority thereafter to take action at such meeting. Any representatives or alternates who attend a

meeting at which a quorum is not present or is lost may elect to receive reports or engage in discussion as long as no action is taken by them. The minutes of any meeting of the Pool Committee at which a quorum is not present or is lost shall state the time of adjournment, and shall not reflect any reports, discussion or other matter occurring after such adjournment.

(d) If action is not taken at a meeting of the Pool Committee on an item that was included as a business item on the agenda of such meeting because of the absence of a quorum, and if the item appears as a business item on the agenda of the next meeting of the Advisory Committee and the Watermaster Board, then the representatives who have been elected by the Pool Committee to serve on the Advisory Committee and the Watermaster Board may act on such item at such meeting of the Advisory Committee and the Watermaster Board as they determine appropriate. [This Section approved by Pool at its meeting on May 14, 2015, based on Order entered on July 11, 2014, amending Judgment, Section 35.]

2.09 Voting Procedures. All voting shall be on the basis of one vote for each member, unless a volume vote is demanded by any member, in which case votes shall be allocated as follows:

The volume voting power on the Pool Committee shall be 1,484 votes. Of these, 742 votes shall be allocated on the basis of one vote for each ten (10) acre feet or fraction thereof of decreed shares in Safe Yield. The remaining 742 votes shall be allocated proportionally on the basis of assessments paid to Watermaster during the preceding year; provided, however, that if a member of the Pool takes water pursuant to paragraph 8. of

Exhibit G to the Judgment, for purposes of voting only, such producer shall be credited as if it had produced such water so taken and paid the assessment which would have been applicable thereto. [Based on Judgment, Exhibit G, page 65, Section 2.] Affirmative action of the Committee shall require a majority of the voting power of members in attendance, provided that, if a volume vote is demanded, affirmative action shall require concurrence by at least one-third of its total members. Notwithstanding anything to the contrary herein, affirmative action of the Pool Committee on any Pool Administration Matter (as hereafter defined) shall require the affirmative vote of not fewer than one-third of its total members. For the purposes hereof, the term "Pool Administration Matter" shall include (a) any special assessment on members of the Pool Committee; (b) the election, removal or replacement of any officer of the Pool Committee, or of counsel for the Pool Committee, or of any representative of the Pool Committee on the Advisory Committee or the Watermaster Board; and (c) any amendment or modification of these Rules and Regulations. Notwithstanding the foregoing, if action is not taken at a meeting of the Pool Committee at which fewer than one-third of its total members are in attendance, on a Pool Administration Matter appearing on the agenda of such meeting, then affirmative action of the Pool Committee on such Pool Administration Matter at the next meeting of the Pool Committee at which a quorum is present shall require the affirmative vote of a majority of members in attendance. [This paragraph approved by Pool at its meeting on May 14, 2015, based on Order entered on July 11, 2014, amending Judgment, Section 35.]

Any action or recommendation taken by the Pool Committee shall be transmitted to Watermaster in writing within five (5) days of such action, together with a report of any dissenting vote or opinion. [Based on Judgment, page 19, Section 35.]

All actions may be adopted by voice vote, but upon demand of any member thereof, the roll shall be called and the ayes and noes recorded in the minutes of the proceedings. Every member of the Pool Committee in attendance, unless disqualified by reason of a conflict of interest, shall be required to vote.

2.10 Agenda. Any person requesting that a matter be considered for action by the Pool Committee, shall request such action in writing delivered to the secretary thereof at least fourteen (14) days prior to said meeting. The priorities of business shall be as stated in the agenda for a particular meeting, subject, however, to matters of business which may arise on an urgency basis, and require the immediate attention and action of the Pool Committee.

2.11 Minutes. The secretary (or in the absence thereof) any person so designated at said meeting) shall prepare and subscribe the minutes of each meeting and make available a copy thereof to the appropriate Active Parties and each person who has filed a request for copies of all minutes or notices in writing.<sup>1</sup> The minutes shall constitute notice of all actions therein reported. [Based on Judgment, page 20, Section 37(d).] Unless a reading of the minutes of a meeting is ordered by a majority vote of its members, each such minutes may be approved without reading.

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<sup>1</sup> Pool Counsel is authorized and instructed to maintain a copy of the approved minutes, reports and resolutions of the Non-Agricultural Pool Committee commencing with the minutes of the Committee meeting which occurred on July 1, 2010. In the event of any conflict between minutes, reports and resolutions maintained by Watermaster staff and those maintained by Pool Counsel, those maintained by Pool Counsel shall constitute the true minutes, reports and resolutions of the Committee. [Resolution adopted by pool at its meeting on 09/02/2010.]

2.12 Rules of Order. Except as may be provided herein, the procedures for the conduct of any meeting shall be governed by the latest revised edition of Roberts' Rules of Order. However, such rules, adopted to expedite the transaction of the business in an orderly fashion, are deemed to be procedural only and the failure to strictly observe such rules shall not affect the jurisdiction or invalidate any action taken at a meeting that is otherwise held in conformity with law.

2.13 Compensation. Members of the Pool Committee may by resolution, allow themselves compensation for attendance at meetings, regular or special, in an amount not to exceed twenty-five (\$25.00) dollars per meeting, to a maximum of three hundred (\$300.00) dollars per year, together with reasonable expenses related to the respective activities thereof, subject to applicable provisions of law. [Based on Judgment, page 19, Section 36.]

2.14 Officers. Annually, members of the Pool Committee shall elect one of their number to serve as Chairperson and another of their number to serve as Vice Chairperson. They shall also select a secretary, a treasurer and such assistant secretaries and treasurers may be appropriate, any of whom may, but need not be members of the Pool Committee. All officers are to hold their respective offices subject to the vote of the majority voting power of the Pool Committee. [Based on Judgment, page 19, Section 37(a).]

The Chairperson shall preside over all meetings of the Pool Committee. In the event of the Chairperson's absence, inability, or disability, those duties shall be performed by the Vice Chairperson or, in the Vice Chairperson's absence, inability, or disability as well, by one of their number so appointed by majority vote as temporary



Chairperson for that meeting. The secretary shall prepare and maintain minutes of the meetings of the Pool Committee, and forward the originals for filing with the Watermaster, within ten (10) days of each meeting.<sup>2</sup>

2.15 Advisory Committee Representatives. The number of representatives of the Pool Committee on the Watermaster Advisory Committee shall be as provided by resolution of the Pool Committee from time to time, but the number of said representatives shall at no time exceed ten (10) nor be less than three (3). The voting power of the pool on the Watermaster Advisory Committee shall be exercised as a unit, based upon the vote of a majority of its representatives in attendance. [Based on Judgment, page 17, Section 32, page 65, Section 3.]

2.16 Replenishment. It shall be the responsibility of the members of Pool to provide the funds necessary for purchase of replenishment water to replace any production by the pool in excess of the pool's share of Safe Yield. [Based on Judgment, page 66, Section 4.]

2.17 Assessment. Each member of the pool shall pay an assessment equal to the cost of replenishment water times the number of acre feet of production by such producer during the preceding year in excess of (a) its decreed share of the Safe Yield, plus (b) any carry-over credit under paragraph 7. of Exhibit G to the Judgment. In addition, the cost of the allocated share of Watermaster administration expense shall be recovered on an equal assessment against each acre foot of production in the pool during such preceding

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<sup>2</sup> Pool Counsel shall serve as secretary to the Non-Agricultural Pool Committee during confidential meetings and sessions of the Committee, for the purposes, among other things, of preparing and maintaining a list of the members of the Committee and their representatives, for conducting roll calls during such meetings and sessions, for maintaining records of the actions taken during such meetings and sessions, for preparing and sending reports thereof to Watermaster staff and others, each as and when appropriate given the potentially confidential nature of such meetings and sessions. [Resolution by pool adopted at its meeting on 09/02/2010.]

fiscal year or calendar quarter; and in the case of Pool members who take substitute ground water as set forth in paragraph 8. of Exhibit G to the Judgment, such producer shall be liable for its share of administration assessment, as if the water so taken were produced, up to the limit of its decreed share of Safe Yield. [Based on Judgment, page 66, Section 5.]

2.18 Assignment. The rights pertaining to this pool are appurtenant to the land and are only assignable with the land for overlying use thereon; provided, however, that any Appropriator who may, directly or indirectly, undertake to provide water service to such overlying lands may, by an appropriate agency agreement on a form approved by Watermaster, exercise said overlying right to the extent, but only to the extent necessary to provide water service to said overlying lands. [Based on Judgment, page 66, Section 5.]

2.19 Carry-over. Any member of the pool who produces less than its assigned share of Safe Yield may carry such unexercised right forward for exercise in subsequent years. The first water produced during any such subsequent year shall be deemed to be an exercise of its carry-over right. In the event the aggregate carry-over by any pool member exceeds its share of Safe Yield, such member shall, as a condition of preserving such surplus carry-over, execute a storage agreement with Watermaster. [See Judgment, pages 66-67, Section 7.]

2.20 Amendment. The Pool Committee may amend these rules and regulations from time to time, but not inconsistent with its pooling plan, by majority vote of the voting power. [Based on Judgment, page 67, Section 8; page 19, Section 35.]

# **APPROPRIATIVE POOL COMMITTEE**

## **RULES & REGULATIONS**

## APPROPRIATIVE POOL COMMITTEE

### RULES AND REGULATIONS

#### ARTICLE 1

### GENERAL PROVISIONS

1.01 TITLE/CODE. This document shall be known and may be referred to as the “Appropriative Pool Committee Rules and Regulations” adopted pursuant to Judgment entered in CHINO BASIN MUNICIPAL WATER DISTRICT v CITY OF CHINO, et. al., S. B. Sup. Ct. No. 164327, on January 27, 1978. To provide convenience in operating under the Judgment certain procedural matters contained therein have been set forth in these rules and regulations, however, should a conflict arise between the Judgment and these rules and regulations the language of the Judgment shall in all cases prevail. Designations hereinafter to “See Judgment” shall refer to verbatim quotations from the Judgment; whereas “Based on Judgment” shall refer to a paraphrase of the Judgment language.

1.02 DEFINITIONS. Unless otherwise expressly indicated or compelled by their context, words, phrases, and references appearing herein shall have the same meanings as set forth in the Judgment, including the additional definitions as follows:

- (a) COMMITTEE(S) – Any of the Pool Committees or the Watermaster Advisory Committee as the context may compel.

(b) JUDGMENT – The judgment entered in CHINO BASIN MUNICIPAL WATER DISTRICT v CITY OF CHINO, et al., San Bernardino Superior Court No. 164327.

(c) OVERLYING (AGRICULTURAL) POOL – The pool consisting of the State of California and all overlying producers who produce water for other than industrial or commercial purposes.

(d) OVERLYING (NON-AGRICULTURAL) POOL – The pool consisting of overlying producers who produce water for industrial or commercial purposes or who, at the request of Watermaster and with the consent of the Watermaster Advisory Committee, take substitute water in lieu of producing such ground water.

(e) APPROPRIATIVE POOL - The pool consisting of owners of appropriative rights, as defined under the Judgment, and any person who produces water for other than overlying use.

1.03 MEMBERSHIP IN POOL. Any city, district or other public entity and public utility – either regulated under Public Utilities Commission jurisdiction, or exempt therefrom as a non-profit mutual water company (other than those assigned to the Overlying (Agricultural) Pool) – shall be a member of this pool. All initial members of the pool are listed in Exhibit “E” to the Judgment. (Based on Judgment, page 68, Section 1.)

1.04 REPRESENTATION. The Pool Committee shall consist of one (1) representative appointed by each member of the Pool. (Based on Judgment, page 68, Section 2.)

1.05 POWERS AND DUTIES. The Pool Committee shall have the power and responsibility for developing policy recommendations for administration of its Pool and to adopt an annual budget. All actions and recommendations which require Watermaster implementation shall first be noticed to the other two Pools. If no objection is received in writing within thirty (30) days, such action or recommendation shall be transmitted directly to Watermaster for action. If any such objection is received, such action or recommendation shall be reported to the Watermaster Advisory Committee before being transmitted to Watermaster. (Based on Judgment, page 21, Section 38(a).)

## ARTICLE 2

### PROCEDURES

2.01 PRINCIPAL OFFICE. The principal office of the Pool shall be the Chino Basin Municipal Water District business office, located at 8555 Archibald Avenue, Cucamonga, California 91730; telephone number (714) 987-1712, or at such other location or locations as may be designated from time to time by amendment to these rules and regulations.

2.02 RECORDS. The records of the Pool shall be open to inspection and maintained at the Watermaster's office. (Based on Judgment, page 20, Section 37(d).) Copies of such records may be obtained upon payment of the duplication costs thereof.

2.03 REGULAR MEETINGS. The Pool Committee shall meet annually, at the beginning of each year, at such time and place as the Pool Committee may determine from time to time by resolution, for purpose of conducting the business of the pool and to make such recommendations as may be necessary to properly advise Watermaster. If the time designated for regular meetings shall fall on a legal holiday, the regular meeting shall be held instead on the next succeeding regular business day at the same time and place, or such other day, time and place as may be designated.

2.04 SPECIAL MEETINGS. Special meetings may be called at any time by the Chairperson or by any three (3) members of the Pool Committee. (Based on Judgment, page 20, Section 37(c).)

2.05 ADJOURNMENT. Any meeting may be adjourned to a time and place specified in the order of adjournment. Less than a quorum may so adjourn from time to time. A copy of the order or notice of adjournment, shall be conspicuously posted forthwith on or near the door of the place where the meeting was held (See Judgment, pages 20-21, Section 37(e).)

2.06 PUBLIC MEETINGS. All meetings, whether regular or special, shall be open to the public.

2.07 NOTICE. Notices shall be given in writing to all Active Parties within the Pool and each such person who has requested notice in writing, and shall specify the time and place of the meeting and the business to be transacted thereat.

Delivery of notice shall be deemed made on the date personally given or within 96 hours of deposit thereof in the United States mail, first class, postage prepaid, addressed to the designee and at the address in the latest designation filed by such person.

2.08 QUORUM. A majority of the voting power of the Pool Committee shall constitute a quorum for the transaction of its affairs. (Based on Judgment, page 18, Section 35.)

2.09 VOTING PROCEDURES. The total voting power on the Pool Committee shall be 1,000 votes. Of these, 500 votes shall be allocated in proportion to decreed percentage shares in Operating Safe Yield. The remaining 500 votes shall be allocated proportionally on the basis of assessments paid to Watermaster during the preceding year. Routine business of the Pool Committee may be conducted on the basis of one vote per member, but upon demand of any member a weighted vote shall be taken. Affirmative action of the Committee shall require a majority of the voting power of members in attendance, provided that it



includes concurrence by at least one-third of its total members. (See Judgment, page 68, Section 3.)

Any action or recommendation taken by the Pool Committee shall be transmitted to Watermaster in writing within five (5) days of such action, together with a report of any dissenting vote or opinion. (Based on Judgment, page 19, Section 35.)

All actions may be adopted by voice vote, but upon demand of any member the roll shall be called and the ayes and noes recorded in the minutes of the proceedings.

2.10 AGENDA. Any person requesting that a matter be considered for action by the Pool committee, shall request such action in writing delivered to the secretary thereof at least fourteen (14) days prior to said meeting. The priorities of business shall be as stated in the agenda for a particular meeting, subject, however, to matters of business which may arise on an urgency basis, and require the immediate attention and action of the Pool Committee.

2.11 MINUTES. The secretary (or in the absence thereof) any person so designated at said meeting) shall prepare and subscribe the minutes of each meeting and make available a copy thereof to the appropriate Active Parties and each person who has filed a request for copies of all minutes or notices in writing. The minutes shall constitute notice of all actions therein reported. (Based on Judgment,

page 20, Section 37(d.), unless a reading of the minutes of a meeting is ordered by a majority vote of its members, each such minutes may be approved without reading.

2.12 RULES OF ORDER. Except as may be provided herein, the procedures for the conduct of any meeting shall be governed by the latest revised edition of Roberts' Rules of Order. However, such rules, adopted to expedite the transaction of the business in an orderly fashion, are deemed to be procedural only and the failure to strictly observe such rules shall not affect the jurisdiction or invalidate any action taken at a meeting that is otherwise held in conformity with law.

2.13 COMPENSATION. Members of the Pool Committee may by resolution, allow themselves compensation for attendance at meetings, regular or special, in an amount not to exceed twenty-five (\$25.00) dollars per meeting, to a maximum of three hundred (\$300.00) dollars per year, together with reasonable expenses related to the respective activities thereof, subject to applicable provisions of law. (Based on Judgment, page 19, Section 36.)

2.14 OFFICERS. Annually, members of the Pool Committee shall elect one of their number to serve as Chairperson and another of their number to serve as Vice Chairperson. They shall also select a secretary, a treasurer and such assistant secretaries and treasurers as may be appropriate, any of who may, but need not be members of the

Pool Committee. All officers are to hold their respective offices subject to the vote of the majority voting power of the Pool committee. (Based on Judgment, page 19, Section 37(a).)

The Chairperson shall preside over all meetings of the Pool Committee. In the event of the Chairperson's absence, inability, or disability, these duties shall be performed by the Vice Chairperson. In the event of the Vice Chairperson's absence, inability, or disability as well, such duties shall be performed by one of their number so appointed, by majority vote, as temporary Chairperson for that meeting. The secretary shall prepare and maintain minutes of the meetings of the Pool Committee and forward the originals for filing to the Watermaster within ten (10) days of each meeting.

2.15 ADVISORY COMMITTEE REPRESENTATIVES. Ten (10) members of the Pool Committee shall be designated to represent the pool on the Watermaster Advisory Committee. Each major appropriator, i.e., the owner of an adjudicated appropriative right in excess of 3,000 acre feet, shall be entitled to one representative. The other members representing the Pool on the Watermaster Advisory Committee shall be elected at large by the remaining members of the Pool on the basis of one of the members representing the Appropriative Pool on the Watermaster Advisory Committee shall be elected at large by the remaining members of the Appropriative Pool on the basis of one vote per member, and the other member representing the Appropriative Pool on the Watermaster Advisory Committee shall be elected based upon a

volume vote. The voting power of the Pool on the Watermaster Advisory Committee shall be apportioned between the major appropriator representatives in proportion to their respective voting power in the Pool Committee. The remaining two representatives shall exercise equally the voting power of all remaining appropriators. If one of the two remaining representatives fails to attend a Watermaster Advisory Committee meeting, the voting power of both representatives shall be exercised by the one so attending. If both remaining representatives fail to attend, their voting power shall be allocated proportionately among those representatives attending. If any representative, other than a non-major appropriator representative, fails to attend a Watermaster Advisory Committee meeting, the voting power of that representative shall be allocated among all the representatives of the Pool in attendance in the same proportion as their own respective voting powers. (Based on Judgment, pages 68-69, Section 4.)

2.16 REPLENISHMENT. It shall be the responsibility of the members of the pool to provide the funds necessary for purchase of replenishment water to replace any production by such pool members in excess of Operating Safe Yield in accordance with the formula set forth in paragraph 7 of Exhibit H to the Judgment. (Based on Judgment, page 69, Section 5.)

2.17 ADMINISTRATIVE ASSESSMENT. Costs of administration of the Pool and its share of general Watermaster expense shall be recovered by a uniform assessment applicable to all production during the

preceding fiscal year or calendar quarter. (Based on Judgment, page 64, Section 6.)

2.18 ASSIGNMENT, LEASE AND/OR LICENSE. Appropriative rights, and corresponding shares of Operating Safe Yield, may be assigned or may be leased or licensed or licensed to Watermaster, either for Watermaster's own account or in trust for an appropriator not a party to the Judgment, or to another appropriator within the Pool for exercise within the Basin in a given year. Any assignment, lease or license shall be ineffective unless provided in a form approved by Watermaster and when written notice thereof is furnished to Watermaster, in compliance with applicable Watermaster rules.

(Based on Judgment, page 77, Section 13.)

2.19 AMENDMENT. The Pool Committee may amend the rules and regulations from time to time, but not inconsistent with its pooling plan, by majority vote of the voting power. (Based on Judgment, pages 77-78, Section 14; page 19, Section 35.)

Rev. 1/11/90

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# **OBMP IMPLEMENTATION PLAN**

**IMPLEMENTATION PLAN .**  
**OPTIMUM BASIN MANAGEMENT PROGRAM**  
**FOR THE**  
**CHINO BASIN**

**INTRODUCTION**

This document describes the implementation plan for the Chino Basin Optimum Basin Management Program (OBMP). The goals and objectives for the OBMP are described in Section 3 of the Phase 1 OBMP report dated August 1999. Nine program elements were developed during the OBMP Phase 1 process to meet the goals of the OBMP. The program elements described herein include:

- Program Element 1 – Develop and Implement Comprehensive Monitoring Program
- Program Element 2 – Develop and Implement Comprehensive Recharge Program
- Program Element 3 – Develop and Implement Water Supply Plan for the Impaired Areas of the Basin
- Program Element 4 – Develop and Implement Comprehensive Groundwater Management Plan for Management Zone 1
- Program Element 5 – Develop and Implement Regional Supplemental Water Program
- Program Element 6 – Develop and Implement Cooperative Programs with the Regional Water Quality Control Board, Santa Ana Region (Regional Board) and Other Agencies to Improve Basin Management
- Program Element 7 – Develop and Implement Salt Management Program
- Program Element 8 – Develop and Implement Groundwater Storage Management Program
- Program Element 9 – Develop and Implement Storage and Recovery Programs

The scope of the program elements was developed by the Chino Basin stakeholders. Each program element contains a series of comprehensive actions and plans to implement those actions. Some of the program elements have been combined because they overlap and have synergies between them.

The parties to the PEACE Agreement (Peace Agreement) dated June 29, 2000, support and consent to Watermaster proceeding with this Implementation Plan in a manner that is consistent with the Peace Agreement and the Judgment. It is the intention of the parties that this Implementation Plan be interpreted consistently with the Peace Agreement and that all terms in this Implementation Plan be interpreted consistently with like terms contained in the Peace Agreement. To the extent there is a conflict between the Peace Agreement and this Implementation plan, the Peace Agreement shall Control.

Program Element 1 – Develop and Implement Comprehensive Monitoring Program

**A. Groundwater Level Monitoring Program**

**Description.** Watermaster began a process to develop a comprehensive groundwater level monitoring program in the spring of 1998. The process consists of two parts – an initial survey followed by long-term monitoring at a set of key wells. The initial survey consists of collecting groundwater level data at all wells in the Basin from which groundwater level measurements can be obtained for fall 1999, spring 2000, fall 2000, spring 2001, and fall 2001. Watermaster staff expects that they will measure groundwater levels in the initial survey at about 400 wells in the overlying agricultural pool and about 100 other wells from the other pools and unassigned monitoring wells. The data from the initial survey will be mapped and reviewed.

Based on this review and Watermaster management needs, a long-term monitoring program will be developed after the fall of 2001 survey. The long-term monitoring program will use about half of the wells in the overlying agricultural pool used in the initial survey plus all wells in the other pools and unassigned wells monitored under the direction of the Regional Board and others. Key wells located in agricultural areas will be replaced as necessary if the original well is destroyed when the agricultural land surrounding the well is converted to other use.



Watermaster will develop a groundwater level measurement protocol for use by all cooperating entities. Groundwater levels will be obtained by the following entities:

- Overlying Agricultural Pool – Watermaster staff
- Overlying Non-agricultural Pool – pool member or Watermaster staff
- Appropriative Pool – pool member or Watermaster staff
- Other wells – Watermaster staff will obtain data from Regional Board or owners.

**Implementation Status.** Watermaster began implementation of a groundwater level monitoring program in Watermaster fiscal year 1999/00, the current fiscal year, with a budget commitment of approximately \$61,000. Additionally, Watermaster began an intensive monitoring effort in the immediate area of the Chino I Desalters. Watermaster is monitoring this area to collect data to analyze the effects of the Desalters pumping. There will be a comparable or greater level of effort and budget commitment through 2001/02. After 2001/02, the budget commitment will be less when it reflects the implementation of a key-well monitoring program.

## **B. Groundwater Quality Monitoring Program**

**Description.** Watermaster began the process to develop a comprehensive water quality monitoring program in July 1999. As with the groundwater level monitoring program, the water quality monitoring program will consist of an initial survey and a long-term monitoring effort. The initial survey will consist of:

- collection of all water quality data from appropriators' or non-agricultural pool members' wells that are tested by appropriators or non-agricultural pool members;
- collection of all water quality data from the Regional Board for water quality monitoring efforts that are conducted under their supervision; and
- collection and analysis of at least one water quality sample at all (or a representative set of) other production wells in the Basin. Assumed maxi-

imum number of wells to be sampled by Watermaster in the initial survey is 600.

Groundwater quality samples will be obtained by the following entities:

- Overlying Agricultural Pool – Watermaster staff
- Overlying Non-Agricultural Pool – pool member
- Appropriative Pool – pool member
- Other wells – Watermaster staff will obtain data from Regional Board or owners

Re-sampling and analysis will be done at wells sampled by Watermaster if volatile organic compounds (VOCs) are detected. These data will be mapped and reviewed. Based on this review and Watermaster management goals in the OBMP, a long-term monitoring program will be developed and implemented in the fall of 2002. The long-term monitoring program will contain a minimum set of key wells that can be periodically monitored to assess water quality conditions in the Basin over time.

**Implementation Status.** Watermaster began implementation of a groundwater quality monitoring program in fiscal year 1999/00 with a budget commitment of about \$250,000 and will commit the same or greater level of effort through 2001/02. After 2001/02, the budget commitment will be less reflecting the implementation of a key well monitoring program.

### **C. Production Monitoring Program**

**Description.** The wells that Produce more than 10 acre-ft/yr in the Agricultural Pool will have in-line totalizing flow meters or other metering devices from which Watermaster will be able to estimate groundwater production in the Basin as provided in Article V of the Peace Agreement. To accomplish this, agricultural wells will be equipped with in-line totalizing flow meters or other suitable metering devices in each case in which it is prudent and feasible to do so.. Production records from wells owned by appropriators and overlying non-agricultural pool members will be reported quarterly as has been done in the past. Watermaster staff will monitor the meters of wells owned by agricultural pool members at least once a year during the

period of mid-May through June, if necessary. Watermaster staff will digitize all production records in Watermaster's database and use this information in the administration of the Judgment.

In addition to the above, all Producers will provide Watermaster on an annual basis with a *water use and disposal survey* form that describes the sources of water used by each Producer and how that water is disposed of after use. The purpose of the form is to provide information to Watermaster that will enable accurate salt budget estimates as described in *Program Element 6 – Develop and Implement Cooperative Programs with the Regional Board and Other Agencies to Improve Basin Management*, and for other water resources management investigations that may be undertaken by Watermaster in the future as part of implementing the OBMP.

Groundwater production estimates and water use and disposal survey forms will be obtained by the following entities:

- Overlying Agricultural Pool – Watermaster meters. Pool members read meters and will prepare and submit water use and disposal survey forms
- Overlying Non-Agricultural Pool – pool members will read their meters and prepare and submit the water use and disposal survey forms
- Appropriative Pool – pool members will read their meters and prepare and submit the water use and disposal survey forms.

**Implementation Status.** Watermaster developed and began implementation of a more comprehensive production monitoring program for the overlying agricultural pool in fiscal year 1999/00. The meter installation program will take place over a three-year period starting in fiscal year 2000/01 with a budget commitment of \$200,000 not including staff and contract meter installation. The water use and disposal forms are in development in the current fiscal year and will be used in subsequent years starting in 2000/01.

#### **D. Surface Water Discharge and Quality Monitoring**

**Description.** Currently, water quality is measured at all existing recharge and retention basins that contribute or have the potential to contribute significant recharge to the Basin. Water level sensors will be installed in those recharge and retention basins that contribute significant recharge to the Chino Basin. These facilities are listed in Table 4-3 of the OBMP Phase 1 Report. New water level sensors may be required at a cost of \$200,000. Water level data acquisition and water quality sampling will be done by Watermaster staff. The annual cost of laboratory analysis and interpretation of water level/discharge and water quality data is estimated to be as high as \$45,000.

Watermaster needs to assess the existing surface water discharge and associated water quality monitoring programs for the Santa Ana River and its Chino Basin tributaries to determine the adequacy of the existing monitoring programs for characterizing historical ambient conditions and their utility in detecting water quality impacts from future Chino Basin management activities. If possible, Watermaster will exercise best efforts to contract with the agencies conducting these programs to modify their programs to accommodate Watermaster.

**Implementation Status.** Watermaster will take the lead in completing the following activities:

- Watermaster will exercise best efforts to install water level sensors in those existing recharge and retention facilities that have conservation storage and potential for storm water recharge. This activity will begin in Watermaster fiscal year 2000/01.
- Watermaster staff will obtain grab samples approximately every two weeks for all basins during the rainy season and have these samples analyzed. This activity has been occurring since 1997/98, is budgeted in the current fiscal year, and will continue in the future at some level reflecting the water resources management goals of Watermaster. Current fiscal year budget is \$38,250. In addition, Watermaster staff will supplement its storm water quality data by obtaining information from other agencies that are required to collect such data.

- In the current fiscal year, Watermaster will review the surface water discharge and associated water quality monitoring programs for the Santa Ana River and the lower Chino Basin tributaries, and compare what is available from these programs to what is needed for Watermaster investigations under the OBMP. A supplementary /cooperative monitoring program will be developed based on this review and will be implemented by Watermaster during fiscal year 2000/01. The cost of the initial assessment of surface water data for the Santa Ana River is estimated to be \$15,000.

#### **E. Ground Level Monitoring Program**

**Description.** Watermaster is interested in determining if and how much subsidence has occurred in the Basin. Watermaster will conduct an analysis of historical ground level surveys and remote sensing data to make this determination. The analysis consists of the following tasks:

- Historical survey data collected and/or on file by federal, state, and local agencies will be compiled, mapped, and reviewed to estimate total subsidence for as long a period as possible.
- Synthetic aperture radar (SAR) imagery was obtained by the City of Chino as part of its own subsidence investigations and was provided to Watermaster for its review and use. Watermaster converted this to maps to estimate recent subsidence (1993 to 1999) in the Management Zone 1.
- Based on the above information, a network of ground elevation stations in subsidence-prone areas will be developed and periodic surveys of these stations will be done. The frequency of periodic surveys will be established for the Basin as a whole with more frequent surveys done for some areas of the Basin. The estimated cost of this effort is not certain.
- Watermaster will summarize and distribute the ground level monitoring data through the normal Watermaster process.

**Implementation Status.** Watermaster has budgeted about \$36,000 for the above tasks in the fiscal year 2000/01. These tasks will be accomplished in the

current fiscal year. Watermaster will budget for additional ground level surveys in subsequent years based on the results of the current year efforts.

#### **F. Well Construction, Abandonment and Destruction Monitoring**

**Description.** Watermaster maintains a database on wells in the Basin and Watermaster staff makes periodic well inspections. Watermaster staff sometimes finds a new well during routine well inspections. The near-term frequency of inspection is expected to increase due to the groundwater level, quality and production monitoring programs. Watermaster needs to know when new wells are constructed as part of its administration of the Judgment. Valuable information for use in managing the Chino Basin is usually developed when wells are constructed including: well design, lithologic and geophysical logs, groundwater level and quality data, and aquifer stress test data. Producers generally notify Watermaster when they construct a new well but seldom, if ever, provide the information listed above. Watermaster has not generally asked for these data. Well owners must obtain permits from the appropriate county and state agencies to drill a well and to put the well in use. Watermaster is developing cooperative agreements with the counties of Los Angeles, Orange, Riverside, and San Bernardino, and the California Department of Health Services (DHS) to ensure that the appropriate entities know that a new well has been constructed. Watermaster staff will make best efforts to obtain well design, lithologic and geophysical logs, groundwater level and quality data, and aquifer stress test data.

The presence of abandoned wells is a threat to groundwater supply and a physical hazard. Watermaster staff will review its database, make appropriate inspections, consult with well owners, and compile a list of abandoned wells in the Chino Basin. The owners of the abandoned wells will be requested to properly destroy their wells following the ordinances developed by the county in which the abandoned well is located. Watermaster staff will update its list of abandoned wells annually and provide this list to the counties for follow-up and enforcement.

**Implementation Status.** In Watermaster fiscal year 1999/2000, Watermaster staff began the process of formulating agreements with county and state agencies to notify each other regarding construction of new wells and to obtain construction related information. In 2000/01, Watermaster will continue this process and finalize these agreements. That year and every year thereafter, Watermaster will also prepare

a list of abandoned wells and forward that list to the counties for their action. Watermaster will follow up with the counties to ensure that abandoned wells are destroyed.

### **Implementation Actions and Schedule.**

#### ***First Three Years (2000/01 to 2003/03).***

Watermaster shall exercise best efforts to undertake the following actions in the first three years, commencing fiscal year 2000/01:

- Complete initial survey for the groundwater level program and develop long-term program.
- Complete initial survey for groundwater quality program and develop long-term program.
- Complete initial meter installation program for overlying agricultural pool.
- Complete initial ground level survey.
- Complete installation of water level sensors in recharge and retention facilities.
- Complete Santa Ana River surface water monitoring adequacy analysis.
- Continue surface water discharge and quality monitoring at recharge and retention facilities.
- Develop agreements with county and state agencies regarding notification of new well drilling. Well construction and related information will be requested as new wells are identified.

- Annually prepare a list of abandoned wells and forward it to the counties for their action. Follow up with the counties to ensure that abandoned wells are destroyed.

*Years Four to Ten (2003/04 to 2010/11).*

Watermaster shall exercise best efforts to undertake the following actions in years four through ten, commencing fiscal year 2002/03:

- Start and continue long-term groundwater level monitoring program, cause key wells to be relocated and constructed as necessary.
- Start and continue long-term groundwater quality monitoring program, cause key wells to be relocated and constructed as necessary.
- Continue production monitoring.
- Conduct remote sensing analysis using synthetic aperture radar or other techniques at least every ten years (2010/11) or sooner, if necessary.
- Continue ground level survey.
- Continue surface water discharge and quality monitoring in the Santa Ana River.
- Continue surface water discharge and quality monitoring at recharge and retention facilities.
- Well construction and related information will be requested as new wells are identified.
- Annually prepare a list of abandoned wells and forward it to the counties for their action. Follow up with the counties to ensure that abandoned wells are destroyed.



***Years Eleven to Fifty (2011/12 to 2049/50).***

Watermaster shall exercise best efforts to undertake the following actions in years eleven to fifty, commencing fiscal year 2011/12:

- Continue long-term groundwater level monitoring program, cause key wells to be relocated as necessary.
- Continue long-term groundwater quality monitoring program, cause key wells to be relocated as necessary.
- Continue production monitoring.
- Conduct remote sensing analysis using synthetic aperture radar or other technique at least every ten years (2020/21, 2030/31, 2040/41, 2050/51) or sooner, if necessary.
- Continue ground level survey.
- Participate as necessary in the Santa Ana River surface water monitoring.
- Continue surface water discharge and quality monitoring at recharge and retention facilities.
- Well construction related information will be requested as new wells are identified.
- Annually prepare a list of abandoned wells and forward it to the counties for their action. Follow up with the counties to ensure that abandoned wells are destroyed.

Watermaster will share the results of all these activities with the parties and relevant governmental agencies.

## **PROGRAM ELEMENT 2 -- DEVELOP AND IMPLEMENT COMPREHENSIVE RECHARGE PROGRAM**

Watermaster will facilitate the development of physical recharge capacity in the Chino Basin. Recharge facilities will be sized and located to balance long term production and recharge. Watermaster will seek to maximize recharge so that each Producer will be able to Produce both the quantity and quality of water to meet its water supply needs to the greatest extent possible from the water that underlies the Producer's area of benefit.

### **INTRODUCTION**

The need for a comprehensive recharge program is described in the OBMP Phase 1 report dated August 1999.

OBMP Program Element 2 -- Develop and Implement Comprehensive Recharge Program contains action items listed in the OBMP goals matrix (Table 3-8; OBMP Phase 1 Report, August 1999).

Increasing the yield of the Chino Basin by increasing the capture and recharge of storm flow will improve ambient water quality and increase the assimilative capacity of the Chino Basin. Increasing the capture of storm flow will reduce the cost of mitigation requirements for recharge of recycled water. The RWQCB Basin Plan assumes that a certain average annual quantity of storm flow (2300 acre-feet) will be recharged each year. The volume of recycled water that can be used in the Basin, without total dissolved solids (TDS) mitigation, is numerically tied to the average annual quantity of storm flow that recharges the Basin. A decrease in the recharge of storm flow will result in a decrease in the volume of recycled water that will be permitted in the Basin without TDS mitigation. Likewise, an increase in the recharge of storm flow will result in an increase in the volume of recycled water that will be permitted in the Basin without TDS mitigation. Therefore, the volume of recharge from storm flow has a dramatic impact on the future and cost of recycled water recharge.

The annual replenishment obligation will grow from the current level of about 30,000 to about 75,000 acre-feet per year (acre-ft/yr) over the next 20 to 30 years

(ultimate conditions). For ultimate conditions, as much as 31,000 acre-ft/yr of the replenishment obligation could be satisfied by transfer of unproduced rights in the Appropriative pool consistent with the Peace Agreement leaving a net replenishment obligation of about 44,000 acre-ft/yr. Currently, Watermaster has access to spreading facilities with a current capacity of about 29,000 acre-ft/yr when imported water from Metropolitan is available. Assuming replenishment water is available seven out of ten years, the average annual recharge capacity of recharge facilities expected to be available to Watermaster is about 20,000 acre-ft year. The in-lieu recharge potential for the Chino Basin is about 57,000 acre-ft/yr and is expected to remain constant over the next 20 to 30 years based on the water supply plan included in this OBMP. Assuming in-lieu replenishment water is available seven out of ten years, the average annual in-lieu recharge capacity available to Watermaster is about 40,000 acre-ft/yr. The replenishment obligation, and available recharge capacity for current and year 2020 are listed below (acre-ft/yr):

	Year 2000	Year 2020
Replenishment Obligation	31,000	75,000
Replenishment Capacity		
Underproduction	20,000	31,000
Physical Recharge	20,000	20,000
In-lieu Recharge	40,000	40,000
Subtotal	80,000	91,000
Surplus Replenishment Capacity	49,000	16,000

The surplus recharge capacity could be used up quickly by future replenishment needs and implementation of storage and recovery programs. The availability of in-lieu recharge capacity for in-lieu replenishment listed above is not a certainty. In the present mode of basin management, in-lieu recharge capacity is available on an ad hoc basis and requires the cooperation of water supply agencies that have access to supplemental water. If a substantial storage and recovery program is implemented, a major component of it may be satisfaction of replenishment obligations by in-lieu recharge.

In-lieu recharge can be counted on in the short term but cannot be assumed available for ultimate conditions. The safest and most conservative way to ensure that recharge capacity will be available is for Watermaster to develop physical recharge capacity that will meet ultimate replenishment obligations. The estimated annual replenishment obligation for the Chino Basin for ultimate conditions is about 75,000 acre-ft/yr. The physical recharge requirement is equal to the ultimate replenishment obligation (75,000 acre-ft/yr) minus the under production (31,000 acre-ft/yr) and is equal to 44,000 acre-ft/yr. Watermaster will need an annual physical recharge capacity of about 63,000 acre-ft/yr ( $63,000 = 44,000 / 0.7$ ). The distribution of physical recharge capacity by management zone was determined during the development of the *Program Environmental Impact Report for the OBMP* (Tom Dodson and Associates, 2000). The physical recharge capacity by management zone for the year 2020 is estimated to be:

Management Zone 1	34,000 acre-ft/yr
Management Zone 2	0 acre-ft/yr
Management Zone 3	29,000 acre-ft/yr
Total	63,000 acre-ft/yr

The allocation of recharge capacity to management zones is based on balancing recharge and production in each management zone with the ultimate production pattern described in OBMP Program Elements 3 and 5.

The Etiwanda, Montclair and San Sevaine basins are currently used by Watermaster for replenishment. During the development of the OBMP, seventeen additional existing storm water retention basins and one former recycled water percolation facility were identified that could be used to meet future replenishment obligations. These facilities are listed in Table 1. Table 1 also lists the replenishment capacities and improvements required to use these facilities for recharge of supplemental water and storm water. The locations of these basins are shown in Figure 1. These basins are currently used for storm water management and provide some degree of incidental recharge of storm water. From a practical standpoint, these basins will remain in service indefinitely. Because the facilities listed in Table 1 will be available for Watermaster indefinitely, construction of improvements to enable physical recharge for replenishment can be scheduled to meet the actual need. In the

short term, in-lieu recharge may be used for replenishment to the extent that in-lieu recharge and transfers can be done consistent with the goals of the OBMP and the "Peace Agreement."

All the facilities listed in Table 1 for supplemental recharge in Management Zone 1 will need to be constructed to meet replenishment obligations and to balance recharge with production. No new supplemental water recharge facilities are needed in Management Zone 2. Approximately 29,000 acre-ft/yr of new physical recharge capacity will need to be constructed in Management Zone 3 to meet replenishment obligations and to balance long term recharge with production. There is some flexibility in the location of the facilities available in Management Zone 3 and therefore engineering and economic investigations need to be done to select the facilities that should be used for replenishment.

## **B. NEGOTIATION OF AGREEMENTS**

The successful development and implementation of a comprehensive recharge program is not dependent upon Watermaster owning physical assets and real property. Watermaster shall not own recharge projects, including but not limited to spreading grounds, injection wells, or diversion works. It shall never own real property. Watermaster may own water rights in trust for the benefit of the parties to the judgment. However, Watermaster shall arrange, facilitate and provide for recharge by entering into contracts with appropriate persons which may provide facilities and operations for physical recharge of water as required by the Judgment and this Agreement, or pursuant to the OBMP. Any such contracts shall include appropriate terms and conditions, including terms for the location and payment of costs necessary for the operation and maintenance of facilities, if any and terms to ensure that material physical injury to any party to the Judgment or the Basin is mitigated.

Watermaster will pay the cost of preparing the Recharge Master Plan as the next step in the implementation of the OBMP Program Element 2. When the Plan is prepared, Watermaster shall exercise best efforts to negotiate binding agreements that are necessary and prudent under the circumstances with SBCFCD, CBWCD, IEUA or others to implement recharge projects. Watermaster will seek to reach agreements

that are consistent with the Judgment and the Peace Agreement. In negotiating any binding agreements, Watermaster will acknowledge, take into account and be directed by the following additional considerations:

1. The flood control functions of the various SBCFCD basins capable of artificial recharge in the Chino Basin will take priority over the artificial recharge function.
2. To the extent that artificial recharge can be incorporated into the operations of the SBCFCD basins without increasing the risk of flood damage and loss of life, artificial recharge will be maximized.
3. Multi-purpose projects will be given high priority and will be considered on a case by case basis.
4. Watermaster, in coordination and consultation with IEUA, CBWCD, SBCFCD or others, will prepare the storm water component of the Recharge Master Plan. Watermaster will coordinate with IEUA, CBWCD, and SBCFCD or others to prepare the supplemental water recharge component of the Recharge Master Plan. All costs for constructing the new supplemental water projects that are identified in Phase 1 and Phase 2 of the Recharge Master Plan shall be borne by Watermaster.
5. Watermaster will prepare Phase 2 of the Recharge Master Plan within three years.
6. Phase 2 of the Recharge Master Plan will Produce a list of recharge projects that will be described as either high priority or low priority projects. Watermaster will coordinate with SBCFCD and will exercise best efforts to implement high priority projects that involve the re-operation of existing facilities with small to no improvements at existing facilities within one year of completion of the Phase 2 Recharge Master Plan and no later than four years.

7. Watermaster will coordinate with SBCFCD and exercise best-efforts to implement high priority projects that involve significant improvement and re-operation of existing facilities within two years of completion of the Phase 2 of the Recharge Master Plan.
8. During the planning of new storm water management facilities, Watermaster will evaluate the value of artificial recharge in a new storm water management project and will include storm water artificial recharge in all new projects where Watermaster determines there is a value to the artificial recharge of storm water.
9. Watermaster will coordinate and facilitate the implementation of new supplemental water projects that are identified in Phase 2 of the Recharge Master Plan. The recharge projects that are envisioned as of the date of the adoption of this Implementation Plan are listed in Table 1. However, other projects will be identified in Phase 2 of the Recharge Master Plan investigations.
10. Watermaster will exercise best efforts to coordinate its activities and those of others to maintain or improve recharge performance at basins in a manner such that there is maximum recharge of storm water and supplemental water. Watermaster will consult and coordinate with SBCFCD, CBWCD and other interested persons in selecting an entity to perform maintenance.
11. SBCFCD requires sufficient advance notice to allow conserved water to be recharged. Watermaster will consult and coordinate with SBCFCD to develop a conservation plan for each of the SBCFCD basins, including a schedule of conservation pool elevations, criteria that define when water can be put into conservation and when water in conservation storage must be released to restore the full flood protection capabilities of the basin.
12. All projects will be the subject of appropriate environmental review and, as necessary, mitigation of impacts.

Watermaster shall take the following further actions consistent with the Peace Agreement to develop and implement its comprehensive recharge program:

1. All recharge of the Chino Basin with supplemental water shall be subject to Watermaster approval.
2. Watermaster will ensure that any person may make application to Watermaster to recharge the Chino Basin with supplemental water, including the exercise of the right to offer to sell in-lieu recharge water to Watermaster as provided in the Judgment and this Agreement in a manner that is consistent with the OBMP and the law. Watermaster shall not approve an application by any party to the Judgment if it is inconsistent with the terms of the Agreement, or will cause any material physical injury to any party to the Judgment or the Basin. Any potential or threatened material physical injury to any Party or the Basin caused by the recharge of supplemental water, shall be mitigated as a condition of approval. In the event the material physical injury cannot be mitigated, the request for recharge of supplemental water must be denied.
3. Watermaster shall administer, direct and conduct the recharge of all water in a manner that is consistent with this Agreement, the OBMP and causes no material physical injury to any party to the Judgment or the Chino Basin. Nothing herein shall be construed as committing a Party to provide supplemental water upon terms and conditions that are not deemed acceptable to that Party.
4. Watermaster shall undertake recharge using water of the lowest cost and the highest quality, giving preference as far as possible to the augmentation and the recharge of native storm water.
5. In furtherance of its obligations under this Section, for a period of five years, commencing with Fiscal Year 2000-2001, and within each such Fiscal Year Watermaster shall arrange for the physical recharge of supplemental water in the amount of an annual average of 6,500 acre



feet per year in one or more of the areas commonly known as the Montclair, Brooks and Upland spreading facilities.

- (i) If for any reason at the end of the five year period, a cumulative total of 32,500 acre-feet of physical recharge has not been accomplished under this subdivision, then recharge shall continue at the above referenced locations at the average annual rate of 6,500 acre-feet until the full 32,500 acre feet of physical recharge has been accomplished;
  - (ii) The recharged supplemental water shall increase the operating safe yield under the Judgment. The cost and allocation of this supplemental water under this Section 5.1g shall be apportioned pro rata among the members of the Appropriative Pool under the Judgment according to the Producer's share of the initial safe yield;
  - (iii) The need to continue physical recharge under this paragraph shall be evaluated by Watermaster after the conclusion of Fiscal Year 2004-2005. In evaluating further physical recharge pursuant to this paragraph, Watermaster shall take into account the provisions of this Article, the Judgment and the OBMP among all other relevant factors. Except as to Watermaster's determination of no material physical injury, the rights of each party to the Judgment to purchase or lease water to meet its over production obligation shall be unaffected by this provision;
6. Watermaster shall provide an annual accounting of the amount of replenishment and the location of the specific types of replenishment.
7. Increases in stormwater recharge will be computed when new or enhanced recharge facilities come on line and the parties to the Judgment concur that the new information confirms an increase in recharge at the existing sites without causing a reduction in recharge at

other recharge sites in the basin. Increases in artificial stormwater recharge will be expressed as long term average annual values.

8. Watermaster will determine the baseline stormwater recharge. The baseline estimate of stormwater recharge will be determined by September 30, 2000. In the interim, the baseline will be assumed to be 5600 AF. Watermaster will, at appropriate points in time, review the stormwater recharge performance and redetermine the average annual volume of stormwater recharge and new stormwater recharge above the baseline stormwater recharge.
9. When locating and directing physical recharge, Watermaster shall consider the following guidelines:
  - (i) provide long term hydrologic balance within the areas and sub-areas of the basin
  - (ii) protect and enhance water quality
  - (iii) improve water levels
  - (iv) the cost of the recharge water
  - (v) any other relevant factors
10. Adopt implementing procedures for the matters set forth above, by December 31, 2000.
11. There are some future projects that are technically and institutionally difficult to implement at this time, e.g., recharge of reclaimed water and injection through wells. A plan to integrate these future projects with those identified in Table 1 will be prepared within two years of the

effective date of the Peace Agreement. The plan will include an implementation schedule consistent with the OBMP and a financing plan.

Watermaster shall exercise its best efforts to:

- (a) protect and enhance the safe yield of the Chino Basin through replenishment and recharge;
- b) ensure there is sufficient recharge capacity for recharge water to meet the goals of the OBMP and the future water supply needs within the Chino Basin;
- c) direct recharge relative to production in each area and sub-area of the basin to achieve long term balance and to promote the goal of equal access to groundwater within all areas and sub-areas of the Chino Basin;
- d) evaluate the potential or threat for any material physical injury to any party to the Judgment or the Chino Basin, including, but not limited to, any material physical injury that may result from any transfer of water in storage or water rights which is proposed in place of physical recharge of water to Chino Basin in accordance with the provisions of Section 5.3;
- e) establish and periodically update criteria for the use of water from different sources for replenishment purposes;
- f) ensure a proper accounting of all sources of recharge to the Chino Basin;
- g) recharge the Chino Basin with water in any area where groundwater levels have declined to such an extent that there is an imminent threat of material physical injury to any party to the Judgment or the Basin;
- h) maintain long-term hydrologic balance between total recharge and discharge within all areas and sub-areas;

- i) Coordinate, facilitate and arrange for the construction of the works and facilities necessary to implement the quantities of recharge identified in the OBMP Implementation Plan.

## **Implementation Status**

The parties to the Peace Agreement have approved Watermaster proceeding as provided above. Implementation measures that follow preparation of the Recharge Master Plan will be predicated on the implementation actions and schedules that are Produced in the Master Plan and the Peace Agreement. However, a strong financial motivation is created for the prompt funding of local recharge projects as soon as possible because the members of the Appropriative Pool under the Judgment will incur replenishment obligations if the safe yield of the Basin is not enhanced by a sufficient quantity to cover the Chino I expansion, and the Chino II Desalters as well as the individual over-production obligations.

## **Implementation Actions and Schedule**

### **First Three Years (2000/01 to 2002/03).**

The following actions will be completed in the first three years commencing fiscal year 2000/01:

- Watermaster advisory committee will form an *ad hoc* committee to coordinate with CBWCD and SBCFCD.
- Implement all high priority recharge projects that involve only re-operation of existing recharge/flood control facilities.
- Complete the Recharge Master Plan.
- Complete design and construction of early action recharge projects identified in the first year of the implementation of the OBMP (potential projects are listed in Table 1 with an A priority and will be proposed for Proposition 13 funding by January 1, 2001).

### **Years Four to Fifty (2003/04 to 2049/50).**

The following actions will be completed in years four through ten, commencing fiscal year 2002/03:

- By year 5 implement all high priority projects that involve construction and re-operation at existing facilities.
- Implement all other recharge projects based on need and available resources.
- Update the comprehensive recharge program every five years.

### **Program Element 3 – Develop and Implement Water Supply Plan for the Impaired Areas of the Basin, Program Element 5 – Develop and Implement Regional Supplemental Water Program**

As urbanization of the agricultural areas of San Bernardino and Riverside counties in the southern half of the Basin occurs, the agricultural water demands will decrease and urban water demands will increase significantly. Future development in these areas is expected to be a combination of urban uses (residential, commercial, and industrial). The cities of Chino, Chino Hills, and Ontario, and the Jurupa Community Services District (JCSD) are expected to experience significant new demand as these purveyors begin serving urban customers in the former agricultural area. Based on current estimates of overlying agricultural pool production, it is expected that at least 40,000 acre-ft/yr of groundwater will need to be produced in the southern part of the Basin to maintain the safe yield.

Based on the data presented in *Optimum Basin Management Program, Phase I Report* (August 1999), municipal and industrial demands are projected to increase 30 percent between 2000 and ultimate build out (assumed to be 2020 in the Phase I report). Several agencies will experience increases in demand exceeding 30 percent, including the cities of Chino, Chino Hills, Norco, Ontario, Cucamonga County Water District (CCWD), Fontana Water Company (FWC), JCSD, and the West San Bernardino County Water District (WSBCWD). Forecasts from municipal and industrial entities indicate that municipal water supply sources for the Chino Basin at build out will consist predominantly of Chino Basin wells through direct use or treatment and use, groundwater and treated surface water from other basins, and MWDSC supplies. There is approximately 48,000 acre-ft/yr of agricultural production in the southern part of the Chino Basin in the year 2000, and this production will reduce to about 10,000 acre-ft/yr in the year 2020 at build-out. This decline in agricultural

production must be matched by new production in the southern part of the Basin or the safe yield in the Basin will be reduced. The remaining 10,000 acre-ft/yr of production in the southern part of the Basin will be used by the State of California. Future supplemental water supplies will come from expansion of the CCWD Lloyd Michael water treatment plant (WTP) and the WFA/JPA Agua de Lejos WTP.

Considerable discussion of the alternative water supply plans occurred at the OBMP workshops. The discussions focused, in part, on the assumption and details of each alternative and cost. Based on technical, environmental, and cost considerations, the stakeholders selected the water supply plan described in Table 2. Groundwater production for municipal use will be increased in the southern part of the Basin to: meet the emerging demand for municipal supplies in the Chino Basin, maintain safe yield, and to protect water quality in the Santa Ana River. A preliminary facility plan (Revised Draft Water Supply Plan Phase I Desalting Project Facilities Report) was prepared in June, 2000, that describes the expansion of the Chino I Desalter and the construction of the Chino II Desalter to be built in the JCSD service area (Attachment D). New southern Basin production for municipal use will require desalting prior to use. The cities of Chino, Chino Hills, Ontario and Norco, and the JCSD will maximize their use of groundwater from the southern part of the Basin prior to using other supplies. Chino Desalter No. 1 (the SAWPA Desalters), which is about to start production will have to be expanded from 8 million gallons per day (mgd) to 10 or 12 mgd by 2003. The Chino Desalter No. II will start construction in early 2001 as the Desalters will need to be on-line by 2003 with a capacity of 10 mgd. Both these Desalters will be expanded in the future. The general location of these Desalters, their respective well fields, product water pipelines, and delivery points are shown in Figure 2. Table 3 shows the timetable for the new Desalters capacity along with the salt removal capacity of these Desalters. Watermaster and IEUA have completed a draft project report for the expansion of the No. I, and the construction of Desalter No. II. The facility plan calls for Desalter No. I to be expanded from its existing capacity of 8 mgd to 10 mgd and the construction Desalter No. II with a capacity of 10 mgd by 2003. This facility plan will be submitted as part of an application to SAWPA in July 2000 to obtain Proposition 13 funding for the construction of these Desalters. Construction will start in January 2001 and these facilities will be online in 2003. These two Desalters will remove about 36,000 tons of salt per year from the basin which is about 46 percent of total salt removal capacity of Desalters envisioned in the OBMP (77,000 tons/year).

Imported water use will increase to meet emerging demands for municipal and industrial supplies in the Chino Basin area, Watermaster replenishment, and storage and recovery programs or conjunctive use. Expanded use of imported water in the northern part of the Basin will have a lower priority than maintaining groundwater production in the southern part of the Basin.

Recycled water use (direct use and recharge) will increase to meet emerging demands for non-potable water and artificial recharge. Under the current Basin Plan, all new recycled water use will require mitigation for TDS and nitrogen impacts. Recycled water use will be expanded as soon as practical. The two new Desalters described above and the increase in storm water recharge will provide mitigation for the expanded use of recycled water.

Watermaster is preparing a facilities report to be submitted to SAWPA as part of IEUA's application for funding from Proposition 13:

#### **Implementation Status**

Watermaster, working with IEUA, WMWD, OCWD or the Project Committee 14, and Producers, is in the process of finalizing a facilities plan that will result in the expansion of the Chino I Desalter and the construction of the new Chino II Desalter. Construction of these facilities will begin in early 2001 ( Attachment I).

#### **Implementation Actions and Schedule**

##### ***First Three Years (2000/01 to 2003/04).***

Watermaster shall exercise best efforts to undertake the following actions in the first three years, commencing fiscal year 2000/01:

- Complete the Water Facilities Plan Report for the Expansion of the Chino I Desalter and the construction of the Chino II Desalter. It should be noted that this action is entirely consistent with the OBMP, and is being taken prior to completion of the OBMP.
- Start expansion of the Chino I Desalter and the construction of the Chino II Desalter in early 2001.

##### ***Years Four to Fifty (2004/05 to 2049/50).***

Watermaster shall exercise best efforts to undertake the following actions in years four to fifty, commencing fiscal year 2004/05:

- Complete construction and start up of the expanded Chino I and new Chino II Desalters.
- Watermaster, IEUA and WMWD will periodically review the Regional Water Supply Plan and the need for new Desalter capacity in the southern water-quality impaired part of the Basin, and initiate the construction of new Desalter capacity as determined by Watermaster. Expansion of the Desalter capacity will occur as agricultural production in the southern water-quality impaired part of the basin declines.
- IEUA will construct recycled water facilities to meet the demand for recycled water and for replenishment.

#### **PROGRAM ELEMENT 4 – DEVELOP AND IMPLEMENT COMPREHENSIVE GROUNDWATER MANAGEMENT PLAN FOR MANAGEMENT ZONE 1 (MZ1)**

The occurrence of subsidence and fissuring in Management Zone 1 is not acceptable and should be reduced to tolerable levels or abated. The OBMP calls for a management plan to reduce or abate the subsidence and fissuring problems to the extent that it may be caused by production in MZ1. There is some uncertainty as to the causes of subsidence and fissuring and more information is necessary to distinguish among potential causes. Therefore an interim management plan will be developed to minimize subsidence and fissuring while new information is collected to assess the causes and to develop an effective long-term management plan.

##### **Description.**

The interim management plan consists of the following activities:

- Voluntary modifications to groundwater production patterns in Management Zone 1. During fiscal year 1999/2000 the cities of Chino and Chino Hills as well as the State of California have voluntarily reduced their production in the vicinity of recent ground fissures.
- Monitor long term balance of recharge and production in Management Zone 1.
- Determine gaps in existing knowledge.
- Implement a process to fill the gaps in existing knowledge. This include(s) hydrogeologic, geophysical, and remote sensing



investigations of Management Zone 1, as well as certain monitoring programs, including piezometric, production, water quality, ground level, and subsidence monitoring.

Formulate a long-term management plan. The long-term management plan will include goals, activities to achieve those goals, and a means to evaluate the success of the plan.

The long-term management plan will be formulated while the interim management plan is in-place based on investigations, monitoring programs and data assessment. It may include modifications to groundwater pumping rates and the locations of pumping, recharge, and monitoring. The long-term management plan will be adaptive in nature – meaning monitoring and periodic data assessment will be used to evaluate the success of the management plan and to modify the plan, if necessary.

#### **Implementation Status.**

Watermaster will develop the interim management plan during fiscal year 2000/01. Watermaster's budget estimate for this effort in fiscal 2000/01 is \$100,000. Monitoring and construction of extensometers for this effort is included in Program Element 1.

Approval of The Peace Agreement will also provide the adoption of Basin-wide measures that will benefit conditions within MZ 1. These measures include the following a portion of which are referenced on pages 16-19 and are repeated below in the interest of completeness and clarity:

#### **Recharge and Replenishment.**

After the Effective Date and until the termination of this Agreement, the Parties expressly consent to Watermaster's performance of the following actions, programs or procedures regarding Recharge and Replenishment:

- (a) All Recharge of the Chino Basin with Supplemental Water shall be subject to Watermaster approval.
- (b) Watermaster will ensure that any person may make application to Watermaster to Recharge the Chino Basin with Supplemental Water, including the exercise of the right to offer to sell in-lieu Recharge water to Watermaster as provided in the Judgment and the Agreement in a manner that is consistent with the

OBMP and the law. Watermaster shall not approve an application by any party to the Judgment if it is inconsistent with the terms of the Agreement, or will cause any Material Physical Injury to any party to the Judgment or the Basin. Any potential or threatened Material Physical Injury to any Party or the Basin caused by the Recharge of Supplemental Water shall be fully and reasonably mitigated as a condition of approval. In the event the Material Physical Injury cannot be fully and reasonably mitigated, the request for Recharge of Supplemental Water must be denied.

- (c) Watermaster shall administer, direct and conduct the Recharge of all water in a manner that is consistent with this Agreement, the OBMP and causes no Material Physical Injury to any party to the Judgment or the Chino Basin. Nothing herein shall be construed as committing a Party to provide Supplemental Water upon terms and conditions that are not deemed acceptable to that Party.
- (d) Notwithstanding Section 5.1(c), CBWCD shall reserve its complete discretion to Recharge the Basin with water other than Supplemental Water as may be authorized by general law so long as the Recharge is in accordance with the limitations in the Judgment, if any and is in accordance with the provisions of Section 5.1(d)(i)-(v).
  - (i) Upon request by Watermaster CBWCD shall exercise Best Efforts to consult, coordinate and cooperate with Watermaster when recharging water into the Basin;
  - (ii) CBWCD shall provide Watermaster with reasonable notice in advance of any material change in its historic Recharge operations;
  - (iii) CBWCD shall not be required to provide funding for Recharge projects merely by virtue of its execution of this Agreement;
  - (iv) CBWCD shall Recharge the Basin in a manner that does not cause Material Physical Injury to any party to the Judgment or the Basin. Upon Watermaster's receipt of a written allegation that an existing or proposed CBWCD Recharge activity has or will cause Material Physical Injury to any party to the Judgment or the Basin, Watermaster shall hold a Public Hearing within a reasonable time. Watermaster shall provide

notice and opportunity to be heard to interested parties to the Judgment including CBWCD. After hearing, Watermaster may approve, deny or condition the CBWCD's Recharge. Watermaster's decision shall be based upon the record and it shall be subject to the court's review;

- (v) CBWCD's Recharge of the Basin coupled with an intent to store and recover water shall require a storage and recovery agreement.
- (e) Watermaster shall exercise its Best Efforts to:
  - (i) protect and enhance the Safe Yield of the Chino Basin through Replenishment and Recharge;
  - (ii) ensure there is sufficient Recharge capacity for Recharge Water to meet the goals of the OBMP and the future water supply needs within the Chino Basin;
  - (iii) direct Recharge relative to Production in each area and sub-area of the Basin to achieve long term balance and to promote the goal of equal access to groundwater within all areas and sub-areas of the Chino Basin;
  - (iv) evaluate the potential or threat for any Material Physical Injury to any party to the Judgment or the Chino Basin, including, but not limited to, any Material Physical Injury that may result from any Transfer of water in storage or water rights which is proposed in place of physical Recharge of water to Chino Basin in accordance with the provisions of Section 5.3;
  - (v) establish and periodically update criteria for the use of water from different sources for Replenishment purposes;
  - (vi) ensure a proper accounting of all sources of Recharge to the Chino Basin;
  - (vii) Recharge the Chino Basin with water in any area where groundwater levels have declined to such an extent that there is an imminent threat of Material Physical Injury to any party to the Judgment or the Basin;

- (viii) maintain long-term hydrologic balance between total Recharge and discharge within all areas and sub-areas;
  - (ix) coordinate, facilitate and arrange for the construction of the works and facilities necessary to implement the quantities of Recharge identified in the OBMP Implementation Plan.
- (f) Watermaster shall undertake Recharge, using water of the lowest cost and the highest quality, giving preference as far as possible to the augmentation and the Recharge of native storm water.
- (g) In furtherance of its obligations under this Section, for a period of five years, commencing with Fiscal Year 2000-2001, and within each such Fiscal Year Watermaster shall arrange for the physical Recharge of Supplemental Water in the amount of an annual average of 6,500 acre-feet per year in one or more of the areas commonly known as the Montclair, Brooks and Upland spreading facilities.
- (i) If for any reason at the end of the five year period, a cumulative total of 32,500 acre-feet of physical Recharge has not been accomplished under this subdivision, then Recharge shall continue at the above referenced locations at the average annual rate of 6,500 acre-feet until the full 32,500 acre-feet of physical Recharge has been accomplished;
  - (ii) The Recharged Supplemental Water shall increase the Operating Safe Yield under the Judgment. The cost and allocation of this Supplemental Water under this Section 5.1g shall be apportioned pro rata among the members of the Appropriative Pool under the Judgment according to the Producer's share of the initial Safe Yield;
  - (iii) The need to continue physical Recharge under this paragraph shall be evaluated by Watermaster after the conclusion of Fiscal Year 2004-2005. In evaluating further physical Recharge pursuant to this paragraph, Watermaster shall take into account the provisions of this Article, the Judgment and the OBMP among all other relevant factors. Except as to Watermaster's determination of Material Physical Injury, the rights of each party to the Judgment to purchase or lease water to

meet its over-Production obligation shall be unaffected by this provision;

- (h) Watermaster shall not own Recharge projects, including but not limited to spreading grounds, injection wells, or diversion works. It shall never own real property. However, Watermaster may own water rights in trust for the benefit of the parties to the Judgment. Moreover, Watermaster shall arrange, facilitate and provide for Recharge by entering into contracts with appropriate persons, which may provide facilities and operations for physical Recharge of water as required by the Judgment and this Agreement, or pursuant to the OBMP. Any such contracts shall include appropriate terms and conditions, including terms for the location and payment of costs necessary for the operation and maintenance of facilities, if any.
- (i) CBWCD's rights and obligations to obtain Replenishment Water are unaffected by the execution of this Agreement. Its obligation, rights and duties regarding Recharge may be set by arms length negotiation through separate agreement or as they otherwise exist under general law and the Judgment.
- (j) Watermaster shall provide an annual accounting of the amount of Recharge and the location of the specific types of Recharge.

### **Implementation Actions and Schedule**

#### ***First Five Years (2000/01 to 2004/05).***

**The following actions will be completed in the first three years commencing fiscal year 2000/01:**

For a period of five years, commencing with Fiscal Year 2000-2001, and within each such Fiscal Year, arrange for the physical recharge of Supplemental Water in the amount of an annual average of 6,500 acre feet per year in one or more of the areas commonly known as the Montclair, Brooks and Upland spreading facilities. The need to continue physical recharge at these locations shall be evaluated by Watermaster after the conclusion of Fiscal Year 2004-2005.

- 2000/01 – A Management Zone 1 committee will develop a recommended interim management plan consistent with the above description.
- 2001/02 to 2003/04 – Implement the approved interim management plan, including appropriate monitoring; and annual assessment of data from monitoring programs, and modification of monitoring programs if necessary.
- 2004/05 – Develop long-term management plan.
- Implement the long term management plan.

***Years Six to Fifty (2005/06 to 2049/50).***

The following actions will be completed in years six through fifty, commencing fiscal year 2002/03:

- 2007/08 and every three years thereafter – Assess data from monitoring programs every three years and modify of management plan if necessary.
- Implement the long term management plan.

**PROGRAM ELEMENT 6 – DEVELOP AND IMPLEMENT COOPERATIVE PROGRAMS WITH THE REGIONAL BOARD AND OTHER AGENCIES TO IMPROVE BASIN MANAGEMENT, and PROGRAM ELEMENT 7 – SALT MANAGEMENT PROGRAM**

These program elements are needed to address some of the water quality management problems that have occurred in the Basin. These water quality problems are described in Section 2 *Current Physical State of the Basin* and Table 3-8 in Section 3 *Goals of the OBMP* of the OBMP Phase 1 Report. The specific water quality issues addressed by these program elements are listed below:

- Watermaster needs to routinely demonstrate that implementation of the OBMP will lead to groundwater quality improvements. Watermaster will develop and use a method to determine water quality trends and to verify whether the OBMP is improving water quality.
- There is legacy contamination in the vadose zone from past agricultural activities (TDS and nitrogen) that will continue to degrade groundwater long into the future.

- Watermaster does not have sufficient information to determine whether point and non-point sources of groundwater contamination are being adequately addressed.
- There is ongoing salt and nitrogen loading from agriculture.

## **Demonstration of Water Quality Improvement**

### **Description.**

The Court has indicated that Watermaster needs to routinely demonstrate that implementation of the OBMP will lead to groundwater quality improvements. Groundwater quality monitoring will be done in Program Element 1 and can be used to assess the long-term water quality benefits of the OBMP. In the short term, groundwater quality monitoring will not be a true metric of the water quality benefits of the OBMP. Water quality changes will occur very slowly. Water quality may continue to degrade after implementation of the OBMP due to legacy contamination in the vadose zone. Watermaster committed to the development of a salt budget tool that enables Watermaster to evaluate the water quality benefits of OBMP. In fiscal year 1999/2000, Watermaster developed the preliminary version of the salt budget tool to evaluate the projected OBMP performance in the Program Draft Environmental Impact Report for the OBMP. The salt budget tool is a spreadsheet tool that estimates the flow-weighted concentration of TDS and nitrogen into the Chino Basin at the management zone and basin levels, and estimates the TDS and nitrogen impacts of the OBMP on the Santa Ana River. The preliminary version of the salt budget tool needs to be revised to more accurately account for storm water recharge and storm water quality. The cost to update the salt budget tool will range between \$40,000 to \$45,000. Subsequent uses, in either OBMP updates or *ad hoc* investigations, will involve using and analyzing new water quality input data based on new monitoring data and revised water and waste management scenarios and program refinements as more is learned.

**Implementation Status.** As part of the Phase 2 OBMP process, Watermaster conducted preliminary salt budget studies. The preliminary salt budget studies were completed in May of 2000. Watermaster will update and refine the salt budget tool during Watermaster fiscal year 2000/01.

## **Cooperative Efforts with the Regional Water Quality Control Board**

### **Description.**

Watermaster does not have sufficient information to determine whether point and non-point sources of groundwater contamination are being adequately addressed. Watermaster's past monitoring efforts have been largely confined to mineral constituents in the southern half of the Basin and to available monitoring data supplied by municipal and industrial Producers. The Regional Water Quality Control Board (Regional Board) has limited resources to detect, monitor and cause the clean up of point and non-point water quality problems in the Chino Basin. The Regional Board commits its resources to enforce remedial actions when it has identified a potential responsible party. Watermaster can improve water quality management in the Basin by committing resources to:

- identify water quality anomalies through monitoring;
- assist the Regional Board in determining sources of the water quality anomalies;
- establish priorities for clean-up jointly with RWQCB; and
- remove organic contaminants through regional groundwater treatment projects in the southern half of the Basin.

The last bulleted item requires some explanation. The well field for the Chino I Desalter will eventually intercept a solvent plume of unknown origin that is emanating from the Chino airport area. There is a second solvent plume northeast of the Chino airport area that could be intercepted by the current Desalter or another future Desalter. This will require additional treatment for the water Produced by the Desalter. The Desalter project can be used to clean up these plumes at some additional cost. The cost of cleaning up the solvent plumes at the Desalters will be less than the cost of a dedicated solvent removal system. The additional cost should be paid for by the entity responsible for the solvent discharge.

**Implementation Status.** Watermaster is in the process of identifying water quality anomalies through its groundwater monitoring programs in Program Element 1. A revised anomaly map similar to Figure 2-58 in the OBMP Phase 1 report will be prepared by Watermaster. These water quality anomaly maps will be revised at least annually by Watermaster. The maps and supporting data will be submitted to the RWQCB for their use.



Watermaster will form an ad hoc committee, hereafter *water quality committee*, to review water quality conditions in the Basin and to develop cooperative strategies and plans to improve water quality in the Basin. The committee will meet regularly with Regional Board staff to recommend cooperative efforts for monitoring groundwater quality and detecting water quality anomalies. The schedule and frequency of meetings will be developed with the Regional Board during fiscal 2000/01 of the OBMP implementation. Watermaster will budget sufficient funds for fiscal 2000/01 for the first year of ad hoc committee activities. Watermaster will refine its monitoring efforts to support the detection and quantification of water quality anomalies. This may require additional budgeting for analytical work and staff/support. If necessary, Watermaster will conduct investigations to assist the Regional Board in accomplishing mutually beneficial objectives. Watermaster will seek funding from outside sources to accelerate detection and clean up efforts.

#### TDS and Nitrogen (Salt) Management in the Chino Basin

Description. TDS and nitrogen management will require minimizing TDS and nitrogen additions by fertilizers and dairy wastes, desalting of groundwater in the southern part of the Basin, and maximizing the artificial recharge of storm water. The latter two management components are included in Program Elements 3 and 2, respectively

The agricultural area in the southern part of the Chino Basin will gradually convert to urban uses over the next 20 to 30 years and, thus, in the long term, the TDS and nitrogen challenges from irrigated agriculture and dairy waste management will go away. The Regional Board adopted new dairy waste discharge requirements in 1999. The requirements include the following:

- Each dairy will develop and implement an engineered waste management plan that will contain dairy process water and on-dairy precipitation runoff for up to a 25-year, 24-hour storm event
- Manure scraped from corrals must be exported from the dairy within 180 days
- All manure stockpiled in the Chino Basin as of December 1, 1999, will be exported from the Basin by December 1, 2001.
- No manure may be disposed of in the Chino Basin
- Some manure can be applied to land at agronomic rates if and only if in the opinion of the Executive Officer of the RWQCB there is

reasonable progress toward the construction of a new Desalter in the Chino Basin.

The urban land use that will replace agriculture will require low TDS municipal supplies that in turn will Produce lower TDS irrigation returns to groundwater than those generated by agriculture. The construction of Desalters in the southern part of the Basin (as described in Program Elements 3 and 5) will extract and export large quantities of salt from the Basin. If Desalters are installed or expanded as currently being evaluated, approximately 50% of the salt removal capacity contemplated by 2020 in the Phase I report will be occurring by 2005. By 2020, the salt removal capacity of the Desalters will reach over 77,000 tons per year. Watermaster expects a net reduction in salt loading of about 77,000 to 100,000 tons of salt per year in the next 20 to 30 years.

Implementation Status. Watermaster will continue to monitor the nitrogen and salt management activities within the basin and update its nitrogen and salt management strategy as necessary.

#### Implementation Actions and Schedule

*First Three Years (2000/01 to 2002/03).* The following actions will be completed in the first three years commencing fiscal year 2000/01:

- Watermaster will form an ad hoc committee, hereafter *water quality committee*. The schedule and frequency of meetings will be developed with the Regional Board during the first year of the OBMP implementation.
- Watermaster will refine its monitoring efforts to support the detection and quantification of water quality anomalies. This may require additional budgeting for analytical work and staff/support.
- If necessary, Watermaster will conduct investigations to assist the Regional Board in accomplishing mutually beneficial objectives.
- Watermaster will seek funding from outside sources to accelerate detection and clean up efforts.
- Develop salt budget goals, develop the salt budget tool described above and review all the OBMP actions.
- Watermaster will continue to monitor the nitrogen and salt management activities within the basin.

At the conclusion of the third year, the *water quality committee* will have met several times, developed and implemented a cooperative monitoring plan with the Regional Board, and developed a priority list and proposed schedule for cleaning up all known water quality anomalies.

***Years Four through Fifty (2003/04 to 2049/50).***

The following actions will be completed in years four through fifty, commencing fiscal year 2003/04:

- Continue monitoring and coordination efforts with the Regional Board.
- Annually update priority list and schedule for cleaning up all known water quality anomalies.
- Continue to seek funding from outside sources to accelerate clean up efforts.
- Implement projects of mutual interest.
- As part of periodic updates of the OBMP, re-compute the salt budget using the salt budget tool. The salt budget tool will be used to reassess future OBMP actions to ensure that salt management goals are attained.
- Watermaster will continue to monitor the nitrogen and salt management activities within the basin.

**PROGRAM ELEMENT 8 – DEVELOP AND IMPLEMENT GROUNDWATER STORAGE MANAGEMENT PROGRAM, PROGRAM ELEMENT 9 – DEVELOP AND IMPLEMENT STORAGE AND RECOVERY PROGRAMS**

Watermaster seeks to develop a storage and recovery program that will benefit all the parties in the Basin and ensure that Basin water and storage capacity are put to maximum beneficial use while causing no material physical injury to any Producer or the Basin.

The following definitions were developed by Watermaster:

*Operational Storage Requirement* - The operational storage requirement is the storage or volume in the Chino Basin that is necessary to maintain safe yield. In the context of this storage and recovery program, the operational storage is estimated to be about 5,300,000 acre feet. An engineering analysis will be

done to assess the operational storage requirement of the Basin as part of the implementation of this program.

*Safe Storage* – Safe storage is an estimate of the maximum storage in the Basin that will not cause significant water quality and high groundwater related problems. In the context of this storage management program, the safe storage is estimated to be about 5,800,000 acre-ft. An engineering analysis will be done to assess the safe storage requirement of the Basin as part of the implementation this plan.

*Safe Storage Capacity* – The safe storage capacity is the difference between safe storage and operational storage requirement and is the storage that can be safely used by Producers and Watermaster for storage programs. Based on the above, the safe storage capacity is about 500,000 acre-ft including water in the existing storage accounts. The allocation and use of storage in excess of safe storage will preemptively require mitigation, that is, mitigation must be defined and resources committed to mitigation prior to allocation and use.

Key Elements of the Storage and Recovery Program will include Watermaster taking the following actions:

Storage and Recovery.

After the Peace Agreement is effective Watermaster shall act in accordance with the following actions regarding the storage and recovery of water:

- (a) In General.
  - (i) All storage capacity shall be subject to regulation and control by Watermaster;
  - (ii) No person shall store water in and recover water from the Chino Basin without an agreement with Watermaster;
  - (iii) Watermaster will ensure that any person, including but not limited to the State of California and the Department of Water Resources may make application to Watermaster to store and recover water from the Chino Basin as provided herein in a manner that is consistent with the OBMP and the law. Watermaster shall not approve an application to store and

recover water if it is inconsistent with the terms of this Agreement or will cause any Material Physical Injury to any party to the Judgment or the Basin. Any potential or threatened Material Physical Injury to any Party or the Basin caused by the storage and recovery of water shall be reasonably and fully mitigated as a condition of approval. In the event the Material Physical Injury cannot be mitigated, the request for storage and recovery must be denied.

- (iv) This Agreement shall not be construed to limit the State or its department or agencies from using available storage capacity in the Basin in accordance with the provisions of this Section under a storage and recovery agreement with Watermaster.

(b) Local Storage.

- (i) For a period of five years from the Effective Date, Watermaster shall ensure that: (a) the quantity of water actually held in Local Storage under a storage agreement with Watermaster is confirmed and protected and (b) each party to the Judgment shall have the right to store its un-Produced carry-over water. Thereafter, a party to the Judgment may continue to Produce the actual quantity of carry-over water and Supplemental Water held in its storage account, subject only to the loss provisions set forth in this Section 5.2. This means a party to the Judgment may increase the total volume of carry-over water it holds in Local Storage up to five years after the Effective Date and as Watermaster may approve pursuant to a Local Storage agreement for Supplemental Water.
- (ii) For a period of five years from the Effective Date, any party to the Judgment may make application to Watermaster for a Local Storage agreement, whereby it may store Supplemental Water in the Chino Basin.
- (iii) Watermaster shall provide reasonable advance written notice to all interested parties of the proposed Local Storage agreement, prior to approving the agreement. The notice shall include the persons engaged in the Local Storage, the location of the Recharge and Production facilities and the potential for any Material Physical Injury, if any.

- (iv) Watermaster shall approve the Local Storage agreement so long as: (1) the total quantity of Supplemental Water authorized to be held in Local Storage under all then existing Local Storage agreements for all parties to the Judgment does not exceed the cumulative total of 50,000 acre-feet; (2) the party to the Judgment making the request provides their own Recharge facilities for the purpose of placing the Supplemental Water into Local Storage; (3) the agreement will not result in any Material Physical Injury to any party to the Judgment or the Basin. Watermaster may approve a proposed agreement with conditions that mitigate any threatened or potential Material Physical Injury.
- (v) There shall be a rebuttable presumption that the Local Storage agreement for Supplemental Water does not result in Material Physical Injury to a party to the Judgment or the Basin.
- (vi) In the event any party to the Judgment, or Watermaster, objects to a proposed Local Storage agreement for Supplemental Water and submits evidence that there may be a Material Physical Injury to any party to the Judgment or the Basin, Watermaster shall hold a Public Hearing and allow the objecting party to the Judgment a reasonable opportunity to be heard.
- (vii) In the event more than one party to the Judgment submits a request for an agreement to store Supplemental Water pursuant to a Local Storage agreement, Watermaster shall give priority to the first party to file a bona fide written request which shall include the name of the party to the Judgment, the source, quantity and quality of the Supplemental Water, an identification of the party to the Judgment's access to or ownership of the Recharge facilities, the duration of the Local Storage and any other information Watermaster shall reasonably request. Watermaster shall not grant any person the right to store more than the then existing amount of available Local Storage. The amount of Local Storage available for the storage of Supplemental Water shall be determined by subtracting the previously approved and allocated quantity of storage capacity for Supplemental Water from the cumulative maximum of 50,000 acre-feet.
- (viii) Watermaster shall base any decision to approve or disapprove any

proposed agreement upon the record.

- (ix) Any party to the Judgment may seek judicial review of Watermaster's decision.
- (x) Five years after the Effective Date, Watermaster shall have discretion to place reasonable limits on the further accrual of carry-over and Supplemental Water in Local Storage. However, Watermaster shall not limit the accrual of carry-over Local Storage for Fontana Union Mutual Water Company and Cucamonga County Water District when accruing carry-over storage pursuant to *Lease of Corporate Shares Coupled with Irrevocable Proxy, dated July 1, 1993 between Cucamonga County Water District and Fontana Water Resources Inc. and the Settlement Agreement Among Fontana Union Water Company, Kaiser Steel Reserves Inc., San Gabriel Valley Water Company and Cucamonga County Water Districts dated February 7, 1992*, to a quantity less than 25,000 acre-feet for the term of this Agreement.
- (xi) Watermaster shall evaluate the need for limits on water held in Local Storage to determine whether the accrual of additional Local Storage by the parties to the Judgment should be conditioned, curtailed or prohibited if it is necessary to provide priority for the use of storage capacity for those Storage and Recovery Programs that provide broad mutual benefits to the parties to the Judgment as provided in this paragraph and Section 5.2(c) below;
- (xii) Watermaster shall set the annual rate of loss from Local Storage for parties to the Judgment at zero until 2005. Thereafter the rate of loss from Local Storage for parties to the Judgment will be 2% until recalculated based upon the best available scientific information. Losses shall be deducted annually from each party to the Judgment's storage account;
- (xiii) Watermaster shall allow water held in storage to be transferred pursuant to the provisions of Section 5.3 below. Storage capacity is not transferable by any party to the Judgment or any Party hereto.

(c) Storage and Recovery Program.

- (i) Watermaster will ensure that no person shall store water in and recover water from the Basin, other than pursuant to a Local Storage agreement, without a storage and recovery agreement with Watermaster;
- (ii) Watermaster shall prepare a list of basic information that a proposed applicant for a Storage and Recovery Program must submit to Watermaster prior to the execution of a storage and recovery agreement;
- (iii) As a precondition of any project, program or contract regarding the use of Basin storage capacity pursuant to a Storage and Recovery Program, Watermaster shall first request proposals from qualified persons.
- (iv) Watermaster shall be guided by the following criteria in evaluating any request to store and recover water from the Basin by a party to the Judgment or any person under a Storage and Recovery Program.
  - (a) The initial target for the cumulative quantity of water held in storage is 500,000 acre-feet in addition to the existing storage accounts;
  - (b) Watermaster shall prioritize its efforts to regulate and condition the storage and recovery of water developed in a Storage and Recovery Program for the mutual benefit of the parties to the Judgment and give first priority to Storage and Recovery Programs that provide broad mutual benefits;
- (v) For the term of this Agreement, members of the Appropriative Pool and the Non-Agricultural Pool shall be exclusively entitled to the compensation paid for a Storage and Recovery Program irrespective of whether it be in the form of money, revenues, credits, proceeds, programs, facilities, or other contributions (collectively "compensation") as directed by the Non-Agricultural and the Appropriative Pools;
- (vi) The compensation received from the use of available storage capacity under a Storage and Recovery Program, may be used to off-set the



Watermaster's cost of operation, to reduce assessments on the parties to the Judgment within the Appropriative and Non-Agricultural Pools, and to defray the costs of capital projects as may be requested by the members of the Non-Agricultural Pools and the Appropriative Pool;

- (vii) Any potential or threatened Material Physical Injury to any party to the Judgment or the Basin caused by storage and recovery of water, whether Local Storage and recovery or pursuant to a Storage and Recovery Program, shall be reasonably and fully mitigated as a condition of approval;
  - (viii) Watermaster reserves discretion to negotiate appropriate terms and conditions or to refuse to enter into a Storage and Recovery or to deny any request. However, with respect to persons not parties to the Judgment, Watermaster reserves complete discretion. Watermaster shall base any decision to approve or disapprove any proposed Storage and Recovery Program upon the record. However, it may not approve a proposed Storage and Recovery Program unless it has first imposed conditions to reasonably and fully mitigate any threatened or potential Material Physical Injury;
  - (ix) Any party to the Judgment may seek review of the Watermaster's decision regarding a Storage and Recovery Program.
- (d) The specific terms and conditions for the use of the facilities of CBWCD in connection with Local Storage or Storage and Recovery Programs shall be covered under separate agreements reached by arms length bargaining between Watermaster and CBWCD. Watermaster and any other Party shall not be entitled to the income received by CBWCD for use of its facilities in connection with Local Storage or Storage and Recovery Programs without the consent of CBWCD. Nothing in this Agreement shall be construed as preventing CBWCD from entering into an agreement with others for use of its facilities in a manner consistent with Section 5.1(d) i-v of this Agreement.
- (e) Nothing herein shall be construed as prohibiting the export of Supplemental Water stored under a Storage and Recovery Program and pursuant to a storage and recovery agreement.

- (f) Watermaster shall exercise Best Efforts to undertake the following measures:
- (i) Complete the Short-Term conjunctive use project, authorized by Watermaster and conducted by IEUA, TVMWD and MWD;
  - (ii) Evaluate and develop a seasonal peaking program for in-Basin use and dry year yield to reduce the Basin's demand on the Metropolitan Water District for imported water;
  - (iii) Evaluate and develop a dry year export program;
  - (iv) Evaluate and develop a seasonal peaking export program;

#### Re-determination of Safe Yield and Storage Loss Rates

Safe Yield is currently 140,000 acre-feet per year. The safe yield and storage loss rate will be assessed every ten years starting in the year 2010/14. The ten-year period of 2000/01 to 2009/10 will be used to compute the safe yield and to estimate the storage loss rate.

Safe yield and storage loss rate determinations require accurate groundwater level and production data. Watermaster does not have accurate production data from agricultural Producers. Program Element 1 of the OBMP includes a program to install meters and obtain more accurate production measurements from wells in the Basin. It will take three years to implement the initial part of this program.

The safe yield in the Judgment was developed over the period 1965 to 1974 using the procedure described in Section 2 of the OBMP Phase I Report. The safe yield will be re-determined in year 2010/11 using the ten-year period 2000/01 to 2009/10 because it will contain accurate production data and groundwater level data. A ten-year period is proposed to be consistent with the method used in the engineering work for the Judgment and is the minimum necessary to estimate a safe yield.

Re-determination of the storage loss rate will require the use of a numerical model. The model will be used as follows:

- Calibrate the numerical model for the safe yield period. In the calibration process, the hydrology for the period 2000/01 to 2009/10 will be developed including deep percolation of applied water and precipitation, unmeasured storm water recharge, subsurface inflow

from adjacent basins, and uncontrolled discharges from the Basin (rising water).

- Once calibrated, the water supply plans of the Producers and other storage entities will be modified to assume that no water would be put into storage accounts. The model will be rerun with this assumption and the results will be compared to the calibration run to determine losses from storage and the storage loss rate.
- The storage loss rate will be set based on the relationship of water in storage and associated losses.

Watermaster's new groundwater level and production monitoring are crucial to this effort.

#### Implementation Actions and Schedule

##### *First Three Years (2000/01 to 2002/03).*

The following actions will be completed in the first three years commencing fiscal year 2000/01:

- Evaluate need to modify Watermaster UGRR regarding storage management plans and procedures.
- Determine the operational storage requirement and safe storage.

##### *Years Four through Fifty (2003/04 to 2049/50).*

The following actions will be completed in years four through fifty, commencing fiscal year 2003/04:

- In year 2010/11 and every ten years thereafter, compute safe yield and storage loss rate for prior ten-year period, and reset safe yield and storage loss rates for the next the next ten-year period. Reassess storage management plan and modify Watermaster UGRR, if needed.
- Start assessing losses at 2% per year in year 2005. This amount will be subject to modification in future years.

## SALT CREDITS DEVELOPED IN THE OBMP

### Salt Credits from Desalters

The Regional Board has determined that there is no assimilative capacity for TDS in most of the basin with current TDS objectives and subbasin boundaries. The Regional Board will probably adopt new TDS objectives using the boundaries of Management Zones 1 through 5 by the end of 2000. When the new boundaries and objectives are adopted the Regional Board will also determine that there is no assimilative capacity for TDS. This has the effect of requiring TDS reductions in either recycled water prior to recharge (through desalting) or the removal of an equivalent mass of salt from groundwater in the same management zone that the recycled water recharge is occurring. Desalination of wastewater prior to recharge is generally more expensive than desalting groundwater. Desalination of groundwater must occur in the southern end of Management Zones 1 through 3 and in Management Zones 4 and 5 to put groundwater in these areas to beneficial use and to maintain the safe yield of the basin. The amount of salt that would need to be removed from the basin for a 20,000 to 30,000 acre-ft/yr recycled water recharge program would be about 6,800 to 10,000 tons per year, respectively. If equal parts of recycled, state project and storm water are recharged then the offset drops to about 1,000 to 1,400 tons per year, respectively.

Table 3 shows that the amount of salt being removed from the basin by the Desalters described in the OBMP in year 2003 to be about 36,000 tons per year and will reach about 77,000 tons per year in about 20 or more years. In addition to the Desalter the new dairy waste management requirements promulgated by the Regional Water Control Board will reduce the salt added by the dairies from over 30,000 tons per year to about 12,000 tons per year (dairy liquid waste only) in the current year. The residual 12,000 tons per year will reduce gradually over the next 20 to 30 years to negligible levels. By the end of 2003 the combined salt extraction by Desalters and reduction of dairy waste discharged to the basin will be about 54,000 tons per year – in the next 20 to 30 years this total will reach over 100,000 tons per year. This salt reduction rate will eventually improve the quality of groundwater in the Chino Basin.

The salt reduction described above is intended to be used as an offset or credit to mitigate the increased salt loading from the recharge of recycled water. The appropriators that own recycled water and IEUA and WMWD agreed to own and operate the Desalters through SAWPA PC#14, the OBMP Desalters and have been

allocated the salt credits that could be used to offset the TDS impacts of recycled water recharge.

### **Salt Credits from Recharge of New Storm Water**

Urban storm water is generally of low TDS and is almost always less than the TDS objectives. Surface water quality sampling by Watermaster in the Montclair and Brooks basins routinely demonstrate that urban storm water has a TDS concentration less than 100 mg/L – about 150 mg/l less than the TDS objectives in management Zones 1 through 3. New storm water recharge occurs when urban storm water is diverted into recharge facilities instead of allowing the runoff to flow to the Santa Ana River. As per the Judgment, yield augmentation from new storm water recharge is allocated to members of the appropriative pool regardless of who causes new storm water recharge to occur. New urban storm water recharge can be blended with recycled water to dilute the TDS concentration of the recycled water and reduce or eliminate the need for TDS mitigation. From a TDS perspective, the effect of recharging urban storm water that has a TDS concentration less than the TDS objective is similar to salt removal from a Desalter, and the OBMP Peace Agreement allocates salt removal credits to the appropriators.

Table 1 -- Recharge Projects to Increase Storm Water Recharge and Recharge Capacity of Supplemental Water

Basin MZ	Current Owner	Native Water Conservation		Estimated Supplemental Recharge Capacity <sup>1</sup>		Supplemental Water Sources	Improvements/Activities Description	Overall Priority (A-highest C-lowest)	Due Date (1)
		Current Estimate (acre-ft/yr)	Goal (acre-ft/yr)	Current Estimate (acre-ft/yr)	Maximum Potential (acre-ft/yr)				
Management Zone 1 Goals									
	Native Water		3,960						
	Supplemental Water		30,100						
Upland Basin									
1	City of Upland	890	1,100	0	5,000	Imported Water Recycled Water	Acquire property Facility Improvements Expand MWDSC turnout OC 59 New inlet from San Antonio Creek Emergency outlet to San Antonio Creek Removal of inert fill Recycled water pipeline and inlet Optimize the basin bottom geometry	C C A A A C A	0 0 1 1 1 0 1
College Heights Basins									
1	CBWCD	0	500	0	11,000	Imported Water Recycled Water	Facility Improvements Expand MWDSC turnout OC 59 New inlet from San Antonio Creek Emergency outlet to San Antonio Creek Removal of inert fill Recycled water pipeline and inlet	C A A A C	0 1 1 1 0
Montclair Basins									
1	CBWCD	1,960	3,400	13,300	13,300	Imported Water Recycled Water	Facility Improvements Optimize the basin bottom geometry Recycled water pipeline and inlet	A C	1 0
Brooks Street Basin									
1	CBWCD	810	1,200	0	4,000	Imported Water Recycled Water	Facility Improvements Expand MWDSC turnout OC 59 New inlet from San Antonio Creek Emergency outlet to San Antonio Creek Recycled water pipeline and inlet Optimize the basin bottom geometry	C A A C A	0 1 1 0 1
Grove Basin									
1	SBCFCD	300	300	0	0		Facility Improvements Optimize the basin bottom geometry	A	1
Seventh and Eighth Street Basins									
1	SBCFCD	0	600	0	2,500	Imported Water Recycled Water	Facility Improvements New MWDSC turnout Pipeline from new MWDSC turnout to west Cut. Ch Recycled water pipeline and inlet Deepen basin Optimize the basin bottom geometry Modify outlet works to allow conservation storage	B B C A A A	0 0 0 1 1 1
Subtotals		3,960	7,100	13,300	35,800				

Table 1 -- Recharge Projects to Increase Storm Water Recharge and Recharge Capacity of Supplemental Water

Basin	MZ	Current Owner	Native Water Conservation		Estimated Supplemental Recharge Capacity <sup>1</sup>		Supplemental Water Sources	Improvements/Activities Description	Overall Priority (A-Highest, C-lowest)	Do Now (1) or Later (0)
			Current Estimate (acre-ft/yr)	Goal (acre-ft/yr)	Current Estimate (acre-ft/yr)	Maximum Potential (acre-ft/yr)				
Management Zone 2 and 3 Goals										
		Native Water		23,300						
		Supplemental Water				26,700				
Turner Basin No. 1										
	2	SBCFCD	0	500	0	1,500	Imported Water	Facility Improvements		
							Recycled Water	New MWDSC turnout on Cucamonga Creek	B	0
								New inlet from Cucamonga Creek	A	1
								Misc. site improvements (grading, internal hydraulics, etc.)	A	1
								Recycled water pipeline and inlet	C	0
								Deepen basin to create conservation pool	A	1
								Optimize the basin bottom geometry	A	1
Turner Basin No. 2										
	2	SBCFCD	0	500	0	1,500	Imported Water	Facility Improvements		
							Recycled Water	New MWDSC turnout on Deer Creek	B	0
								New inlet from Deer Creek	A	1
								Misc. site improvements (grading, internal hydraulics, etc.)	A	1
								Recycled water pipeline and inlet	C	0
								Deepen basin to create conservation pool	A	1
								Optimize the basin bottom geometry	A	1
Ely Basins										
	2	SBCFCD 1&2 CBWCD 3	2,750	2,800	500	4,000	Imported Water	Facility Improvements		
							Recycled Water	New MWDSC turnout	B	0
								New pipeline from new MWDSC turnout to west Cuc. Ch	B	0
								Recycled water pipeline and inlet	A	1
								Optimize the basin bottom geometry	A	1
								Modify outlet works to allow conservation storage	A	1
Expansion of Lower Day Basin										
	2	SBCFCD	0	500	0	8,000	Imported Water	Facility Improvements		
							Recycled Water	Expand MWDSC turnout CB 15T	B	0
								New inlet pipeline to connect to MWDSC turnout	B	0
								Deepening basin	C	0
								Recycled water pipeline and inlet	C	0
								Optimize the basin bottom geometry	A	1
								Modify outlet works to allow conservation storage	A	1
Wineville Basin										
	3	SBCFCD	1,780	2,600	0	9,300	Imported Water	Facility Improvements		
							Recycled Water	Expand MWDSC turnout CB 15T	A	1
								New inlet pipeline to connect turnout to Day Creek	A	1
								Recycled water pipeline and inlet	A	1
								Optimize the basin bottom geometry	A	1
								Modify outlet works to allow conservation storage	A	1
Riverside Basin										
	3	SBCFCD	1,400	2,600	0	7,700	Imported Water	Facility Improvements		
							Recycled Water	Expand MWDSC turnout CB 15T	A	1
								New inlet pipeline to connect turnout to Day Creek	A	1
								Recycled water pipeline and inlet	A	1
								Optimize the basin bottom geometry	A	1
								Modify outlet works to allow conservation storage	A	1

Table 1 -- Recharge Projects to Increase Storm Water Recharge and Recharge Capacity of Supplemental Water

Basin	MZ	Current Owner	Native Water Conservation		Estimated Supplemental Recharge Capacity <sup>1</sup>		Supplemental Water Sources	Improvements/Activities Description	Do Now (1) or Later (0)		
			Current Estimate (acre-ft/yr)	Goal (acre-ft/yr)	Current Estimate (acre-ft/yr)	Maximum Potential (acre-ft/yr)			Overall Priority (A-Highest, C-lowest)		
Expansion of Etiwanda Conservation Area (Joint use of Etiwanda Debris Basin)											
	2	SBCFCD Private Parties	1,050	3,300	6,300	22,000	Imported Water Recycled Water	Acquire Market property Facility Improvements Expand MWDSC turnout CB 14T Deepening and expansion of SBCFCD debris basin Recycled water pipeline and inlet Optimize the basin bottom geometry Modify outlet works to allow conservation storage	B A C A A	0 1 0 1 1	
Improvements to Victoria Basin											
	2	SBCFCD	0	500	0	4,000	Imported Water Recycled Water	Facility Improvements Expand MWDSC turnout CB 14T Recycled water pipeline and inlet New inlet from Etiwanda Creek Optimize the basin bottom geometry Modify outlet works to allow conservation storage	B C A A A	0 0 1 1 1	
Improvements to San Sevaline No.'s 1 through 3											
	2	SBCFCD	2,790	4,500	9,200	10,600	Imported Water Recycled Water	Facility Improvements Recycled water pipeline and inlet Optimize the basin bottom geometry	C B	0 0	
Improvements to San Sevaline No.'s 4 and 5											
	2	SBCFCD	80	500	0	19,400	Imported Water Recycled Water	Potential improvements Expand MWDSC turnout CB 13T New inlet pipeline to connect to MWDSC turnout Recycled water pipeline and inlet Deepen basin to create conservation pool Optimize the basin bottom geometry	B B C B B	0 0 0 0 0	
Banana Basin											
	3	SBCFCD	0	400	0	500	Imported Water Recycled Water	Potential improvements Expand MWDSC turnout CB 13T Construct inlet in San Sevaline Creek and pipeline to convey MWDSC water to Banana Basin Recycled water pipeline and inlet Deepen basin to create conservation pool Optimize the basin bottom geometry Modify outlet works to allow conservation storage	A A C A A A	0 0 1 1 1 1	
Hickory Basin											
	2	SBCFCD	0	500	0	1,500	Imported Water Recycled Water	Facility Improvements Expand MWDSC turnout CB 13T Construct inlet in San Sevaline Creek and pipeline to convey MWDSC water to Hickory Basin Recycled water pipeline and inlet Deepen basin to create conservation pool Optimize the basin bottom geometry Modify outlet works to allow conservation storage	B B B A A A	0 0 1 1 1 1	



Table 1 — Recharge Projects to Increase Storm Water Recharge and Recharge Capacity of Supplemental Water

Basin	MZ	Current Owner	Native Water Conservation		Estimated Supplemental Recharge Capacity <sup>1</sup>		Supplemental Water Sources	Improvements/Activities Description	Do Now (1) or Later (0)	Overall Priority (A-Highest C-lowest)
			Current Estimate (acre-ft/yr)	Goal (acre-ft/yr)	Current Estimate (acre-ft/yr)	Maximum Potential (acre-ft/yr)				
Improvements to the Etiwanda Percolation Ponds										
	3	SBCFCD	0	500	0	4,000	Imported Water Recycled Water	Facility Improvements Construct new MWDSC turnout and pipeline to Etiwanda percolation basins. Pipeline to route MWDSC water around site New outlet to Old Etiwanda Creek (to Wineville Basin) Misc. site improvements (grading, internal hydraulics, etc.) Recycled water pipeline and inlet Optimize the basin bottom geometry	A A A A A A	1 1 1 1 1 1
Jurupa Basin										
	3	SBCFCD	0	3,000	0	4,000	Imported Water Recycled Water	Facility Improvements Expand MWDSC turnout CB 13T and/or CB 14T Optimize the basin bottom geometry	A A	1 1
IEUA RP3 Ponds										
	3	IEUA	0	0	0	4,000	Imported Water	Facility Improvements Expand MWDSC turnout CB 13T and/or CB 14T Construct inlet in San Sevaine Creek and pipeline to convey MWDSC water to RP3 Optimize the basin bottom geometry	A A A	0 0 0
Declar Basin										
	3	SBCFCD	0	600	0	1,000	Imported Water	Expand MWDSC turnout CB 13T and/or CB 14T Construct inlet in San Sevaine Creek and pipeline to convey MWDSC water to Declar Basin Modify outlet works to allow conservation storage Deepen basin to create conservation pool Optimize the basin bottom geometry	A B A A A	0 0 1 1 1
Total All Management Zones				30,400	29,300	138,800				
Subtotal MZ 2 and MZ3				23,300	16,000	103,000				

Projects completed with Prop 13 money will accomplish the following:

<b>Management Zone 1</b>		
Goals	<u>7,100</u>	<u>33,000</u>
Current	<u>3,960</u>	<u>13,300</u>
After Improvement	<u>7,100</u>	<u>29,300</u>
<b>Management Zone 2</b>		
Goals	<u>13,100</u>	<u>4,000</u>
Current	<u>6,670</u>	<u>16,000</u>
After Improvement	<u>13,100</u>	<u>16,000</u>
<b>Management Zone 3</b>		
Goals	<u>9,700</u>	<u>29,000</u>
Current	<u>3,180</u>	<u>0</u>
After Improvement	<u>9,200</u>	<u>21,000</u>
<b>Total Increase in Recharge</b>	<u>15,590</u>	<u>37,000</u>

Note 1 — annual average recharge capacity assumes recharge water available for the months of October through April. Basic data for estimates is from Table 4-5 of the PI RAMP (Wildermuth, 1998), some with specification.

**Table 2**  
**Regional Water Supply Plan for the OBMP<sup>1</sup>**  
 (acre-ft/yr)

Purveyor Source	Year				
	2000	2005	2010	2015	2020
<i>City of Chino</i>					
Chino Basin Wells	10,000	10,000	10,000	10,000	10,000
Nitrate Removal Plant (Chino Groundwater)	0	0	0	0	0
OBMP Desalter No. I	1,680	3,360	4,420	5,490	6,550
WFA Treatment Plant	4,020	2,640	2,830	3,010	3,200
Reclaimed Water	100	1,050	1,050	1,050	1,050
Total Supply	15,800	17,050	18,300	19,550	20,800
Total Demand	15,800	17,050	18,300	19,550	20,800
<i>City of Chino Hills</i>					
Chino Basin Wells	3,610	3,610	3,610	3,610	3,610
OBMP Desalter No. I	1,120	7,540	7,540	7,540	7,540
Reclaimed Water	400	1,020	1,020	1,815	2,610
WFA Treatment Plant	0	0	0	0	0
MVWD Supply Chino GW	12,510	6,930	8,500	9,385	9,480
Total Supply	17,640	19,100	20,670	22,350	23,240
Total Demand	17,640	19,100	20,670	22,350	23,240
<i>City of Norco</i>					
Chino Basin Wells	0	0	0	0	0
City of Corona	220	0	0	0	0
Temescal Basin Groundwater	5,880	5,870	5,560	5,070	4,650
Supply from JCSD	900	0	0	0	0
OBMP Desalter No. II	0	1,530	2,140	3,330	4,350
Total Supply	7,000	7,400	7,700	8,400	9,000
Total Demand	7,000	7,400	7,700	8,400	9,000
<i>City of Ontario</i>					
Chino Basin Wells	34,720	32,950	32,950	32,950	32,950
WFA Treatment Plant	6,590	7,660	10,020	17,950	20,630
Reclaimed Water	840	840	1,680	2,520	3,360
Supply from SAWC (Chino GW)	850	850	850	850	850
OBMP Desalter No. II	0	5,000	5,000	8,530	12,710
Total Supply	43,000	47,300	50,500	62,800	70,500
Total Demand	41,530	45,830	49,030	61,330	69,030
Supply to Sunkist (Chino GW)	1,470	1,470	1,470	1,470	1,470

**Table 2**  
**Regional Water Supply Plan for the OBMP<sup>1</sup>**  
(acre-ft/yr)

Purveyor Source	Year				
	2000	2005	2010	2015	2020
<i>City of Pomona</i>					
Chino Basin Wells	5,220	5,220	5,220	5,220	5,220
Pomona Nitrate Treatment Plant (Chino GW)	13,880	13,880	13,880	13,880	13,880
Other Groundwater Basins	5,160	5,160	5,160	5,160	5,160
Reclaimed Water	7,000	7,000	7,000	7,000	7,000
Pedley Treatment Plant	3,800	3,800	3,800	3,800	3,800
TVMWD Weymouth Treatment Plant	2,140	3,380	4,520	5,840	7,044
Total Supply	37,200	38,440	39,580	40,900	42,104
Total Demand	37,200	38,440	39,580	40,900	42,104
<i>City of Upland</i>					
Chino Basin Wells	2,429	2,430	3,410	3,070	3,050
Supply from SAWC (non-Chino GW)	4,920	4,520	4,520	4,520	4,520
Supply from SAWC (San Antonio Canyon TP)	2,411	2,390	2,390	2,690	2,690
Supply from WECWC (Chino GW)	0	1,420	1,440	1,480	1,500
Supply from WECWC (other GW basins)	4,650	4,650	4,650	4,650	4,650
WFA Treatment Plant	7,590	7,590	7,590	7,590	7,590
Total Supply	22,000	23,000	24,000	24,000	24,000
Total Demand	22,000	23,000	24,000	24,000	24,000
<i>Cucamonga County Water District</i>					
Chino Basin Wells	8,000	10,160	10,160	10,160	10,160
Other Groundwater Basins	12,650	11,180	12,390	12,390	12,390
Reclaimed Water	0	0	0	2,402	4,804
CCWD Bridge Water Treatment Plant	1,000	1,000	1,000	1,000	1,000
CCWD Lloyd Michael Treatment Plant	21,710	25,550	28,860	30,978	33,096
CCWD Royer-Nesbit Treatment Plant	6,000	6,000	6,000	6,000	6,000
Deer Creek	550	550	550	550	550
Total Supply	49,910	54,440	58,960	63,480	68,000
Total Demand	49,910	54,440	58,960	63,480	68,000
<i>Fontana Water Company</i>					
Chino Basin Wells	16,700	22,825	16,050	20,375	24,800
Other Groundwater Basins	12,700	12,700	12,700	12,700	12,700
Reclaimed Water	0	0	0	1,685	3,370
Fontana Water Treatment Plant	0	0	18,600	16,915	15,230
Sandhill Treatment Plant	7,400	7,400	0	0	0
Total Supply	36,800	42,925	47,350	51,675	56,100
Total Demand	35,100	41,200	45,600	49,900	54,300
Supply to California Steel	1,700	1,725	1,750	1,775	1,800

**Table 2**  
**Regional Water Supply Plan for the OBMP<sup>1</sup>**  
 (acre-ft/yr)

Purveyor Source	Year				
	2000	2005	2010	2015	2020
<i>Jurupa Community Services District<sup>2</sup></i>					
Chino Basin Wells (Potable)	14,425	11,275	12,885	13,265	13,625
Chino Basin Wells (Non-potable)	50	250	450	650	850
Other Groundwater Basins	500	500	500	500	500
OBMP Desalter No. I	1,800	0	0	0	0
OBMP Desalter No. II	0	5,000	5,790	7,810	9,850
Total Supply	16,775	17,025	19,625	22,225	24,825
Total Demand	14,200	17,000	19,600	22,200	24,800
Supply to Mira Loma SC	25	25	25	25	25
Supply to Norco	900	0	0	0	0
Supply to Swan Lake	350	0	0	0	0
Supply to SARWC	1,300	0	0	0	0
Subtotal	2,575	25	25	25	25
<i>Mira Loma SC</i>					
Chino Basin Wells	0	0	0	0	0
Supply from JCSD	25	25	25	25	25
Total Supply	25	25	25	25	25
Total Demand	25	25	25	25	25
<i>Santa Ana River Water Company<sup>2</sup></i>					
Chino Basin Wells	0	0	0	0	0
Almost Chino Basin Wells (along SAR outside legal bndy)	700	790	660	490	320
Supply from JCSD	1,300	0	0	0	0
OBMP Desalter No. II (see note below)	0	1,300	1,460	1,650	1,850
Total Supply	2,000	2,090	2,120	2,140	2,170
Total Demand	2,000	2,090	2,120	2,140	2,170
Note — The Santa Ana Water Company may receive Desalter II water through either a direct connection paid for by the Company or through an interconnection with Jurupa Community Services District.					
<i>Swan Lake</i>					
Chino Basin Wells	0	0	0	0	0
Supply from JCSD	350	0	0	0	0
OBMP Desalter No. II	0	350	350	350	350
Total Supply	350	350	350	350	350
Total Demand	350	350	350	350	350
<i>Marygold Mutual Water Company</i>					
Baseline Feeder	1,450	1,580	1,620	1,660	1,700
Total Supply	1,450	1,580	1,620	1,660	1,700
Total Demand	1,450	1,580	1,620	1,660	1,700

**Table 2**  
**Regional Water Supply Plan for the OBMP<sup>i</sup>**  
 (acre-ft/yr)

Purveyor Source	Year				
	2000	2005	2010	2015	2020
<i>Monte Vista Water District</i>					
Chino Basin Wells	26,670	21,090	22,660	23,545	23,640
WFA Treatment Plant	0	0	0	0	0
Total Supply	26,670	21,090	22,660	23,545	23,640
Total Demand	14,160	14,160	14,160	14,160	14,160
Supply to Chino Hills (Chino GW)	12,510	6,930	8,500	9,385	9,480
<i>San Antonio Water Company – Domestic</i>					
Chino Basin Wells	70	1,050	1,070	1,090	1,110
Other Groundwater Basins	400	400	400	400	400
San Antonio Canyon	0	0	0	0	0
San Antonio Tunnel	1,020	1,020	1,020	1,020	1,020
Total Supply	1,490	2,470	2,490	2,510	2,530
Total Demand	640	1,620	1,640	1,660	1,680
Supply to Ontario (Chino GW)	850	850	850	850	850
<i>Southern California Water Company</i>					
Chino Basin Wells	2,160	2,160	2,160	2,160	2,160
Other Groundwater Basins	4,950	4,490	4,850	4,850	4,850
TVMWD – Miramar Water Treatment Plant	7,090	8,300	8,670	8,670	8,670
Total Supply	14,200	14,950	15,680	15,680	15,680
Total Demand	14,200	14,950	15,680	15,680	15,680
<i>West End Consolidated Water Company</i>					
Chino Basin Wells	0	1,420	1,440	1,480	1,500
Other Groundwater Basins	4,650	4,650	4,650	4,650	4,650
Total Supply	4,650	6,070	6,090	6,130	6,150
Total Demand	0	0	0	0	0
Supply to Upland	4,650	6,070	6,090	6,130	6,150
<i>West San Bernardino County Water District</i>					
Other Groundwater Basins	5,330	6,835	9,520	9,510	9,510
SBVMWD Baseline Feeder	800	1,000	1,380	1,390	1,390
Total Supply	6,130	7,835	10,900	10,900	10,900
Total Demand	6,130	7,835	10,900	10,900	10,900

**Table 2**  
**Regional Water Supply Plan for the OBMP<sup>1</sup>**  
 (acre-ft/yr)

Purveyor Source	Year				
	2000	2005	2010	2015	2020
<i>Ameron</i>					
Chino Basin Wells	9	9	9	9	9
Total Supply	9	9	9	9	9
Total Demand	9	9	9	9	9
<i>San Bernardino County Division of Airports</i>					
Chino Basin Wells (Potable (Domestic))	300	300	300	300	300
Total Supply	300	300	300	300	300
Total Demand	300	300	300	300	300
<i>Reliant Energy</i>					
Chino Basin Wells	800	0	0	0	0
Reclaimed Water	0	3,300	3,300	3,300	3,300
IEUA -- MWD Water from CRA	2,500	0	0	0	0
Total Supply	3,300	3,300	3,300	3,300	3,300
Total Demand	3,300	3,300	3,300	3,300	3,300
<i>Sunkist</i>					
Chino Basin Wells	0	0	0	0	0
Supply from Ontario (Chino GW)	1,470	1,470	1,470	1,470	1,470
Total Supply	1,470	1,470	1,470	1,470	1,470
Total Demand	1,470	1,470	1,470	1,470	1,470
<i>Kaiser Ventures</i>					
Chino Basin Wells	670	670	670	670	670
Total Supply	670	670	670	670	670
Total Demand	670	670	670	670	670
<i>San Bernardino County Parks Department</i>					
Chino Basin Wells	75	75	75	75	75
Total Supply	75	75	75	75	75
Total Demand	75	75	75	75	75
<i>Monte Vista Irrigation Company</i>					
Chino Basin Wells	0	0	0	0	0
Total Supply	0	0	0	0	0
Total Demand	0	0	0	0	0
<i>California Steel</i>					
Chino Basin Wells	0	0	0	0	0
Fontana Water Company	1,700	1,725	1,750	1,775	1,800
Total Supply	1,700	1,725	1,750	1,775	1,800
Total Demand	1,700	1,725	1,750	1,775	1,800

**Table 2**  
**Regional Water Supply Plan for the OBMP<sup>1</sup>**  
 (acre-ft/yr)

Purveyor Source	Year				
	2000	2005	2010	2015	2020
<b>Totals By Source Type and Pool</b>					
Pool 1 Overlying Agricultural Pool (groundwater)	49,100	39,975	30,850	21,725	10,000
Pool 2 Overlying Non-Agricultural Pool					
Chino Basin Groundwater	3,624	2,474	2,474	2,474	2,474
OBMP Desalter No. II	0	350	350	350	350
Other Local Supplies	0	0	0	0	0
Imported Water	2,500	0	0	0	0
Recycled Water	0	3,300	3,300	3,300	3,300
Total Pool 2	6,124	6,124	6,124	6,124	6,124
Pool 3 Appropriative Pool					
Chino Basin Groundwater	137,634	138,570	135,995	141,505	146,605
OBMP Desalter No. II	0	12,830	14,390	21,320	28,760
OBMP Desalter No. I	4,600	10,900	11,960	13,030	14,090
Other Local Supplies	84,141	83,485	80,320	80,000	79,450
Imported Water					
WFA Treatment Plant	18,200	17,890	20,440	28,550	31,420
CCWD Lloyd Michael TP	21,710	25,550	28,860	30,978	33,096
CCWD Royer Nesbit	3,000	3,000	3,000	3,000	3,000
Other	11,730	11,680	31,790	31,425	30,944
Subtotal	49,940	56,120	82,470	92,343	96,850
Recycled Water	8,340	9,910	10,750	16,472	22,194
Total Pool 3	284,655	311,615	335,885	364,670	387,949
Total All Pools	339,879	357,714	372,859	392,519	404,073
<b>Total Water Produced By Desalter Projects</b>					
<i>OBMP Projects</i>					
OBMP Desalter No. II	0	13,180	14,740	21,670	29,110
OBMP Desalter No. II Raw Water Supply	0	15,506	17,341	25,494	34,247
OBMP Desalter No. I	4,600	10,900	11,960	13,030	14,090
OBMP Desalter No. I Raw Water Supply	5,292	12,540	13,759	14,990	16,210
<i>Pomona Ion Exchange</i>					
Production	13,880	13,880	13,880	13,880	13,880
Raw Water Supply	14,309	14,309	14,309	14,309	14,309
<b>Total Chino Basin Groundwater Production Summary</b>					
Pool 1	49,100	39,975	30,850	21,725	10,000
Pool 2	3,624	2,824	2,824	2,824	2,824
Pool 3	143,355	166,495	167,175	182,069	197,141
Total	196,079	209,294	200,849	206,618	209,965

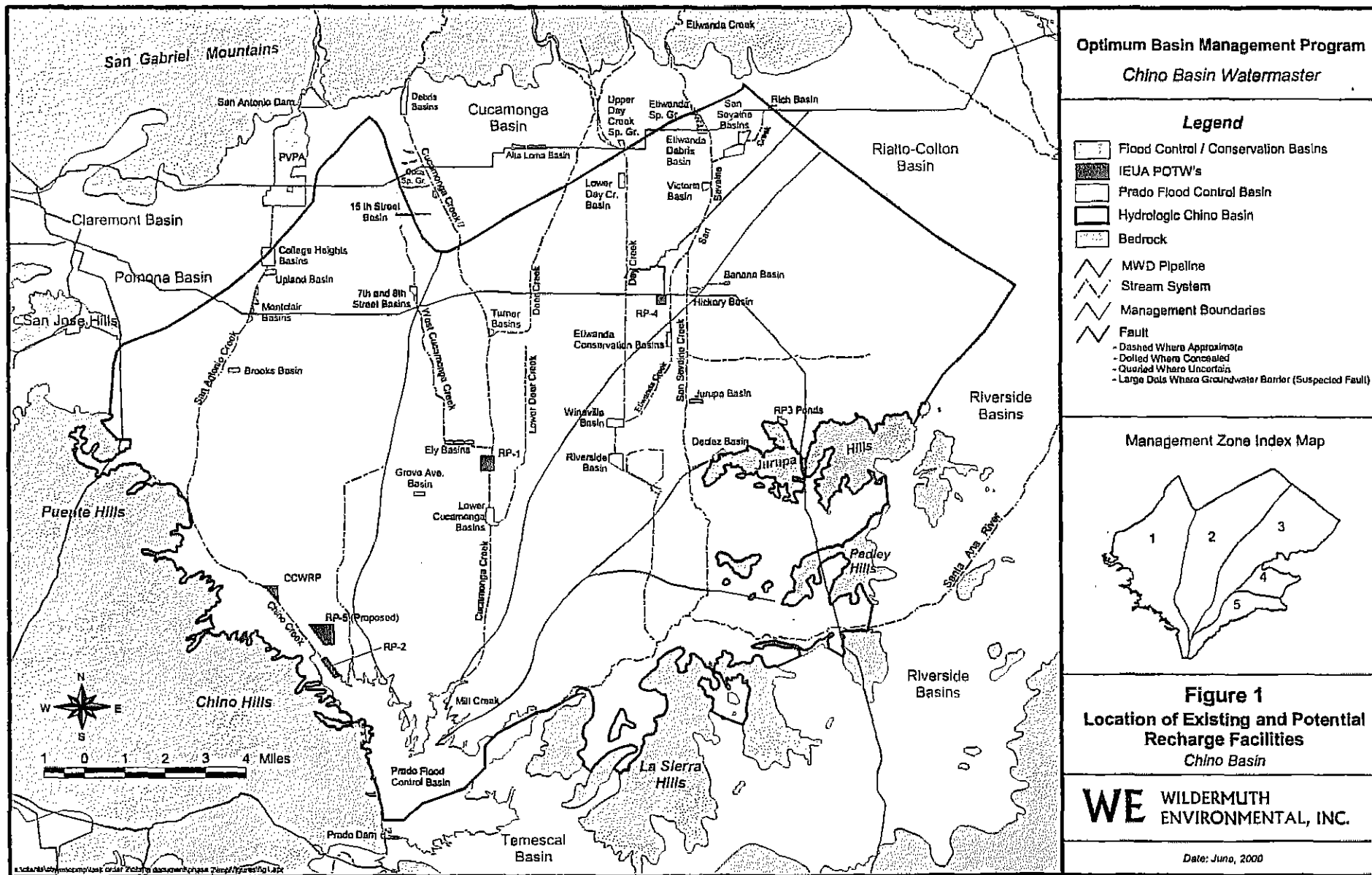
Note 1 — Some of the water supply plans for agencies taking OBMP desalter water are different than the plans shown in the "Revised Draft Water Supply Plan, Phase I Desalting Project Facilities Report, June 2000. These difference are minor and will be reconciled in July 2000.

Note 2 — "Jurupa Community Services District" means Jurupa Community Services District and the Santa Ana River Water Company individually. Subject to provisions of the Peace Agreement, the design and delivery obligations for the Chino II Desalter set forth in Section 7.3 regarding Jurupa Community Services District include both Jurupa Community Services District and the Santa Ana River Water Company.

**Table 3**  
**Production and Salt Removal Capacity of Chino Basin Desalters**

Year	Product Water Capacity (mgd)			Desalter groundwater Production (acre-ft/yr)	Salt Removal Capacity (tons)			
	OBMP Desalters No I	No II	Total		OBMP Desalters No I	No II	Total	Fraction of Ultimate Capacity
2000	4.7	0.0	4.7	5,292	5,436	0	5,436	7%
2001	8.0	0.0	8.0	8,960	9,205	0	9,205	12%
2002	8.0	0.0	8.0	8,960	9,205	0	9,205	12%
2003	10.0	10.0	20.0	25,372	12,881	22,697	35,578	46%
2004	10.0	12.0	22.0	27,905	12,881	27,176	40,057	52%
2005	10.0	12.0	22.0	27,905	12,881	27,176	40,057	52%
2006	12.0	12.0	24.0	29,124	14,134	27,176	41,309	53%
2007	12.0	12.0	24.0	29,124	14,134	27,176	41,309	53%
2008	12.0	14.0	26.0	31,100	14,134	30,755	44,889	58%
2009	12.0	14.0	26.0	31,100	14,134	30,755	44,889	58%
2010	12.0	14.0	26.0	31,100	14,134	30,755	44,889	58%
2011	12.0	14.0	26.0	31,100	14,134	30,755	44,889	58%
2012	12.0	14.0	26.0	31,100	14,134	30,755	44,889	58%
2013	12.0	20.0	32.0	40,484	14,134	45,215	59,348	77%
2014	12.0	20.0	32.0	40,484	14,134	45,215	59,348	77%
2015	12.0	20.0	32.0	40,484	14,134	45,215	59,348	77%
2016	14.0	20.0	34.0	41,704	16,651	45,215	61,865	80%
2017	14.0	26.0	40.0	50,457	16,651	60,573	77,224	100%
2018	14.0	26.0	40.0	50,457	16,651	60,573	77,224	100%
2019	14.0	26.0	40.0	50,457	16,651	60,573	77,224	100%
2020	14.0	26.0	40.0	50,457	16,651	60,573	77,224	100%
<b>21-Year Totals</b>								
ater Production (acre-ft/yr)				683,128				
Salt Removal (tons)					287,080	708,326	995,406	





# Exhibit C

**MEMORANDUM OF AGREEMENT  
FOR RECHARGE IN THE  
CHINO BASIN**

**THIS AGREEMENT** ("Agreement") is made and entered into this \_\_\_\_\_ day of June, 2000, between \_\_\_\_\_ and Watermaster ("the Parties") regarding recharge of water into the Chino Groundwater Basin.

**RECITALS**

**WHEREAS**, a Judgment was entered in San Bernardino County Superior Court Case No. RCV 51050 that adjudicated all rights to groundwater and storage capacity within the Chino Basin and established a physical solution; and

**WHEREAS**, Watermaster has the express powers and duties as provided in the Judgment or "hereafter ordered or authorized by the Court in the exercise of the Court's continuing jurisdiction" including the power to ensure that recharge of Supplemental Water does not result in Material Physical Injury to any Producer or the Basin; and

**WHEREAS**, Paragraph 41 of the Judgment provides that "Watermaster, with the advice of the Advisory and Pool Committees" has "discretionary powers in order to develop an optimum basin management program (OBMP) for the Chino Basin"; and

**WHEREAS**, Watermaster desires to facilitate and arrange for Recharge of water into the Chino Basin where and when it is prudent to do so under fair and reasonable terms and conditions; and

**WHEREAS,** \_\_\_\_\_ desires to Recharge water into the Chino Basin; and

**NOW, THEREFORE,** in consideration of the mutual promises specified herein, and for other good and valuable consideration, the Parties agree as follows:

1. No Ownership of Property. Watermaster shall not own real property but may contract for the operation of recharge projects, including but not limited to spreading grounds, injection wells, diversion works on real property.
2. No Material Physical Injury. \_\_\_\_\_ shall Recharge water in a manner so as to not cause Material Physical Injury to any party to the Judgment or the Basin.
3. Location. Any Recharge conducted by \_\_\_\_\_ shall occur at the locations identified in the Site Plan contained in Exhibit "A" attached hereto.
4. Timing. Watermaster shall direct Recharge by \_\_\_\_\_, and \_\_\_\_\_ shall arrange for recharge in accordance with the schedule attached hereto as Exhibit \_\_\_\_.
5. Compensation. In exchange for \_\_\_\_\_ Recharging water at the locations and times requested by Watermaster, \_\_\_\_\_ shall receive \_\_\_\_\_ per annum [per acre foot].
6. Annual Accounting. Watermaster shall provide an annual accounting of the amount of Recharge conducted pursuant to this Agreement.
7. Term. The term of this Agreement shall be \_\_\_\_ years.

# **2007 SUPPLEMENT TO OBMP IMPLEMENTATION PLAN**

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Attachment "D"

**2007 SUPPLEMENT**  
**TO THE**  
**IMPLEMENTATION PLAN**  
**OPTIMUM BASIN MANAGEMENT PROGRAM**  
**FOR THE**  
**CHINO BASIN**

**INTRODUCTION**

This document describes the supplement to the implementation plan for the Chino Basin Optimum Basin Management Program (OBMP), as determined through the 2007 "Peace II" process.

**PROGRAM ELEMENT 1 DEVELOP AND IMPLEMENT**  
**COMPREHENSIVE MONITORING PROGRAM**

**A. Production Monitoring Program**

All active wells (except for minimum user wells) are now metered. Watermaster reads the production data from the meters on a quarterly basis and enters these data into Watermaster's relational database.

**B. Surface Water Discharge and Quality Monitoring**

Water Quality and Quantity in Recharge Basins. Watermaster measures the quantity and quality of storm and supplemental water entering the recharge basins. Pressure transducers or staff gauges are used to measure water levels during recharge operations. In addition to these quantity measurements, imported water quality values for State Water Project water are obtained from the Metropolitan Water District of Southern California (MWDSC) and recycled water quality values for the RP1 and RP4 treatment plant effluents are obtained from IEUA. Watermaster monitors the storm water quality in the eight major channels (San Antonio, West Cucamonga, Cucamonga, Deer Creek, Day Creek, San Sevaine, West Fontana, and DeClez) usually after each major storm event. Combining the measured flow data with the respective water qualities enables the

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calculation of the blended water quality in each recharge basin, the "new yield" to the Chino Basin, and the adequate dilution of recycled water.

**Surface Water Monitoring in Santa Ana River (SAR).** Watermaster measures the discharge of the river and selected water quality parameters to determine those reaches of the SAR that are gaining flow from Chino Basin and/or, conversely, those reaches that are losing flow into the Chino Basin. These bi-weekly flow and water quality measurements are combined with discharge data from permanent USGS and Orange County Water District (OCWD) stream gauges and discharge data from publicly owned treatment works (POTWs). These data are used in groundwater modeling to assess the extent of hydraulic control.

#### **HCMP Annual Report**

In January 2004, the RWQCB amended the Water Quality Control Plan (Basin Plan) for the Santa Ana River Basin to incorporate an updated total dissolved solids (TDS) and nitrogen (N) management plan. The Basin Plan Amendment includes both "antidegradation" and "maximum benefit" objectives for TDS and nitrate-nitrogen for the Chino and Cucamonga groundwater management zones. The application of the "maximum benefit" objectives relies on Watermaster and the IEUA's implementation of a specific program of projects and requirements, which are an integral part of the OBMP. On April 15, 2005, the RWQCB adopted resolution R8-2005-0064; thus approving the Surface Water Monitoring Program and Groundwater Monitoring Program in support of maximum benefit commitments in the Chino and Cucamonga Basins. Watermaster and the IEUA completed the 2006 Annual Report, which summarizes the results for those two programs, and submitted it to the RWQCB on April 16, 2007 in partial fulfillment of maximum benefit commitments.

#### **Chino Basin Recycled Water Groundwater Recharge Program**

The IEUA, Watermaster, Chino Basin Water Conservation District, and San Bernardino County Flood Control District jointly sponsor the Chino Basin Recycled Water Groundwater Recharge Program. This is a comprehensive water supply program to enhance water supply reliability and improve the groundwater quality in local drinking water wells throughout the Chino Groundwater Basin by increasing the recharge of stormwater, imported water, and recycled water. The recharge program is regulated under RWQCB Order No. R8-2005-0033 and Monitoring and Reporting Program No. R8-2005-0033.

**Monitoring Activities.** Watermaster and the IEUA collect weekly and bi-weekly water quality samples from basins that are actively recharging recycled water and from lysimeters installed within those basins. Monitoring wells located down gradient of the recharge basins are sampled every two weeks during the reporting period for a total of about 100 samples.

**Construction Activities.** Lysimeters and monitoring wells associated with the RP-3, DeClez, and Ely Basins were installed in fiscal year (FY) 2006/07.

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## **C. Ground Level Monitoring Program**

Watermaster developed a multifaceted land surface monitoring program to develop data for a long-term management plan for land subsidence in Management Zone 1 (MZ-1). The monitoring program consisted of three main elements:

- An aquifer system monitoring facility consisting of multiple depth piezometers and a dual bore extensometer.
- The application of synthetic aperture radar interferometry (InSAR) to measure historical land surface deformation.
- Benchmark surveys to measure land surface deformation, "ground truth" the InSAR data, and evaluate effectiveness of the long term management plan.

Following two years of data collection and analysis, Watermaster submitted the MZ-1 Summary Report in October 2005, which contained Guidance Criteria to minimize subsidence and fissuring. The Guidance Criteria included a listing of Managed Wells and their owners subject to the criteria, a map of the so-called Managed Area, an initial threshold water level (Guidance Level) of 245 feet below the top of the PA-7 well casing, and a plan for ongoing monitoring and notification. Since October 2005, the MZ-1 Summary Report and the Guidance Criteria contained therein have been discussed extensively by the parties involved, and were adopted by the Watermaster Board at its May 2006 Meeting. The final MZ-1 Subsidence Management Plan was adopted by the Watermaster Board at its June 2007 Meeting, was subsequently revised, and was submitted to the Court for approval at a hearing on November 15, 2007.

The MZ-1 monitoring program continues unabated. Water level monitoring expanded to the central regions of MZ-1 with the installation of transducers/data loggers at selected wells owned by the City of Chino, the Monte Vista Water District, and the City of Pomona. This expansion of the water level monitoring program is the initial effort to better understand the mechanisms behind ongoing land subsidence in this region.

## **PROGRAM ELEMENT 2 – DEVELOP AND IMPLEMENT COMPREHENSIVE RECHARGE PROGRAM**

### **INTRODUCTION**

Construction on the Chino Basin Facilities Improvement Project (CBFIP) Phase I was completed by December 31, 2005 at a cost of \$38M; 50% from a SWRCB Proposition 13 Grant, and 25% each from Watermaster and the IEUA. A CBFIP Phase II list of projects was developed by Watermaster and the IEUA, including monitoring wells, lysimeters, recycled water connections, SCADA system expansions, three MWDSC turnouts, and berm heightening and hardening. At a cost of approximately \$15M, these Phase II facilities will be financed through a 50% Grant from DWR and 25% each from Watermaster and the IEUA.



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In FY 2005-2006, the CBFIP Phase I facilities were able to recharge 49,000 AF of storm and supplemental water. By the start of FY 2009-2010, most of the basins will be able to operate on a 12 months per year basis with combinations of storm, imported, and recycled water, with occasional downtime for silt and organic growth removal. Operations and basin planning are coordinated through the Groundwater Recharge Coordinating Committee (GRCC) which meets monthly.

Update to the Recharge Master Plan. The Recharge Master Plan will be updated as frequently as necessary and not less than every five (5) years, to reflect an appropriate schedule for planning, design, and physical improvements as may be required to offset the controlled mining at the end of the Peace Agreement and the end of forgiveness for Desalter replenishment.

Coordination. Watermaster will ensure that the members of the Appropriative Pool will coordinate the development of their respective Urban Water Management Plans and Water Supply Master Plans with Watermaster as follows.

- (a) Watermaster will obtain from each Appropriator that prepares an Urban Water Management Plan and Water Supply Plan copies of their existing and proposed plans.
- (b) Watermaster will use the Plans in evaluating the adequacy of the Recharge Master Plan and other OBMP Implementation Plan program elements.
- (c) Each Appropriator will provide Watermaster with a draft in advance of adopting any proposed changes to their Urban Water Management Plans and in advance of adopting any material changes to their Water Supply Master Plans respectively in accordance with the customary notification routinely provided to other third parties to offer Watermaster a reasonable opportunity to provide informal input and informal comment on the proposed changes.
- (d) Any party that experiences the loss or the imminent threatened loss of a material water supply source will provide reasonable notice to Watermaster of the condition and the expected impact, if any, on the projected groundwater use.

Suspension. To ameliorate any long-term risks attributable to reliance upon un-replenished groundwater production by the Desalters, the annual availability of any portion of the 400,000 acre-feet set aside for forgiveness, is expressly subject to Watermaster making an annual finding it is in substantial compliance with the revised Watermaster Recharge Master Plan pursuant to Paragraph 7.3 above.

Acknowledgment re 6,500 Acre-Foot Supplemental Recharge. The Parties have made the following acknowledgments regarding the 6,500 Acre-Foot Supplemental Recharge:

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- (a) A fundamental premise of the Physical Solution is that all water users dependent upon Chino Basin will be allowed to pump sufficient waters from the Basin to meet their requirements. To promote the goal of equal access to groundwater within all areas and sub-areas of the Chino Basin, Watermaster has committed to use its best efforts to direct recharge relative to production in each area and sub-area of the Basin and to achieve long-term balance between total recharge and discharge. The Parties acknowledge that to assist Watermaster in providing for recharge, the Peace Agreement sets forth a requirement for Appropriative Pool purchase of 6,500 acre-feet per year of Supplemental Water for recharge in Management Zone 1 (MZ1). The purchases have been credited as an addition to Appropriative Pool storage accounts. The water recharged under this program has not been accounted for as Replenishment water.
- (b) Watermaster was required to evaluate the continuance of this requirement in 2005 by taking into account provisions of the Judgment, Peace Agreement and OBMP, among all other relevant factors. It has been determined that other obligations in the Judgment and Peace Agreement, including the requirement of hydrologic balance and projected replenishment obligations, will provide for sufficient wet-water recharge to make the separate commitment of Appropriative Pool purchase of 6,500 acre-feet unnecessary. Therefore, because the recharge target as described in the Peace Agreement has been achieved, further purchases under the program will cease and Watermaster will proceed with operations in accordance with the provisions of paragraphs (c), (d) and (e) below.
- (c) The parties acknowledge that, regardless of Replenishment obligations, Watermaster will independently determine whether to require wet-water recharge within MZ1 to maintain hydrologic balance and to provide equal access to groundwater in accordance with the provisions of this Section 8.4 and in a manner consistent with the Peace Agreement, OBMP and the Long Term Plan for Subsidence. Watermaster will conduct its recharge in a manner to provide hydrologic balance within, and will emphasize recharge in MZ1. Accordingly, the Parties acknowledge and agree that each year Watermaster shall continue to be guided in the exercise of its discretion concerning recharge by the principles of hydrologic balance.
- (d) Consistent with its overall obligations to manage the Chino Basin to ensure hydrologic balance within each management zone, for the duration of the Peace Agreement (until June of 2030), Watermaster will ensure that a minimum of 6,500 acre-feet of wet water recharge occurs within MZ1 on an annual basis. However, to the extent that water is unavailable for recharge or there is no replenishment obligation in any year, the obligation to recharge 6,500 acre-feet will accrue and be satisfied in subsequent years.

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- (1) Watermaster will implement this measure in a coordinated manner so as to facilitate compliance with other agreements among the parties, including but not limited to the Dry-Year Yield Agreements.
  - (2) In preparation of the Recharge Master Plan, Watermaster will consider whether existing groundwater production facilities owned or controlled by producers within MZ1 may be used in connection with an aquifer storage and recovery ("ASR") project so as to further enhance recharge in specific locations and to otherwise meet the objectives of the Recharge Master Plan.
- (e) Five years from the effective date of the Peace II Measures, Watermaster will cause an evaluation of the minimum recharge quantity for MZ1. After consideration of the information developed in accordance with the studies conducted pursuant to paragraph 3 below, the observed experiences in complying with the Dry Year Yield Agreements as well as any other pertinent information, Watermaster may increase the minimum requirement for MZ1 to quantities greater than 6,500 acre-feet per year. In no circumstance will the commitment to recharge 6,500 acre-feet be reduced for the duration of the Peace Agreement.

**Hydraulic Control.** In accordance with the purpose and objective of the Physical Solution to "establish a legal and practical means for making the maximum reasonable beneficial use of the waters of the Chino Basin" (paragraph 39) and the identified Basin Management Parameters, Watermaster will manage the Basin to secure Hydraulic Control through controlled overdraft for a period of approximately 23 (twenty-three) years (Re-Operation). Hydraulic Control ensures that the water management activities in the Chino North Management Zone do not cause materially adverse impacts to the beneficial uses of the Santa Ana River downstream of Prado Dam. "Hydraulic Control" means the reduction of groundwater discharge from the Chino North Management Zone to the Santa Ana River to de minimus quantities. The Chino North Management Zone is more fully described and set forth in Exhibit I to this Appendix I.

**Re-Operation.** Independent of Watermaster determinations regarding Operating Safe Yield and without effect on or regard for the parties' respective rights thereto in any year, Re-Operation of the Basin through the managed withdrawal of groundwater from the Basin is required to achieve and maintain Hydraulic Control. Given the expected water quality, increased yield and economic benefits associated with Hydraulic Control, a Re-Operation through coordinated and controlled overdraft is a prudent and efficient use of the Basin resources *to the extent* groundwater is required to achieve and maintain Hydraulic Control. "Re-operation" means the potential increase in the accumulated overdraft from 200,000 acre-feet previously authorized under Exhibit I over the period 1978 through 2017 to 600,000 acre-feet through 2030, with the 400,000 acre-feet increase being expressly allocated to meet the replenishment obligation of the Desalters. Accordingly, a cumulative change in storage of up to 400,000 acre-feet greater than initially authorized by the original Judgment may result. However, the use of

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water pumped pursuant to Re-operation is subject to the following limitations:

(a) Future Desalter Groundwater Production Facilities. Future Desalter groundwater production facilities will emphasize Production from the southern end of the Basin.

(b) The Material Physical Injury. Controlled overdraft must not cause material physical injury to any Party or the Basin.

(c) Proposed Schedule. An initial schedule for Re-Operation, including annual and cumulative quantities to be pumped through Re-Operation will be developed. Watermaster may modify the proposed schedule from time to time as it may be prudent under the circumstances, but only after first obtaining Court approval.

(d) Annual Accounting. Watermaster will prepare an annual summary accounting of the cumulative total of groundwater production and desalting from all authorized desalters and other activities authorized by the Optimum Basin Management Program in a schedule that: (i) identifies the total change in groundwater storage that will result from the Re-Operation; and (ii) characterizes and accounts for all water that is projected to be produced by all authorized desalters.

(e) Recharge and Replenishment Compliance. Watermaster must be in substantial compliance with its then existing recharge and replenishment plans and obligations, and will make an annual finding whether or not it is in compliance.

(f) Replenishment. Groundwater produced by Desalters in connection with Re-Operation to achieve Hydraulic Control will be replenished through, inter alia, the water made available through controlled overdraft.

(g) Suspension. Re-Operation and Watermaster's apportionment of controlled overdraft will not be suspended in the event that Hydraulic Control is secured in any year *before* the full 400,000 acre-feet has been produced so long as: (i) Watermaster has prepared, adopted and the Court has approved a contingency plan that establishes conditions and protective measures to avoid Material Physical Injury and that equitably addresses this contingency, and (ii) Watermaster continues to demonstrate a credible material progress toward obtaining sufficient capacity to recharge sufficient quantities of water to cause the Basin to return to a new equilibrium at the conclusion of the Re-Operation.

(h) Definition of Desalters. "Desalters" means the Chino I Desalter, the Chino I Expansion, the Chino II Desalter and Future Desalters, consisting of all the capital facilities' and processes that remove salt from the Basin water, including extraction wells, transmission facilities for delivery of groundwater to the Desalter. Desalter treatment and delivery facilities for the desalted water include pumping and storage facilities and treatment and

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disposal capacity in the Santa Ana Regional Interceptor.

**PROGRAM ELEMENT 3 DEVELOP AND IMPLEMENT WATER SUPPLY  
PLAN FOR THE IMPAIRED AREAS OF THE BASIN. PROGRAM  
ELEMENT 5 DEVELOP AND IMPLEMENT REGIONAL  
SUPPLEMENTAL WATER PROGRAM**

Construction on the Chino I Desalter Expansion and the Chino II Desalter facilities was completed in February 2006 and an application has been made for \$1.6 M in Proposition 50 funds to add 8 MGD of ion exchange capacity to the Chino II Desalter. As currently configured, the Chino I Desalter provides 2.6 MGD of treated (air stripping for VOC removal) water from Wells Nos. 1-4, 4.9 MGD of treated (ion exchange for nitrate removal) water from Wells Nos. 5-15, and 6.7 MGD of treated (reverse osmosis for nitrate and TDS removal) water from Wells Nos. 5-15 for a total of 14.2 MGD (16,000 AFY). The Chino II Desalter provides 4.0 MGD of ion exchange treated water and 6.0 MGD of reverse osmosis treated water from 8 additional wells for a total of 10.0 MGD (11,000 AFY).

Consultants to the City of Ontario and Western Municipal Water District recently completed their evaluation of three alternative configurations for expansion of the Chino Desalters. Their results are presented in the report "Chino Desalter Phase 3 Alternatives Evaluation," dated May 2007. Essentially, they found that the preferred alternative would be to construct a 10.5 mgd (10,600 AFY) expansion to the existing Chino II Desalter, with raw water coming from the existing Wells Nos. 13, 14, and 15. A new Chino Creek Well Field, required for hydraulic control of the basin, would replace the raw water lost from the Wells Nos. 13, 14, and 15. Negotiations are currently underway between the City of Ontario, WMWD, and JCSD to determine capacity allocations and cost sharing for the new facilities.

**PROGRAM ELEMENT 4 DEVELOP AND IMPLEMENT COMPREHENSIVE  
GROUNDWATER MANAGEMENT PLAN FOR MANAGEMENT ZONE 1 (MZ1)**

The occurrence of subsidence and fissuring in Management Zone 1 is not acceptable and should be reduced to tolerable levels or abated. The OBMP calls for a management plan to reduce or abate the subsidence and fissuring problems to the extent that it may be caused by production in MZ1.

In October 2005, Watermaster completed the MZ-1 Summary Report, including the Guidance Criteria. Since then the impacted parties have had numerous meetings to transform the Summary Report into a Long-term Management Plan. The Summary Report and the Guidance Criteria

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were adopted by the Watermaster Board in May 2006, and the Long-term Management Plan was adopted in June 2007, was subsequently revised, and was submitted to the Court for approval at a hearing on November 15, 2007..

**PROGRAM ELEMENT 6 DEVELOP AND IMPLEMENT COOPERATIVE PROGRAMS WITH THE REGIONAL BOARD AND OTHER AGENCIES TO IMPROVE BASIN MANAGEMENT, and PROGRAM ELEMENT 7 SALT MANAGEMENT PROGRAM**

On going discussions are being held with the RWQCB and the San Bernardino County Department of Airports in order to determine the engineering solution and costs for remediating the TCE plume at the Chino Airport. The consulting engineer for the SBCDA is currently characterizing the extent of off-site contamination and investigating remedial alternatives. For the Ontario Airport (OIA) plume, the Potentially Responsible Parties (PRPs) have been working with Watermaster to quantify the depth and extent of the TCE plume. At the Stringfellow site, the consultants to DHS have been investigating whether the perchlorate plume from the site adds to the existing perchlorate levels in the Santa Ana River, or whether the perchlorate plume is diverted towards the Chino II Desalter well field. Lastly, Watermaster continues to monitor the activities of General Electric's (GE) remediation at the Flat Iron facility and their efforts to develop a new location for recharge of their treated effluent.

**MZ-3 Monitoring Program.**

The former Kaiser plume has been incorporated into an overall monitoring program for the MZ-3 area. The MZ-3 monitoring program is also assessing the groundwater quality impairment from total dissolved solids (TDS), nitrate, and perchlorate. Quarterly samples will now be collected from all 4 wells to help recharacterize the Kaiser plume.

**Ontario International Airport (OIA) Volatile Organic Chemical Plume.**

Watermaster has provided water quality, water level, and well construction data from more than 400 private wells and 200 public wells to the RWQCB, which in turn forwarded the database to the PRPs pursuant to their request. Subsequently the PRPs submitted their sampling work plan and health and safety plan for the well installation and sampling.

**Chino Airport VOC Plume.**

Watermaster met with the RWQCB, the San Bernardino County Department of Airports, and their consultant Tetra Tech on April 18, May 25, and June 26, 2007 to discuss a joint remediation of the VOC plume from the airport. Such a joint remediation would help address other issues in the southwestern portion of Chino Basin such as maintenance of hydraulic control and the provision of high quality drinking water in an area of increasing demand. As a result of these meetings, Watermaster agreed to provide a database containing well construction information, water quality, water levels, and production for wells located southwest of the Chino airport. In

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addition, Watermaster provided results from sampling all the wells in this location to provide up-to-date analytical data on all the possible contaminants in these wells. These data are being reviewed with Tetra Tech to begin the engineering of appropriate remedial actions.

**GE Flat Iron Remediation.**

Finally, with respect to the GE Flat Iron remediation, GE conducted a screening of options for the disposal of treated effluent from their operational pump and treat facilities. Currently, GE discharges their effluent into the Ely Basins, where it percolates back into the groundwater. However, this operation limits Watermaster's ability to recharge recycled water into the Ely Basins and, consequently, Watermaster has asked that GE develop alternative disposal means. As a result of their screening, GE has decided to investigate, in detail, the construction of groundwater injection wells that would be operated in conjunction with their own recharge basin. GE completed their planning in December 2006 and began detailed design based upon the RWQCB's approval of the concept.

**TDS and Nitrogen Monitoring Pursuant to the 2004 Basin Plan Amendment**

Pursuant to the 2004 Basin Plan Amendment and the Watermaster/IEUA permit to recharge recycled water, Watermaster and the IEUA have conducted and will continue to conduct groundwater and surface water monitoring programs. Quarterly HCMP reports that summarize data collection efforts will continue to be submitted to the RWQCB.

**PROGRAM ELEMENT 8 DEVELOP AND IMPLEMENT GROUNDWATER STORAGE MANAGEMENT PROGRAM, PROGRAM ELEMENT 9 DEVELOP AND IMPLEMENT STORAGE AND RECOVERY PROGRAMS**

Currently, there is only one groundwater storage program approved in the Chino Basin: the 100,000 acre-ft Dry-Year Yield Program with the Metropolitan Water District of Southern California (MWD). The MWD, IEUA, and Watermaster are considering expanding this program by an additional 50,000 acre-ft to 150,000 acre-ft over the next few years. Watermaster is also considering an additional 150,000 acre-ft in programs with non-party water agencies.

# **2/19/98 RULING APPOINTING NINE-MEMBER BOARD**



**COPY**

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San Bernardino County Clerk

**FEB 19 1998**

Wanda DeVinney

**SUPERIOR COURT OF THE STATE OF CALIFORNIA  
FOR THE COUNTY OF SAN BERNARDINO**

**CHINO BASIN MUNICIPAL  
WATER DISTRICT,**

Plaintiff,

vs.

**CITY OF CHINO, et al.,**

Defendants.

**CASE NO. RCV 51010**

**RULING**

Introduction

This is an adjudication of groundwater rights in the Chino Basin. For at least five years before the filing of the amended complaint in July 1976, the annual production from the Chino Basin had exceeded the safe yield, resulting in a continuous state of overdraft of the basin. Concern for the future of the basin prompted the filing of the original complaint in 1975. After three years of negotiations, judgment was entered on January 27, 1978. Chino Basin Municipal Water District was appointed "Watermaster" to administer and enforce the provisions of the judgment and any subsequent order of the Court (Judgment ¶ 16.)

Chino Basin Municipal Water District has served as Watermaster for the past twenty years. A motion is presently before the court to relieve the District of its Watermaster duties and substitute in its place a nine-member board. The motion was

1 precipitated, at least in part, by the District's action calling for a special audit of certain  
2 Watermaster administrative matters. The action was taken in contravention of an  
3 asserted "mandate" by the Advisory Committee, which prompted the motion for an order  
4 declaring that the cost of the audit (\$35,000) is not a "Watermaster" expense.

5 On April 29, 1997, the court issued an Order of Special Reference to receive a  
6 report and recommendation on these two motions from Anne J. Schneider, a recognized  
7 water law expert. The court requested Special Referee Schneider to consider and give  
8 an opinion on the meaning of Paragraph 38(b) of the Judgment and its relationship to  
9 Paragraph 41 of the Judgment. The court also requested Special Referee Schneider to  
10 consider the checks and balances contained in the 1978 Judgment and the advantages  
11 or disadvantages of a public entity watermaster versus a private entity watermaster. On  
12 December 12, 1997, Special Referee Schneider issued her Report and  
13 Recommendation. The court has considered the Report and Recommendation and  
14 hereby issues its ruling accepting the Report and adopting the Recommendation of Anne  
15 Schneider. The court hereby incorporates herein by reference the entirety of Special  
16 Referee Schneider's Report and Recommendation.

17 Motion to Appoint Nine-Member Board as Watermaster

18 Unless there are compelling reasons to the contrary, upon noticed motion the  
19 court must grant a request to change the Watermaster if the motion is supported by a  
20 majority of the voting power of the Advisory Committee. (Judgment, ¶16.) In other  
21 words, to deny such a motion, the court must find reasons that "force" or "compel" denial  
22 of the motion.

23 A review of the Judgment reveals that the Watermaster's function is to administer  
24 and enforce the provisions therein and subsequent instructions or orders of the court.  
25 (*Ibid.*) The Watermaster operates on the one hand as an administrator and on the other  
26 hand as an extension of the court. When functioning as an extension of the court the  
27 Watermaster acts as a steward of the groundwater resources in the Chino Basin. The  
28 Watermaster must protect the interests of the public as well as the interests of the

1 producers. Consequently, the Watermaster may find it necessary to take positions  
2 adverse to the Advisory Committee.

3 With respect to replacing the existing Watermaster, automatic rejection of the  
4 proposed change can only be based on one of two assumptions: (1) the status quo is  
5 perfect; or (2) the choice we face is between reform and no action at all; if the proposed  
6 reform is imperfect, we presumably should take no action at all, while we wait for a  
7 perfect proposal. But the real choice is between the nine-member board and the status  
8 quo. The court finds that the status quo Watermaster is imperfect and does not in and of  
9 itself warrant finding of a compelling reason. Absent a compelling reason, the court must  
10 appoint the nine-member board as Watermaster.

11 However, if the appointment of a nine-member board would permit the Advisory  
12 Committee to control the Watermaster; and/or deprive the Watermaster of its ability to  
13 administer the Judgment independently and objectively, surely it would be a compelling  
14 reason to deny the motion. Therefore, it is significant that the proposed nine-member  
15 board would include the following:

- 16 1. Three members selected by the Overlying Pools;
- 17 2. Three members selected by the Appropriative Pool; and
- 18 3. The remaining three members would be nonpumper water districts: (a) Chino  
19 Basin Municipal Water District, (b) Western Municipal Water District, and (c)  
20 Three Valleys Municipal Water District.

21 Thus, the majority of the board members would represent the interests of producers, but  
22 the court finds the proposed nine-member board to be the best of the alternatives  
23 considered by the court, and the court, in considering compelling reasons, did consider  
24 all forms of Watermaster listed on Exhibit "A" attached hereto and herein incorporated by  
25 reference.

26 Although there is no evidence that the pecuniary interests of the board members will  
27 control their voting, to ensure that the board is carrying out the function of the  
28 Watermaster, Special Referee Schneider recommends that the appointment of the nine-

1 member board be of a limited duration to determine whether or not it will function  
2 independently from the Advisory Committee. The court agrees with the recommendation  
3 and chooses to appoint the nine-member board as Interim Watermaster, with the  
4 limitations listed in the order below.

5 At the end of the interim appointment, if it appears to the court that the proposed  
6 nine-member board is unable to function as an independent extension of the court, the  
7 court ~~will~~<sup>may</sup> appoint the Department of Water Resources as Watermaster for a five-year  
8 appointment, as provided in the Judgment. The parties are hereby informed that one of  
9 the measures that will be used by the court in determining whether or not the Nine-  
10 member Board is able to function independently is the progress made on the adoption of  
11 an optimum basin management program, which is discussed *infra*.

12 **Order Appointing Nine-Member Board as Interim Watermaster**

13 The court hereby sets aside its previous order appointing the Department of Water  
14 Resources as Interim Watermaster and instead appoints the Nine-member Board as  
15 Interim Watermaster for a twenty-six-month period commencing March 1, 1998, and  
16 ending June 30, 2000. Thus, commencing March 1, 1998, the position of Chino Basin  
17 Watermaster shall be filled by a nine-member board selected and organized as  
18 follows:

19 The Nine-member Watermaster Board shall consist of (1) two members from the  
20 Overlying (Agricultural) Pool appointed by the Overlying (Agricultural) Pool; (2) one  
21 member from the Overlying (Non- Agricultural) Pool appointed by the Overlying (Non-  
22 Agricultural) Pool; (3) three members from the Appropriative Pool appointed by the  
23 Appropriative Pool; (4) one member appointed by the Board of Three Valleys  
24 Municipal Water District; (5) one member appointed by the Board of Western  
25 Municipal Water District; and (6) one member appointed by the Board of Chino Basin  
26 Municipal Water District. The members of the Watermaster Board will vote on a one-  
27 person, one-vote basis.

28 //

1        If one of the three municipal water districts elects not to serve on the Nine-  
2 member Watermaster Board, a representative from the State of California will be  
3 seated in its place. Any member of the Appropriative Pool which owns or has a  
4 controlling interest in another member of the Appropriative Pool will not be allowed to  
5 serve concurrently with said other member of the Appropriative Pool on the  
6 Watermaster Board.

7        No individual will be allowed to serve concurrently on the Watermaster Board  
8 while serving as a member of the Advisory Committee and/or the respective Pool  
9 Committee, with the exception of representatives from the Overlying (Non-Agricultural)  
10 Pool. This shall not prevent the same member agency or entity with a representative  
11 on the Chino Basin Advisory Committee from appointing a different representative to  
12 the Watermaster Board. Additionally, participating agencies with governing bodies are  
13 strongly encouraged to have elected officials serve as their representative on the  
14 Watermaster Board.

15        Except as to members of the first Watermaster Board, Watermaster Board  
16 members shall serve staggered three-year terms. The appointments by the Municipal  
17 Water District boards, the Appropriative Pool and the Overlying (Non-Agricultural) Pool  
18 shall be made on a rotating basis with all members afforded an equal opportunity to  
19 serve. Appointments by the Overlying (Agricultural) Pool shall be rotated among  
20 categories of agricultural producers with each category of producers having an equal  
21 opportunity to serve. The State of California shall be included as one of the categories  
22 of producers rotating from the Overlying (Agricultural) Pool, unless the State of  
23 California is currently serving in a vacant municipal water district position.

24        Except as otherwise provided in this paragraph, the first Nine-member  
25 Watermaster Board shall serve until June 30, 2000. Assuming the Nine-member  
26 Board in the future is appointed Watermaster for a full five-year term, then the  
27 following actions shall be performed: At least 60 days prior to June 30, 2000, the  
28 Appropriative Pool shall extend the term of one of its then current Watermaster Board

1 representatives to June 30, 2001, and shall extend the term of another of its then  
2 current Watermaster Board representatives to June 30, 2002. At least 60 days prior to  
3 June 30, 2000, the Overlying (Agricultural) Pool and the Overlying (Non-Agricultural)  
4 Pool shall jointly extend the term of one of the three then-current Watermaster Board  
5 representatives of the two pools to June 30, 2001, and shall extend the term of  
6 another of the three then-current Watermaster Board representatives of the two pools  
7 to June 30, 2002. At least 60 days prior to June 30, 2000, the three Municipal Water  
8 Districts shall jointly extend the term of one of the three then-current Watermaster  
9 Board representatives of those three districts to June 30, 2001, and shall extend the  
10 term of another of the three then-current Watermaster Board representatives of those  
11 three districts to June 30, 2002.

12 The court hereby orders the Chief of Watermaster Services to file the names  
13 of the representatives, including any alternates thereto, with the court and to serve a  
14 copy of the names of the representatives and any such alternates on the active parties  
15 by not later than March 15, 1998. The Chief of Watermaster Services is encouraged  
16 to provide the same information to the public through print and electronic media.  
17 (See discussion *infra* concerning Watermaster's use of the Internet.)

18 Should any member of the Watermaster Board resign therefrom, become  
19 ineligible to serve thereon, or lack the mental or physical capacity to serve thereon, as  
20 determined by the court, the appointing authority shall appoint a replacement member  
21 of the Watermaster Board to serve through the unexpired period of the term of the  
22 replaced member.

23 The current Watermaster, Chino Basin Municipal Water District, is hereby  
24 ordered to take all steps necessary and proper to ensure a smooth and orderly  
25 transition to the new Watermaster Board including, but not limited to, any required  
26 actions, resolutions and/or agreements which will transition all of the present  
27 Watermaster staff members from their status as Chino Basin Municipal Water District  
28 employees to their status as employees of the Watermaster while maintaining all of

1 their employment credits and benefit programs. Not later than March 15, 1998, the  
2 Chief of Watermaster Services shall file with the court a list of the names of all  
3 Watermaster employees and their respective positions.

4 The Watermaster shall notice a hearing to occur on or before October 28, 1999,  
5 to consider all parties' input as to the continuance of the nine-member board as  
6 Watermaster after June 30, 2000. To ensure that the California Department of Water  
7 Resources is in a position to assume the duties of Watermaster at the end of the interim  
8 appointment, the court directs the parties to resume negotiations with the Department  
9 related to its takeover of Watermaster operations, should the nine-member board fail to  
10 operate independently and effectively. The Interim Watermaster shall notice a hearing no  
11 later than September 30, 1999, to report on the status of negotiations. The court further  
12 orders that, without prior court approval, the Interim Watermaster shall not enter into any  
13 agreement that the Department of Water Resources will be obligated to assume, which  
14 means no contracts signed from this day forward wherein payment and/or performance  
15 of any kind whatsoever will be after June 30, 2000. The current Watermaster employees  
16 are hereby advised that if the court appoints the California Department of Water  
17 Resources as Watermaster at the end of the interim appointment, their positions will  
18 terminate on June 30, 2000, without further order of the court. Further, the Department of  
19 Water Resources will not be required to hire current Watermaster employees upon its  
20 appointment; rather, current Watermaster employees may be rehired at the discretion of  
21 the Department and on such terms as the California Department of Water Resources  
22 deems appropriate. Finally, the California Department of Water Resources should be  
23 added to the parties' mailing list to ensure that the Department receives notice of all  
24 proceedings.

25 It should be apparent that timely filing of all reports with the court and  
26 development of an optimum basin management program are of significant interest to the  
27 court in the continuation of the nine-member board as Watermaster. The court is very  
28 aware that the parties hereto desire local control of the Watermaster function, and the

1 court has no desire to transfer control from the nine-member board provided that  
2 Watermaster professionally performs its responsibilities under the judgment.<sup>1</sup>

3 Motion to Determine Audit Expense was not a Watermaster Expense

4 Special Referee Schneider found that the special audit was ordered in response  
5 to (1) substantial increases in Watermaster's annual budget expenditures, (2) allegations  
6 of fraud or theft (even though the audit itself did not address theft), and (3) recognition  
7 that the District had lost control of the Watermaster services staff. In addition, one of the  
8 purposes of the audit was to advise the District board members of the activities occurring  
9 at the Watermaster staff level. Special Referee Schneider further found that the special  
10 audit does not fit within the definition in the Judgment of a discretionary act, nor does it  
11 fall into the category of things subject to Advisory Committee recommendation or  
12 approval. The court hereby adopts the findings of Special Referee Schneider along with  
13 the recommendation that the court determine that the special audit was made in the  
14 general course of Watermaster business; therefore, it is a proper Watermaster expense.

15 Court Monitoring of Optimum Basin Management Program

16 The judgment grants to the Watermaster discretionary powers to develop an  
17 optimum basin management program for Chino Basin, which is to include both water  
18 quantity and water quality considerations. Special Referee Schneider discovered that the  
19 current Watermaster has not completed an optimum basin management program,  
20 despite Judge Turner's recommendation in 1989 that the plan be completed within two

21 //

22 //

23 \_\_\_\_\_  
24 <sup>1</sup> However, one is reminded of the passage in "The tragedy of the commons Revisited" by Beryl Crowe (1969) with  
25 reference to administrators of the commons: "... one writer postulated a common life cycle for all attempts to  
26 develop regulatory bodies. The life cycle is launched by an outcry so widespread and demanding that it generates  
27 enough political force to bring about establishment of a regulatory agency to insure the equitable, just, and rational  
28 distribution of the advantages among all holders of interest in the commons. This phase is followed by the symbolic  
reassurance of the offended as the agency goes into operation, developing a period of political quiescence among  
the great majority of those who hold a general but unorganized interest in the commons. Once this political  
quiescence has developed, the highly organized and specifically interested groups who wish to make incursions  
into the commons bring sufficient pressure to bear through other political processes to convert the agency to the  
protection and furthering of their interests. In the last phase even staffing of the regulating agency is accomplished  
by drawing the agency administrators from the ranks, of the regulated." Reprinted in "Managing the Commons" by  
Garrett Hardin and John Baden. W.H. Freeman, 1977.



1 years and despite the fact that the water quality in the basin has deteriorated in recent  
2 years.

3 The Chino Basin Water Resources Management Task Force issued its report in  
4 1995, which has been identified as the initial step in the development of a management  
5 plan for the basin. (Chino Basin Water Resources Management Task Force, Chino Basin  
6 Water Resources Management Study Final Summary Report (September, 1995),  
7 hereinafter "the task force report".) Special Referee Schneider recommends that as part  
8 of the court's continuing jurisdiction and obligation to oversee, control, and direct the  
9 Watermaster, the court appoint an independent person to take a look at the work that's  
10 been done on the program to date, to determine what remains to be accomplished, and  
11 to make a complete report to the court.

12 Anne J. Schneider hereby is appointed as the court's Special Referee to report  
13 and make recommendations to the court concerning the contents, implementation,  
14 effectiveness, and shortcomings of the optimum basin management plan. Further, Joe  
15 Scalmanini hereby is appointed to provide Anne J. Schneider with technical assistance  
16 as required by Ms. Schneider to provide said report and recommendations.

17 **Order Concerning Development of Optimum Basin Management Program**

18 The court hereby makes the following orders related to the development of an  
19 optimum basin management program, which encompasses the implementation plan  
20 elements identified in the task force report and at the recent hearing conducted by  
21 Special Referee Schneider.

22 On or before June 1, 1998, each party to this action desiring to do so shall  
23 submit recommendations to the Watermaster as to the scope and level of detail of the  
24 optimum basin program. On or before June 30, 1998, the Watermaster, having first  
25 provided a copy of the scope and level of detail plan to the Advisory Committee for its  
26 review and/or action, shall file with the court its written recommendation as to the  
27 scope and level of detail of the program, together with a duly noticed motion seeking  
28 court approval of said recommendation. Special Referee Schneider shall review the

1 Watermaster's recommendations for technical and legal sufficiency, using Joe  
2 Scalmanini as a consultant on technical issues, if necessary, and make a progress  
3 report to the court by July 30, 1998. Special Referee Schneider and Mr. Scalmanini  
4 are cautioned not to duplicate the work completed by the task force in making their  
5 report to the court; but instead, supplement and modify the previous work where  
6 appropriate. Hopefully, the aforementioned procedure will enhance and elucidate  
7 work already performed, and, at the same time, save money.

8 The court further orders the Watermaster to develop an optimum basin  
9 management program, which encompasses the elements of the implementation  
10 program recommended by the task force and the implementation elements discussed  
11 at the recent hearing conducted by Special Referee Schneider. The Watermaster, in  
12 consultation with Special Referee Schneider, is to make quarterly progress reports to  
13 the court. The Special Referee is authorized to conduct hearings, if necessary, to  
14 ensure the development of all essential elements of the program. The Watermaster is  
15 to submit the optimum basin management program first to the Advisory Committee for  
16 review and/or action, then to the court no later than September 30, 1999, or show  
17 cause why it cannot do so. Thereafter, the court will hold a hearing on October 28,  
18 1999, at 1:30 p.m. to consider whether to approve and order full implementation of the  
19 program or consider why the program has not been completed.

20 Finally, in order to facilitate greater communication with the public, in addition to  
21 notices required in newspapers of general circulation, Watermaster shall have installed  
22 and maintained a so-called "web site" or such new Internet technologies as may be  
23 equal to or better than the World Wide Web, similar to those established by the Main  
24 San Gabriel Basin Watermaster and the Mojave Basin Area Watermaster, and keep it  
25 up-to-date with notice of meetings, agenda items, minutes of meetings, and such other  
26 items and such other information as Watermaster deems appropriate to inform the

27 //

28 //

1 public of Watermaster's functions.<sup>2</sup> The public has a right to know if, as previously  
2 alleged, some board members are routinely absent from meetings, and a web page  
3 with minutes of the meetings, among other things, seems an appropriate means of  
4 communication with the public in order to keep them informed on Watermaster issues.

5 Guidelines for Watermaster and Advisory Committee

6 To provide guidance to the parties, Special Referee Schneider determined it is  
7 necessary for the court to provide an outline of the roles of the Watermaster and  
8 Advisory Committee. As noted in the Special Referee's Report and Recommendation,  
9 routine administrative functions of the Watermaster are performed independently, without  
10 review by the Advisory Committee. The Watermaster may acquire facilities and  
11 equipment (subject to certain limitations delineated in the Judgment<sup>3</sup>), may employ  
12 administrative, engineering, legal or other specialized personnel and consultants as it  
13 deems appropriate, may borrow money, and may enter into contracts for the  
14 performance of any powers granted in the Judgment. On the other hand, many  
15 Watermaster actions are subject to the approval of the Advisory Committee. For  
16 example, the Watermaster's annual budget is subject to Advisory Committee approval,  
17 the Watermaster's rules and regulations may only be adopted upon recommendation by  
18 the Advisory Committee, and the Watermaster may act jointly or in cooperation with State  
19 or Federal agencies to carry out the physical solution only upon recommendation or  
20 approval of the Advisory Committee. For further guidance as to the respective roles of  
21 the Watermaster and the Advisory Committee, the parties are directed to Part III of  
22 Special Referee Schneider's Report and Recommendation entitled "Watermaster Roles  
23 and Review of Watermaster Actions", found on pages 10 through 22, which is hereby

24 //

25 //

26 <sup>2</sup> Initial installation of a web site cost one local attorney less than five hundred dollars, and maintenance or training  
27 of employees for updates costs approximately thirty-five dollars per hour. It would have been inappropriate for the  
28 court to have contacted any water agencies regarding their costs; hence, the above-listed costs are only  
informational, not limitations, but, clearly a multi-year contract is not warranted under the circumstances of the  
interim appointment discussed herein.

<sup>3</sup> Your attention is called to the special audit's findings regarding facilities and computer service contracts, among  
other things.

1 adopted and approved by the court and incorporated herein by this reference.

2 Conclusion

3 The court does not presage a future intention to replace the nine-member board  
4 with any other form of watermaster. On the contrary, if this court were not confident in  
5 the ability of the Nine-member Board Watermaster to effectuate the intent of the  
6 judgment, other conditions would have been imposed or another form of watermaster  
7 would have been appointed. At the present time, this court is of the opinion that the  
8 conditions of the appointment will insure the success and future five-year appointment  
9 of the Nine-Member Board as Watermaster. However, this court is of the opinion that  
10 some follow-up dates are necessary to vitiate the possibility of repeating the history of  
11 missed filing dates<sup>4</sup> and asserted inadequate management by Watermaster. None of  
12 us wants the past to be prologue.

13 There was a request for benefit and salary increases. The court is of the opinion  
14 that the Nine-member Board Watermaster should examine these requests in its initial  
15 thorough review of the entire Watermaster budget. The court is not opposed to wage  
16 and benefit increases if the Nine-member Watermaster Board deems an increase in  
17 either or both of these categories appropriate, assuming Watermaster first sends its  
18 proposed budget to the Advisory Committee and Advisory Committee has no  
19 objection. Additionally, there was expressed some concern that the employees were  
20 worried about their future employment. As you may recall, at the outset of this court's  
21 handling of this case, all parties were warned not to fire employees out of spite or for  
22 tactical reasons, because the employees were real people with real families to feed,  
23 although the employees could be terminated for legitimate reasons. Additionally,  
24 without voicing it, the court was of the opinion that most, if not all, employees could be  
25 utilized by whatever form the Watermaster became. Some may have misconstrued  
26 this as permanent judicial protection of employees beyond what law and decency  
27 //

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<sup>4</sup> There was a nunc pro tunc order necessary to confirm the activities of Watermaster after its previous appointment expired, and yearly reports have been tardy.

1 require. This was not, nor is it the court's intention.<sup>5</sup> The court does expect  
2 Watermaster to have a social conscience, but most people have no more protection  
3 than law and decency require, and Watermaster employees should be no different.  
4 Watermaster employees should realize that their best efforts are necessary to ensure  
5 the quality and quantity of water in the Chino Basin. If an employee cannot perform  
6 his or her duties, then the people dependent on the quality and quantity of water suffer;  
7 moreover, the continued existence of the Nine-member Board Watermaster is  
8 jeopardized. It should be remembered that June 30, 2000, no-Board, no-job-  
9 expectation. This is meant to be neither a flip statement nor a threat. It is meant to be  
10 fair warning; the same concern, albeit a different vein, that the court had when it  
11 conditioned the appointment of the California Department of Water Resources on  
12 negotiation by the Advisory Board and the CBMWD. At the previous hearing when  
13 asked why the negotiating parties were appointed, the attorneys were informed that  
14 there were employees to consider, and there still are employees to consider, but the  
15 employees interests have to be balanced against the greater good for all the people  
16 affected by the judgment. So far, the employee's interests have prevailed, but at the  
17 end of June 2000, the outcome could be different.

18 It should be mentioned that this court has been impressed with the  
19 professionalism displayed recently by the attorneys involved in this litigation. When  
20 this case initially came to my court, the level of vitriol was far more than was evident in  
21 a reading of the transcript of the hearing held with the Special Referee. Furthermore,  
22 although the attorneys have been very professional throughout these proceedings, it  
23 seems as though the level of vitriol at recent hearings in court has subsided to an  
24 imperceptible level, and the accelerated progress toward resolution of this case is  
25 impressive. Thank you. Also, I want to thank all of the people, Gene Koopman,  
26 among others, whose large presence, concern, and commitment did not go unnoticed  
27 or unappreciated at the hearings in this matter.

28 //

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<sup>5</sup> Although the attorneys correctly interpreted my comments to mean err, if at all, on the side of restraint during the period of litigation

1       The Special Referee alluded to "the tragedy of the commons." Assuming she  
2 meant to allude to Garrett Hardin's 1968 essay, "The Tragedy of the Commons,"<sup>6</sup> it is  
3 hoped that the appointment of the new Nine-member Board as Watermaster will result  
4 in the triumph of the commons. The people of this area deserve it. Good Luck.

5  
6 **DATED:** FEB 19 1998

J. Michael Gunn

**J. MICHAEL GUNN, Judge**

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28 <sup>6</sup> The article appeared in Science 162:1243-1248, December 13, 1968. The "commons" refers to the common resources that are owned or controlled by everyone or everyone in a subset having control of the common resource. The tragedy occurs when everyone has the freedom to exploit the commons, resulting in the destruction of the commons. The intent of the exploiter is irrelevant. A political solution, although problematical, is the only way to potentially save the commons, all must agree to conserve the commons.

# EXHIBIT "A"

## Adjudicated Basins and Watermasters in California

Court Name	Final Decision	Watermaster	Location
Central Basin	1965	Dept. of Water Resources -- Southern District	Los Angeles County
Chino Basin	1978	Five people, Chino Basin Municipal Water District	San Bernardino County
Cucamonga Basin	--	Not yet appointed; operated as part of Chino Basin	San Bernardino County
Cummings Basin	1972	Tehachapi-Cummings County Water District	Kern County
Main San Gabriel Basin	1973	Nine-member board nominated by water purveyors and water districts, appointed by Superior Court.	Los Angeles County
Mojave Water Agency	1996	Mojave Water Agency	San Bernardino County
Puente	1985	Three consultants	Los Angeles County
Raymond Basin	1944	Raymond Basin Management Board	Los Angeles County
San Bernardino Basin Area	1969	One representative each from Western Municipal Water District and San Bernardino Valley Municipal Water District	San Bernardino and Riverside Counties
Santa Margarita River Watershed	1966	U.S. District Court appointee	San Diego and Riverside Counties
Santa Paula Basin	1996	Three-person Technical Advisory Committee from United Water CD, City of Ventura, and Santa Paula Basin Pumpers Association	Ventura County
Scott River Stream System	1980	Two local irrigation districts	Siskiyou County
Upper Los Angeles River Area	1979	An individual hydrologist appointed by the Superior Court	Los Angeles County
Warren Valley Basin	1977	Hi-Desert Water District	San Bernardino County
West Coast Basin	1961	Dept. of Water Resources -- Southern District	Los Angeles County

Source: Calif. Dept. of Water Resources *Water Facts*, Number 3, Jan. 1996.

[http://www.agwa.org/adjud\\_basins.html](http://www.agwa.org/adjud_basins.html)

# TIMELINE

MAR. 1, 1998	MAR. 15, 1998	JUNE 1, 1998	JUNE 30, 1998	JULY 30, 1998	SEPT. 30, 1999	SEPT. 30, 1999 1:30 P.M.	OCT. 28, 1999 1:30 P.M.	JUNE 30, 2000
Interim Appointment Begins (Nine-member Board begins)	Names of Board Members and Employees filed with court	Scoping Recommendation filed with Watermaster.	Scoping Recommendation filed with court	Referee's Recommendation filed with court	OMBP filed with court	OSC Re: Status of Negotiations with Department of Water Resources.	OSC Re: Adoption and Implementation of OMBP & Continuance of Nine-member board	End of Interim Appointment (End of Nine-member Interim Water-master Board)





	<u>REPRESENTATIVES</u>	<u>ENTITIES</u>	<u>PERSONS</u>
1			
2	Over-lying (Non-	CSI	Steve Arbelbide
3	Agricultural) Pool		
4	Overlying (Agricultural) Vineyards		Paul Hofer
5	Pool		
6		Dairies	Geoffrey Vanden Heuvel
7	Appropriative Pool	Cucamonga County	Robert Neufeld
8		Water District	(Regular)
9			Jerome Wilson
10			(Alternate)
11		Monte Vista Water	Josephine Johnson
12		District	(Regular)
13			William C. Walker
14			(Alternate)
15		City of Ontario	Gus James Skropos
16			(Regular)
17			Gerald A. DuBois
18			(Alternate)
19	Municipal Water	Chino Basin	John L. Anderson
20	Districts	Municipal Water	(Regular)
21		District	Terry Catlin
22			(Alternate)
23		Three Valleys	A. A. Krueger
24		Municipal Water	(Regular)
25		District	
26		Western Municipal	Donald Schroeder
27		Water District	(Regular)
28			Donald Harriger
			(Alternate)
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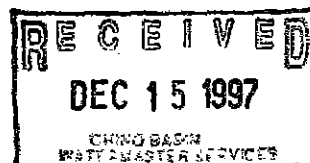
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Respectfully submitted,  
  
RICHARDS, WATSON & GERSHON,  
Attorneys for Chino Basin  
Watermaster Advisory Committee

Dated: February 23, 1996 By James L. Markman  
James L. Markman

SCHNEIDER  
RE APPT  
COURT DOCS.

SUPERIOR COURT OF THE STATE OF CALIFORNIA  
IN AND FOR THE COUNTY OF SAN BERNARDINO  
WEST DISTRICT



CHINO BASIN MUNICIPAL WATER DISTRICT,

Plaintiff

v.

CITY OF CHINO, et al.,

Defendants.

Case No. RCV 51010  
(Specially Assigned to the Honorable J.  
Michael Gunn)

REPORT AND RECOMMENDATION  
OF SPECIAL REFEREE TO COURT  
REGARDING: (1) MOTION FOR  
ORDER THAT AUDIT  
COMMISSIONED BY  
WATERMASTER IS NOT A  
WATERMASTER EXPENSE, AND  
(2) MOTION TO APPOINT A NINE-  
MEMBER WATERMASTER BOARD

ENTIRE DOCUMENT IS AVAILABLE UPON  
REQUEST AND/OR ON WEBSITE.  
PAGES 10-22 ARE REFERENCED IN THE  
2/19/1998 RULING APPOINTING NINE-MEMBER  
BOARD, AND ARE ATTACHED.

1 additional court oversight and guidance. Mr. Kidman, representing opposing parties, stated:

2        Could it work? Possibly. You asked that. I think so. It could work. The best way  
3        to make sure it worked is to make sure that we have an order that does outline what  
4        the really essential functions of the watermaster will be and specifically charges  
5        whoever is appointed to carry them out and establishes report-back procedures,  
6        opportunities where those that may disagree that everything is just fine have the ability  
7        to come in and . . . make sure their position is heard as to whether or not everything  
8        is going just fine.

9 (TR at 141:11-21.)

10        Finally, opposing parties did not provide an alternative at the hearing.<sup>7</sup> (TR at 139:16 to  
11        141:21.) Given the proposed composition of the nine-member board and the concerns raised by  
12        parties in opposition to the appointment, it seems prudent and necessary to provide a gauge upon  
13        which this Court can determine whether the nine-member board is properly carrying out its  
14        Watermaster roles in the event the Court grants the motion.

### 15 **III. WATERMASTER ROLES AND REVIEW OF WATERMASTER ACTIONS**

#### 16 **A. Introduction**

17        There are four general categories of Watermaster actions identified in the Judgment: There  
18        are Watermaster functions to administer the Physical Solution and to serve the Court in that regard;  
19        there is one action under Paragraph 41 explicitly identified as “discretionary”; there are numerous  
20        actions which the Watermaster is directed to take upon recommendation or advice of the Advisory  
21        Committee or with Advisory Committee approval; and there are all other actions which do not fall  
22        within one of these three categories. These categories are important for purposes of determining  
23        which processes provided in the Judgment for review of Watermaster actions apply to a particular  
24        action. There are two Court review processes available: Paragraph 31 provides for review by the  
25        Court of all Watermaster actions, decisions, or rules; and Paragraph 15 provides for motions to the  
26        Court for “further or supplemental orders or directions” or to “modify, amend or amplify” the  
27        Judgment. There are also two procedural routes, discussed *infra*, that provide for Advisory  
28        \_\_\_\_\_

29        <sup>7</sup>There has been some suggestion in the briefing and in closing remarks during the hearing that  
30        a five-member board consisting of two members from CBMWD, one from Three Valleys Municipal  
31        Water District, one from Western Municipal Water District, and one from some other entity such as  
32        DWR should be considered. (TR at 144:18-23.) This suggestion is incomplete and would require  
33        additional consideration by the parties which may further delay appointment of a new Watermaster.

1 Committee review and can lead to Court review: the Paragraph 38(b), 38(b)[2], 38(c) process; and  
2 the 38(b)[1], 38(c) process.

3 By analyzing the Judgment in terms of these categories of Watermaster action and avenues  
4 of review, it is possible to assess how appropriately to handle issues not explicitly covered by the  
5 Judgment, such as the special audit costs. In the case of the special audit, that action of the  
6 Watermaster to incur the expense is not an action to carry out the Physical Solution, does not fall  
7 within the explicit "discretionary" category, and is not covered by any provision explicitly requiring  
8 Advisory Committee recommendation or approval; therefore, it is within the "other action" category.  
9 As such, it is reviewable by the Court upon a Paragraph 31 motion, it does not fall within the purview  
10 of Paragraph 38(b), or the Subparagraph 38(b)[1] Advisory Committee mandate process, and does  
11 not require further order of the Court or any change in the Judgment such as the Paragraph 15  
12 process would provide.

13 **B. The Watermaster Has Duties and Powers to Administer and Enforce the**  
14 **Provisions of the Judgment and, Pursuant to the Judgment and Further**  
**Direction of the Court, to Administer and Implement the Physical Solution**

15 The Watermaster is appointed "to administer and enforce the provisions of this Judgment and  
16 any subsequent instructions or orders of the Court hereafter." (Judgment at ¶ 16.) The  
17 Watermaster's powers and duties are defined explicitly and exclusively with relationship to the Court,  
18 not the Advisory or Pool Committees:

19 **17. Powers and Duties.** Subject to the continuing supervision and control of the  
20 Court, Watermaster shall have and may exercise the express powers, and shall  
21 perform the duties, as provided in this Judgment or hereafter ordered or authorized  
by the Court in the exercise of the Court's continuing jurisdiction.

22 This special relationship between the Court and Watermaster is most fully described in the  
23 Physical Solution provisions of the Judgment and provisions related to carrying out the Physical  
24 Solution. The Court expressly:

- 25 • Adopted an order to parties "to comply with the Physical Solution." (Judgment at  
26 ¶ 39.)
- 27 • Appointed the Watermaster "to administer and enforce" the Judgment. (Judgment at  
28 ¶ 60.)

1 Under the Judgment, the Watermaster's duties and powers that are subject to the Court's  
2 continuing jurisdiction (Judgment at ¶ 17) are extensive:

- 3 • The Watermaster can seek Court review by motion requesting the Court under its  
4 continuing jurisdiction to "... make such further or supplemental orders or directions  
5 as may be necessary or appropriate for interpretation, enforcement or carrying out of  
6 this Judgment, and to modify, amend or amplify any of the provisions of this  
7 Judgment." (Judgment at ¶ 15.)
- 8 • Subject to that continuing supervision and control of the Court, "... Watermaster  
9 shall have and may exercise the express powers, and shall perform the duties, as  
10 provided in this Judgment or hereafter ordered or authorized by the Court in the  
11 exercise of the Court's continuing jurisdiction." (Judgment at ¶ 17.)
- 12 • The Watermaster is to be assisted in performing its functions under the Judgment by  
13 pool Committees, representing the pools created under the Physical Solution, and the  
14 Advisory Committee. (Judgment at ¶ 32.)
- 15 • The purpose of the Physical Solution provisions "... is to establish a legal and  
16 practical means for making the maximum reasonable beneficial use of the waters of  
17 Chino Basin by providing the optimum economic, long-term, conjunctive utilization  
18 of surface waters, ground waters and supplemental water, to meet the requirements  
19 of water users having rights in or dependent upon Chino Basin." (Judgment at ¶ 39.)  
20 Maximizing the beneficial use of Chino Basin waters makes it "essential that this  
21 Physical Solution provide maximum flexibility and adaptability in order that  
22 Watermaster and the Court may be free to use existing and future technological,  
23 social, institutional and economic options ..." (Judgment at ¶ 40.)
- 24 • Groundwater "... reservoir capacity utilization for storage and conjunctive use of  
25 supplemental water [must] be undertaken only under Watermaster control and  
26 regulation, in order to protect the integrity of both such Stored Water and Basin  
27 Water in storage and the Safe Yield of Chino Basin." (Judgment at ¶ 11.)<sup>8</sup>
- 28 • With Advisory and Pool Committee advice and assistance, the Watermaster is to  
establish the procedures and administer the withdrawal and supplemental water  
replenishment of basin water as required to accomplish "full utilization of the water

21 <sup>8</sup>The Judgment enjoins storage or withdrawal of stored water "except pursuant to the terms  
22 of a written agreement with Watermaster and [that] is [in] accordance with Watermaster regulations."  
23 (Judgment ¶ 14.) The Court must first approve, by written order, the Watermaster's execution of  
24 "Ground Water Storage Agreements." (Judgment ¶ 28.) The Advisory Committee's role is limited  
25 to giving its approval before the Watermaster can adopt "uniformly applicable rules and a standard  
26 form of agreement for storage of supplemental water." (*Id.*) However, groundwater storage rules  
27 and the standard form of agreement must be "uniformly applicable", which intrinsically leaves to the  
28 Watermaster the decision to execute agreements and, ultimately, to the Court (and notably not the  
Advisory Committee) the authority to approve those agreements. The Judgment's injunction against  
unauthorized production (Judgment ¶ 13) and injunction against unauthorized storage or withdrawal  
of stored water (Judgment ¶ 14) are integral parts of the Judgment's Physical Solution, and the  
requirement for direct Court approval of Watermaster storage agreements is another manifestation  
of the Watermaster's and Court's special relationship.

resources of Chino Basin," which encompasses preservation of both the water quantity and quality of basin resources. (Judgment at ¶ 41.)

- Watermaster is required to undertake socioeconomic impact studies of the assessment formula (set forth in Exhibit H to the Judgment) and its possible modification for the appropriator pool no later than ten years from the "effective date of this Physical Solution." (Judgment at Exhibit H, ¶ 8.)<sup>9</sup>

Exhibit I to the Judgment, the "Engineering Appendix," sets forth the parameters the Watermaster "shall consider . . . in the process of implementing the physical solution for Chino Basin":

1. Basin Management Parameters. In the process of implementing the physical solution for Chino Basin, Watermaster shall consider the following parameters:

(a) Pumping Patterns. Chino Basin is a common supply for all persons and agencies utilizing its waters. It is an objective in management of the Basin's waters that no producer be deprived of access to said waters by reason of unreasonable pumping patterns, nor by regional or localized recharge of replenishment water, insofar as such result may be practically avoided.

(b) Water Quality. Maintenance and improvement of water quality is a prime consideration and function of management decisions by Watermaster.

(c) Economic Considerations. Financial feasibility, economic impact and the cost and optimum utilization of the Basin's resources and the physical facilities of the parties are objectives and concerns equal in importance to water quantity and quality parameters.

(Judgment at Exh. I, ¶ 1.)

The Watermaster's special relationship to the Court in carrying out the Physical Solution also was discussed at the hearing. The parties during the hearing described the Watermaster as an "arm of the Court" and as such can take matters to the Court, funded by all the producers, to address anything that may alarm the Watermaster. (TR at 40:11-21.) This role is described as being separate from the ministerial or day-to-day activities of the Watermaster. (TR at 75:1-15.) This role is further described as one of a public advocate, to ensure independent review of what is occurring in the basin. (TR at 81:10-15.) When asked whether the role of the Watermaster was to be a "steward of a basin resource including water quality," the response was "yes", including that the Watermaster should

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<sup>9</sup>We do not have information on whether this Watermaster task has been accomplished, but the 15 percent/85 percent assessment formula appears not to have been changed. (TR at 29:22-25.)



1 ensure that there is not a waste or unreasonable use of basin water. (TR at 83-84.) Accordingly, the  
2 parties agree that the Watermaster is a steward of Chino Basin groundwater resources and this role  
3 may involve taking positions adverse to the Advisory Committee. (See TR at 110-111.)

4 **C. Only One Watermaster Function Is Explicitly Identified as "Discretionary," to**  
5 **"Develop an Optimum Basin Management Program" for the Chino Basin**

6 Although there is reference in Subparagraph 38(b)[2] to "any discretionary action" of  
7 Watermaster, there in fact is only one area in which the Watermaster is explicitly granted  
8 "discretionary powers" under the Judgment, and that is to develop an Optimum Basin Management  
9 Program. (Judgment at ¶ 41.)

10 The "any discretionary action" phrase in Subparagraph 38(b)[2] implies that there are  
11 Watermaster actions in addition to development of the Optimum Basin Management Program that  
12 are also "discretionary actions." The "any discretionary [Watermaster] action" phrase in  
13 Subparagraph 38(b)[2] appears to serve as a "catch-all" provision, intended to ensure that the  
14 Advisory Committee will have notice if the Watermaster ever proposes to take an action which has  
15 "slipped through the cracks" and is not otherwise expressly subject to Advisory Committee or Pool  
16 Committee review. Paragraph 40 raises the prospect of the Watermaster taking an action which  
17 could be described as "any discretionary action":

18 40. Need for Flexibility. It is essential that this Physical Solution provide maximum  
19 flexibility and adaptability in order that Watermaster and the Court may be free to use  
20 existing and future technological, social, institutional and economic options, in order  
21 to maximize beneficial use of the waters of Chino Basin. To that end, the Court's  
retained jurisdiction will be utilized, where appropriate, to supplement the discretion  
herein granted to the Watermaster.

22 The Court might "supplement the [Watermaster's] discretion" under Paragraph 40, and leave to the  
23 Watermaster the decision as to how to exercise that supplemental discretion. Any "discretionary  
24 action" the Watermaster might take in that context would be subject to the Paragraph 38(b)[2]  
25 process. Other than when the Court might supplement the Watermaster's discretion, every  
26 conceivable Watermaster action appears to have been anticipated in the Judgment and Advisory or  
27 Pool Committee participation provided for.

28 The overall process of developing an Optimum Basin Management Program is, essentially,

1 a collaborative process that involves the Watermaster, Advisory Committee, Pool Committees, and  
2 the Court. However, since the power to develop an Optimum Basin Management Program is granted  
3 to the Watermaster with only the advice of the Advisory and Pool Committees, the Watermaster's  
4 role can fairly be described as providing impetus for that collaborative process and carrying it through  
5 to completion.

6 **D. Numerous Watermaster Functions Under the Judgment Explicitly Require**  
7 **Advisory Committee Approval or are Required to be Undertaken Upon**  
8 **Recommendation or Advice of the Advisory Committee, and Are Not Identified**  
9 **As "Discretionary"**

10 **1. Advisory Committee Recommendation or Advice**

11 The Watermaster can take certain actions only upon the recommendation or advice of the  
12 Advisory Committee.

- 13 • The Watermaster shall make and adopt rules and regulations upon the  
14 recommendation of the Advisory Committee. (Judgment at ¶ 18.)
- 15 • Subject to prior recommendation or approval of the Advisory Committee, the  
16 Watermaster may act jointly or cooperatively with other agencies of the United States  
17 or the State of California to carry out the Physical Solution. (Judgment at ¶ 26.)
- 18 • The Watermaster may, with the concurrence of the Advisory Committee or the  
19 affected Pool Committee and in accordance with Paragraph 54(b), conduct studies  
20 related to implementation of the management program for the Chino Basin.  
21 (Judgment at ¶ 27.)
- 22 • Watermaster shall submit an administrative budget recommendation to the Advisory  
23 Committee, who shall review and submit its recommendations back to the  
24 Watermaster, and thence a hearing shall be held to adopt the administrative budget  
25 for the year. (Judgment at ¶ 30.)
- 26 • Watermaster is to implement Pool Committee policy recommendations for  
27 administration of the particular pools. (Judgment at ¶ 38(a).)
- 28 • Watermaster must act consistent with an Advisory Committee recommendation that  
has been approved by 80 or more votes, but has the right to bring the issue before the  
Court. (Judgment at ¶¶ 38(b)[1] and 38(c).)
- As to the Optimum Basin Management Program itself, the Advisory Committee can  
"act upon all discretionary [Watermaster] determinations," as well as "study,"  
"recommend," and "review" them. (Judgment at ¶ 38(b).)
- Watermaster must give notice and conduct a meeting prior to executing an agreement  
not within the scope of an Advisory Committee recommendation. (Judgment at  
¶ 38(b)[2].)
- The "respective pooling plans" direct how the Watermaster shall levy and collect

1 annual replenishment assessments (Judgment at ¶ 45) and production assessments.  
2 (Judgment at ¶ 51.)

- 3 • The Watermaster “may accomplish replenishment of overproduction from the Basin  
4 by any reasonable method,” subject to Paragraph 19’s direction that the Watermaster  
5 not acquire real property interests or “substantial capital assets,” Paragraph 25’s  
6 limitation on the Watermaster’s authority to enter into contracts involving the Chino  
7 Basin Municipal Water District, and Paragraph 26’s provision that the Watermaster’s  
8 authority to act jointly or cooperate with other entities to “fully and economically”  
9 carry out the Physical Solution is “subject to prior recommendation or approval of the  
10 Advisory Committee.” (Judgment at ¶ 50.)
- 11 • The parties agree that one of the Watermaster’s duties is to carry out the direction of  
12 the Advisory Committee as provided in the Judgment. (TR at 109:24.)

## 13 2. Pool Committee Requirements

14 The Pool Committees also can require Watermaster implementation of their “actions and  
15 recommendations.” (Judgment at ¶ 38(a).) For most purposes, these need not be considered  
16 separately from Advisory Committee recommendations and advice, since any disputed direction from  
17 a Pool to the Watermaster would be made through the Advisory Committee. However, the Pool  
18 Committees have extensive authority as to the allocation and approval of “special project expenses”  
19 incurred in administration of the Physical Solution.<sup>10</sup> Judgment Paragraph 54 provides in part:

20 (b) Special Project Expense shall consist of special engineering or other studies,  
21 litigation expense, meter testing or other major operating expenses. Each such project  
22 shall be assigned a Task Order number and shall be separately budgeted and  
23 accounted for.

24 . . . Special Project Expense shall be allocated to a specific pool, or any portion  
25 thereof, only upon the basis of prior express assent and finding of benefit by the Pool  
26 Committee, or pursuant to written order of the Court.<sup>11</sup>

27 (Judgment at ¶ 54.) These provisions will be central in development of implementation and financing  
28 elements of the Optimum Basin Management Program.

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25 <sup>10</sup>The Watermaster is directed to allocate and assess “general Watermaster administrative  
26 expenses” to the respective pools “as based upon generally accepted cost accounting methods.”  
(Judgment at ¶ 54.) This Watermaster function fits within the “other action” category.

27 <sup>11</sup>The Paragraph 54 “pursuant to written order of the Court” language implies that the  
28 Watermaster could, through the Paragraph 15 motion procedure, propose a special project expense  
be undertaken and obtain Court approval for allocation of the costs of the expense.

**E. Many Other Watermaster Functions under the Judgment Do Not Require Advisory Committee Approval or Recommendation, and Are Not Identified as "Discretionary"**

**1. Watermaster Functions in the Normal Course of Business**

The Judgment expressly sets forth particular functions of the Watermaster which delineate the day-to-day affairs of the Watermaster:

- Watermaster may acquire facilities and equipment other than any interest in real property or substantial capital assets. (Judgment at ¶ 19.)
- Watermaster may employ or retain administrative, engineering, geologic, accounting, legal or specialized personnel and consultants as deemed appropriate. (Judgment at ¶ 20.)
- Watermaster shall require the parties to install and maintain in good operating condition necessary measuring devices. (Judgment at ¶ 21.)
- Watermaster is to levy and collect all assessments as provided for in the pooling plans and Physical Solution. (Judgment at ¶ 22.)
- Watermaster may invest funds in investments which are authorized for public agencies. (Judgment at ¶ 23.)
- Watermaster may borrow money. (Judgment at ¶ 24.)
- Watermaster may enter into contracts (other than with CBMWD) without the prior recommendation and approval of the Advisory Committee and written order of the Court for the performance of any powers granted in the Judgment. (Judgment at ¶ 25.)
- Watermaster conducts the accounting for the stored water in Chino Basin. (Judgment at ¶ 29.)

In addition, Watermaster is specifically required to levy and collect assessments each year pursuant to the respective pooling plans in amounts sufficient to purchase replenishment water to replace production by any pool during the preceding year which exceeds that pool's allocated share of safe yield or operating safe yield. (Judgment at ¶ 45.) Watermaster shall also file an annual report containing details as to operation of each of the pools and a certified audit of all assessments and expenditures and a review of Watermaster's activities. (Judgment at ¶ 48.)

**2. Watermaster Functions Related to Administering the Pool Committees**

The Watermaster was directed to cause producer representatives to be organized to act as Pool Committees for each of the pools created under the Physical Solution. The Pool Committees' responsibility is to develop policy recommendations for administration of the particular pools, which

are transmitted to the Watermaster for action. Basically:

- The Watermaster administers the three “operating pools” to carry out the “fundamental premise of the Physical Solution . . . that all water users dependent upon Chino Basin will be allowed to pump sufficient waters from the basin to meet their requirements . . . , and each pool will provide funds to enable Watermaster to replace such overproduction.” (Judgment at ¶ 42.)
- The Watermaster administers the three pools which are responsible for and must pay for the “. . . cost of replenishment water and other aspects of this Physical Solution.” (Judgment at ¶ 43.)
- The Watermaster can levy and collect annual replenishment assessments (Judgment at ¶ 45) and production assessments (Judgment at ¶ 51).

### 3. Watermaster Functions Related to Administering the Physical Solution

Watermaster functions particularly related to administering the Physical Solution include:

- The Watermaster is directed to “seek to obtain the best available quality of supplemental water at the most reasonable cost for recharge in the Basin” (Judgment at ¶ 49) and to “accomplish replenishment of overproduction from the Basin by any reasonable method . . .” (Judgment at ¶ 50).
- The Watermaster has the power to “institute proceedings for levy and collection of a Facilities Equity Assessment” upon recommendation of the Pool Committee, and the Judgment suggests that: “To the extent that the use of less expensive alternative sources of supplemental water can be maximized by the inducement of a Facilities Equity Assessment . . . it is to the long-term benefit of the entire basin that such assessment be authorized and levied by Watermaster.” (Judgment at Exh. H, ¶ 9(a).)

#### F. The Judgment Provides for Specific Notice and Review Processes

##### 1. The Paragraphs 38(b), 38(b)[2], and 38(c) Process

Judgment Paragraphs 38(b), 38 (b)[2], and (c) provide:

(b) Advisory Committee. The Advisory Committee shall have the duty to study, and the power to recommend, review and act upon all discretionary determinations made or to be made hereunder by Watermaster.

[2] Committee Review. In the event Watermaster proposes to take any discretionary action . . . notice of such intended action shall be served on the Advisory Committee and its members at least thirty (30) days before the Watermaster meeting at which such action is finally authorized.

(c) Review of Watermaster Actions. Watermaster (as to mandated action), the Advisory Committee or any pool committee shall be entitled to employ counsel and expert assistance in the event Watermaster or such pool or Advisory Committee seeks court review of any Watermaster action or failure to act. . .

(Judgment at ¶¶ 38(b), (b)[2], and (c).) This Advisory Committee review process by its terms covers only “discretionary determinations made or to be made hereunder by Watermaster”; it does not

1 necessarily cover all other actions of the Watermaster that are not identified as "discretionary  
2 determinations." Subparagraph 38(b)[2] provides that "any discretionary action" (with two  
3 exceptions which are not relevant)<sup>12</sup> requires notice to the Advisory Committee; the Advisory  
4 Committee, upon receiving notice, would presumably directly seek Court review under Paragraph  
5 31.

## 6 2. Subparagraphs 38(b)[1] and 38(c) Process

### 7 a. Application of 38(b)[1] Process

8 Judgment Subparagraphs 38(b)[1] and 38(c) provide:

9 [1] Committee Initiative. When any recommendation or advice of the  
10 Advisory Committee is received by Watermaster, action consistent therewith  
11 may be taken by Watermaster; provided, that any recommendation approved  
12 by 80 votes or more of the Advisory Committee shall constitute a mandate for  
13 action by Watermaster consistent therewith. If Watermaster is unwilling or  
14 unable to act pursuant to recommendation or advice from Advisory  
15 Committee (other than such mandatory recommendations), Watermaster shall  
16 hold a public hearing, which shall be followed by written findings and  
17 decision. Thereafter, Watermaster may act in accordance with said decision,  
18 whether consistent with or contrary to said Advisory Committee  
19 recommendation. Such action shall be subject to review by the court, as in the  
20 case of all other Watermaster determinations.

21 (c) Review of Watermaster Actions. Watermaster (as to mandated action), the  
22 Advisory Committee or any pool committee shall be entitled to employ counsel and  
23 expert assistance in the event Watermaster or such pool or Advisory Committee seeks  
24 court review of any Watermaster action or failure to act. . .

25 The Subparagraph 38(b)[1] Advisory Committee mandate procedure applies expressly to  
26 situations in which "any recommendation or advice of the Advisory Committee is received by  
27 Watermaster." In situations where the Advisory Committee has already given recommendations and  
28 advice, it can thus insist, or mandate, that its recommendations or advice be taken if it has 80 or more

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23 <sup>12</sup>Subparagraph 38(b)[2] requires Watermaster to give notice to the Advisory Committee of  
24 "any discretionary action, other than approval or disapproval of a Pool committee action or  
25 recommendation properly transmitted." (Judgment at ¶ 38(b)[2], emphasis added.) It must also  
26 notify the Advisory Committee under this subparagraph if it proposes to execute any agreement not  
27 theretofore within the scope of an Advisory Committee recommendation since the Watermaster  
28 generally can "cooperate" with other agencies only upon "prior recommendation or approval of the  
Advisory Committee." (Judgment at ¶ 26.) A Pool Committee action or recommendation that was  
"properly transmitted" would already have been noticed to the other two pools and would have had  
Advisory Committee review if "any objections" had been raised. (Judgment at ¶ 38(a).)

1 votes.<sup>13</sup>

2 **b. The Ramifications of Paragraph 38(c)**

3 The Judgment fully anticipates that the Watermaster and Advisory Committee will not agree  
4 at all times. (TR at 40:14 *et seq.*) Subparagraph 38(b)[1] makes it clear that the Watermaster may  
5 or may not decide to take action that is consistent with the recommendation or advice of the Advisory  
6 Committee. Except when an Advisory Committee recommendation is "mandatory" (i.e., is approved  
7 by 80 or more of 100 votes), a procedure is provided for the Watermaster to take independent action.  
8 (Judgment at ¶ 38(b)[1].) Even where the Advisory Committee recommendation is "mandatory", the  
9 Judgment anticipates that the Watermaster might still disagree. In such an event, the Watermaster  
10 can "employ counsel and expert assistance" (as a Watermaster expense) (Judgment ¶ 38(c)), and "as  
11 to any mandated action" may apply to the Court for review. (Judgment ¶ 31(b).)

12 When the Watermaster brings a motion to the Court to review a "mandated action", its legal  
13 and expert costs in seeking Court review are a "Watermaster expense to be allocated to the affected  
14 pool or pools." (Judgment at ¶ 38(c).) The Advisory and Pool Committees enjoy the same benefit  
15 when they seek Court review of "any Watermaster's action, decision or rule." (*Id.*) However, when  
16 any individual party exercises its right to seek Court review, it must shoulder its own legal and expert

17  
18 <sup>13</sup>Judge Turner, in his 1989 Order, stated:

19 The Advisory Committee takes actions on all matters considered by the various pools  
20 and submits its recommendations to the Watermaster. The Advisory Committee is  
21 the policy making group for the basin. Any action approved by 80% or more of the  
22 Advisory Committee constitutes a mandate for action by the Watermaster consistent  
therewith.

23 (Statement of Decision and Order Re Motion for Review of Watermaster Actions and Decisions Filed  
24 by Cities of Chino and Norco and San Bernardino County Waterworks District No. 8 [hereinafter  
25 "Judge Turner Order"] at 3:4-9.) This statement was made in Judge Turner's introductory remarks  
26 to his Order and thus is properly characterized as dicta. As discussed herein, the Advisory  
27 Committee, Pool Committee, and Watermaster roles in terms of policy decision is perhaps best  
28 described as collaborative. There is no question the Advisory Committee is implicitly intended to  
propose policy, but it does not have an exclusive role in that regard. Further, it is clear that the  
mandate by 80% or more votes of the Advisory Committee can be appealed to the Court by the  
Watermaster, and applies only where the Watermaster action is to be subject to recommendations or  
advice of the Advisory Committee.

1 costs. This is viewed by several parties to be a significant factor that should be weighed in  
2 considering the independence of the Watermaster. (TR at 41:9-23, 43:15-20, 75:10-16, 76:5 to 77,  
3 and 100:11-18.) They argue that the Watermaster can bring before the Court issues which may not  
4 be raised by a party (for financial or other reasons). (*Id.*)

5 Of course, the Watermaster must first agree to speak for the party by bringing a motion to  
6 the court consistent with the party's interests for this function to have value. As discussed *supra*, the  
7 Watermaster apparently has not historically played this role. Further, the Watermaster can only bring  
8 a motion on "mandated" actions (unless the Watermaster seeks review of the Judgment by way of  
9 Paragraph 15), hence a party would still have to bring its own motion on other, non-mandated  
10 Watermaster actions, unless a Pool Committee or Advisory Committee brought the matter to the  
11 Court's attention.

### 12 3. Court Review Under Paragraph 31

13 Paragraph 31 provides for review of all Watermaster actions, decisions or rules:

14 31. Review Procedures. All actions, decisions or rules of Watermaster shall be  
15 subject to review by the court on its own motion or on timely motion by any party,  
16 the Watermaster (in the case of a mandated action), the Advisory Committee, or any  
pool committee as follows:

17 (b) Noticed Motion. Any party, the Watermaster (as to any mandated  
18 action), the Advisory Committee or any pool committee may, by a regularly  
noticed motion, apply to the court for review of any Watermaster's action,  
decision or rule . . .

19 (Judgment at ¶¶ 31 and 31(b).) The Paragraph 31 review is not limited to whether a Watermaster  
20 action is "discretionary" or whether such action was the subject of Watermaster recommendations  
21 or advice; Paragraph 31 review could therefore be pursued whether or not a Paragraph 38(b)[1]  
22 Advisory Committee mandate were involved.

23 The Paragraph 31 review procedure would apply to "other actions" of Watermaster, such as  
24 the special audit. The costs of the special audit were properly reviewable under the Section 31  
25 procedure, although not subject to the Paragraph 38(b)[1] Advisory Committee mandate or the  
26 Paragraph 38(b) study, recommendation, review and action process for "discretionary"  
27 determinations.

### 28 4. Court Review Under Paragraph 15



1 An independent review process is provided by the Judgment. Paragraph 15 of the Judgment  
2 provides for continuing jurisdiction, such that full jurisdiction, power and authority are retained and  
3 reserved to the Court as to all matters except: (1) the redetermination of safe yield during the first  
4 ten years of operation of the Physical Solution, (2) the allocation of safe yield as set forth in  
5 Paragraph 44, (3) the determination of specific quantitative rights and shares of the declared safe yield  
6 or operating safe yield, and (4) the amendment or modification of Paragraphs 7(a) and (b) of Exhibit  
7 H during the first ten years of operation of the Physical Solution. As indicated in Paragraph 15:

8 Continuing jurisdiction is provided for the purpose of enabling the Court, upon  
9 application of any party, the Watermaster, the Advisory Committee or any Pool  
10 Committee, by motion and, upon at least 30 days' notice thereof, and after hearing  
11 thereon, to make such further or supplemental orders or directions as may be  
12 necessary or appropriate for interpretation, enforcement or carrying out of this  
13 Judgment, and to modify, amend or amplify any of the provisions of this Judgment.

14 (Judgment at ¶ 15.)

15 This review provision does not limit any party, the Watermaster, the Advisory Committee or  
16 a Pool Committee in seeking review of any action or failure to act. This provision allows the  
17 Watermaster, any party, a Pool Committee or the Advisory Committee to bring to the attention of  
18 the Court any contention it may have with regard to the Physical Solution or the Judgment itself as  
19 well as day-to-day affairs conducted by the Watermaster. In addition, it grants the Watermaster the  
20 right to bring to the attention of the Court any activity of the Pool Committee or Advisory Committee  
21 which it deems inappropriate.

#### 22 **IV. STATUS OF THE "OPTIMUM BASIN MANAGEMENT PROGRAM"**

##### 23 **A. The Court Recommended in 1989 That Within Two Years of that Date the 24 Watermaster Prepare an Integrated Optimum Basin Management Program 25 Document**

26 The Watermaster is granted discretionary power to develop an Optimum Basin Management  
27 Program which includes both water quantity and quality considerations (Judgment at ¶ 41), indicating  
28 that the Judgment contemplated the resolution of the continuing water quality problems in the Chino  
Basin. In 1989, three members of both the Appropriative Pool and the Advisory Committee brought  
a "Motion for Review of Watermaster Actions and Decisions," pointing out "... a great many areas  
in which they considered the activities of the Watermaster less than perfect." (Judge Turner Order

# **12/21/2007 APPROVAL OF PEACE II DOCUMENTS ORDER**

FILED  
SUPERIOR COURT  
COUNTY OF SAN BERNARDINO  
RANCHO CUCAMONGA DISTRICT

DEC 21 2007

By *John T. ...*  
Deputy

SUPERIOR COURT OF THE STATE OF CALIFORNIA  
COUNTY OF SAN BERNARDINO, RANCHO CUCAMONGA DIVISION

CHINO BASIN MUNICIPAL WATER  
DISTRICT,

Plaintiff,

v.

THE CITY OF CHINO, et al.

Defendants.

CASE NO. RCV 51010

ORDER CONCERNING MOTION  
FOR APPROVAL OF PEACE II  
DOCUMENTS

Date: Submitted on Nov. 29, 2007  
Dept. 8

I. Introduction

A. Watermaster's Filings

On October 25, 2007, Chino Basin Watermaster filed a Motion for Approval of Peace II Documents. Watermaster's motion requests Court approval of three proposed Judgment amendments, a proposed amendment to the Peace Agreement, a Purchase and Sale Agreement for water from the Overlying (Non-Agricultural) Pool, a Supplement to the Optimum Basin Management Program ("OBMP") Implementation Plan, a Peace II Agreement, and proposed amendments to Watermaster's Rules and Regulations. Watermaster requested a November 29, 2007 hearing on the motion.

On November 15, 2007, Watermaster filed a Transmittal of Supplemental Documents,

1 which included the 2007 CBWM Groundwater Model Documentation and Evaluation of the  
2 Peace II Project Description, Final Report, dated November 2007. On December 13, 2007,  
3 Watermaster filed its Second Transmittal of Supplemental Documents, which included several  
4 stipulations.

5 Watermaster filed its Response to Special Referee's Preliminary Comments and  
6 Recommendations on Motion for Approval of Peace II Documents on December 14, 2007. The  
7 Watermaster's Response noted: "The technical issues raised by the Referee are addressed in a  
8 separate document that is being prepared by Mark Wildermuth, which will be filed at a later  
9 date." (Watermaster Response p. 2, fn. 2) Mr. Wildermuth's Letter Report to Watermaster on  
10 the subject "Evaluation of Alternative 1C and Declining Safe Yield" (December 18, 2007) was  
11 filed with the Court December 19, 2007.

12 B. Filings in Support of Watermaster's Motion

13 Numerous filings have been received in support of the Motion. On November 9, 2007,  
14 Fontana Union Water Company, San Antonio Water Company, and Monte Vista Water District  
15 filed Joinders to Watermaster's motion. The City of Pomona filed a Statement in Support of the  
16 motion, also on November 9, 2007. On November 13, 2007, Inland Empire Utilities Agency  
17 ("TEUA") filed a Joinder to Watermaster's motion and Declaration of Richard Atwater. Also on  
18 November 14, 2007, the City of Chino Hills, the City of Upland, the Agricultural Pool, and  
19 Cucamonga Valley Water District filed Joinders to Watermaster's motion.

20 On November 15, 2007, Western Municipal Water District filed a Joinder to  
21 Watermaster's motion and Declaration of John Rossi. Also on November 15, 2007, the City of  
22 Ontario filed a Joinder to the motion and Declaration of Kenneth Jeske. The third filing on  
23 November 15, 2007, was Three Valleys Municipal Water District's Joinder to the motion and  
24 Declaration of Jeff Kightlinger. On November 26, 2007, the City of Chino filed a Joinder and  
25 Statement in Support of Watermaster Motion to Approve Peace II Documents.

26 On November 29, 2007, Watermaster and the Chino Basin Water Conservation District  
27 entered into and filed a stipulation stating the Conservation District's support for the Court's  
28 approval of the Peace II Measures in consideration for certain clarifications. Watermaster's

1 second transmittal, filed on November 29, 2007, included a Declaration from Ronald Craig on  
2 behalf of the City of Chino Hills, and a Declaration from Eldon Horst for Jurupa Community  
3 Services District, both in support of approval of the Peace II Measures.

4 C. Court's Order to Show Cause

5 An Order to Show Cause Why Court Should Not Continue the Hearing on Motion for  
6 Approval of Peace II Documents ("OSC") was issued on November 15, 2007. The OSC stated  
7 the Court intended to continue the hearing on Watermaster's Motion "... absent sufficient cause  
8 being shown by, among other things, testimony of Mark Wildermuth elicited on November 29,  
9 2007." (OSC p. 4, lns. 24-25) The Chino Basin Water Conservation District filed a Response to  
10 the OSC on November 19, 2006, and Watermaster filed a Response to Order to Show Cause and  
11 Conservation District on November 26, 2007.

12 D. Special Referee Reports

13 Special Referee Anne Schneider's Preliminary Comments and Recommendations on  
14 Motion for Approval of Peace II Documents ("Preliminary Report") was filed on November 27,  
15 2007. The Special Referee filed her Final Report and Recommendations on Motion for  
16 Approval of Peace II Documents on December 20, 2007.

17 E. November 29, 2007 Court Hearing

18 The Court held a hearing on November 29, 2007, with testimony from Mr. Manning and  
19 Mr. Wildermuth. The Reporter's Transcript was available December 11, 2007.

20 **II. Discussion**

21 An extraordinary effort has been made to get the motion, all of the supporting and  
22 supplemental pleadings and other documents, and the Special Referee reports filed before the  
23 end of 2007. The Court has considered all of the pleadings, declarations, reports and other  
24 documents, as well as the testimony presented on November 29, 2007. It is obvious that  
25 everyone involved in the "Peace II" process has been working diligently. Moreover, the Court is  
26 appreciative of the way this case has been managed in recent years. The Court appreciates all of  
27 your efforts, including but not limited to the parties, the attorneys, Watermaster and its attorney,  
28 the Special Referee, and the Technical Expert's education of the Court in this complex matter.

1           A. Guidance Regarding the Roles of Watermaster and the Special Referee

2           Watermaster asserts that the traditional role of Watermaster and its interaction with the  
3 Court is made more complex in Chino Basin by the existence of a Special Referee.  
4 Watermaster states that no other adjudicated groundwater basin has both a Watermaster and a  
5 Special Referee, and notes that the Judgment does not provide for a referee. (Watermaster  
6 Response, *supra*, p. 3, Ins. 11-16.) Watermaster asks for guidance as to Watermaster's and the  
7 Special Referee's roles.

8                   1. Watermaster's Role

9           The Court accepts Watermaster's analysis of its role: "Watermaster's legal existence  
10 emanates from the Judgment. All of Watermaster's enumerated powers originate within and  
11 arise from the Judgment. It is not a public agency or private entity that has been formed under  
12 some general or special law. Its duty is 'to administer and to enforce the provisions of this  
13 Judgment and any subsequent instructions or orders of the Court hereunder.' [Citation.] As all  
14 special masters, Watermaster operates as an extension of the Court and to meet the needs of the  
15 Court in carrying out its obligations under the Judgment and Article X, Section 2 of the  
16 California Constitution." (Watermaster Resp. to Sp. Ref. Prelim. Comments, p. 2, Ins. 22-25 and  
17 p. 3, Ins. 1-3.) Although it is not stated in Watermaster's pleadings, it is important to note that it  
18 is not Watermaster's duty to be an advocate for any, or for all, of the parties. Watermaster's  
19 position with respect to the parties should be neutral.

20                   2. Special Referee's Role

21           The Court also accepts the Special Referee's analysis of the role of a referee: "The role  
22 of the Special Referee is to (1) provide the court with as full and complete explanations as  
23 possible of what the Watermaster requests or of issues that have been brought to the court; and  
24 (2) to make recommendations to the court as appropriate." (Sp. Rev. Fin. Report, p. 3, Ins. 4-6.)  
25 The Special Referee's role in this case is discussed further below.

26                   3. Courts Favor Referee in Water Law Determinations

27           The recommendation that trial courts obtain expert advice in water law decisions was  
28 recognized by the California Supreme Court long ago: "... in view of the complexity of the

1 factual issues in water cases and the great public interests involved, [it has been recommended]  
2 that the trial courts seek the aid of the expert advice and assistance provided for in that section  
3 [former Water Code Section 24, now Water Code Section 2000]." (*City of Pasadena v. City of*  
4 *Alhambra* (1949) 33 Cal.2d 908, 917.)

5 In this case, it was the parties who first suggested to the Court in the early 1990's that an  
6 order of reference be made to Anne Schneider. That was in connection with motions entitled  
7 Joint Motion to Interpret, Enforce, Carry-out, Modify, Amend or Amplify the Judgment Herein  
8 (dated August 25, 1992) and California Steel Industries, Inc.'s Notice of Motion to Interpret,  
9 Enforce, Carry-out, Modify, Amend, or Amplify Paragraph 7, Page 66 of Exhibit G of the 1978  
10 Judgment (dated March 25, 1993).

11 Then in April 1997, the Court, on its own motion, ordered a reference to Anne Schneider  
12 under Code of Civil Procedure Section 639, subdivision (d). In that instance, the reference to  
13 Anne Schneider was made as an alternative to ordering a reference to the SWRCB under Water  
14 Code Sections 2000 *et seq.*, in connection with a Motion for Order that Audit Commissioned by  
15 Watermaster is not a Watermaster Expense and Motion to Appoint a Nine-Member Watermaster  
16 Board. (Ruling and Order of Special Reference, dated April 29, 1997, pp. 7, & 10.)

#### 17 4. Referee Status in this Case

18 In April 1998, the Court first ordered a reference to Anne Schneider in connection with  
19 an uncontested matter: the development of an Optimum Basin Management Program for Chino  
20 Basin ("OBMP"). Special Referee Schneider was asked "to report and make recommendations  
21 to the court concerning the contents, implementation, effectiveness, and shortcomings of the  
22 optimum basin management plan." (Ruling, dated Feb. 19, 1998, p. 9, lns. 12-16.) The Court  
23 authorized the Special Referee "to conduct hearings, if necessary, to ensure the development of  
24 all essential elements of the program." (*Id.* at p. 10, lns. 13-14.)

25 Since that appointment, the Special Referee has been providing expert advice and  
26 conducting workshops either at the Court's request or the request of the parties or Watermaster,  
27 as authorized in various court orders. For example, Watermaster requested that a workshop be  
28 held to present to the Court through the Special Referee, the Interim Plan for Management of

1 Subsidence. (See Order Scheduling Workshop, dated June 19, 2002, p. 2, lns. 6-10.) The  
2 Special Referee also has been requested to monitor the Peace II process and the plan for future  
3 desalters and related activities. (Order Re-Appointing Nine-Member Board, dated Feb. 9, 2006,  
4 p. 5, lns. 9-17.) It should be clear from this discussion that the Special Referee in this case does  
5 not necessarily function as the typical referee described in Watermaster's Response to the  
6 Special Referee's Preliminary Report, at page 4.

7 This Court has said on many occasions that the assistance provided by the Special  
8 Referee is invaluable. It is the desire of the Court that the Special Referee continue to monitor  
9 the contents, implementation, effectiveness and shortcomings (if any) of the OBMP. It is  
10 suggested in the Special Referee's Final Report that because of Watermaster's involvement in  
11 negotiations related to the OBMP "the Special Referee may be less constrained than  
12 Watermaster in raising questions and voicing concerns...." (Sp. Ref. Final Report, p. 3, lns. 13-  
13 16.) In participating in the parties' negotiations, Watermaster must not forget that its function is  
14 to meet the needs of the Court in carrying out its obligations under the Judgment and Article X,  
15 Section 2 of the California Constitution.

16 B. Findings Pertaining to Watermaster's Motion

17 Watermaster's motion requests review and court approval under paragraphs 15 and 31 of  
18 the Judgment. Under paragraph 15, the Court reserves jurisdiction to make further or  
19 supplemental orders "as may be necessary or appropriate for interpretation, enforcement or  
20 carrying out" the Judgment and "to modify, amend or amplify" any of its provisions. Under  
21 Judgment paragraph 31, in reviewing Watermaster decisions, "[T]he Court shall require the  
22 moving party to notify the active parties...of a date for taking evidence and argument, and on  
23 the date so designated shall review de novo the question at issue. Watermaster's findings or  
24 decision, if any, may be received in evidence at said hearing, but shall not constitute presumptive  
25 or prima facie proof of any fact in issue."

26 In addition to the testimony offered at the hearing on November 29, 2007, Watermaster  
27 has presented several declarations and other documentary evidence in support of its motion. The  
28 Court has considered all of the evidence presented by Watermaster and finds there is substantial



1 evidence to support Watermaster's implied findings that the proposed Judgment amendments  
2 and other Peace II documents will promote the public interest, will protect the rights of the  
3 parties, and are consistent with California Constitution Article X, section 2. The key points  
4 relied upon by Watermaster, and which were proved to the Court, are enumerated on page 9 of  
5 the Special Referee's Final Report and Recommendations on Motion for Approval of Peace II  
6 Documents, and are incorporated herein by reference.

### 7 **III. Order**

8 **SUBJECT TO THE CONTINUING JURISDICTION OF THE COURT, AND TO THE**  
9 **SATISFACTION OF THE CONDITIONS SUBSEQUENT LISTED BELOW,** the Court hereby  
10 makes the following orders:

- 11 1. The amendments to Judgment Exhibit "I", Judgment Paragraph 8, and Judgment  
12 Exhibit "G" are hereby approved.
- 13 2. Watermaster shall proceed in accordance with the second amendment to the Peace  
14 Agreement.
- 15 3. Watermaster's adoption of Resolution 07-05 is approved and Watermaster shall  
16 proceed in accordance with the terms of the resolution and the documents attached  
17 thereto.
- 18 4. The Court hereby adopts the recommendations made in Special Referee's Final  
19 Report and Recommendations on Motion for Approval of Peace II Documents, which  
20 are incorporated herein by reference.
- 21 5. A hearing is set for Thursday, May 1, 2008, at 2:00 p.m. for the Court to review  
22 Watermaster's compliance with the first four conditions listed below.

### 23 **Conditions Subsequent**

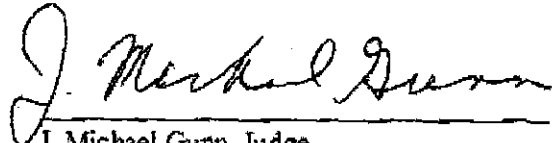
- 24 1. By February 1, 2008, Watermaster shall prepare and submit to the Court a brief to  
25 explain the amendments to Judgment Paragraph 8 and Judgment "G".
- 26 2. By February 1, 2008, Watermaster shall prepare and submit to the Court for approval  
27 a corrected initial schedule to replace Resolution No. 07-05 Attachment "E", together  
28 with an explanation of the corrections made.

- 1 3. By March 1, 2008, Watermaster shall prepare and submit to the Court for approval a  
2 new Hydraulic Control technical report that shall address all factors included in the  
3 Special Referee's Final Report and Recommendations. The new Hydraulic Control  
4 report shall include technical analysis of the projected decline in safe yield, and a  
5 definition and analysis of "new equilibrium" issues.
- 6 4. By April 1, 2008, Watermaster shall report to the Court on the status of CEQA  
7 documentation, compliance, and requirements, and provide the Court with assurances  
8 that Watermaster's approval and participation in any project that is a "project" for  
9 CEQA purposes has been or will be subject to all appropriate CEQA review.
- 10 5. By July 1, 2008, Watermaster shall prepare and submit to the Court a detailed outline  
11 of the scope and content of its first Recharge Master Plan update, and shall report its  
12 progress by January 1, 2009, and July 1, 2009.
- 13 6. By July 1, 2008, Watermaster shall report to the Court on the development of  
14 standards and criteria by which the RWQCB will determine that hydraulic control is  
15 achieved and maintained.
- 16 7. By December 31, 2008, Watermaster shall prepare and submit to the Court for  
17 approval a revised schedule to replace the corrected initial schedule, which submittal  
18 shall include a reconciliation of new yield and stormwater estimates for 2000/01  
19 through 2006/07, and a discussion of how Watermaster will account for  
20 unreplenished overproduction for that period.
- 21 8. By July 1, 2010, Watermaster shall prepare and submit to the Court for approval an  
22 updated Recharge Master Plan. The updated Recharge Master Plan shall include all  
23 elements listed in the Special Referee's Final Report and Recommendations.
- 24 9. Watermaster shall comply with all commitments it has made in the Peace II  
25 Documents, whether or not specifically included in these conditions subsequent,  
26 Watermaster is forewarned that a failure to comply with any of the above conditions subsequent  
27 will render the Court's approval of Watermaster's motion null and void. A lack of compliance  
28 with the conditions subsequent will also be seen as a failure by Watermaster, through its nine-

1 member Board, to perform its most important duty: to administer and to enforce the provisions of  
2 this Judgment and any subsequent instructions or orders of the Court.

3 IT IS SO ORDERED.

4 Dated: December 21, 2007

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7 J. Michael Gunn, Judge  
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# **12/23/2008 CONDITION SUBSEQUENT 7 FILING**

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SUPERIOR COURT OF THE STATE OF CALIFORNIA  
FOR THE COUNTY OF SAN BERNARDINO

CHINO BASIN MUNICIPAL WATER  
DISTRICT

Plaintiff,

vs.

CITY OF CHINO, ET AL.

Defendant.

Case No. RCV 51010

[Assigned for All Purposes to the  
Honorable JOHN P. WADE]

**WATERMASTER'S COMPLIANCE WITH  
CONDITION SUBSEQUENT NUMBER  
SEVEN; SUPPLEMENT TO CONDITION  
SUBSEQUENT NUMBER FIVE**

Hearing Date: February 2, 2009  
Time: 9:30 AM  
Dept.: S32

I.

INTRODUCTION

The Court's December 21, 2007 *Order Concerning Motion for Approval of Peace II Documents* required Watermaster to satisfy nine conditions subsequent. At the November 13, 2008 hearing, this Court approved Conditions Subsequent Number One through Six. Condition Subsequent Number Seven requires Watermaster to submit to the Court for approval a revised schedule of the drawdown of the re-operation account, which submittal shall include a reconciliation of new yield and stormwater estimates for 2000/01 through 2006/07, and a discussion of how Watermaster will account for unreplenished overproduction for that period. The substance of this

1 response is contained in the November 12, 2008 letter report from Watermaster's consulting  
2 hydrologist Mr. Wildermuth attached to this pleading as Exhibit "A."

3 This report was approved unanimously by the three pool committees, the Advisory  
4 Committee and the Board. Watermaster is not aware of any opposition to its filing and request for  
5 Court's approval.

6 Moreover, at the February 2, 2009 hearing, Watermaster will present evidence concerning  
7 the nature of the Chino Basin and the history of management of the Basin, including current  
8 management of the Basin under the Peace II Measures.<sup>1</sup> These issues also form the background of  
9 the required reporting under Condition Subsequent Number Seven. Because Watermaster intends to  
10 address these issues in depth on February 2, 2009, this pleading will provide a summary of the issues  
11 that serve as background to the Wildermuth report.

## 12 II.

### 13 BACKGROUND: REPLENISHMENT AND RECHARGE

14 Watermaster replenishes the water in the groundwater basin that is pumped in excess of the  
15 Safe Yield or Operating Safe Yield. The Judgment identifies various sources of replenishment water,  
16 including but not limited to imported water and recycled water. (Judgment Paragraph 49.) The  
17 Judgment also identifies different methods of putting this replenishment water into the groundwater  
18 basin, including but not limited to spreading the water into recharge basins to allow it to soak into  
19 the ground, direct injection of the water into the basin, and in lieu procedures whereby pumping is  
20 reduced and surface supplies are taken instead. (Judgment Paragraph 50.)

21 An additional source of water that can be used for replenishment purposes is the Santa Ana  
22 River, which runs along the southern edge of the Chino Basin. Depending on groundwater  
23 conditions in the Chino Basin, water from the Santa Ana River can soak through the bed of the River  
24 and into the Chino Basin. It is one of the purposes of the Basin Re-Operation project – one of the  
25 Peace II Measures – to induce such inflow in greater quantities. The quantities of water that were to  
26 be induced from the River were contractually earmarked for production by the Chino Basin

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28 <sup>1</sup> An outline of Watermaster's presentation will be provided to the parties and the Court in advance  
of the February 2, 2009 hearing.

1 Desalters. (Peace Agreement Section 7.5(b).) This water, defined as "New Yield," could be  
2 produced *without* triggering a replenishment obligation.

3 In addition, in 2003, Watermaster began the first phase of implementation of its Recharge  
4 Master Plan with the construction of the Chino Basin Facilities Improvement Project ("CBFIP").  
5 The CBFIP was a \$40 million project to improve the recharge facilities in the Chino Basin to  
6 enhance their ability to recharge imported water, recycled water and stormwater. These recharge  
7 basin improvements allow Watermaster to recharge additional replenishment water, and by capturing  
8 additional amounts of stormwater, replenishment obligations are reduced. At the time  
9 implementation of the CBFIP began, Watermaster committed to reconcile its estimates of new  
10 stormwater recharge from the facilities with actual observed conditions every five years, with the  
11 first such reconciliation to occur in 2008.

12 For several years, Watermaster used the best information available to provide accurate  
13 estimates of the amount of water recharging the Basin from the Santa Ana River, and for the amount  
14 of new stormwater that the CBFIP was likely to capture. For the period of 2000/01 to 2006/07,  
15 Watermaster estimated that 29,070 acre-feet of New Yield flowed into the Chino Basin from the  
16 Santa Ana River and thus this quantity of groundwater production through the Chino Basin Desalters  
17 did not need to be replenished. (Peace Agreement Section 7.5(b).)

18 In addition, for the first five years of operation of the CBFIP, Watermaster had expected that  
19 12,000 acre-feet per year of New Yield attributable to stormwater would be captured. A  
20 corresponding quantity of groundwater production occurred without incurring a replenishment  
21 obligation. (Peace Agreement Section 1.1 (aa).)

### 22 23 III.

#### 24 COMPLIANCE WITH CONDITION SUBSEQUENT NUMBER SEVEN

25 During the process leading up to the December 21, 2007 Order, a new technical analysis  
26 completed under the direction of Watermaster indicated that previous estimates of the amount of  
27 water flowing into the groundwater basin from the Santa Ana River had been overstated. In fact, the  
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1 new analysis indicated that inflow from the River had not started, and would not start until  
2 Watermaster could implement the measures ultimately approved by the Court.

3 Separately, after the first five years of operation of the CBFIP, actual experience with the  
4 improved facilities and technical review indicates that the amount of additional stormwater that was  
5 actually captured was less than previously estimated.

6 The attached letter technical report from Mr. Wildermuth explains the way in which  
7 Watermaster will account for the overestimate of inflow from the Santa Ana River and the  
8 overestimate of new stormwater capture in a manner consistent with the Judgment. In summary,  
9 Watermaster will account for the overestimate of the Santa Ana River inflow for the period of  
10 2000/01 through 2006/07 by deducting this amount from the schedule of court authorized drawdown  
11 from the Basin Re-Operation account instead of replenishing the water.

12 A new proposed table reflecting this change is attached to Mr. Wildermuth's technical report  
13 as Table 3. This table is the revised schedule which is intended to replace the corrected initial  
14 schedule referenced in the Court's December 21, 2007 Order. (Order, page 8, line 17; See Peace II  
15 Agreement Section 7.2(e)(i) and (e)(ii).) In the opinion of the author of the technical report, Mr.  
16 Wildermuth, debiting the Basin Re-Operation account is the superior management strategy. No  
17 party objects to this view.

18 With regard to stormwater capture, Watermaster will account for the overestimate of new  
19 stormwater capture according to procedures already agreed upon in April 2003 for this purpose.  
20 These procedures are described on page four of Mr. Wildermuth's report. Watermaster will credit new  
21 water for the new stormwater capture for the next five years until the overestimate has been  
22 mitigated, and after that Watermaster will credit 6,000 acre-feet a year for the stormwater capture,  
23 unless subsequent analysis over the next five years indicates that a different number should be used.

24 This method of correcting for the overestimate of Santa Ana River inflow and new  
25 stormwater recharge is protective of the groundwater Basin, consistent with the Judgment and prior  
26 Orders of the Court, and is not opposed by any party. Watermaster therefore respectfully requests the  
27 Court to approve this submission in satisfaction of Condition Subsequent Number Seven.  
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IV.

SUPPLEMENT TO CONDITION SUBSEQUENT NUMBER FIVE

Condition Subsequent Number Five required Watermaster to submit a detailed outline of its Recharge Master Plan update to the Court by July 1, 2008, and to report on its progress toward completing the updated Recharge Master Plan by January 1, 2009 and July 1, 2009.

Watermaster submitted its outline by the required date. No party objected to the outline, and the Court approved it at the November 13, 2008 hearing. Attached to this pleading as Exhibit "B" is an updated schedule showing all of the items described or required by the outline, and a projected period of completion for each. According to this schedule, Watermaster is on track to complete the update to the Recharge Master Plan by the July 1, 2010 date required by Condition Subsequent Number Eight.

This schedule was approved unanimously by the three pool committees, the Advisory Committee and the Board. Watermaster knows of no opposition to this schedule. The December 21, 2007 Order does not require Court approval for this schedule.

Dated: December 23, 2008

BROWNSTEIN HYATT FARBER SCHRECK, LLP

By: Michael T. Fife

Scott S. Slater

Michael T. Fife

Attorneys for CHINO BASIN WATERMASTER

SB 491715 v1:008350.0001

SB 493057 v1:008350.0001

# **Exhibit A**



**WILDERMUTH™**  
ENVIRONMENTAL INC.

November 13, 2008

Chino Basin Watermaster  
Attention: Kenneth R. Manning  
Chief Executive Officer  
9641 San Bernardino Road  
Rancho Cucamonga, CA 91730

**Subject: Response to Condition Subsequent Number 7**

Dear Mr. Manning:

Pursuant to your request, Wildermuth Environmental, Inc. (WEI) reviewed the December 20, 2007 Special Referee's Report and the Honorable Judge Gunn's December 21, 2007 Court Order with regard to Condition Subsequent No. 7 (CS7). Specifically, you asked WEI to develop and recommend a response to CS7 for the Watermaster's consideration and use in the Watermaster's response to the Court. Our review and recommendations are summarized below.

**Condition Subsequent No. 7**

CS7 reads:

By December 31, 2008, Watermaster shall prepare and submit to the Court for approval a revised schedule to replace the initial corrected schedule, which submittal shall include a reconciliation of new yield and storm water estimates for 2000/01 through 2006/07, and a discussion of how Watermaster will account for un-replenished overproduction for that period.

There are two issues posed by the CS7. The first issue relates to under-replenishment of the Chino Basin desalters during the 2000/01 through 2006/07 period. The following questions need to be answered to resolve this issue:

- What was the magnitude of said under-replenishment?
- How will the Watermaster fulfill the replenishment obligation?

The second issue relates to how Watermaster accounts for the new yield created by the operation of the recently constructed recharge improvements, referred to as the Chino Basin Facilities Improvement Program (CBFIP). To resolve this issue, the following questions need to be answered:

- What was the volume of storm water recharge over the 2000/01 through 2006/07 period?
- What part of this recharge is "new" and how will the Watermaster account for this new recharge?

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### Under-Replenishment of the Chino Desalters During the 2000/01 through 2006/07

The *Chino Basin Water Resources Management Study* (MW, 1993) and the subsequent early desalter engineering studies used groundwater flow models to evaluate groundwater basin response to desalter proposals and concluded that the inducement of new Santa Ana River inflow to the Chino Basin would occur from the then proposed Chino desalters. Subsequent investigations during the development of the Optimum Basin Management Program (OBMP) produced a similar result. One of the conditions necessary to generate new yield with the desalters is to assume that new yield will occur and to conduct replenishment operations with that assumption. At the time of the desalter startup, around 2000, WEI used Watermaster's *Rapid Assessment Model* (RAM) of the Chino Basin to determine how much new yield could be obtained from the Santa Ana River. (RAM is a steady state model that produces an equilibrium response to any prescribed groundwater management plan.) Through the application of RAM, it was determined that Watermaster should assume that about half of the desalter production would come from the River.

Our current models are, by contrast, very detailed transient models. The recent modeling work done for the Peace II process suggests a very different answer for the new yield associated with the desalters and the reoperation authorized by the Peace II Agreement. In analyzing future reoperation alternatives, it was determined that the induced Santa Ana River recharge lagged the dedication of groundwater storage to desalter replenishment by several years. Table 1 shows the Initial Corrected Schedule<sup>1</sup> referred to in CS7. The planning simulation for this schedule started in July 2006. This table contains the estimated new yield from the Santa Ana River and the time history of withdrawals from the reoperation accounts used to satisfy the desalter replenishment obligation. Note that new yield from the river appears to start in fiscal year 2011/12 and rises to about 5,000 acre-ft/yr by 2021/2022. The column titled "Residual Replenishment Obligation" is the desalter replenishment obligation that must be satisfied through either physical recharge, other sources provided for in the Peace II Agreement, water acquired from other storage accounts, or a combination of these sources. One of the take aways from Table 1 is that the induced Santa Ana River recharge originally projected to occur in the 2000/01 through 2006/07 period did not occur.

Table 2 shows desalter production during the 2000/01 through 2006/07 period, which totals to about 91,200 acre-ft. This production must be fully replenished. The table shows that 36,400 acre-ft of replenishment obligation was provided by the Desalter Account, that 25,700 acre-ft was provided by the CDA reoperation account, and that about 29,100 acre-ft was provided projected new Santa Ana River recharge. However, as mentioned above, the new modeling results strongly suggest that new Santa Ana River recharge did not occur; thus, there is an outstanding replenishment obligation of about 29,100 acre-ft.

There are four water sources that can be used to make up the outstanding replenishment obligation, including 1) physical (wet-water) recharge with supplemental water, 2) a debit from the non-Western Municipal Water District (WMWD) reoperation account<sup>2</sup>, 3) other sources provided for in the Peace

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<sup>1</sup> The term *Initial Corrected Schedule* refers to the specific schedule of desalter production, projected new yield, use of reoperation water for desalter replenishment, and other desalter replenishment that was requested by the Court during the Peace II process.

<sup>2</sup> It is likely that the WMWD will become a member of the CDA before the end of 2008. The WMWD reoperation account refers to the water in storage that is dedicated to desalter capacity that will be constructed by the WMWD

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II Agreement, 4) water acquired from other storage accounts, or a combination of these sources. Physical recharge is the least desirable alternative because it will retard the projected buildup in new yield (as shown in Table 1), it works counter to hydraulic control, and it will come at a great cost. Figure 1 shows the time history of projected Santa Ana River recharge attributed to desalter production with reoperation and the estimated retardation of the projected buildup in new yield if the 29,100 acre-ft were replenished with physical recharge. A better approach is acquire the replenishment water either from the non-WMWD reoperation account, other sources provided for in the Peace II Agreement, other water from existing storage accounts if available, or a combination thereof. Table 3 presents a modified version of the Initial Corrected Schedule, extended back to fiscal 2000/01, that shows historical and projected desalter production, projected new yield, the time history of withdrawals from the Desalter Account, projected withdrawals from the reoperation accounts, and the historical and projected residual replenishment obligation. In this schedule, it was assumed that the Watermaster would debit the non-WMWD reoperation account in fiscal 2009/10; although it could be done this year as well. If the replenishment water was supplied from the non-WMWD reoperation account, the non-WMWD reoperation account would be depleted one year earlier than initially projected in Table 1.

#### Reconciliation of Storm Water Recharge for the 2000/01 through 2006/07 Period

In addition to the new yield created by new Santa Ana River recharge, the Peace Agreement provides for new yield created by new storm water recharge. New storm water recharge refers to the additional storm water recharge that results from the CBFIP and subsequent storm water recharge enhancements. New storm water recharge is equal to the total volume of storm water recharge minus the storm water recharge that would have occurred without the CBFIP and subsequent storm water recharge enhancements.

The CBFIP was mostly completed during fiscal 2004/05. The Inland Empire Utilities Agency (IEUA) managed CBFIP construction and currently operates the CBFIP facilities. These facilities are operated pursuant to an agreement between the Watermaster, the IEUA, the Chino Basin Water Conservation District, and the County of San Bernardino. The IEUA collects data and prepares storm water recharge estimates for each of the recharge basins in the Chino Basin. The IEUA reviews its calculations with the Groundwater Recharge Coordinating Committee and provides the final estimates to the Watermaster. Recently, we developed pre-CBFIP storm water recharge estimates for use in our groundwater modeling work for both the Peace II Agreement and, more recently, the material physical injury analysis of the Dry Year Yield Program Expansion. The WEI and IEUA estimates are provided in Table 4. The recharge facility locations are shown in Figure 2.

In contrast to the new yield developed by the desalters, the new recharge from recharge improvements varies significantly from year to year as a function of precipitation, storm water management practices, and the state of the recharge facilities. In 2003, Watermaster investigated two methods for computing new storm water recharge. The first method involves preparing estimates of the long-term average annual storm water recharge with and without the CBFIP and calculating the new yield as the difference. Modeling tools would be used to estimate recharge, and

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and will be exclusively available to the WMWD. The non-WMWD reoperation account refers to the other water in the reoperation account.

the new yield estimate would be refined over time if historical observations demonstrated that the assumptions, data, and/or models needed to be refined. With this approach, the new yield estimate is more stable over time, providing certainty to the members of the Appropriative Pool. Moreover, the yield of the Chino Basin is based on recharge components, some of which are highly variable over time (stormwater recharge and the deep percolation of precipitation), yet the yield is a constant value. This occurs because the Chino Basin is a large storage reservoir that buffers the effects of wet and dry periods. The use of a long-term average annual estimate of new recharge is consistent with the notion of the safe yield of the Chino Basin and other basins that are managed to a safe yield.

The second method would be to estimate actual recharge annually, based on observed data, and what would have recharged had the CBFIP not been implemented. The difference would equal the new yield. With this approach, the new yield estimate would be highly variable over time.

In April 2003, Watermaster adopted the first approach. The procedures for implementing this approach are as follows:

1. The volume of recharge provided by the pre-CBFIP facilities was assumed to be 5,600 acre-ft/yr (baseline) per the Peace Agreement implementation plan.
2. Assumptions were made about the additional recharge that would result from the CBFIP.
3. It was assumed that the CBFIP would produce a long-term average new recharge of 12,000 acre-ft/yr.
4. This assumed long-term average recharge (12,000 acre-ft/yr) would be used for the first five years of new recharge facility operations.
5. Each year, the performance characteristics and actual additional recharge would be determined.
6. At the end of five years, a new long-term average estimate of new recharge would be computed, based on the actual performance characteristics of the facilities.
7. Any credit or debit that results from the initial estimate of additional recharge being too low or high, respectively, would be spread evenly over the next five-year period.
8. Repeat items 5 through 7 every five years.

This process started in fiscal 2004/05; thus, the five-year period will end in June 2009. The Watermaster is charged with developing a new long-term average recharge estimate using the recharge monitoring and performance data collected by the IEUA. The Watermaster should be able to prepare this estimate by the end of August 2009 and will then be in a position to execute step 7 listed above. Table 5 and Figure 3 show how such a calculation will be performed. In this example, the initial long-term average of new recharge was assumed to be 12,000 acre-ft/yr through 2008/09. A new long-term average of new recharge of 6,000 acre-ft/yr is computed in the summer of 2009 and is used for the next five years. Note that this estimate of new storm water recharge means that the Watermaster overestimated new storm water recharge by 6,000 acre-ft/yr for the first five years, resulting a cumulative overestimate of 30,000 acre-ft through the end of 2008/09. This overestimate is debited from the new recharge estimates for the 2009/10 through 2013/14 period and, in this example, results in a new recharge credit of zero acre-ft/yr through 2013/14. And, the initial overestimate is completely debited from the appropriators.

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## Recommended Responses to CS7

In response to the questions posed by CS7 as they relate to the under-replenishment of the Chino Basin desalters during the 2000/01 to 2006/07 period, our recommended answers are as follows:

1. What was the magnitude of the desalter under replenishment during this period? The estimated under replenishment is 29,070 acre-ft as shown in Table 2 and is numerically equal to the projected new Santa Ana River recharge.
2. How will Watermaster fulfill the replenishment obligation? Our recommendation is that Watermaster use either water from the non-WMWD reoperation account, other water that it can acquire from sources provided for in the Peace II Agreement, water acquired from other storage accounts, or a combination of these sources. Physical recharge will retard full acquisition of hydraulic control and will lead to reduced Santa Ana River recharge of about 5,000 acre-ft through 2030. There are no hydrologic or economic advantages to replenishing with physical recharge, only disadvantages.

In response to the questions posed by CS7 as they relate to the reconciliation of the new storm water recharge, our recommended answers are as follows:

1. What was the storm water recharge over the 2000/01 through 2006/07 period? The volume of storm water recharged during this period is provided in Table 4. The period through 2003/04 represents the pre-CBFIP period, as does the first part of the fiscal 2004/05. Thereafter, the storm water recharge totals include new storm water recharge.
2. What part of this recharge is "new" and how will the Watermaster account for this new recharge? The Watermaster will use the process described above, specifically steps 6 and 7, to account for new recharge. Watermaster will perform its first reconciliation in fiscal 2009/10 pursuant to the new storm water recharge policy it adopted in April 2003.

Please call me if you have any questions or need further assistance.

Wildermuth Environmental, Inc.



Mark J. Wildermuth  
Chairman

cc.  
Sheri Rojo, Chino Basin Watermaster  
Ben Pak, Chino Basin Watermaster  
Scott Slater, Brownstein Hyatt Farber Schreck  
Michael Fife, Brownstein Hyatt Farber Schreck

Encl.

**Table 1**  
**Initial Corrected Schedule**  
(acre-ft)

Fiscal Year	Desalter Pumping	New Yield	Re-Operation			Residual Replenishment Obligation
			Replenishment Allocation for Desalter III	Replenishment Allocation to CDA	Balance	
					400,000	0
2006 / 2007	26,350	0	0	26,350	373,650	0
2007 / 2008	26,350	0	0	26,350	347,300	0
2008 / 2009	26,356	0	0	26,356	320,944	0
2009 / 2010	26,356	0	0	26,356	294,588	0
2010 / 2011	28,965	0	0	28,965	265,622	0
2011 / 2012	31,574	75	0	31,500	234,123	0
2012 / 2013	34,182	442	5,000	28,740	200,383	0
2013 / 2014	36,791	962	10,000	25,829	164,554	0
2014 / 2015	39,320	1,629	10,000	4,554	150,000	23,137
2015 / 2016	39,320	2,255	10,000	0	140,000	27,065
2016 / 2017	39,320	2,771	10,000	0	130,000	26,549
2017 / 2018	39,320	3,275	10,000	0	120,000	26,045
2018 / 2019	39,320	3,767	10,000	0	110,000	25,553
2019 / 2020	39,320	4,283	10,000	0	100,000	25,037
2020 / 2021	39,320	4,764	10,000	0	90,000	24,556
2021 / 2022	39,320	5,198	10,000	0	80,000	24,122
2022 / 2023	39,320	5,570	10,000	0	70,000	23,750
2023 / 2024	39,320	5,854	10,000	0	60,000	23,466
2024 / 2025	39,320	5,959	10,000	0	50,000	23,361
2025 / 2026	39,320	5,834	10,000	0	40,000	23,486
2026 / 2027	39,320	5,698	10,000	0	30,000	23,622
2027 / 2028	39,320	5,546	10,000	0	20,000	23,774
2028 / 2029	39,320	5,479	10,000	0	10,000	23,841
2029 / 2030	39,320	5,594	10,000	0	0	23,726
Totals	866,045	74,953	175,000	225,000		391,091

1 -- Note that the new yield projection shown above relates only to the storage reduction caused by the use of the reoperation water listed in this schedule. There was over 60,000 acre-ft of additional storage reduction that occurred during 2000/01 and 2005/06 that is not reflected in the new yield schedule. In the near future, Watermaster will determine the additional new yield created by the Pre Peace II reductions in storage and will include a new schedule for yield.



**Table 2**  
**Desalter Production and Replenishment 2000/01 through 2006/07**  
 (acre-ft)

Fiscal Year	Desalter Production	Desalter Replenishment		
		Initial Projection of SAR Recharge	Desalter (aka Kaiser) Account	Re-operation Account
2000/01	7,989	3,995	3,995	
2001/02	9,458	4,729	4,729	
2002/03	10,439	5,220	5,220	
2003/04	10,605	5,303	5,303	
2004/05	9,854	4,927	4,927	
2005/06	16,476	4,897	11,579	
2006/07	26,356	0	608	25,748
Totals	91,177	29,070	36,360	25,748

**Table 3**  
**Initial Corrected Schedule Updated to Show Desalter Replenishment Accounting and Santa Ana River Inflow**  
**From 2000/01 through 2029/30, Shortfall Deducted from Non-WMWD Reoperation Account**  
(acre-ft)

Fiscal Year	Desalter Pumping	New Yield <sup>1</sup>	Desalter Replenishment				Residual Replenishment Obligation
			Desalter (aka Kaiser) Account	Replenishment Allocation for Desalter III	Replenishment Allocation to CDA	Balance	
2000 / 2001	7,989	0	3,995				3,995
2001 / 2002	9,458	0	4,729				4,729
2002 / 2003	10,439	0	5,220				5,220
2003 / 2004	10,605	0	5,303				5,303
2004 / 2005	9,854	0	4,927				4,927
2005 / 2006	16,476	0	11,579			400,000	4,897
2006 / 2007	26,356	0	608	0	25,748	374,252	0
2007 / 2008	26,356	0	0	0	26,356	347,896	0
2008 / 2009	26,356	0	0	0	55,426	292,470	-29,070
2009 / 2010	26,356	0	0	0	26,356	266,114	0
2010 / 2011	28,965	0	0	0	28,965	237,149	0
2011 / 2012	31,574	75	0	0	31,500	205,649	0
2012 / 2013	34,182	442	0	5,000	28,740	171,909	0
2013 / 2014	36,791	962	0	10,000	1,909	160,000	23,920
2014 / 2015	39,320	1,629	0	10,000	0	150,000	27,691
2015 / 2016	39,320	2,255	0	10,000	0	140,000	27,065
2016 / 2017	39,320	2,771	0	10,000	0	130,000	26,549
2017 / 2018	39,320	3,275	0	10,000	0	120,000	26,045
2018 / 2019	39,320	3,767	0	10,000	0	110,000	25,553
2019 / 2020	39,320	4,283	0	10,000	0	100,000	25,037
2020 / 2021	39,320	4,764	0	10,000	0	90,000	24,556
2021 / 2022	39,320	5,198	0	10,000	0	80,000	24,122
2022 / 2023	39,320	5,570	0	10,000	0	70,000	23,750
2023 / 2024	39,320	5,854	0	10,000	0	60,000	23,466
2024 / 2025	39,320	5,959	0	10,000	0	50,000	23,361
2025 / 2026	39,320	5,834	0	10,000	0	40,000	23,486
2026 / 2027	39,320	5,698	0	10,000	0	30,000	23,622
2027 / 2028	39,320	5,546	0	10,000	0	20,000	23,774
2028 / 2029	39,320	5,479	0	10,000	0	10,000	23,841
2029 / 2030	39,320	5,594	0	10,000	0	0	23,726
Totals	930,877	74,953	36,360	175,000	225,000		419,565

1 – Note that the new yield projection shown above relates only to the storage reduction caused by the use of the reoperation water listed in this schedule. There was over 60,000 acre-ft of additional storage reduction that occurred during 2000/01 and 2005/06 that is not reflected in the new yield schedule. In the near future, Watermaster will determine the additional new yield created by the Pre Peace II reductions in storage and will include a new schedule for yield.

**Table 4**  
**Estimates of Historical Storm Water Recharge in the Chino Basin During the Peace Agreement Period**  
(acre-ft)

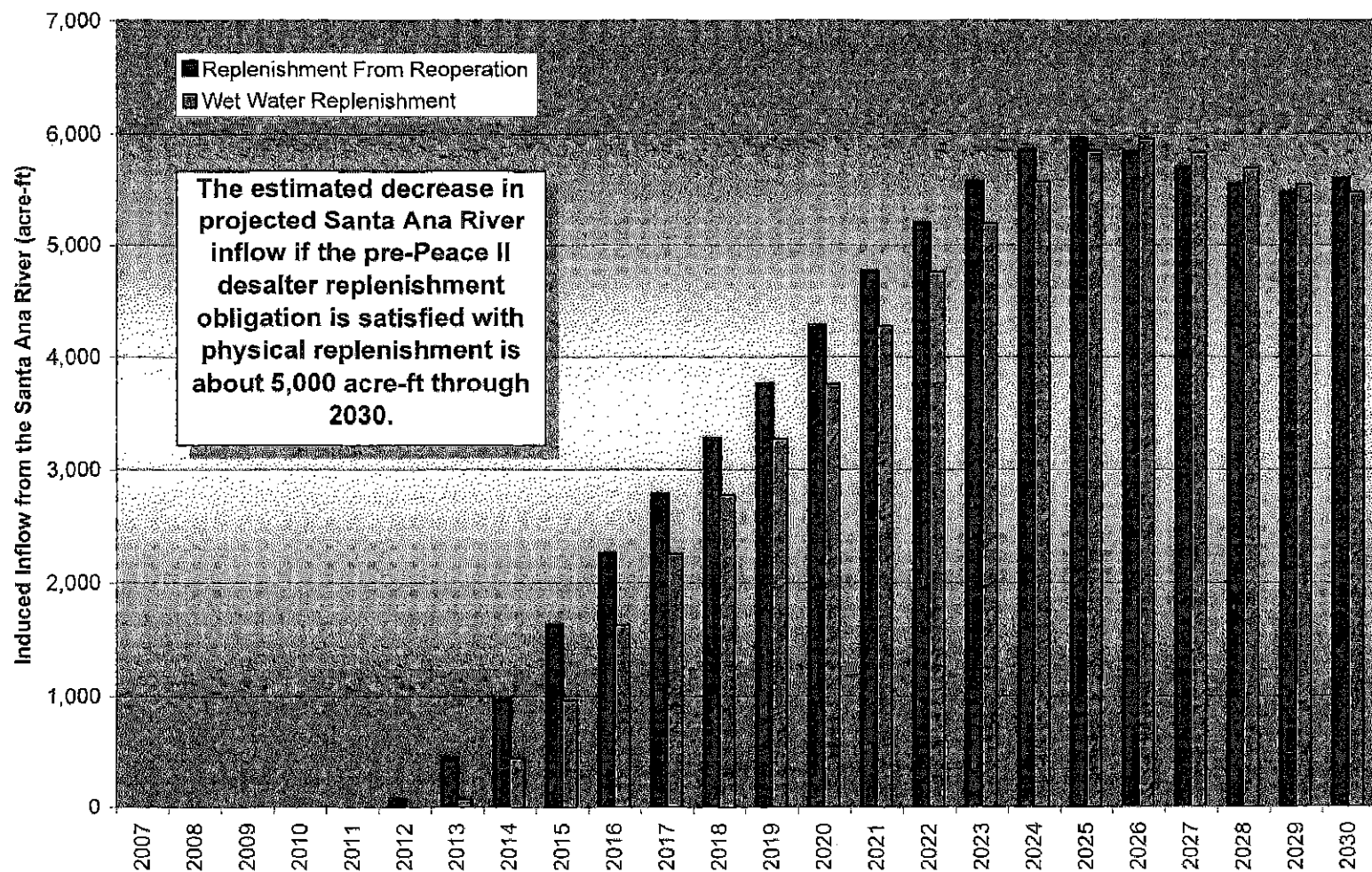
Channel/Recharge Basin	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08
<b>San Antonio Channel / CB-69</b>								
College Heights East (MZ1)	0	0	0	0	0	0	1	171
College Heights West (MZ1)	0	0	0	0	0	108	0	1
Upland (MZ1)	572	94	910	397	989	214	195	312
Montclair 1, 2, 3, 4 (MZ1)	1,982	837	3,757	1,296	3,360	1,296	355	858
Brooks (MZ1)	794	135	1,276	563	1,776	524	205	475
<b>West Cucamonga Channel</b>								
15th Street (MZ1)	0	0	0	0	0	0	0	0
8th Street (MZ1)	0	0	0	0	240	918	398	959
7th Street (MZ1)	0	0	0	0	380	355	242	0
Ely 1 (MZ2)	605	446	575	587	2,010	1,409	631	1,603
Ely 2 (MZ2)	0	0	0	0	0	0	0	0
Ely 3 (MZ2)	0	0	0	0	0	122	0	0
<b>Riverside Drive Drain</b>								
Grove (MZ2)	0	0	0	0	0	133	166	326
<b>Cucamonga/Deer Creek Ch / CB-11</b>								
Turner 1 & 2 (MZ2)	167	100	192	0	452	1,870	250	1,168
Turner 3 & 4 (MZ2)	0	0	0	0	976	705	158	376
<b>Day Creek Channel / CB-16</b>								
Lower Day (MZ2)	0	0	0	0	2,798	624	78	303
Wineville (MZ3)	0	0	0	0	0	0	0	0
Riverside (MZ3)	0	0	0	0	0	0	0	0
<b>Etiwanda Channel / CB-14</b>								
Etiwanda Debris Basin (MZ2)	0	0	0	0	0	20	0	10
Victoria (MZ2)	0	0	0	0	0	330	280	427
Conservation Ponds (MZ3)	0	0	0	0	0	0	0	0
<b>San Sevaine Channel / CB-13</b>								
San Sevaine #1 (MZ2)	190	250	1,384	512	768	2,072	244	749
San Sevaine #2 (MZ2)	0	0	88	11	0	0	0	0
San Sevaine #3 (MZ2)	66	70	461	157	0	0	0	0
San Sevaine #4 & 5 (MZ2)	0	0	168	38	2,062	0	0	0
San Sevaine Reach (MZ3)	0	0	0	0	0	0	0	0
Jurupa (MZ3)	0	0	0	0	0	0	0	0
<b>West Fontana Channel / CB-18</b>								
Hickory (MZ2)	37	105	551	224	298	438	536	949
Banana (MZ3)	390	184	356	188	425	300	225	278
<b>Declez Channel</b>								
RP3 Cell 1a (MZ3)	0	0	0	0	1,105	507	237	511
RP3 Cell 3b (MZ3)	0	0	0	0	0	260	555	0
Declez (MZ3)	0	0	0	0	19	737	0	730
<b>Total Recharge</b>	<b>4,803</b>	<b>2,218</b>	<b>9,688</b>	<b>3,973</b>	<b>17,648</b>	<b>12,940</b>	<b>4,745</b>	<b>10,205</b>
Index Precipitation 1192 Cucamonga (inches)	16.58	7.96	21.6	11.67	33.87	3.15	5.66	14.71
Index Precipitation 2206 Fontana (inches)	12.39	4.52	17.3	7.67	27.6	12.09	4.52	12.35

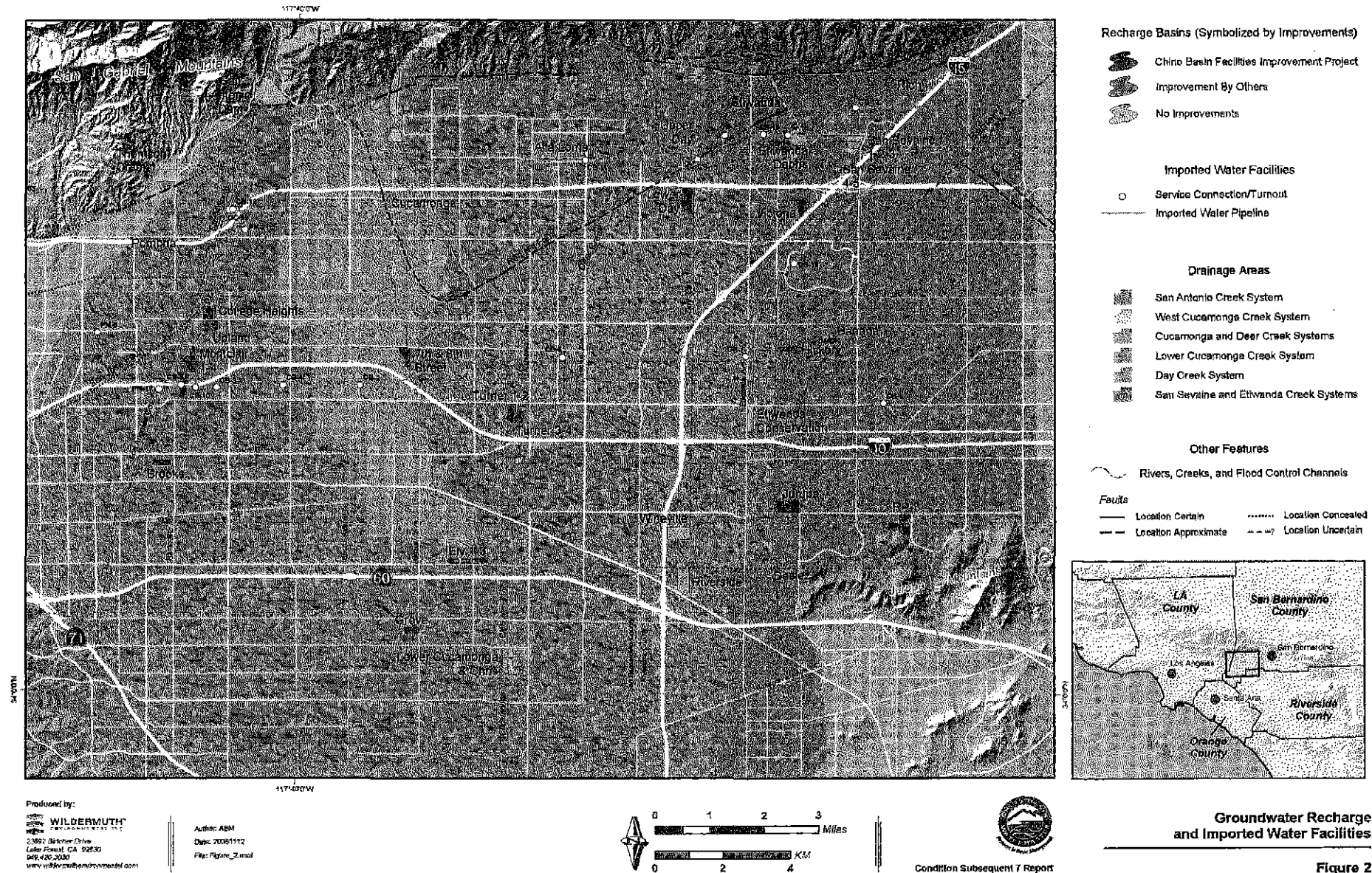
**Table 5**  
**Example of New Storm Water Recharge Calculation**

(acre-ft)

Fiscal Year Ending	Pre CBFIP Recharge	Estimated Total Recharge	Projected New Storm Water Recharge	Over Estimate of New Recharge	Cumulative Over (Under) Estimate of New Recharge
2005	5,600	17,600	12,000	6,000	6,000
2006	5,600	17,600	12,000	6,000	12,000
2007	5,600	17,600	12,000	6,000	18,000
2008	5,600	17,600	12,000	6,000	24,000
2009	5,600	17,600	12,000	6,000	30,000
2010	5,600	11,600	0	0	24,000
2011	5,600	11,600	0	0	18,000
2012	5,600	11,600	0	0	12,000
2013	5,600	11,600	0	0	6,000
2014	5,600	11,600	0	0	0
2015	5,600	11,600	6,000	0	0
2016	5,600	11,600	6,000	0	0
2017	5,600	11,600	6,000	0	0
2018	5,600	11,600	6,000	0	0
2019	5,600	11,600	6,000	0	0
2020	5,600	11,600	6,000	0	0
2021	5,600	11,600	6,000	0	0
2022	5,600	11,600	6,000	0	0
2023	5,600	11,600	6,000	0	0
2024	5,600	11,600	6,000	0	0
2025	5,600	11,600	6,000	0	0
2026	5,600	11,600	6,000	0	0
2027	5,600	11,600	6,000	0	0
2028	5,600	11,600	6,000	0	0
2029	5,600	11,600	6,000	0	0
2030	5,600	11,600	6,000	0	0
Totals	145,600	331,600	156,000	30,000	na
Estimated Total Recharge				<u>331,600</u>	
Pre Improvement Recharge				-	145,600
Over Estimate of New Recharge				-	30,000
Assumed New Recharge				=	<u>156,000</u>

**Figure 1**  
**The Effect of Desalter Replenishment on Santa Ana River Inflow**





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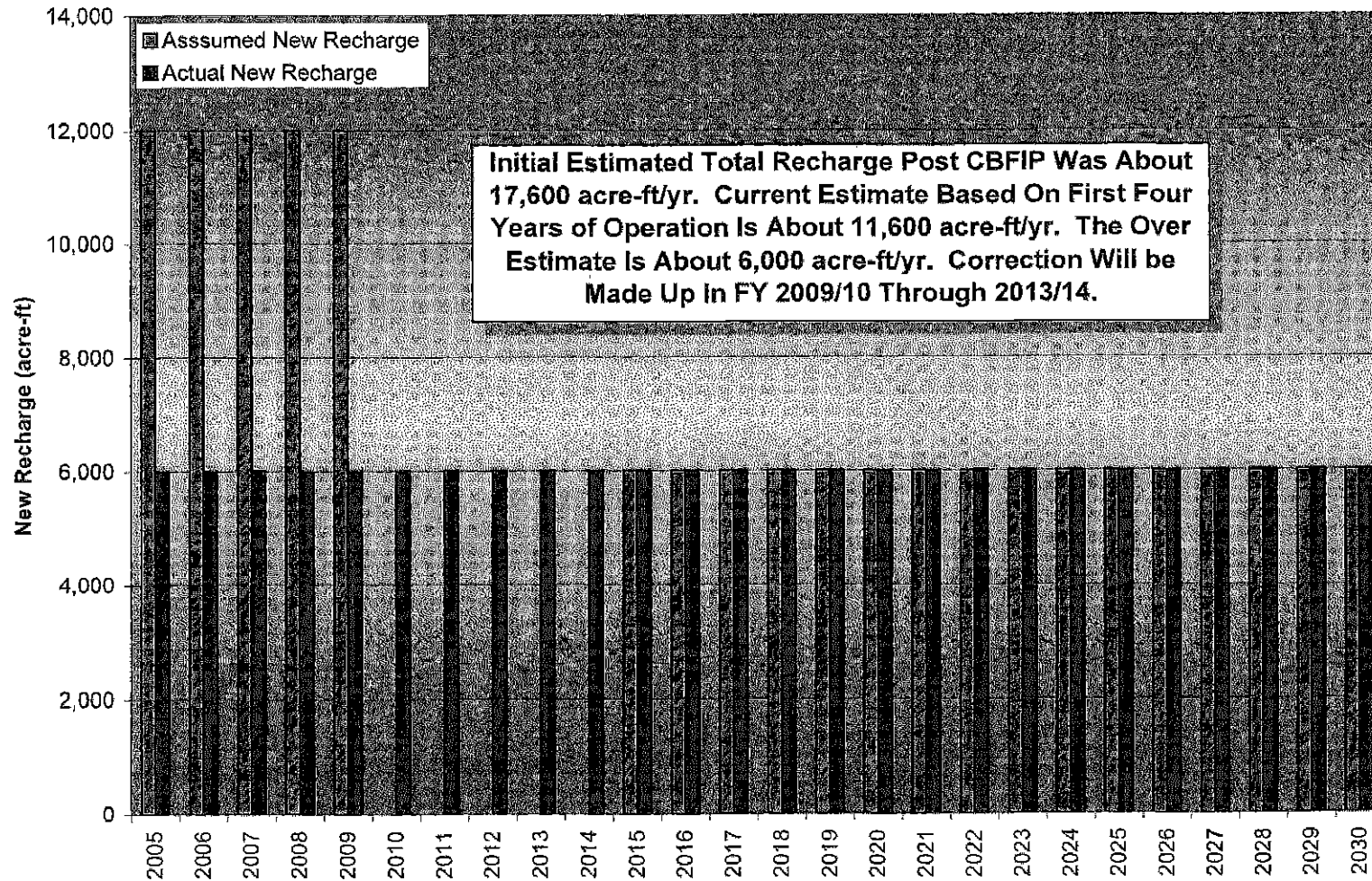
Author: ABM  
 Date: 2008/11/12  
 File: Figure\_2.mxd



Condition Subsequent 7 Report



**Figure 3**  
**Example Comparison of Projected and Actual New Recharge**



# **Exhibit B**



**Exhibit B**  
**Recharge Master Plan Update**  
**Chino Basin Watermaster**

ID	Task No.	Whom	Task Name	Duration	Start	Finish	Predecessors
1	1		<b>Project Management</b>	565 days?	Tue 7/1/08	Fri 9/3/10	
2	1.1	WEI	Preparation of Project Control Plan	66 days?	Tue 7/1/08	Tue 9/30/08	
3	1.3	WEI	Administration and Preparation of Monthly Progress Reports	476 days	Wed 10/1/08	Tue 8/3/10:2	
4	1.4	WEI	Coordination of Meetings, Meetings, and Preparation of Minutes	476 days	Wed 10/1/08	Tue 8/3/10:2	
5	1.5	WEI	Web Site Management	476 days	Mon 11/3/08	Fri 9/3/10	
7	2		<b>Collect, Compile and Review Data and Reports</b>	70 days	Wed 10/1/08	Mon 1/12/09	
9	3		<b>Develop Planning Criteria</b>	58 days	Mon 1/5/09	Wed 3/25/09	
10	3.1	WEI	Compile Judgment, Peace Agreement and Court Order Requirements	2 days	Mon 1/5/09	Tue 1/6/09	
11	3.2	CBW-BP	Compile Storm Water Management Requirements	23 days	Mon 1/5/09	Wed 2/4/09	
12	3.3	B&V	Compile Design Requirements for Wells, Conveyance, Storage and Treatment Facilities	23 days	Mon 1/5/09	Wed 2/4/09	
13	3.4	WEI	Compile Siting Requirements for Recharge	23 days	Mon 1/5/09	Wed 2/4/09	
14	3.5	WEI	Compile Robustness Requirements	23 days	Mon 1/5/09	Wed 2/4/09	
15	3.6	WEI	Compile Regulatory Requirements	23 days	Mon 1/5/09	Wed 2/4/09	
16	3.7	B&V	Develop Cost Estimating Methodology and Financial Criteria	23 days	Mon 1/5/09	Wed 2/4/09	
17	3.8		<b>Prepare Draft Section 2 of Project Report</b>	35 days	Thu 2/5/09	Wed 3/25/09	
18	3.8.1	WEI	Prepare Draft Section 2 of Project Report	10 days	Thu 2/5/09	Wed 2/18/09:10,11,12,13,14,15	
19	3.8.2	WEI	Review Draft Section 2 with Stakeholders	20 days	Thu 2/19/09	Wed 3/18/09:18	
20	3.8.3	WEI	Incorporate Comments and Finalize Draft Section 2	5 days	Thu 3/19/09	Wed 3/25/09:19	
22	4		<b>Task 4 Characterize How Landuse Decisions and Storm Water Management Affect Safe Yield</b>	170 days?	Mon 11/3/08	Thu 7/2/09	
23	4.1		<b>Develop Methodology to Estimate Safe Yield</b>	41 days?	Mon 1/5/09	Mon 3/2/09	
24	4.1.1	WEI	Compile Definitions	10 days	Mon 1/5/09	Fri 1/16/09	
25	4.1.2	WEI	Computational Procedures	11 days	Mon 1/19/09	Mon 2/2/09:24	
26	4.1.3	WEI	Data Requirements	2 days	Tue 2/3/09	Wed 2/4/09:25	
27	4.1.4	WEI	Base Period	2 days	Thu 2/5/09	Fri 2/6/09:26	
28	4.1.5	WEI	Area of Interest	3 days	Mon 2/9/09	Wed 2/11/09:27	
29	4.1.6	WEI	Safe Yield Estimate in the 1978 Judgment	1 day	Thu 2/12/09	Thu 2/12/09:28	
30	4.1.7	WEI	Safe Yield Estimate in the 2008 Peace II Report	1 day	Fri 2/13/09	Fri 2/13/09:29	
31	4.1.8	WEI	Evaluation of Methods	10 days	Mon 2/16/09	Fri 2/27/09:30	
32	4.1.9	WEI	Recommend Method	1 day?	Mon 3/2/09	Mon 3/2/09:31	
33	4.2	WEI	Refine and Validate Landuse Maps for Current and Ultimate Development Conditions	58 days	Mon 11/3/08	Tue 1/27/09	
34	4.3		<b>Determine How Landuse and Storm Water Recharge Decisions Affect Safe Yield</b>	135 days	Mon 11/3/08	Thu 5/14/09	
35	4.3.1	WEI	Update WLAM and Watermaster Models Assumptions and Input Files	60 days	Mon 11/3/08	Thu 1/29/09	
36	4.3.2	WEI	Run Models and Estimate Safe Yield	30 days	Fri 1/30/09	Thu 3/12/09:35,33,43,44	
37	4.3.3	WEI	Characterize Hydrologic Components of Safe Yield	10 days	Fri 3/13/09	Thu 3/26/09:36	
38	4.3.4	WEI	Estimate Recharge from the Deep Percolation of Precipitation and Applied Water	0 days	Thu 3/26/09	Thu 3/26/09:37	
39	4.3.5	WEI	Estimate Recharge in Stream Channels and Existing Storm Water Recharge Facilities	0 days	Thu 3/26/09	Thu 3/26/09:37	
40	4.3.6	WEI	Run Sensitivity Analysis	20 days	Fri 3/27/09	Thu 4/23/09:37	
41	4.3.7	IEUA-MD	Describe Low Impact Development Scenarios for Recent and Future Developments	10 days	Fri 4/24/09	Thu 5/7/09:40	
42	4.3.8	WEI	Describe How Land Use Decisions Affect Safe Yield	5 days	Fri 5/8/09	Thu 5/14/09:41	
43	4.3.9	WEI	Describe Existing Storm Water Recharge Facilities	60 days	Mon 11/3/08	Thu 1/29/09	

**Exhibit B  
Recharge Master Plan Update  
Chino Basin Watermaster**

ID	Task No.	Whom	Task Name	Duration	Start	Finish	Predecessors
44	4.3.10	WEI	Describe Historical Storm Water Management Operations -- Theoretical and Actual	60 days	Mon 11/3/08	Thu 1/29/09	
45	4.3.11	WEI	Run Sensitivity Analysis to Determine How Storm Water Recharge Decisions Affect Safe Yield	15 days	Fri 3/27/09	Thu 4/16/09	37,43,44
46	4.3.12	WEI	Describe How Storm Water Recharge Decisions Affect Safe Yield	5 days	Fri 4/17/09	Thu 4/23/09	45
47	4.4		<b>Prepare Draft Section 3 of Project Report</b>	35 days	Fri 5/15/09	Thu 7/2/09	
48	4.4.1	WEI	Prepare Draft Section 3 of Project Report	20 days	Fri 5/15/09	Thu 6/11/09	42,46
49	4.4.2	WEI	Review Draft Section 3 with Stakeholders	10 days	Fri 6/12/09	Thu 6/25/09	48
50	4.4.3	WEI	Incorporate Comments and Finalize Draft Section 3	5 days	Fri 6/26/09	Thu 7/2/09	49
51							
52	5		<b>Conduct Initial Integrated Review of Water Demands and Water Supply Plans</b>	112 days	Mon 10/13/08	Mon 3/23/09	
53	5.1		<b>Prepare Initial Water Demands and Water Supply Plans</b>	25 days	Mon 10/13/08	Fri 11/14/08	
54	5.1.1	IEUA	Prepare Initial Water Demands for the IEUA Service Area	10 days	Mon 11/3/08	Fri 11/14/08	
55	5.1.2	IEUA	Prepare Initial Water Demands for the TVMMWD Service Area	10 days	Mon 11/3/08	Fri 11/14/08	
56	5.1.3	IEUA	Prepare Initial Water Demands for the WMWD Service Area	10 days	Mon 10/13/08	Fri 10/24/08	
57	5.2	IEUA	Integrate Water Demands and Water Supply Plans	5 days	Mon 11/17/08	Fri 11/21/08	54,55,56
58	5.3	WEI	Project Replenishment Obligations	27 days	Mon 11/24/08	Mon 1/5/09	57
59	5.4		<b>Characterize the Ability to Replenish With Existing Resources Pursuant to the Judgment</b>	35 days	Tue 1/6/09	Mon 2/23/09	
60	5.4.1	WEI	Characterize the Reliability of Supplemental Water Supplies	22 days	Tue 1/6/09	Wed 2/4/09	58
61	5.4.2	WEI	Characterize the Availability of Existing Recharge Facilities	22 days	Tue 1/6/09	Wed 2/4/09	58
62	5.4.3	WEI	Estimate the Time History of Replenishment Shortage/Surplus	2 days	Thu 2/5/09	Fri 2/6/09	61,60
63	5.4.4	WEI	Characterize How the Reliability of Supplemental Supplies Affects the CURO	1 day	Mon 2/9/09	Mon 2/9/09	62
64	5.4.5	WEI	Describe Potential for Pre-emptive Replenishment	22 days	Tue 1/6/09	Wed 2/4/09	58
65	5.4.6	WEI	Define the Range of Recharge Capacity Required for Replenishment	5 days	Tue 2/10/09	Mon 2/16/09	63
66	5.4.7	WEI	Define Supplemental Recharge Capacity Requirements for Non Replenishment Purposes	5 days	Tue 2/17/09	Mon 2/23/09	65
67	5.5		<b>Prepare Section 4 of Project Report</b>	20 days	Tue 2/24/09	Mon 3/23/09	
68	5.5.1	WEI	Prepare Draft Section 4 of Project Report	5 days	Tue 2/24/09	Mon 3/2/09	63,58,62,65,66
69	5.5.2	WEI	Review Draft Section 4 with Stakeholders	10 days	Tue 3/3/09	Mon 3/16/09	68
70	5.5.3	WEI	Incorporate Comments and Finalize Draft Section 4	5 days	Tue 3/17/09	Mon 3/23/09	69
71							
72	6		<b>Describe Storm Water Recharge and Recharge Enhancement Opportunities</b>	149 days	Tue 12/9/08	Thu 7/9/09	
73	6.1		<b>Describe Existing Storm Water Management and Recharge</b>	74 days	Tue 12/9/08	Thu 3/26/09	
74	6.1.1	CBWCD	Describe Regional and Local Policies Related to Storm Water Management and Recharge	24 days	Mon 1/5/09	Thu 2/5/09	
75	6.1.2	CBWCD	Describe Regional Storm Water Management and Recharge Facilities	39 days	Tue 12/9/08	Thu 2/5/09	
76	6.1.3	CBWCD	Describe Local Storm Water Management and Recharge Facilities	38 days	Mon 1/5/09	Wed 2/25/09	
77	6.1.4	WEI	Estimate the Expected Storm Water Recharge with Existing Practices and Facilities	21 days	Thu 2/26/09	Thu 3/26/09	74,75,76
78	6.2		<b>Identify Potential Storm Water Management Projects</b>	79 days	Mon 1/5/09	Thu 4/23/09	
79	6.2.1	CBWCD	Describe Potential Regional Storm Water Recharge Projects	20 days	Fri 2/6/09	Thu 3/5/09	75
80	6.2.2	CBWCD	Describe Potential Local Storm Water Recharge Facilities	20 days	Thu 2/26/09	Wed 3/25/09	76
81	6.2.3	CBWCD	Identify and Recommend Potential Changes in Storm Water Management Policy to Increase Recharge	60 days	Mon 1/5/09	Fri 3/27/09	
82	6.2.4	WEI	Estimate the Expected Increase in Storm Water Recharge for Each Potential New Recharge Facility	19 days	Mon 3/30/09	Thu 4/23/09	79,80,81
83	6.2.5	CBWCD	Estimate the Supplemental Water Recharge Capacity for Each Potential New Storm Water Recharge Facility	19 days	Mon 3/30/09	Thu 4/23/09	79,80,81

**Exhibit B  
Recharge Master Plan Update  
Chino Basin Watermaster**

ID	Task No.	Whom	Task Name	Duration	Start	Finish	Predecessors
84	6.3		<b>Develop New Storm Water Recharge Alternatives</b>	20 days	Fri 4/24/09	Thu 5/21/09	
85	6.3.1	CBWCD	Formulate Alternatives (Combinations of Facility and Associated Operating Plans)	10 days	Fri 4/24/09	Thu 5/7/09 83	
86	6.3.2	WEI	Estimate the Expected Increase in Storm Water Recharge for Each Alternative	10 days	Fri 5/8/09	Thu 5/21/09 85	
87	6.3.3	CBWCD	Prepare Cost Opinions for Each Alternative (Capital, O&M, Unit Cost)	10 days	Fri 5/8/09	Thu 5/21/09 85	
88	6.3.4	CBWCD	Describe Implementation Barriers	10 days	Fri 5/8/09	Thu 5/21/09 85	
89	6.3.5	CBWCD	Describe Policy Changes	10 days	Fri 5/8/09	Thu 5/21/09 85	
90	6.4		<b>Prepare Section 5 of Project Report</b>	55 days	Fri 4/24/09	Thu 7/9/09	
91	6.4.1	CBWCD	Prepare Draft Section 5 of Project Report	30 days	Fri 4/24/09	Thu 6/4/09 83	
92	6.4.2	CBWCD	Review Draft Section 5 with Stakeholders	20 days	Fri 6/5/09	Thu 7/2/09 91	
93	6.4.3	CBWCD	Incorporate Comments and Finalize Draft Section 5	5 days	Fri 7/3/09	Thu 7/9/09 92	
94							
95	7		<b>Describe Supplemental Water Recharge and Supplemental Water Recharge Enhancement Opportunities</b>	244 days	Wed 9/10/08	Fri 8/21/09	
96	7.1		<b>Characterize Existing Supplemental Water Recharge Capacity</b>	20 days	Mon 2/2/09	Fri 2/27/09	
97	7.1.1	B&V	Describe Regional Supplemental Water Recharge Facilities	20 days	Mon 2/2/09	Fri 2/27/09	
98	7.1.2	B&V	Describe Local Supplemental Water Recharge Facilities	20 days	Mon 2/2/09	Fri 2/27/09	
99	7.2	CBW-BP	Describe the Need for New Supplemental Water Recharge Capacity	0 days	Mon 2/23/09	Mon 2/23/09 65,66	
100	7.3		Identify New Supplemental Water Recharge Projects	165 days	Wed 9/10/08	Mon 5/4/09	
101	7.3.1	B&V	Describe Potential Regional Supplemental Water Recharge Projects	40 days	Mon 3/2/09	Fri 4/24/09 97,98	
102	7.3.2	B&V	Describe Potential Local Supplemental Water Recharge Facilities	40 days	Mon 3/2/09	Fri 4/24/09 97,98	
103	7.3.3	CBW-BP & B&V	Identify and Recommend Potential Changes in Supplemental Water Management Policy to Increase Recharge	20 days	Mon 4/27/09	Fri 5/22/09 101,102	
104	7.3.4	B&V	Estimate the Expected Increase in Supplemental Water Recharge for Each Potential New Recharge Facility	20 days	Mon 5/25/09	Fri 6/19/09 103	
105	7.3.5	B&V	Prepare Cost Opinions for Each Alternative (Capital, O&M, Unit Cost)	20 days	Mon 5/25/09	Fri 6/19/09 103	
106	7.3.6	CBW-BP & B&V	Describe Implementation Barriers	20 days	Mon 5/25/09	Fri 6/19/09 103	
107	7.4		<b>Prepare Section 6 of Project Report</b>	45 days	Mon 6/22/09	Fri 8/21/09	
108	7.4.1	CBW-BP & B&V	Prepare Draft Section 6 of Project Report	20 days	Mon 6/22/09	Fri 7/17/09 108	
109	7.4.2	CBW-BP & B&V	Review Draft Section 6 with Stakeholders	20 days	Mon 7/20/09	Fri 8/14/09 108	
110	7.4.3	CBW-BP & B&V	Incorporate Comments and Finalize Draft Section 6	5 days	Mon 8/17/09	Fri 8/21/09 109	
111							
112	8		<b>Integrate Storm and Supplemental Water Recharge Projects</b>	121 days	Mon 8/17/09	Mon 2/1/10	
113	8.1	CBW_BP, B&V, WEI	Formulate Alternatives that Maximize Storm and Supplemental Water Recharge (Combinations of Facility and Associated Operating Plans)	10 days	Mon 8/17/09	Fri 8/28/09 92,109	
114	8.2	WEI	<b>Characterize Groundwater Basin Response</b>	40 days	Mon 8/31/09	Fri 10/23/09	
115	8.2.1	WEI	Simulate Recharge Operations with WLAM and the Watermaster GW Models	30 days	Mon 8/31/09	Fri 10/9/09 113	
116	8.2.2	WEI	Characterize Groundwater Response and Safe Yield	10 days	Mon 10/12/09	Fri 10/23/09 115	
117	8.3		<b>Financial Analysis</b>	50 days	Mon 8/31/09	Fri 11/6/09	
118	8.3.1	WEI	Prepare Cost Opinions for Each Alternative (Capital, O&M, Unit Cost)	10 days	Mon 8/31/09	Fri 9/11/09 113	
119	8.3.2	CBW-BP & WEI	Forecast Watermaster Annual Assessments	10 days	Mon 10/26/09	Fri 11/6/09 118,116	
120	8.4	WEI	Describe Implementation Barriers for Each Alternative	5 days	Mon 11/9/09	Fri 11/13/09 116,119	
121	8.5	WEI	Describe Policy Changes for Each Alternative	5 days	Mon 11/9/09	Fri 11/13/09 116,119,118	
122	8.6		<b>Rank Alternatives</b>	31 days	Mon 11/16/09	Mon 12/28/09	
123	8.6.1	WEI	Prepare Matrix for the Alternatives and Ranking Criteria	10 days	Mon 11/16/09	Fri 11/27/09 116,118,119,120	
124	8.6.2	WEI	Score Each Alternative and Rank	10 days	Mon 11/30/09	Fri 12/11/09 123	

**Exhibit B  
Recharge Master Plan Update  
Chino Basin Watermaster**

ID	Task No.	Whom	Task Name	Duration	Start	Finish	Predecessors
125	8.6.3	WEI	Conduct Workshop to Review Ranking and to Obtain Stakeholder Input	10 days	Mon 12/14/09	Fri 12/25/09	124
126	8.6.4	WEI	Finalize Matrix and Ranking	1 day	Mon 12/28/09	Mon 12/28/09	125
127	8.7		<b>Prepare Sections 7 and 8 of Project Report</b>	25 days	Tue 12/29/09	Mon 2/1/10	
128	8.7.1	WEI	Prepare Draft Sections 7 and 8 of Project Report	10 days	Tue 12/29/09	Mon 1/11/10	126
129	8.7.2	WEI	Review Draft Sections 7 and 8 with Stakeholders	10 days	Tue 1/12/10	Mon 1/25/10	128
130	8.7.3	WEI	Incorporate Comments and Finalize Draft Sections 7 and 8	5 days	Tue 1/26/10	Mon 2/1/10	129
131							
132	9		<b>Conduct Final Integrated Review of Water Demands and Water Supply Plans</b>	61 days	Tue 1/26/10	Tue 4/20/10	
133	9.1		<b>Finalize Water Demands and Water Supply Plans</b>	20 days	Tue 1/26/10	Mon 2/22/10	
134	9.1.1	IEUA	Finalize Water Demands for the IEUA Service Area	20 days	Tue 1/26/10	Mon 2/22/10	129
135	9.1.2	IEUA	Finalize Water Demands for the TVMWD Service Area	20 days	Tue 1/26/10	Mon 2/22/10	129
136	9.1.3	IEUA	Finalize Water Demands for the VMWD Service Area	20 days	Tue 1/26/10	Mon 2/22/10	129
137	9.2	IEUA	Integrate Water Demands and Water supply Plans	5 days	Tue 2/23/10	Mon 3/1/10	134, 135, 136
138	9.3	CBW_BP	Project Range of Future Replenishment Obligations	5 days	Tue 3/2/10	Mon 3/8/10	137
139	9.4		<b>Characterize the Ability to Replenish With Existing and New Resources Pursuant to the Judgment</b>	6 days	Tue 3/9/10	Tue 3/16/10	
140	9.4.1	WEI	Identify New Facilities and New Operating Plans Required for Supplemental Water Recharge	5 days	Tue 3/9/10	Mon 3/15/10	138
141	9.4.2	WEI	Forecast the Time History of Replenishment Shortage/Surplus and the CURO	1 day	Tue 3/16/10	Tue 3/16/10	140
142	9.5		<b>Prepare Section 9 of Project Report</b>	25 days	Wed 3/17/10	Tue 4/20/10	
143	9.5.1	WEI	Prepare Draft Section 9 of Project Report	10 days	Wed 3/17/10	Tue 3/30/10	141
144	9.5.2	WEI	Review Draft Section 9 with Stakeholders	10 days	Wed 3/31/10	Tue 4/13/10	143
145	9.5.3	WEI	Incorporate Comments and Finalize Draft Section 9	5 days	Wed 4/14/10	Tue 4/20/10	144
146							
147	10		<b>Prepare Recharge Master Plan</b>	75 days	Tue 1/26/10	Mon 5/10/10	
148	10.2	WEI	Describe New Recharge Projects to Meet Replenishment Obligations	5 days	Tue 3/16/10	Mon 3/22/10	140
149	10.3	WEI	Describe New Recharge Projects to Maximize Storm Water Recharge	5 days	Tue 1/26/10	Mon 2/1/10	129
150	10.4	WEI	Develop Schedule to Construct Recharge Improvements	10 days	Tue 3/23/10	Mon 4/5/10	148, 149
151	10.5	WEI	Describe Financing Alternatives	10 days	Tue 3/23/10	Mon 4/5/10	148, 149
152	10.6	WEI	Describe Monitoring Requirements	5 days	Tue 3/23/10	Mon 3/29/10	148, 149
153	10.7		<b>Prepare Section 10 of Project Report</b>	25 days	Tue 4/6/10	Mon 5/10/10	
154	10.7.1	WEI	Prepare Draft Section 10 of Project Report	10 days	Tue 4/6/10	Mon 4/19/10	150, 151, 152
155	10.7.2	WEI	Review Draft Section 10 with Stakeholders	10 days	Tue 4/20/10	Mon 5/3/10	154
156	10.7.3	WEI	Incorporate Comments and Finalize Draft Section 10	5 days	Tue 5/4/10	Mon 5/10/10	155
157							
158	11		<b>Prepare Final Report</b>	61 days	Wed 4/21/10	Wed 6/30/10	
159	11.1	WEI	Prepare Draft Report Integrating the Work Products of Tasks 1 through 10	20 days	Wed 4/21/10	Tue 5/18/10	145
160	11.2		<b>Review Draft</b>	21 days	Wed 5/19/10	Wed 6/16/10	
161	11.2.1	WEI	Review Written Comments, Prepare Responses, Revise Report	15 days	Wed 5/19/10	Tue 6/8/10	159
162	11.2.2	WEI	Conduct Stakeholder Workshop	6 days	Wed 6/9/10	Wed 6/16/10	161
163	11.3	WEI	Finalize Report	10 days	Thu 6/17/10	Wed 6/30/10	162

# **7/01/2010 CONDITION SUBSEQUENT 8 FILING**

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SUPERIOR COURT OF THE STATE OF CALIFORNIA  
FOR THE COUNTY OF SAN BERNARDINO

CHINO BASIN MUNICIPAL WATER  
DISTRICT

Plaintiff,

vs.

CITY OF CHINO, ET AL.

Defendant.

Case No. RCV 51010

[Assigned for All Purposes to the  
Honorable STANFORD E. REICHERT]

**WATERMASTER COMPLIANCE WITH  
CONDITION SUBSEQUENT NUMBER  
EIGHT; PROPOSED ORDER SUBMITTED  
CONCURRENTLY**

Hearing Date: September 24, 2010  
Time: 10:30 a.m.  
Dept: C-1 (Chino)

I. Background

At a hearing held April 2, 2010, Watermaster and the Court discussed holding informational workshops similar to those held for the benefit of Judge Wade in 2008 for the purpose of providing the Court with background about management of the Chino Basin under the 1978 Judgment. The Court indicated an interest to hold such a workshop at or before the hearing on Condition Subsequent Number Eight in order to provide detailed information to the Court relevant to its approval of this condition. Accordingly, this pleading provides a brief introduction to the background of Condition Subsequent Number Eight and the Recharge Master Plan ("RMP")

1 generally, but is intended to be supplemented with live testimony in the context of a Court  
2 workshop.

3           **A.       December 21, 2007 Order and Conditions Subsequent**

4           On December 21, 2007, the Court signed its Order approving the Peace II Measures. The  
5 Peace II Measures are a comprehensive package of Basin management measures that provide for an  
6 update of the Basin management approach of the 2000 Optimum Basin Management Program  
7 ("OBMP") and the Peace Agreement.  
8

9           The measures described in Peace II were ambitious approaches that have no parallel in any  
10 other managed groundwater basin. They followed upon the OBMP goal of constructing Desalter  
11 facilities in the southern end of the Basin to pump at least 40,000 acre-feet of impaired water, and  
12 from the 2004 Regional Water Quality Control Board's ("RWQCB") Basin Plan for the Santa Ana  
13 River Watershed.  
14

15           Pursuant to the mandate of its continuing oversight of the Watermaster process, the Court's  
16 December 21, 2007 Order described nine conditions subsequent that Watermaster needed to meet in  
17 order for the approval of Peace II to remain valid. The ninth of these conditions is a catchall  
18 requirement that Watermaster meet all of its commitments as described in the Peace II Measures. So  
19 far, Watermaster has successfully completed the first seven conditions. The final condition,  
20 Condition Subsequent Number Eight, is the requirement that Watermaster submit an updated RMP  
21 by July 1, 2010. This requirement mirrors the requirement in section 8.1 of the Peace II Agreement  
22 to prepare an updated RMP, and differs from the section 8.1 requirement only insofar as Condition  
23 Subsequent Eight places a specific deadline on Watermaster for the completion of the update.  
24 Attached to this pleading as Exhibit "A" is a copy of the updated RMP. Watermaster respectfully  
25 requests the Court to approve this RMP as compliant with the requirements of the December 21,  
26 2007 Order.  
27  
28

1           **B.     Recharge Master Plan Background**

2           Prior conditions subsequent also dealt with the update of the RMP. In particular, Condition  
3           Subsequent Number 5 required Watermaster to submit a detailed outline of the scope and content of  
4           the updated RMP by July 1, 2008. Watermaster timely complied with this requirement and included  
5           a detailed explanation of the content of the RMP as required by the December 21, 2007 Order. A  
6           hearing to consider the approval of this outline was initially scheduled for August 21, 2008.  
7           However, before that hearing could take place, Judge Gunn left the bench and was eventually  
8           replaced by Judge Wade. On November 13, 2008, Judge Wade held a hearing to consider a variety  
9           of matters and, based on a lack of objection by any party to the intended scope and structure of the  
10          RMP update, approved the outline. (Reporter's Transcript, November 13, 2008 Hearing 4:10.)

11           **C.     Recharge under the Judgment**

12           The Chino Basin Judgment operates on the fundamental premise that overproduction can be  
13           replenished through the recharge of supplemental water. Under the Judgment no party is limited in  
14           the amount that it can pump from the Basin, provided that sufficient funds are provided by the  
15           parties to purchase replenishment water to replace any pumping above the Safe Yield of the Basin.  
16           However, as pumping from the Basin increases over time, replenishment needs also increase.

17           There are two aspects to this increasing need that are relevant to the RMP: (1) recharge facilities  
18           must be adequate to accommodate the recharge needs, and (2) the water to be used for recharge must  
19           be available for purchase. Both of these elements have challenges and addressing these challenges is  
20           a key function of the updated RMP.

21           **D.     December 21, 2007 Order**

22           **1.     Required Content of the Updated Recharge Master Plan**

23           By reference and incorporation to the *Special Referee's Final Report and Recommendations*  
24           on *Motion for Approval of Peace II Documents* (dated December 20, 2007), the Court articulated the



1 minimum issues that needed to be addressed by the updated RMP. Watermaster listed these  
2 requirements in its pleading for Condition Subsequent Number Five and described where in the  
3 outline of the RMP these issues were addressed. Similarly, the updated RMP contains a table (Table  
4 7-1) describing where the required elements can be found in the RMP. For the Court's convenience,  
5 a copy of this table is separately attached here as Exhibit "B."

6  
7 **2. Standard of Review**

8 The December 21, 2007 Order does not articulate the standards to be used by the Court in  
9 determining whether the RMP update is sufficient.

10 The Watermaster process is grounded in litigation of the Chino Basin adjudication and is  
11 therefore primarily an adversarial process. Watermaster has the overarching goal to administer the  
12 Judgment and protect the Basin, and the individual parties and Pools remain advocates for the many  
13 and varied individual interests in the Basin. The updated RMP was unanimously recommended for  
14 approval by all three Pools, the Advisory Committee and recommended for approval by the  
15 Watermaster Board with one abstention. Watermaster knows of no objection by any party to the  
16 Court's approval of the updated RMP in satisfaction of Condition Subsequent Number Eight.

17  
18 Watermaster has previously articulated the position that the ability to object to a Watermaster  
19 action defines the issues under the Judgment, and when there are no challenges it is a means of  
20 identifying a lack of issues. In other words, consent of the parties represents compelling, un rebutted  
21 evidence that the matter before the Court is both consistent with the Judgment and in the public  
22 interest. (*Motion for Approval of Peace II Documents* (filed October 25, 2007) 10:18-24; see also  
23 *Watermaster Response to Special Referee Preliminary Comments and Recommendations on Motion*  
24 *for Approval of Peace II Documents* (filed December 14, 2007) 5:8.)

25  
26 ///

27  
28 ///

1 **II. Updated RMP**

2 **A. Process of Development of RMP Update**

3 **1. RMP Update Development Team**

4 The primary drafter of the RMP update was Watermaster's consultant team at Wildermuth  
5 Environmental. However, significant contributions were also made by other agencies and  
6 consultants. The Chino Basin Water Conservation District performed important work regarding  
7 stormwater recharge issues through its consultant firm Wagner and Bonsignore, Consulting Civil  
8 Engineers. Black & Veatch performed important work regarding facilities concept development for  
9 supplemental water recharge. Sierra Consulting also contributed important input regarding  
10 supplemental water purchase opportunities and issues. Finally, the Inland Empire Utilities Agency  
11 ("IEUA") acted as a partner in the development of the RMP update providing significant in kind  
12 services and final report review.

13 **2. Stakeholder workshops**

14 In September 2008, Watermaster convened its second annual strategic planning meeting, the  
15 focus of which was the scoping of the RMP update. Between that time and May of 2010,  
16 Watermaster planned and convened several workshops to present the results of the RMP update  
17 technical analyses and to receive input from the stakeholders on the RMP update. Between March  
18 26, 2009 and March 25, 2010, Watermaster held seven such workshops, each with a specific  
19 technical theme. The schedule of these workshops is attached to the RMP update as Appendix A,  
20 and for the convenience of the Court the schedule is separately attached here as Exhibit "C."  
21 Following these workshops, Watermaster held two half-day workshops on April 21, 2010 and May  
22 19, 2010 in order to present the draft RMP update and receive comments from the stakeholders.

23 ///

24 ///

1           **B.     RMP Recommendations**

2           The recommendations of the RMP update are contained in Section 7 of the report. In 2008,  
3 when the outline of the updated RMP was presented to the Court in satisfaction of Condition  
4 Subsequent Number Five, it was anticipated that the final version of the RMP update would include  
5 specific actions requiring immediate implementation. For this reason, the Condition Subsequent Five  
6 pleading indicated that implementation agreements would be developed concurrently with the RMP  
7 update.  
8

9           However, changed circumstances altered this approach. Four specific factors are relevant in  
10 this regard: (1) The economic recession resulted in a much lower growth rate than was forecast.  
11 Because development did not occur as predicted, municipal water demand has not grown as  
12 anticipated. (2) IEUA recycled water development proceeded more aggressively than planned. The  
13 development of recycled water use and recharge has served to slow the increase in demand for the  
14 development of other recharge capacity. (3) Senate Bill 7, enacted in 2009, includes aggressive  
15 water conservation requirements. Increased conservation beyond what was predicted in 2008 has  
16 also served to slow the increase in demand for the development of recharge capacity. In addition, the  
17 passage of SB7 led to the legislature delaying the required 2010 update to urban water suppliers'  
18 Urban Water Management Plans ("UWMP") for one year until June 2011. The scheduling of the  
19 development of the RMP update relied upon these UWMPs to be well underway so that the data  
20 used in the UWMPs could be used to inform the conclusions of the RMP update. (4) Finally, in  
21 2010 a new MS4 permit was adopted by the Santa Ana Regional Water Quality Control Board which  
22 imposes new requirements on land use control entities with regard to stormwater retention by new  
23 development.  
24  
25

26           While the final RMP update has remained faithful to the outline as presented to the Court in  
27 2008, and while Watermaster believes that the RMP update accomplishes the substantive objectives  
28

1 of the Court in imposing the requirement of the RMP update, the factors above have altered the  
2 nature of the RMP update from the way that it was conceived in 2008. Previous projections of water  
3 demand growth in the Chino Basin have changed significantly over the past two years, and it is  
4 unclear at this time whether and how such changes will continue. Much of this information will be  
5 obtained from the parties through their UWMPs, which will describe expectations concerning  
6 demand, supply and the ways in which the parties will comply with the mandates of SB7. Because of  
7 this, the current RMP is understood to be an adaptive management document that will be updated as  
8 conditions change and new information is obtained.  
9

10 The recommendations of the RMP update are grouped into five categories: (1) local  
11 stormwater management and the mitigation of the loss of Safe Yield; (2) development of regional  
12 stormwater recharge facilities; (3) acquisition of supplemental water for replenishment; (4)  
13 development of supplemental water recharge facilities; and (5) ongoing RMP updates. In summary,  
14 the recommendations in each of these categories are as follows:  
15

16 **1. Local Stormwater Management and Mitigation of Safe Yield [RMP section 7.1]**

17 The RMP update recommends that Watermaster work with relevant land use entities to  
18 encourage the implementation of local stormwater retention facilities consistent with the 2010 MS4  
19 permit. The RMP update recommends that Watermaster incentivize such implementation by  
20 allocating any additional stormwater recharge to the owners of the projects that create such recharge.  
21 The RMP update recommends the immediate formation of a committee whose purpose would be to  
22 develop monitoring and accounting practices relative to such allocation.  
23

24 **2. Regional Stormwater Recharge Facilities [RMP section 7.2]**

25 The RMP analysis identified five phases of development of improvements to the regional  
26 stormwater recharge facilities. Since phases IV and V are significantly more expensive than phases I  
27 through III, the report recommends that Watermaster should first conduct analysis of the Phase I  
28

1 through III projects to refine the projects, to develop a financing plan, and to develop an  
2 implementation plan. The RMP recommends that this planning work should begin as soon as  
3 practical and concludes that such planning work can be accomplished within three years.

4 **3. Supplemental Water for Replenishment [RMP section 7.3]**

5  
6 The RMP recommends that further analysis be conducted following the conclusion of the  
7 appropriators UWMPs in June of 2011. After this point, it will be possible to determine to what  
8 extent Watermaster should pursue the acquisition of supplemental water in addition to that made  
9 available through the Metropolitan Water District of Southern California. In addition, the RMP  
10 recommends that Watermaster begin the practice of "preemptive replenishment" – that is,  
11 replenishment in advance of pumping that incurs a replenishment obligation. Such a practice would  
12 enable Watermaster to take advantage of supplemental water when it is available.

13  
14 **4. Supplemental Water Recharge Facilities [RMP section 7.4]**

15 The RMP update recommends that no new recharge facilities will be required to meet  
16 Watermaster's replenishment obligations through the planning period, provided that the Riverside  
17 Corona Feeder is completed within the next ten years. The RMP also recommends that Watermaster  
18 explore the use of parties' ASR facilities, if available, and the use of in-lieu recharge to achieve an  
19 improved balance of recharge and discharge in specific areas identified in prior reports.

20  
21 **5. Future RMP Update Process**

22 The RMP update recommends that it be updated following the completion of the  
23 appropriator's UWMPs in 2011, and then every five years thereafter. The updated Recharge Master  
24 Plan is based on a number of assumptions about water availability conditions in California over  
25 many years and about development patterns in the Chino Basin. These assumptions have changed  
26 significantly in the last two years, and are certain to continue to change through the coming years,  
27 and for this reason the RMP is not a static document, but is rather something that must be  
28

1 continually examined and updated. That is, this "final" updated RMP is really just the beginning of  
2 an adaptive process that will continue for many years.

3 **C. Adoption Resolution**

4 Reflecting the adaptive nature of the RMP, the Watermaster Resolution adopting the RMP  
5 acknowledges that it is a planning document that will change and be modified as the assumptions  
6 and planning goals that are its foundation change over time. A copy of Watermaster's Resolution is  
7 attached here as Exhibit "D."

8  
9 Under section 8.1 of the Peace II Agreement, IEUA also has a right to review and approve  
10 the RMP update. Given that the concern of the Court in requiring approval of the RMP through  
11 Condition Subsequent Number 8 is to ensure that the updated RMP is sufficiently protective of the  
12 Basin, IEUA does not object to the Court finding that Watermaster has satisfied the obligations of  
13 Condition Subsequent Eight. In fact, it is IEUA's position that the RMP as approved by Watermaster  
14 is over-protective of the Basin and may result in unnecessary expenditures. IEUA has thus deferred  
15 its approval of the RMP until additional data that may inform this discussion becomes available such  
16 as through the UWMP process that will be complete by the end of June 2011. IEUA reserves its  
17 right to recommend alternative measures. Attached hereto as Exhibit "E" is a June 22, 2010 letter  
18 from IEUA that more fully articulates its position regarding the updated RMP.  
19

20  
21 **III. Related Issues**

22 The RMP update is necessary in order to properly plan for the replenishment obligation that  
23 will exist when the fully operational desalter system is no longer replenished by the Basin Re-  
24 Operation water. The RMP is thus intimately related to other OBMP projects such as the Desalters,  
25 Hydraulic Control and Basin Reoperation. At the April 2, 2010 hearing, there was discussion about  
26 scheduling workshops similar to those held for Judge Wade, so that the Court can be educated about  
27 the different OBMP program elements and their interrelationships. The Court suggested that a  
28

1 possible convenient schedule would be to schedule the first such workshop on the hearing date for  
2 the Condition Subsequent Number Eight. Issues related to the RMP update that should be addressed  
3 as part of such a hearing are described below. Each of these issues is complex, but since they are not  
4 directly related to the Court approval associated with Condition Subsequent Number Eight, they are  
5 only described below in the broadest detail. Watermaster intends to provide testimony on each of  
6 these issues at any workshop scheduled by the Court in order to provide sufficient detail to fully  
7 familiarize the Court with the issues.  
8

9 **A. Desalter Expansion and Chino Creek Wellfield Progress Report.**

10 One of the central OBMP projects is the construction of Desalters in the Southern portion of  
11 the Basin. This project has proceeded in phases and the project that will result in the construction of  
12 the final increment of Desalter capacity to satisfy the OBMP is underway. This is the same project  
13 through which the Chino Creek Wellfield will be constructed in order to complete the hydraulic  
14 barrier that will result in Hydraulic Control. Hydraulic Control will be attained through the one time  
15 effort of Basin Re-Operation, and then will be maintained through operation of the Chino Desalters.  
16 The project is being constructed by the Chino Desalter Authority.  
17

18 Watermaster and IEUA are required to achieve Hydraulic Control pursuant to the RWQCB's  
19 Basin Plan for the Santa Ana Watershed and for the recycled water permits for the Chino Basin.  
20 While the Chino Creek Wellfield project is progressing, on April 1, 2010, the RWQCB issued an  
21 Administrative Civil Liability Complaint against Watermaster and IEUA because the RWQCB felt  
22 that progress on this project is not proceeding quickly enough. A copy of this complaint is attached  
23 here as Exhibit "F." In May this complaint was settled by the parties. This settlement resulted in  
24 Watermaster and IEUA paying a fine to the RWQCB and a new schedule for Chino Creek Wellfield  
25 construction being approved by the RWQCB. A copy of this settlement agreement is attached here  
26 as Exhibit "G."  
27  
28

1 In response to the complaint, the Watermaster Board instructed staff and General Counsel to  
2 initiate a facilitation process in order to accelerate the progress of the Desalter expansion project.  
3 Such facilitation effort was initiated and Principles of Agreement were approved by both  
4 Watermaster and the CDA that describe the understanding of the parties enabling the Desalter  
5 expansion and Chino Creek Wellfield project to move forward. A copy of these Principles of  
6 Agreement is attached here as Exhibit "H."

8 **B. Chino Airport Plume**

9 One of the hurdles to moving forward with Desalter expansion has been cost liabilities  
10 associated with two contaminant plumes. Of particular concern has been the Chino Airport plume.  
11 San Bernardino County Department of Airports is the responsible party associated with this plume.  
12 The San Bernardino County Department of Airports is a party to the Judgment. This issue is relevant  
13 because the Chino Creek Wellfield will intercept this plume and treatment of the contaminants  
14 contained therein will result in increased costs to the CDA.  
15

16 The CDA has requested Watermaster to act as the lead in negotiating with San Bernardino  
17 County on this issue. Watermaster has been actively pursuing such a resolution and has been  
18 working closely with the County. In order to provide structure for these discussions, on January 22,  
19 2010, Watermaster issued a Notice of Intent to Sue pursuant to the requirements of Resources  
20 Conservation and Recovery Act. A copy of this Notice of Intent is attached here as Exhibit "I." Prior  
21 to initiating a lawsuit, Watermaster would seek Court approval for such an action.  
22

23 **IV. Procedure Regarding Potential Reduction in Safe Yield**

24 On March 3, 2008, Watermaster filed a technical report prepared by Wildermuth  
25 Environmental in response to Condition Subsequent Number Three. A hearing was set for May 1,  
26 2008, in order for the Court to approve this submittal. On April 1, 2008, Watermaster submitted its  
27 response to Condition Subsequent Number Four. In response to Watermaster's filing in compliance  
28



1 with Conditions Subsequent Three and Four, Monte Vista Water District submitted comments  
2 expressing concern over the procedures that would be used to calculate reallocation of surplus  
3 Agricultural Pool water in the event of a decline in Safe Yield. These comments were filed on or  
4 about April 10, 2008. On April 17, 2008, the Special Referee filed comments on Watermaster's  
5 compliance with Conditions Subsequent Three and Four.  
6

7 By stipulation dated April 25, 2008, Watermaster committed to develop procedures that  
8 would be responsive to Monte Vista's concerns and to submit them to the Court for approval as part  
9 of the updated Recharge Master Plan and the submission in compliance with Condition Subsequent  
10 Number Eight. On that same date, Watermaster filed a response to the Special Referee's comments,  
11 and notified the Court of the stipulation with Monte Vista. A copy of the stipulation is attached here  
12 as Exhibit "J."  
13

14 The stipulation required Watermaster to produce certain information regarding an expected  
15 future range of Agricultural Pool production prior to July 1, 2008. Watermaster produced this  
16 information and at the June 26, 2008 Appropriative Pool meeting, the Appropriative Pool convened  
17 a subcommittee to discuss the development of a procedure to respond to this information.  
18

19 At the August 6, 2008 meeting of this subcommittee, staff and legal counsel were asked to  
20 memorialize a proposed resolution of the method of allocation of water in the event of a reduction in  
21 Safe Yield and to create spreadsheets that documented the results of a range of other methods. On  
22 September 8, 2008, Watermaster distributed these materials to the subcommittee and requested  
23 comments. Comments were received and a revised memorandum was distributed that memorialized  
24 the procedure as proposed by the subcommittee.  
25

26 At the December Watermaster meetings, the procedure as proposed by the subcommittee was  
27 considered and approved by the three Pools, the Advisory Committee and the Board. Attached  
28 hereto as Exhibit "K" is the December 2008 staff report and memorandum from legal counsel that

1 describes the procedures agreed upon by the parties including the spreadsheet that demonstrates the  
2 operation of the adopted procedure.

3 The procedure as detailed in the memorandum specifies that in the event that Operating Safe  
4 Yield is reduced because of a reduction in Safe Yield, Watermaster will follow the hierarchy  
5 provided for in the Judgment, Exhibit "H," by first applying the unallocated Agricultural Pool water  
6 to compensate the Appropriative Pool members for the reduction in Safe Yield. (Judgment, Exhibit  
7 "H," paragraph 10(a).) If there is unallocated water left, Watermaster will then follow the remainder  
8 of the hierarchy and reallocate unallocated Agricultural Pool water next to conversion claims then to  
9 supplement the Operating Safe Yield without regard to reductions in Safe Yield according to the  
10 guidance provided by Peace Agreement I & II and Watermaster's Rules and Regulations, as  
11 amended.<sup>1</sup>

12  
13  
14 Given the adaptive nature of the RMP, and in order to ensure clear direction for Watermaster  
15 in the predicted decline in Safe Yield over time, Watermaster requests that the Court separately

16  
17 <sup>1</sup> Paragraph 5.3(g) of the Peace Agreement requires that Watermaster approve an "Early Transfer" of  
18 Agricultural Pool water if the Agricultural Pool production is less than 50,000 acre-feet. An Early  
19 Transfer is the reallocation of the greater of 32,800 or 32,800 acre-ft/yr plus the actual amount of  
20 water not produced by the Agricultural Pool for each fiscal year to be allocated among the members  
21 of the Appropriative Pool in accordance with their pro-rata share of the safe yield. (Peace I, p. 33,  
22 ¶5.3 (g).) Paragraph 5.3(g) is ambiguous about how the Early Transfer relates to the hierarchy  
23 described in Exhibit "H". Section 6.3 of the Watermaster Rules and Regulations was created to  
24 specify the hierarchy as between land use conversions and the Early Transfer. Watermaster Rules  
25 and Regulations 6.3, as amended, specifies that when the actual combined production from the Safe  
26 Yield made available to the Agricultural Pool, which includes overlying Agricultural Pool uses  
27 combined with land use conversions and the Early Transfer, exceeds 82,800 in any year, the amount  
28 of water available to members of the Appropriative Pool shall be reduced pro rata in proportion to  
the benefits received according to the following procedure:

- (1) All the land use conversions and the Early Transfer will be added together and shall be the  
"Potential Acre-Feet Available for Reallocation."
- (2) Each Appropriative Pool member's share of the Potential Acre-Feet Available for  
Reallocation shall be determined and expressed as a percentage share of the Potential Acre-  
Feet Available for Reallocation (i.e. a member's land use conversion plus its share of the  
Early Transfer, divided by the total Potential Acre-Feet Available for Reallocation.)
- (3) Each Appropriative Pool member's share of the Potential Acre-Feet Available for  
Reallocation shall then be reduced pro rata according to the percentage determined in #2  
above.

1 approve this interpretation of the Judgment and direct that these procedures will be the procedures  
2 that Watermaster will use to calculate reallocation of Agricultural Pool water in the event of a  
3 reduction in Safe Yield. Upon approval of these procedures by this Court, Watermaster shall amend  
4 its Rules and Regulations to reflect the Court's Order. Watermaster knows of no opposition to Court  
5 approval of these procedures.  
6

7  
8  
9  
10 Dated: June 30, 2010

BROWNSTEIN HYATT FARBER SCHRECK, LLP

11  
12  
13 By: 

14 SCOTT S. SLATER  
15 MICHAEL T. FIFE  
16 Attorneys for  
17 CHINO BASIN WATERMASTER  
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**10/11/2010 CONDITIONS SUBSEQUENT  
AND ALLOCATION OF SURPLUS AG POOL  
WATER IF SAFE YIELD DECLINE ORDER**

FILED  
SUPERIOR COURT  
COUNTY OF SAN BERNARDINO  
CHINO DISTRICT

OCT 08 2010

BY Julie Francis  
DEPUTY

SUPERIOR COURT OF THE STATE OF CALIFORNIA  
FOR THE COUNTY OF SAN BERNARDINO

CHINO BASIN MUNICIPAL WATER  
DISTRICT,

Plaintiff,

vs.

CITY OF CHINO, ET AL.,

Defendant.

Case No. RCV 51010

[Assigned for All Purposes to the Honorable  
STANFORD E. REICHERT]

~~PROPOSED~~ ORDER APPROVING  
WATERMASTER'S COMPLIANCE WITH  
CONDITION SUBSEQUENT NUMBER  
EIGHT AND APPROVING PROCEDURES  
TO BE USED TO ALLOCATE SURPLUS  
AGRICULTURAL POOL WATER IN THE  
EVENT OF A DECLINE IN SAFE YIELD

Hearing Date: September 24, 2010  
Hearing Time: 10:30 AM  
Dept.: CI

Having read, reviewed and considered all pleadings filed in support and in response, if any,  
including the testimony presented at the September 24, 2010, hearing, and good cause appearing  
therefore:

**I. Recharge Master Plan**

On December 21, 2007, this Court issued its *Order Concerning Motion for Approval of  
Peace II Documents*. The Order required Watermaster to comply with nine conditions subsequent.  
The ninth condition subsequent is an ongoing requirement that Watermaster comply with all  
commitments made in the Peace II Documents. The eighth condition subsequent is thus the final  
specific condition subsequent under the December 21, 2007 Order.

1 Consistent with section 8.1 of the Peace II Agreement, condition subsequent number eight  
2 requires Watermaster to submit for approval an updated Recharge Master Plan by July 1, 2010. The  
3 specific items required to be covered by the updated Recharge Master Plan were described with  
4 specificity in the *Special Referee's Final Report and Recommendations on Motion for Approval of*  
5 *Peace II Documents*. The updated Recharge Master Plan lists these required elements and in Table  
6 7 describes where in the updated Recharge Master Plan they can be found. No party has alleged  
7 that the updated Recharge Master Plan does not address all of the issues required by the Court's  
8 Order, or does not otherwise satisfy the requirements of section 8.1 of the Peace II Agreement.

9 At the broadest level, the purpose of the Recharge Master Plan updated is to ensure that at  
10 any time during the period when the 400,000 acre-feet of Basin Re-Operation water is being  
11 produced, Watermaster and the parties will have the ability to cease production of the 400,000 acre-  
12 feet and return to normal Basin operations.

13 According to the conclusions of the updated Recharge Master Plan, the Chino Basin  
14 currently has sufficient recharge capacity that Basin Re-Operation could cease and normal  
15 operations could resume. However, this conclusion is conditioned on certain assumptions.

16 With regard to local stormwater management, the updated Recharge Master Plan  
17 recommends the formation of a committee to develop the monitoring, reporting, and accounting  
18 practices that will be required to estimate local project stormwater recharge and new yield.

19 With regard to regional stormwater recharge facilities, the updated Recharge Master Plan  
20 recommends that Watermaster should conduct further analyses of the Phase I through III projects  
21 described in the RMP to refine the projects, to develop a financing plan, and to develop an  
22 implementation plan for projects deemed necessary to meet the objectives. The schedule to  
23 implement the necessary Phase I through III projects should be developed during the proposed  
24 planning work.

25 With regard to supplemental water for replenishment, the updated Recharge Master Plan  
26 recommends that the RMP revisit the issue after the completion of the parties' Urban Water  
27 Management Plans which are scheduled to be complete by the end of June 2011. The updated  
28

1 Recharge Master Plan also recommends that Watermaster begin replenishing the Basin when water  
2 for replenishment is available, rather than waiting for the need for replenishment to arise. The RMP  
3 calls this "preemptive replenishment."

4 With regard to supplemental water recharge facilities, the updated RMP finds that no new  
5 recharge facilities will be required, but conditions this finding of the construction of the Riverside  
6 Corona Feeder within the next ten years.

7 Finally, the updated Recharge Master Plan recommends that the plan should be further  
8 updated following the completion of the parties' UWMPs in June 2011, and then every five years  
9 thereafter.

10 No party has objected to these conclusions and recommendations. The Inland Empire  
11 Utilities Agency has deferred its right to approval of the Recharge Master Plan until after the  
12 completion of the parties' UWMPs. IEUA believes that the water demand and production  
13 assumptions are overly conservative and should be re-evaluated with the completion of the parties  
14 UWMPs to avoid unnecessary expense to the parties.

15  
16 **II. Procedures Regarding Allocation of Surplus Agricultural Pool Water In The**  
17 **Event of a Decline in Safe Yield**

18 In 2008, Watermaster entered into a stipulation with Monte Vista Water District and agreed  
19 to address the procedure to be used by Watermaster to allocate surplus Agricultural Pool water in  
20 the event of a decline in Safe Yield based on the Judgment, Peace Agreements and Watermaster  
21 Rules and Regulations. In connection with Watermaster Compliance with Condition Subsequent  
22 Number Eight, Watermaster has outlined the proper procedure to reallocate surplus Agricultural  
23 Pool water and submitted a December 2008 staff report and December 4, 2008 memorandum from  
24 legal counsel that describe this specific procedure adopted by the Watermaster Board. Watermaster  
25 requests that the Court direct that the adopted procedure be the procedure used by Watermaster in  
26 the event of a decline in Safe Yield. No party has objected to the Court so ordering.  
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28

1           **III. Findings and Order**

2           On the basis of the above, the Court finds and Orders as follows:

3           (1)     The Court finds that the 2010 updated Recharge Master Plan is responsive to the  
4     Court's December 21, 2007, condition subsequent number eight, and satisfies this condition.

5           (2)     Watermaster has satisfied all of the conditions subsequent under the Court's  
6     December 21, 2007 Order. The ninth condition is a catchall condition requiring Watermaster to  
7     fulfill all of its commitments under the Peace II Agreement, and does not require a specific  
8     compliance action as have the other eight conditions.

9           (3)     Watermaster is hereby ordered to convene the committee described in item 3 of  
10    section 7.1 of the updated RMP to develop the monitoring, reporting, and accounting practices that  
11    will be required to estimate local project stormwater recharge and new yield.

12          (4)     Watermaster is hereby ordered to conduct further analyses as described in section 7.2  
13    of the updated RMP of the Phase I through III projects to refine the projects, to develop a financing  
14    plan, and to develop an implementation plan.

15          (5)     By December 17, 2011, six months following completion of the parties UWMPs,  
16    Watermaster will report to the Court on any changes to the 2010 RMP necessitated by information  
17    received through the UWMPs. In this report Watermaster will also report on progress made under  
18    items (3) and (4) above, and will report on the status of IEUA's approval of the RMP.

19          (6)     Watermaster is ordered to utilize the procedures regarding re-allocation of surplus  
20    Agricultural Pool water in the event of a decline in Safe Yield as described in the December 2008  
21    staff report and December 4, 2008 memorandum from legal counsel. Specifically, in the event that  
22    the Operating Safe Yield is reduced because of a reduction in Safe Yield, Watermaster will follow  
23    the hierarchy provided for in the Judgment, Exhibit "H," by first applying the unallocated  
24    Agricultural Pool water to compensate the Appropriative Pool members for the reduction in Safe  
25    Yield. (Judgment, Exhibit "H," paragraph 10(a).) If there is unallocated water left, Watermaster  
26    will then follow the remainder of the hierarchy and reallocate unallocated Agricultural Pool water  
27    next to conversion claims then to supplement the Operating Safe Yield without regard to reductions  
28

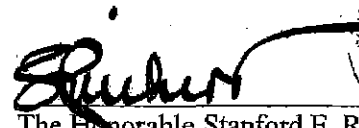



1 in Safe Yield according to the guidance provided by Peace Agreement I & II and Watermaster's  
2 Rules and Regulations, as amended. If, after applying the unallocated Agricultural Pool water to  
3 compensate the Appropriative Pool members for the reduction in Safe Yield, the actual combined  
4 production from the Safe Yield made available to the Agricultural Pool, which includes overlying  
5 Agricultural Pool uses combined with land use conversions and the Early Transfer, exceeds 82,800  
6 in any year, the amount of water available to members of the Appropriative Pool shall be reduced  
7 pro rata in proportion to the benefits received according to the procedures outlined in the  
8 Watermaster Rules and Regulations.

9 Watermaster will revise its Rules and Regulations to reflect this Order.

10  
11 ~~September 24, 2010~~

12 OCT 08 2010

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The Honorable Stanford E. Reichert  


**RESOLUTION 2010-04**  
**(PHASE III DESALTER EXPANSION)**

**WATERMASTER RESOLUTION  
NO. 2010-04**

**RESOLUTION OF THE CHINO BASIN WATERMASTER  
REGARDING IMPLEMENTATION OF THE PEACE II AGREEMENT AND THE  
PHASE III DESALTER EXPANSION IN ACCORDANCE WITH THE DECEMBER 21,  
2007 ORDER OF THE SAN BERNARDINO SUPERIOR COURT**

1. **WHEREAS**, the Judgment in the Chino Basin Adjudication, *Chino Basin Municipal Water District v. City of Chino, et al.*, San Bernardino Superior Court No. 51010, created the Watermaster and directed it to perform the duties as provided in the Judgment or ordered or authorized by the Court in the exercise of the Court's continuing jurisdiction;
2. **WHEREAS**, Watermaster has the express powers and duties as provided in the Judgment or as "hereafter" ordered or authorized by the Court in the exercise of the Court's continuing jurisdiction" subject to the limitations stated elsewhere in the Judgment;
3. **WHEREAS**, Watermaster, with the advice of the Advisory and Pool Committees has discretionary powers to develop an Optimum Basin Management Program (OBMP) for Chino Basin, pursuant to Paragraph 41 of the Judgment;
4. **WHEREAS**, in June of 2000, the Parties to the Judgment executed the Peace Agreement providing for the implementation of the OBMP, and Watermaster adopted Resolution 2000-05 whereby it agreed to act in accordance with the Peace Agreement;
5. **WHEREAS**, the Court ordered Watermaster to proceed in accordance with the Peace Agreement and the OBMP Implementation Plan, Exhibit "B" thereto on June 20, 2000;
6. **WHEREAS**, Watermaster adopted and the Court approved Chino Basin Watermaster Rules and Regulations in June of 2001;
7. **WHEREAS**, the Peace Agreement, the OBMP Implementation Plan and the Chino Basin Watermaster Rules and Regulations reserved Watermaster's discretionary powers in accordance with Paragraph 41 of the Judgment, with the advice from the Advisory and Pool Committees, and contemplated further implementing actions by Watermaster;
8. **WHEREAS**, the Judgment requires that Watermaster, in implementing the Physical Solution and the OBMP, has flexibility, where appropriate, to make further

adjustments in consideration of technological, economic, social and institutional factors in maximizing the efficient use of the waters of the Basin;

9. **WHEREAS**, the Peace Agreement and the OBMP Implementation Plan were subject to reconsideration and potential revision of various provisions and ongoing judicial supervision as well as the requirement that monitoring and reporting may lead to further modifications and refinements in management practices;

10. **WHEREAS**, to prudently respond to changing conditions and best management practices, the Parties to the Judgment presented Watermaster with a proposed suite of management strategies, new agreements and proposed amendments to then-existing agreements that were collectively referenced in Watermaster Resolution 2007-05, (amendments to the Watermaster Rules and Regulations, Purchase and Sale Agreement with the Overlying (Non-Agricultural) Pool, Judgment Amendments, Peace II Agreement, Supplement to the OBMP, Second Amendment to the Peace Agreement) and the subsequent Court filings as the "Peace II Measures";

11. **WHEREAS**, the OBMP Implementation Plan was supplemented to reflect Western Municipal Water District's (WMWD's) commitment to act independently or in its complete discretion with the City of Ontario (Ontario) and the Jurupa Community Services District (Jurupa) to plan, design and construct 9 million gallons per day of new desalting capacity "to obtain Hydraulic Control, to support Re-Operation and support the Future Desalters" (Peace Agreement II Section 5.2.);

12. **WHEREAS**, Watermaster fully and carefully evaluated the legal, technical, scientific, economic and physical consequences of the proposed Peace II Measures through internal and professional expert reports and opinions, including but not limited to reports issued by Dr. David Sunding and Mark Wildermuth, and Watermaster lodged these reports with the Court;

13. **WHEREAS**, in some instances, the Parties to the Judgment retained their own independent professionals to analyze the Watermaster reports and the consequences of the Peace II Measures and presented their findings to Watermaster;

14. **WHEREAS**, the Peace II Measures were subject to substantial stakeholder input from parties and they were modified to address the stated concerns;

15. **WHEREAS**, the Appropriative Pool, the Overlying (Agricultural) Pool, the Overlying (Non-Agricultural) Pool; the Advisory Committee and the Watermaster Board all unanimously approved Resolution No. 2007-05 thereby adopting the Peace II Measures and forwarding them to the Court requesting an order to proceed in accordance with the stated terms;

**16. WHEREAS**, upon receipt of the submittal, the Special Referee issued a report requesting clarification and further information of the Peace II Measures at an evidentiary hearing;

**17. WHEREAS**, the Assistant to the Special Referee, Joe Scalmanini of Luhdorff & Scalmanini Consulting Engineers, transmitted his technical review in March of 2007 ("Report"). In relevant part, the Report states:

"For planning level analysis, the existing model is a useful and applicable tool to simulate approximate basin response to management actions that involve the quantities and distribution of pumping and recharge in the basin. For example, for the most notable of its applications to date, which has been to conduct a planning level analysis of intended future hydraulic control, the model can be confidently utilized to examine whether groundwater conditions (levels) will form in such a way that hydraulic control will be achieved as (sic) result of basin re-operation and, if not, what other changes in basin operation are logically needed to achieve it."  
(Report at p. 37)

**18. WHEREAS**, Watermaster caused the completion of a preliminary engineering, hydrogeologic, and technical evaluation of the potential physical impacts to the Basin and to the Parties to the Judgment that might result from implementation of the Peace II Measures. The preliminary evaluation was conducted by Mark Wildermuth of Wildermuth Environmental and was lodged with the Court;

**19. WHEREAS**, Watermaster caused the preparation of a specific project description set forth in the then proposed Supplement to the OBMP Implementation Plan for the purpose of conducting a more refined engineering, hydrogeologic and technical evaluation of the physical impacts to the Basin and to the Parties to the Judgment that may result from implementation of the Peace II measures, and it was lodged with the Court;

**20. WHEREAS**, the design, financing, construction and operation of the planned expansion to desalting within the Chino Basin would cause the Parties to the Judgment to incur substantial, irrevocable commitments;

**21. WHEREAS**, Watermaster caused the completion of a macro socioeconomic analysis by Dr. David Sunding, a PhD in economics and professor at the University of California Berkeley referenced in Watermaster Resolution 2007-05 and lodged with the Court. The macro analysis provided a comprehensive evaluation of the macro costs and benefits to the parties as a whole that may be attributable to the Peace II measures, and it was lodged with the Court;

22. **WHEREAS**, Watermaster caused an update of the previously completed socioeconomic analysis conducted pursuant to the Judgment. The analysis was completed by Dr. Sunding, and it considered the positive and negative impacts of implementing the OBMP, the Peace Agreement, and the Peace II measures, including Watermaster assessments. The analysis also addressed the potential distribution of costs and benefits among the parties that were initiated with the approval of the Peace Agreement. The study was referenced in Watermaster Resolution 2007-05 and lodged with the Court in support of Watermaster's request to approve the Peace II Measures;

23. **WHEREAS**, a hearing was held before the Court at which Watermaster presented substantial evidence in support of the adoption of the Peace II Measures, through documentation, briefs, expert reports and opinions, argument and testimony in support of its request for an order to proceed in accordance with the Peace II Measures;

24. **WHEREAS**, Watermaster prepared a summary of the cumulative total of groundwater production and desalting from all authorized Desalters and other activities authorized by the 2007 Supplement to the OBMP Implementation Plan as amended as provided in the Peace Agreement in a schedule that: (i) identifies the total quantity of groundwater that will be produced through the proposed Basin Re-Operation to obtain Hydraulic Control, and (ii) characterizes and accounts for all water that is projected to be produced by the Desalters for the initial Term of the Peace Agreement (by 2030) as dedicated water, New Yield, controlled overdraft pursuant to the Physical Solution or subject to Replenishment;

25. **WHEREAS**, the post hearing briefs and supplemental evidence were filed by Watermaster, and the Special Referee issued a report recommending an order be issued to proceed in accordance with the Peace II Measures;

26. **WHEREAS**, on December 21, 2007, the Court issued an order instructing Watermaster to proceed with the Peace II Measures;

27. **WHEREAS**, on April 1, 2010, the Regional Water Quality Control Board (Regional Board) issued an Administrative Civil Liability complaint against Watermaster and IEUA in response to an alleged failure of the Co-Permittees to obtain Hydraulic Control;

28. **WHEREAS**, in reliance upon the collective commitments of the Parties to the Judgment and with the concurrence of CDA in the "Milestones Schedule," Watermaster and IEUA entered into a settlement agreement with the Regional Board in May of 2010 that established a revised schedule for the construction of new facilities and the completion of the Phase III Desalter Expansion (Expansion Project);

29. **WHEREAS**, a substantial fine has been paid to the Regional Board;

30. **WHEREAS**, Administrative Expenses arising under the Physical Solution must be categorized as either a General Administrative Expense or a Special Project Expense as set forth in Paragraph 54 of the Judgment;

31. **WHEREAS**, Administrative Expenses must be allocated and assessed against the respective pools and then uniformly among the members of the Appropriative Pool in accordance with their respective percentage of the year's total production. (Judgment Exhibit H, Section 6.);

32. **WHEREAS**, the Peace II Measures and specifically the Peace II Agreement obligates WMWD "acting independently or in its complete discretion with Ontario, Jurupa or both will exercise good faith and reasonable best efforts to arrange for the design, planning and construction of Future Desalters in accordance with the 2007 Supplement to the OBMP Implementation Plan, to account for Hydraulic Control, Re-Operation and Future Desalters" (Peace II Agreement Section 5.3);

33. **WHEREAS**, WMWD has exercised its discretion to join with Ontario and Jurupa to design, plan and construct the Future Desalters in accordance with the 2007 Supplement to the OBMP Implementation Plan;

34. **WHEREAS**, the intended purposes of the Future Desalters are to provide safe yield preservation, water supply for participating entities, salt management, and expanded use of recycled water and hydraulic control;

35. **WHEREAS**, the act of securing Hydraulic Control was a known and intended objective attributable to the Future Desalters that was to be achieved by causing a change in water levels within the Basin and the corresponding economic consequences related to those expected changes were fully evaluated at the time of adoption of the Peace II Measures;

36. **WHEREAS**, there are two sources of groundwater elevation changes that are projected to occur with the implementation of the Peace II Agreement: (1) groundwater elevation changes from Re-operation and (2) groundwater elevation changes from the expansion of the Chino Desalter Program, which includes the installation and operation of the new Chino Creek Well Field (CCWF) and changes in groundwater production at other wells that provide raw groundwater to the Desalters;

37. **WHEREAS**, the Court conditioned its approval of the Peace II Measures upon the prompt development and implementation of a Recharge Master Plan that will provide long-term hydrologic balance within the Basin and within each of the Management Zones;

38. **WHEREAS**, the broad regional impacts attributable to Re-operation were intended to be measured and monitored by Watermaster and the full cost differential

associated with a change in water levels, such as increased pump lifts, well deepening, and well and pump improvements were reserved to each party producing water in consideration for the substantial individual and broader benefits received pursuant to the Peace II Measures;

**39. WHEREAS**, based upon groundwater-level monitoring data available to Watermaster, groundwater levels in the 1970s, prior to the implementation of the Physical Solution set forth in the Judgment, were lower than the groundwater levels when the Re-Operation commenced;

**40. WHEREAS**, prudently constructed and properly maintained groundwater wells will not become inoperable due to groundwater level declines from Re-Operation;

**41. WHEREAS**, the more localized impacts of the CCWF and from changes in the production at other wells that provide water to the Desalters have been identified by Watermaster. These local impacts are characterized by groundwater-level declines greater than twenty (20) feet more than would occur if the Peace II Measures and Basin Re-operation had not been pursued (approximately thirty-five (35) feet lower than present groundwater elevations), as shown in Exhibit "A." This area is hereafter referred to as the Zone of Influence;

**42. WHEREAS**, exclusive of the existing and proposed Desalter wells, the Zone of Influence contains 8-9 active agricultural wells and no municipal and industrial wells<sup>1</sup>;

**43. WHEREAS**, water level declines of less than twenty (20) feet should not cause a prudent well owner to suffer a loss of water supply;

**44. WHEREAS**, the Inland Empire Utilities Agency (IEUA) has caused the completion of a Supplemental Environmental Impact Report (SEIR) for the Peace II Measures which was certified by IEUA on October 6, 2010 and its relevant part is attached herein by this reference as Exhibit "F";

**45. WHEREAS**, the SEIR approved by IEUA has evaluated potential impacts and developed a proposed mitigation plan generally assigning responsibility for regional impacts to those entities with regional scope (IEUA and Watermaster) and localized impacts, to the CDA;

**46. WHEREAS**, Section 4.3-10 of the SEIR provides that if an owner of one of the agricultural wells is adversely impacted by a decline in the water table greater than twenty (20) feet as measured against the non-project scenario, they may present a request to CDA for mitigation of the alleged impact, and CDA will evaluate the claim and take whatever action is appropriate under the circumstances.



47. **WHEREAS**, the CDA previously adopted an Emergency Response Plan to address concerns of well owners in the vicinity of the existing Desalters and it is attached hereto as Exhibit "H";

48. **WHEREAS**, there is general satisfaction with the adequacy of the existing Emergency Response Plan and it is anticipated that CDA will make the Emergency Response Plan applicable to the Expansion Project;

49. **WHEREAS**, Section 5.8(a) of the Peace II Agreement, the Supplement to the OBMP and the Court Order required that the new wells for the Future Desalters be constructed so that they are perforated to produce groundwater only from the shallow aquifer system among Desalter I wells No. 1 through 4 and west of Desalter I as designated and this is where the CCWF will be located;

50. **WHEREAS**, the best available information, inclusive of the developed models, have been considered so as to locate and perforate these wells in a manner contemplated by the Peace Agreement, the Peace II Measures and reasonably calculated by Watermaster to secure the objective of Hydraulic Control and minimize the risk of differential land subsidence;

51. **WHEREAS**, provided that the production of groundwater from the Future Desalters is as provided in the Supplement to the OBMP, WMWD, Ontario and Jurupa shall be entitled to first priority for the allocation of the 400,000 acre-feet of controlled overdraft authorized by the Judgment Amendments to Exhibit I and as expressly set forth in the schedule filed with and approved by the Court as a component of Condition Subsequent Number Seven attached hereto as Exhibit "B";

52. **WHEREAS**, WMWD exercised its right to proceed with the proposed construction of Future Desalters with Ontario and Jurupa (Expansion Parties) as provided in the Peace II Agreement and to initially apportion their relative shares of the project costs and benefits in a manner consistent with the Peace II Measures;

53. **WHEREAS**, subject to final review of costs and compliance with stated conditions, the Expansion Parties elected to fully and completely integrate with and carry out their actions by and through the Chino Basin Desalter Authority (CDA) in a manner that will cause construction and operation of the designated new wells for the Future Desalters consistent with the Supplement to the OBMP, the Peace II Agreement and as approved herein by Watermaster;

54. **WHEREAS**, except for WMWD, CDA is comprised of members of the Appropriative Pool;

55. **WHEREAS**, in Article V of the Peace II Agreement, WMWD contractually agreed

to exercise good faith and reasonable best efforts to cause the completion of the Expansion Project among other things;

**56. WHEREAS,** WMWD has expended in excess of \$5 million dollars and the Expansion Parties a cumulative total of \$15 million in out-of-pocket costs (up to \$5 million of which may be subject to reimbursement by third-party grants that will be used for purposes consistent with the grant authorizations) in pursuit of the design, planning and construction of the Expansion Project.

**57. WHEREAS,** WMWD will make a determination pursuant to Section 5.7 of the Peace II Agreement as to whether the cost-cap has been exceeded or whether it intends to proceed with the Expansion Project notwithstanding that the cost-cap has been exceeded (inclusive of an approval or reasonable assurance by MWD that it will award a \$139 per acre-foot subsidy) no later than the date that CDA approves the Expansion Project;

**58. WHEREAS,** there has been no prior express undertaking pursuant to the Peace II Measures to complete the Expansion Project by any member of CDA other than WMWD and the members of the Appropriative Pool that are not members of CDA request that there be one by each member of CDA (but not CDA itself);

**59. WHEREAS,** it is anticipated that each of the members of the Appropriative Pool that are also members of CDA will pledge their support for the Expansion Project as it is approved by CDA by each member adopting a Resolution in substantial conformity with Exhibit "I" attached hereto;

**60. WHEREAS,** Wildermuth Env. Inc., has prepared a summary evaluation attached hereto as Exhibit "C" that concludes that the expected location of the new wells for the Future Desalters and production of groundwater from the shallow zones will: (a) result in Watermaster securing Hydraulic Control and (b) not cause inelastic land subsidence and damage or otherwise cause unmitigated Material Physical Injury;

**61. WHEREAS,** Watermaster and its engineer Wildermuth Env. Inc. will work closely with CDA in establishing final groundwater pumping protocols for each of the wells that will be constructed and operated in connection with the Future Desalters and will report these pumping protocols to Watermaster for review, comment and adoption;

**62. WHEREAS,** Jurupa has expressed concerns regarding the impact of local groundwater production when combined with the production from the Desalters within Management Zone 3;

**63. WHEREAS,** the Peace Agreement requires Watermaster to exercise Best Efforts to, among other things, "direct Recharge relative to Production in each area and sub-area of the Basin to achieve long-term balance and to promote the goal of equal access

to groundwater within all areas and sub-areas of the Chino Basin" (Peace Agreement Section 5.1(e)(iii).) as well as to "maintain long-term hydrologic balance between total Recharge and discharge within all areas and subareas" (Peace Agreement Section 5.1(e)(viii));

**64. WHEREAS,** Watermaster has prepared and filed its proposed Recharge Master Plan with the Court which seeks to create hydrologic balance within the Basin and within Management Zones in accordance with Peace Agreement Article VIII.

**65. WHEREAS,** the unfunded costs of capital improvements for the Recharge Master Plan are allocated equally between IEUA and Watermaster, with Watermaster's share being apportioned in accordance with each party's percentage of Operating Safe Yield (Peace II Agreement Section 8.1(b));

**66. WHEREAS,** to the extent grant funds, loans or other third-party money are unavailable to fund operations and maintenance costs of the Recharge Master Plan, they will be funded as provided in Peace Agreement II Section 8.1(a) with IEUA's relative share being based upon its percentage use for recycled water as compared to total recharge from all sources. Watermaster's respective share of the funding will be allocated among its stakeholders in accordance with their total Production from the Basin, other than Desalter Production (Peace Agreement II Section 8.1(a));

**67. WHEREAS,** the members of CDA would not undertake the Expansion Project without the Desalter Production Offsets provided in Section 6.2 of the Peace II Agreement and the reasonable assurances that 400,000 acre-feet of controlled overdraft was available to offset the cost of Replenishment attributable to the Desalters and thereby avoid a Replenishment Assessment as a member of the Appropriative Pool as described in the Peace II Agreement, and which availability is subject to the successful completion of the Recharge Master Plan.

**68. WHEREAS,** CDA desires clarification as to its respective obligations regarding potential mitigation of localized as compared with regional impacts attributable to changes in groundwater levels resulting from Hydraulic Control and from the specific draw-down affecting the 8-9 wells identified in Exhibit "A";

**69. WHEREAS,** the Peace Agreement provides, among other things, that "[t]he specific location of wells to supply the Chino II Desalter and Future Desalters shall be determined with Watermaster approval and shall be in a location which is consistent with and shall carry out the purpose of the OBMP. The design and construction of the Chino II Desalter, Chino I Expansion, and Future Desalters shall be in accordance with the OBMP and subject to Watermaster approval. Watermaster's approval shall not be unreasonably withheld and shall insure that the operation of the Desalters will implement the OBMP and not result in Material Physical Injury to any Party to the Judgment or the Basin";

70. **WHEREAS**, subject to the acknowledgements in Whereas' 39, 40, 43 and Finding 11, all Parties to the Judgment retain all common law rights, remedies to redress the impacts attributable to land subsidence and unreasonable interference with vested property rights, whatever those rights, remedies and defenses will be;

71. **WHEREAS**, Watermaster will review data and monitoring efforts relevant to the measurement of land subsidence, report at least annually thereon and take appropriate corrective action as provided in the SEIR and as otherwise required;

72. **WHEREAS**, CDA and the Parties to the Judgment desire a summation of their respective obligations for Desalter Replenishment and Future Desalters arising under the Peace Agreement and its progeny, and Watermaster has prepared such a summary restatement attached hereto as Exhibit "D";

73. **WHEREAS**, groundwater contamination has resulted at the Chino Airport and this contamination may result in the Desalters incurring additional costs associated with removing and treating the contamination;

74. **WHEREAS**, certain Parties to the Judgment that are members of the CDA requested Watermaster to lead efforts to obtain compensation from the primary responsible party, San Bernardino County, and Watermaster accepted the request;

75. **WHEREAS**, Watermaster expects and intends to recover all of the incremental capital and operations and maintenance expenditures from San Bernardino County and to remit such proceeds to the Parties to the Judgment comprising CDA as they may direct subject to Watermaster's outstanding prior request to be reimbursed by CDA for the legal and consultant costs reasonably incurred in leading the effort to recover funds from San Bernardino County;

76. **WHEREAS**, all conditions precedent to the construction and operation of the Future Desalters as set forth in the Peace Agreement and the Peace II Agreement have been satisfied upon the action by CDA to approve the Expansion Project and there are no conditions subsequent that will require a suspension in operations;

77. **WHEREAS**, WMWD is the only member of the CDA with a right to receive delivery of groundwater that will be produced by the Desalters that is not also a member of the Appropriative Pool;

78. **WHEREAS**, all production from the Basin must be accounted for by Watermaster and the production attributed to WMWD under Exhibit I to the Judgment should be accounted for by being assigned to a party within a respective Pool;

79. **WHEREAS**, WMWD has no share of Operating Safe Yield as defined by the

Judgment but would be entitled to produce groundwater with a "first priority right" to a credit against replenishment under Exhibit I to the Judgment and the Peace II Agreement, up to the maximum quantities stated in Condition Subsequent Number Seven for the duration of the Peace Agreement (2030);

**80. WHEREAS,** WMWD may desire to intervene into the Appropriative Pool if it can freely negotiate reasonable terms prior to the operation of the Expansion Project; and.

**NOW, THEREFORE,** on the basis of the staff reports, expert opinions and substantial evidence presented at this hearing, Watermaster finds that:

1. WMWD has elected to proceed to construct the Future Desalters jointly with Jurupa and Ontario (Expansion Parties) by and through CDA as provided in agreements between and among CDA and its members.
2. It is reasonably anticipated that all members of CDA as Parties to the Judgment will agree to exercise good faith and reasonable best efforts towards the timely completion of the Expansion Project as it is described in the approved PDR by their approval of a resolution in substantial conformity with the Resolution of Support for Completion of Future Desalters attached hereto as Exhibit "I".
3. Upon MWD's reasonably anticipated approval of the requested \$139 subsidy for the Desalters, the cost-cap set forth in Peace II Agreement Section 5.7 will not be exceeded and WMWD shall proceed, jointly with Jurupa and Ontario through CDA to cause the completion of the Future Desalters.
4. For the avoidance of doubt, the allocation of the cost of Replenishment Water for the Desalters under the Peace Agreement and its progeny is set forth in Exhibit "D" with acknowledgement that the provisions of Peace Agreement II Section 6.2(b)(ii) which excludes Desalter production in the calculation of an Appropriator's proportionate responsibility for Desalter Replenishment as subject to being revisited if the net cost of Desalter Water is materially reduced.
5. The Expansion Parties have proposed Future Desalter facilities that are reasonably calculated to achieve the stated objectives of Future Desalters: (a) yield preservation; (b) water supply; (c) salt management; (d) expanded use of recycled water; and (e) hydraulic control.
6. The Future Desalters have been designed and will be constructed and operated to produce water with high total dissolved solids (TDS).
7. Peace Agreement and Peace II Measures' obligations regarding the requirement of providing hydrologic balance in each Management Zone, including Management Zone Number 3 remains in full force and effect.
8. The CCWF will be located in an area that is consistent with the designations in the Supplement to the OBMP and the purposes of the OBMP Implementation Plan. (Peace Agreement 7.3(e).)

9. The location and the proposed operation of the Future Desalter wells are highly unlikely to result in inelastic subsidence that causes any physical damage to the aquifer, roads or structures.
10. Watermaster has proposed measures set forth in the SEIR attached hereto as Exhibit "F" and will establish measurement and monitoring protocols that if followed, will minimize the long-term risk of inelastic subsidence that might cause physical damage to de minimus levels and report on these protocols to Watermaster and to the parties.
11. Prudent well operators will design, construct and operate groundwater production facilities that withstand seasonal fluctuations in water levels.
12. Water levels that fluctuate more than 35 feet from present levels and that are 20 feet lower than the groundwater level conditions that would occur in absence of the Phase II Desalter Expansion can be addressed through the proposed SEIR mitigation plan
13. Watermaster has timely filed its Recharge Master Plan and intends to implement the Plan in a manner that creates hydrologic balance with Management Zone 3 and minimizes adverse impacts of pumping within the Management Zone as required by the Peace Agreement.
14. The WMWD, Jurupa and Ontario have spent \$15 million in pursuit of the planning, design and construction costs for the Expansion Project (up to \$5 million of which may be reimbursed from third-party grants that will be used for purposes consistent with the grant authorizations) in consideration of and in reliance upon Watermaster's timely and successful implementation of the Recharge Master Plan.
15. Within 24 months from the adoption of the Resolution, WMWD can reasonably negotiate terms for intervention into the Appropriative Pool or request Watermaster to designate a member of CDA that is also a member of the Appropriative Pool for purposes of accounting for the Desalter Production;
16. The designation by Watermaster must not increase the assignee Appropriator's obligations or benefits to Watermaster or under the Judgment, Peace Agreement and the Peace II Measures.
17. The requirements set forth in Section 5.5(e) of the Peace II Agreement have been satisfied by WMWD's assumption of project risk, out of pocket costs presently in excess of \$5 million (\$15 million for the Expansion Parties) and the further assumption of capital and operations and maintenance costs in excess of expectations (the cost-cap as for WMWD's portion of expenses. However, this finding is made only with regard to WMWD's obligation under Section 5.5 to complete final binding agreement(s) regarding Future Desalters. This finding is not intended to have any bearing or impact on the sufficiency of WMWD's assumption of risk and costs for any other purpose, including the availability of a reduced uniform loss percentage under Peace II Agreement Section 7.4. This finding also does not affect WMWD's rights or obligations to intervene into the Appropriative Pool on the terms and

conditions that may be fairly agreed among the Appropriative Pool and WMWD.

18. The MWD is expected to approve the award of \$139 per acre-foot to Western for the benefit of the Expansion Project between November of 2010 and January of 2011.
19. CDA is expected to take all required actions to allow the Expansion Project to proceed in between December of 2010 and February of 2011.

**NOW, THEREFORE,** on the basis of substantial evidence presented and the above findings, be it further resolved and determined that:

1. The above-referenced actions in whole and in part are consistent with the Judgment, the Peace Agreement, the Peace II Measures and the December 21, 2007 Order of the Court (collectively "Prior Directives") and in the event of any inconsistencies between this Resolution and the language of these Prior Directives, the Prior Directives shall control.
2. As approved and conditioned as set forth above, including but not limited to the location and screening of the proposed wells, the CDA Emergency Response Plan, the SEIR mitigation plans applicable for subsidence, water level fluctuations and the improvements identified in the Recharge Master Plan, the above-referenced actions present no threat of Material Physical Injury (Peace Agreement Section 7.3(d)).
3. Unless authorized in advance by Watermaster for good cause arising from the need for testing, monitoring, or mitigation, the Parties to the Judgment comprising CDA will not produce groundwater from the deep aquifer system among Desalter wells No 1 through 4 as set forth in Peace Agreement II Section 5.8(a)(i)(ii). Watermaster reserves all rights and remedies to redress a violation of this condition, including but not limited to the right to make application to the Court to revisit the allocation of some or all of the 400,000 acre-feet of controlled overdraft, taking into account the specific causes associated with the failure. However, such an application will not require a discontinuance of Desalter operations. (See Judgment Exhibit I; Peace Agreement II, Section 5.8(a)(i)(ii).)
4. Watermaster will not otherwise suspend availability of any portion of the 400,000 acre-feet of controlled overdraft unless there is a failure to comply with the requirements to complete and implement a Recharge Master Plan as provided in Peace Agreement Section 7.3.
5. Watermaster reconfirms its commitment to the funding for and the timely and successful implementation of a Recharge Master Plan, including achieving hydrologic balance within each Management Zone.
6. All Parties to the Judgment that are members of CDA will exercise good faith and reasonable best efforts to support the completion of the Expansion Project as it is defined in and as conditioned by the anticipated CDA approval

- of the Expansion Project and cause a quarterly report on its progress to be filed with Watermaster.
7. Watermaster shall assume the complete financial and management responsibility for monitoring baseline water level and groundwater extraction conditions so as to avoid inelastic land subsidence that may cause physical damage as provided in Exhibit "E," attached hereto.
  8. No economic mitigation will be required of CDA to address the physical impact of lowered water levels in the Basin, other than the agricultural wells designated in Exhibit "F," attached hereto.
  9. A specific mitigation plan has been developed in the SEIR to address the agricultural wells (there are no municipal or industrial wells) which will be implemented by the Parties to the Judgment comprising CDA or in their discretion through CDA. The specific criteria for evaluating the impacts are set forth in Exhibit "F," attached hereto.
  10. Watermaster will update and inform the Court of the status of implementing the OBMP and request a further order of the Court directing Watermaster to proceed as provided herein.
  11. Upon the completion of the Future Desalters (the Phase III Expansion) as reflected in the approved revised Chino Desalter Phase 3 Comprehensive Pre-Design Report (CDA PDR) attached hereto as Exhibit "G," the Parties to the Judgment will be deemed to have satisfied all individual and collective obligations arising from the Peace Agreement and the OBMP Implementation Plan, Peace II Measures and all prior orders of the Court related to the requirement to construct Desalters in accordance with Peace Agreement II Section 10.2.
  12. WMWD and IEUA are relieved of the funding requirements upon the completed construction of the Expansion Project as set forth in Peace II Agreement Section 10.4.
  13. Localized impacts on the wells will be mitigated as provided in the mitigation plan set forth in Exhibit "F."
  14. Regional impacts attributable to the lowering of the water table across the Basin have been fully analyzed in connection with the Court approval of the Peace II Measures, and fully mitigated by the suite of corresponding offsetting benefits arising under the Peace II Measures. Consequently, CDA and the members of CDA will have no obligation to offset or mitigate any increased costs that may be incurred by Parties to the Judgment that own wells outside of the designated wells.
  15. At its own expense, Watermaster will monitor water conditions to measure the effectiveness of hydraulic control and subsidence.
  16. As provided in Section 6.2(b)(ii) the allocation of Replenishment is reserved and committed to offset the Replenishment attributable to the Future Desalter expansion.
  17. Agreements among the Parties, whatever they may be, for Replenishment, operations, conditions and corresponding consideration without limitations,



are unaffected by this determination. However, for the avoidance of doubt, Exhibit "D" accurately summarizes and restates these obligations.

18. Watermaster will negotiate with the County of San Bernardino as the party primarily responsible for contamination and all sums obtained will be paid to CDA to offset all of the incremental capital and operations and maintenance expenses incurred by the Parties to the Judgment comprising CDA or in their discretion through CDA.
19. Watermaster will continue to require that to the extent any of the Peace II Implementing Measures constitute "projects" within the meaning of the California Environmental Quality Act ("CEQA"), compliance with CEQA will be required as a pre-condition of Watermaster's issuance of any final, binding approvals.
20. The actions articulated above and contemplated herein to optimize the beneficial use of the groundwater and the Basin benefit the Basin and the Parties to the Judgment.
21. The members of CDA may make application for future relief and assistance from Watermaster to redress potential inequities in redressing water quality concerns only after having first obtained a recommendation for such relief from the Appropriative Pool. The Watermaster retains complete discretion in responding to any such request.
22. Within 24 months of the date of this Resolution, WMWD will make an election to either: (a) intervene into the Appropriative Pool on terms it may freely negotiate; or (b) consensually assign the production for the desalted water attributable to the Expansion Project on behalf of WMWD to an Appropriative Pool member of the CDA.
23. This Resolution is subject to the express condition subsequent of CDA approving the Water Purchase Agreements and the PDR as amended following WMWD's determination that it intends to proceed with the Expansion Project pursuant to Section 5.7 of the Peace II Agreement.

## **LIST OF EXHIBITS**

Exhibit "A" Map: Mitigation Area for Groundwater-Level Decline Caused by Expansion of the Chino Desalter Program, Figure x-x

Exhibit "B" Judgment Amendments to Exhibit I, "Engineering Appendix, "components of Wildermuth Response to Condition Subsequent Number Seven, including Schedule and Tables

Exhibit "C" Wildermuth Env. Inc. Staff Letter, May 27, 2010 re Material Physical Injury Analysis – Wells I-16, I-18, I-MW16, I-MW18 of the Chino Creek Well Field

Exhibit "D" Watermaster Summary of Obligations for Desalter Replenishment and Future Desalters Post-Peace Agreement II

Exhibit "D-1" Peace II Section 6.2

Exhibit "E" Map: Chino Basin Watermaster's Current and Proposed Subsidence Monitoring Program, Figure x-x

Exhibit "F" Groundwater-Levels Mitigation Measures Peace II SEIR 4.3-10

Exhibit "G" Revised Chino Desalter Phase 3 Comprehensive Pre-Design Report CDA PDR

Exhibit "H" CDA Emergency Response Plan, June 29, 2005

Exhibit "I" Draft 3 Appropriator Resolution of Support for Completion of Future Desalters, October 20, 2010

**EXHIBIT D IS ATTACHED.  
OTHER EXHIBITS ARE AVAILABLE UPON REQUEST  
AND/OR ON WEBSITE.**

# **Exhibit “D”**

## **EXHIBIT "D"**

### **DESALTER REPLENISHMENT POST-PEACE II MEASURES**

#### **Summary**

Desalter Replenishment is controlled by Peace II Section 6.2, attached hereto. As a result of the methodology referenced below, Western Municipal Water District (WMWD) will not incur any replenishment obligation for the 9 mgd expansion. This follows from the fact that WMWD is not a member of the Appropriative Pool and it was not required to become one as a precondition to the approval of the Peace II Measures, although it may elect in its discretion to do so.

WMWD has no share of Operating Safe Yield. Because the formula for apportioning the cost of Replenishment set forth in Section 6.2 attributable to the Desalters expressly excluded Production from the Desalters from the calculation of responsibility, even WMWD's intervention into the Appropriative Pool would not trigger a Replenishment obligation for WMWD. Specifically, without a share of Operating Safe Yield or any eligible groundwater production, there would be no basis to assess WMWD for a Replenishment Assessment.

It is also true that to the extent WMWD shared a portion of its rights to the 9 mgd expansion with Jurupa Community Services District and the City of Ontario as contemplated by Article VI, there would be no impact on the net Replenishment obligation of any other Party to the Judgment because all of the projected groundwater production planned for the proposed 9 mgd expansion was to be offset by the apportionment of 175,000 acre-feet for this purpose; both in the Court proceeding and in the filing in compliance with Condition Subsequent Number 7 (attached hereto as Exhibit "B").<sup>1</sup> (See below.) Replenishment attributable to the Chino I and Chino II Desalters is also addressed by formula in Peace Agreement II Section 6.2(b)(ii).

#### **Replenishment Example**

The obligation for Desalter Replenishment, for existing Desalters (as the Expansion was fully offset) was apportioned among the Parties to the Judgment in accordance with the hierarchy set forth in Peace Agreement II Section 6.2. Thus, assuming in Year X, there was 35,000 acre-feet of Desalter Production, the stated hierarchy of sources would be applied to satisfy the cumulative demand.

- (1) Kaiser: (Peace Agreement II Section 6.2(a)(i))

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<sup>1</sup> Subject to an adjustment in the schedule to reflect actual operations.

- (2) No Ag Dedication (Peace Agreement II Section 6.2(a)(ii))
- (3) New Yield other than Storm Water (Peace Agreement II Section 6.2(a)(iii))
- (4) Losses from Storage and Recovery Agreements enforced as a Leave Behind (Peace Agreement II Section 6.2(a)(iv)).
- (5) Contributed safe yield (Peace Agreement II Section 6.2(a)(v))
- (6) Controlled Overdraft as authorized (175 / 225). (Judgment Exhibit I.

Assuming for purposes of this example that the sum of (1)-(5) referenced above in Year X was 10,000 acre-feet, there would be a total Replenishment Requirement of 25,000 acre-feet. That quantity apportioned to the Expansion would be apportioned 10,000 acre-feet to offset that production (assuming the schedule is adhered to) and the balance would be assumed by the Appropriative Pool in accordance with the formula set forth in Section 6.2(b)(ii). In summary, that formula divides the residual Replenishment obligation among the members of the Appropriative Pool on the basis of 50% Base Annual Production Right and 50% actual Production. The actual language of Section 6.2(b)(ii) reads slightly different, but it is not inconsistent. This formula is used elsewhere in the Peace II Agreement and it is commonly understood by the Parties to the Judgment and Watermaster to apply in the manner described in this paragraph and this Exhibit.

The formula expressly, albeit provisionally, excludes Desalter Production from the calculation. This means that the 25,000 acre-feet of production in this example attributed to the Desalters would not form a basis to assess any member of CDA a larger assessment simply because they received desalted water. However, if there is a material reduction in the cost of desalted water, this provision was subject to a re-opener. (See below)

This structure preserves the intention of the parties, the Court and Watermaster to remove the Replenishment obligation from the cost consideration of the Expansion Project. The Replenishment obligation attributed to the Chino I and Chino II Desalters was a pre-existing and known obligation prior to Peace II. The use of water made available by the Peace II Measures substantially reduced the projected Replenishment obligation by 225,000 acre-feet.

It is true that there is a provision in Peace Agreement Section 6.2(b)(ii) that reflects that the exclusion of the Desalter production from the calculation might be revisited if the costs of water from the Desalters were to be materially reduced. However, as of October 28, 2010, Watermaster has no present information and thus no good cause that would suggest that the cost of product water from the Desalters is going to be substantially less than the negotiated price cap. Consequently it would appear that there is no present basis to reconsider this element although Watermaster and the Court would be authorized to revisit this provision if good cause were subsequently presented.

The treatment of Replenishment in any Renewal Term (Post-Peace Agreement 2030) is the subject of negotiation. (Peace Agreement II, Section 6.2(c).). This means that the inter-se allocation of the 400,000 acre-feet is fully addressed during the term of the Peace Agreement. The Parties to the Judgment are free to extend the Peace Agreement for the Renewal Term or to renegotiate any provision as a condition of extension.

Any individual member of the Appropriative Pool reserves discretion to meet their Replenishment Obligation in any manner that they may choose that is otherwise consistent with the Judgment. For example, a party may pursue water transfers, remove water from a stored water account or assign a share of Operating Safe Yield to offset their individual Replenishment Assessment. Nothing contained with Peace II and its treatment of Replenishment for the Desalters limited the pre-existing rights of the parties with respect to Replenishment.

#### Allocation of 400,000 Acre-Feet

As far as the inter-se apportionment of the allocation, Section 7 of the Peace II Agreement contemplated a fair process to arrive at an apportionment. An initial schedule was transmitted to the Court in response to the Court Order. The schedule was the subject of testimony and further reporting and ultimately a requirement for a schedule to be filed in connection with Condition Subsequent Number 7.

Watermaster filed its apportionment in response to Condition Subsequent Number 7, allocating 175,000 acre-feet to the expansion and 225,000 to the existing Desalters.

Peace Agreement II Section 7.2(e)(ii) authorizes Watermaster to propose revisions to the proposed schedule where good cause exists – supported by a technical explanation. A potential cause to revise the schedule might include the Expansion Project's failure to extract the allocated quantities as a result of delays in construction and operation. It is possible that there may be other public policy reasons that support other potential causes that would support a revision of the schedule, but no such reason has been presented to Watermaster.

In general, modest corrections are fairly likely to be acceptable. Material deviations may suggest a failure in one or more purposes of the OBMP Implementation Plan, and Watermaster is unable to predict how it may respond to the failure of the Expansion Project to proceed as planned.

#### Legal Effect of WMWD Intervention in the Appropriative Pool

As noted above, there is no requirement in the Peace II Measures that WMWD intervene into the Appropriative Pool. There is a requirement that

WMWD make the Appropriative Pool whole for historic contributions under Peace Agreement II Section 5.5(e). The requirements set forth in Section 5.5(e) of the Peace II Agreement have been satisfied by WMWD's assumption of project risk, out-of-pocket costs presently in excess of \$5 million (\$15 million for the Expansion Parties) and the further assumption of capital and operations and maintenance costs in excess of expectations (the cost-cap as for WMWD's portion of expenses. However, this finding is made only with regard to WMWD's obligation under Section 5.5 to complete final binding agreement(s) regarding Future Desalters. This finding is not intended to have any bearing or impact on the sufficiency of WMWD's assumption of risk and costs for any other purpose, including the availability of a reduced uniform loss percentage under Peace II Agreement Section 7.4. This finding also does not affect WMWD's rights or obligations to intervene into the Appropriative Pool on the terms and conditions that may be fairly agreed among the Appropriative Pool and WMWD.

#### Transferability of 400,000 Acre-Feet

There is no allocation of any portion of the 400,000 acre-feet to any individual party. The water is made available for the express purpose of offsetting Desalter production in furtherance of obtaining Hydraulic Control through Re-Operation. The water is apportioned as provided in Watermaster's Response to Condition Subsequent Number 7 to the December 21, 2007 Order of the Court.

## EXHIBIT D-1

### **PEACE II AGREEMENT: PARTY SUPPORT FOR WATERMASTER'S OBMP IMPLEMENTATION PLAN, – SETTLEMENT AND RELEASE OF CLAIMS REGARDING FUTURE DESALTERS**

6.2 Peace II Desalter Production Offsets. To facilitate Hydraulic Control through Basin Re-Operation, in accordance with the 2007 Supplement to the OBMP Implementation Plan and the amended Exhibits G and I to the Judgment, additional sources of water will be made available for purposes of Desalter Production and thereby some or all of a Replenishment obligation. With these available sources, the Replenishment obligation attributable to Desalter production in any year will be determined by Watermaster as follows:

- (a) Watermaster will calculate the total Desalter Production for the preceding year and then apply a credit against the total quantity from:
  - (i) the Kaiser account (Peace Agreement Section 7.5(a).);
  - (ii) dedication of water from the Overlying (Non-Agricultural) Pool Storage Account;
  - (iii) New Yield (other than Stormwater (Peace Agreement Section 7.5(b)));
  - (iv) any declared losses from storage in excess of actual losses enforced as a "Leave Behind";
  - (v) Safe Yield that may be contributed by the parties (Peace Agreement Section 7.5(c));
  - (vi) any Production of groundwater attributable to the controlled overdraft authorized pursuant to amended Exhibit I to the Judgment.
- (b) To the extent available credits are insufficient to fully offset the quantity of groundwater production attributable to the Desalters, Watermaster will use water or revenue obtained by levying the following assessments among the members of the Overlying (Non-Agricultural) Pool and the Appropriative Pool to meet any remaining replenishment obligation as follows.



- (i) A Special OBMP Assessment against the Overlying (Non-Agricultural) Pool as more specifically authorized and described in amendment to Exhibit "G" paragraph 8(c) to the Judgment will be dedicated by Watermaster to further off-set replenishment of the Desalters. However, to the extent there is no remaining replenishment obligation attributable to the Desalters in any year after applying the off-sets set forth in 6.2(a), the OBMP Special Assessment levied by Watermaster will be distributed as provided in Section 9.2 below. The Special OBMP Assessment will be assessed pro-rata on each member's share of Safe Yield, followed by
  - (ii) A Replenishment Assessment against the Appropriative Pool, pro-rata based on each Producer's combined total share of Operating Safe Yield and the previous year's actual production. Desalter Production is excluded from this calculation. However, if there is a material reduction in the net cost of Desalter product water to the purchasers of product water, Watermaster may re-evaluate whether to continue the exclusion of Desalter Production but only after giving due regard to the contractual commitment of the parties.
  - (iii) The quantification of any Party's share of Operating Safe Yield does not include the result of any land use conversions.
- (c) The rights and obligations of the parties, whatever they may be, regarding Replenishment Assessments attributable to all Desalters and Future Desalters in any renewal term of the Peace Agreement are expressly reserved and not altered by this Agreement.

# 2015 Safe Yield Reset Related Court Orders (2017, 2019)

SCOTT S. SLATER (State Bar No. 117317)  
BRADLEY J. HERREMA (State Bar No. 228976)  
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Attorneys for  
**CHINO BASIN WATERMASTER**

**FEE EXEMPT**

SUPERIOR COURT OF THE STATE OF CALIFORNIA  
FOR THE COUNTY OF SAN BERNARDINO

CHINO BASIN MUNICIPAL WATER  
DISTRICT,

Plaintiff,

v.

CITY OF CHINO, et al.,

Defendants.

**Case No. RCV 51010**

[Assigned for All Purposes to the  
Honorable Stanford E. Reichert]

**NOTICE OF RULINGS AFTER HEARING  
ON WATERMASTER'S MOTION  
REGARDING 2015 SAFE YIELD RESET  
AGREEMENT, AMENDMENT OF  
RESTATED JUDGMENT, PARAGRAPH 6**

DATE: April 28, 2017

TIME: 1:30 p.m.

DEPT.: S35

**TO ALL PARTIES AND TO THEIR ATTORNEYS OF RECORD:**

PLEASE TAKE NOTICE that, on April 28, 2017 at 1:30 p.m. in Department S35 of the above-entitled Court, the Honorable Stanford E. Reichert conducted a hearing and issued its Additional/Final Further Revised Proposed Order Re SYRA and Additional/Final Rulings and Order for Oral Argument, a copy of which is attached hereto as Exhibit 1, and its ORDERS for Watermaster's Motion Regarding 2015 Safe Yield Reset Agreement, Amendment of Restated Judgment, Paragraph 6, a copy of the Orders is attached hereto as Exhibit 2.

The Court additionally granted each of Watermaster's October 28, 2016 Motion for Court

1 Approval of Temporary Substitute Rate for Physical Solution Transfers Under Exhibit "G" to the  
2 Judgment, Watermaster's December 12, 2016 Request for Court to Receive and File 38<sup>th</sup>  
3 Watermaster Annual Report, and Watermaster's March 24, 2017 Request for Court to Receive  
4 and File Watermaster Semi-Annual OBMP Status Reports.

5  
6 Dated: April 28, 2017

BROWNSTEIN HYATT FARBER  
SCHRECK, LLP

7 By: 

8 SCOTT S. SLATER  
9 BRADLEY J. HERREMA  
10 ATTORNEYS FOR  
11 CHINO BASIN WATERMASTER

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APR 28 2017

BY *Tiffany Kretzmeier*  
TIFFANY KRETZMEIER, DEPUTY

SUPERIOR COURT FOR THE STATE OF CALIFORNIA  
FOR THE COUNTY OF SAN BERNARDINO

CHINO BASIN MUNICIPAL WATER DISTRICT, Case No. RCV 51010

Plaintiff,

vs.

CITY OF CHINO, et al.,

Defendants

ORDERS for Watermaster's Motion  
Regarding 2015 Safe Yield Reset  
Agreement, Amendment of Restated  
Judgement, Paragraph 6

Date: April 28, 2017  
Time: 1:30 PM  
Department: S35

Watermaster's Motion Regarding 2015 Safe Yield Reset Agreement, Amendment of Restated Judgment, Paragraph 6, joined by The Chino Basin Overlying (Agricultural) Pool Committee and The Inland Empire Utilities Agency ("IEUA") and opposed by Jurupa Community Services District ("JCSD") and the City of Chino ("Chino") is granted in part and denied in part for the reasons set forth herein. The court grants the motion with respect to amending the restated judgment to reset the Safe Yield of the basin to 135,000 AFY.

However, the court denies all other parts of SYRA including the motions to amend the schedule for access to Re-Operation Water and. The court denies the motion to institute Safe Storage Management Measures. The court makes additional orders regarding priorities and with respect to access for Re-Operation Desalter

1 water as set forth herein.

2 Additionally, the court orders that the Safe Yield reset to 135,000 AFY is an  
3 event that requires a “recalculation” with the definition of Judgment, Exhibit “H”  
4 ¶10.

## 6 **REQUEST FOR JUDICIAL NOTICE**

7 The court grants requests for judicial notice of JCSD as follows:

- 8 1. Restated Judgment (“Judgment”) in case number RCV 51010.
- 9 2. Implementation Plan Optimum Basin Management Program for the Chino Basin  
10 (“OBMP Implementation Plan”).
- 11 3. Chino Basin Watermaster Rules and Regulations (“Rules and Regulations”).
- 12 4. 2015 Safe Yield Reset Agreement (“SYRA”).
- 13 5. Order Concerning Motion for Approval of Peace II Documents (“2007 Order”)  
14 in case number RCV 51010.
- 15 6. 2000 Peace Agreement Chino Basin (“Peace I Agreement” or “Peace I”).
- 16 7. Watermaster Compliance with Condition Subsequent Number Eight: Proposed  
17 Order Submitted Concurrently.
- 18 8. Peace II Agreement: party support for Watermaster’s OBMP Implementation  
19 Plan, Settlement and Release of Claims Regarding Future Desalters (“Peace II  
20 Agreement” or “Peace II”).

## 22 **JOINDERS AND FILINGS**

23 A. Watermaster's motion regarding 2015 Safe Yield Reset Agreement,  
24 amendment of restated Judgement, Paragraph 6.

25 1. City of Chino’s objections to declaration of Kavounas submitted with  
26 Watermaster’s Motion regarding 2015 Safe Yield Reset Agreement, Amendment of  
27 Restated Judgment, Paragraph 6

28 Rulings in separate document.

2. City of Chino's objections to declaration of Wildermuth submitted with Watermaster's Motion regarding 2015 Safe Yield Reset Agreement, Amendment of Restated Judgment, Paragraph 6

Rulings in separate document.

B. The following parties joined in Watermaster's motion:

1. Overlying (Agricultural) Pool
2. Inland Empire Utilities Agency

C. Oppositions to Watermaster's motion

1. City of Chino with supporting documents
  - a) Declaration of Robert Shibatani, physical hydrologist
  - b) Declaration of David Crosley, civil engineer, water and environmental manager for City of Chino
2. Jurupa Community Services District (JCSD) with supporting documents
  - a) Request for judicial notice identified above
  - b) Declaration of Todd Corbin, general manager of JCSD
  - c) Declaration of Robert Donlan, attorney

D. Watermaster's reply to oppositions to motion regarding 2015 Safe Yield Reset Agreement, amendment of Restate Judgement, Paragraph 6

1. Supplemental declaration of Kavounas
  - a) City of Chino's objections Kavounas supplemental declaration in support of Watermaster's reply the Chino opposition
  - b) Watermaster's Response to City of Chino's objections to supplemental declaration of Peter Kavounas in support of Watermaster's reply to Chino's Opposition to Motion regarding 2015 Safe Yield Reset Agreement, Amendment of Restated Judgment, Paragraph 6
    - I) Motion to strike denied. The court finds that the declaration did not raise new issues.
    - II) All objections overruled.

- 1 2. Supplemental declaration of Wildermuth
- 2 a) City of Chino's objections to Wildermuth supplemental declaration in
- 3 support of Watermaster's reply to Chino opposition.
- 4 b) Watermaster's Response to City of Chino's objections to supplemental
- 5 declaration of Mark Wildermuth in support of Watermaster's reply to
- 6 Chino's Opposition to Motion regarding 2015 Safe Yield Reset
- 7 Agreement, Amendment of Restated Judgment, Paragraph 6.
- 8 I) Motion to strike denied. The court finds that the declaration did not
- 9 raise new issues.
- 10 II) All objections overruled.
- 11 3. Declaration of Danielle Maurizio, assistant general manager of Chino
- 12 Basin
- 13 a) City of Chino's objections to supplemental declaration of Danielle D.
- 14 Maurizio in support of Watermaster's reply to chino opposition
- 15 b) Watermaster's Response to City of Chino's objections to supplemental
- 16 declaration of Danielle E. Maurizio in support of Watermaster's reply to
- 17 Chino's Opposition to Motion regarding 2015 Safe Yield Reset
- 18 Agreement, Amendment of Restated Judgment, Paragraph 6
- 19 I) Motion to strike denied. The court finds that the declaration did not
- 20 raise new issues.
- 21 II) All objections overruled.
- 22 4. Joinders in Watermaster's reply to oppositions
- 23 a) Overlying (Agricultural) Pool
- 24 b) City of Pomona and (in one pleading document)
- 25 I) City of Upland
- 26 II) Monte Vista Water District
- 27 III) Cucamonga Valley Water District
- 28 IV) Fontana Union Water Company



1 E. In an order Dated March 22, 2016, the court served the parties with questions  
2 and a request for further briefing in response to the questions. The responses were  
3 as follows:

4 1. Jurupa Community Services District response to Judge Reichert's  
5 request for clarification filed April 1, 2016.

6 2. City of Chino's responses to Judge Reichert's questions, filed April 1,  
7 2016.

8 3. Watermaster's response to order for additional briefing filed April 1,  
9 2016.

10 a) Chino's reply to Watermaster's response to order for additional briefing,  
11 filed April 11, 2016.

12 b) Jurupa Community Services District's additional response to Judge  
13 Reichert's request for clarification, filed April 11, 2016

14 4. Watermaster's further response to order for additional briefing, filed  
15 April 11, 2016

16 F. At the hearing on February 22, 2017, the court ordered that the parties may  
17 file questions regarding the court's tentative draft order, and the court set a briefing  
18 schedule. In response, the court received the following:

19 1. Filed March 10, 2017-Chino Basin Watermaster response to February  
20 22, 2017 order

21 2. Filed March 10, 2017-City of Chino's response to issue in section II of  
22 Judge Reichert's revised proposed order re SYRA

23 3. Filed March 10, 2017-Responding AP members (Monte Vista Water  
24 District, Cucamonga Valley Water District, City of Pomona, and City of Upland)  
25 filed March 10, 2017

26 4. Filed March 24, 2017-Chino Basin Watermaster further response to  
27 February 22, 2017 order

28 5. Filed March 24, 2017-City of Chino's response to court authorized

1 further briefing re revised tentative order re Watermaster's motion re 2015 Safe Yield  
2 reset Agreement

3 6. Filed March 24, 2017-City of Chino's response to Chino Basin  
4 Watermaster's response to February 22, 2017 order

5 7. Filed March 24, 2017-City of Ontario's response regarding issue for  
6 further briefing

7 8. Filed March 24, 2017-Jurupa Community Services District opposition  
8 to Monte Vista Water District's response to court's February 22, 2017 order re SYRA  
9 and response to questions [joins in the opposition filed by the City of Ontario]

10 9. Filed March 24, 2017-Responding AP members response to both  
11 Watermaster and City of Chino's further briefing re revised tentative order re  
12 Watermaster's motion re 2015 Safe Yield Reset Agreement

13 10. Filed April 4, 2017-errata to City of Chino's response to Chino Basin  
14 Watermaster's response to February 22, 2017 order

15 11. Filed April 7, 2017-Chino Basin Watermaster further response to  
16 February 22, 2017 order

17 12. Filed April 7, 2017-City of Chino's reply to responses of Watermaster,  
18 4AP Members, Ontario and Jurupa

19 13. Filed April 7, 2017-Jurupa Community Services District's limited reply  
20 to City of Chino's response to Chino Basin Watermaster's response to February 22,  
21 2017 order, dated March 24, 2017

22 14. Filed April 7, 2017-Responding AP Members reply to opposition briefs  
23 re revised tentative order re Watermaster's motion re 2015 Safe Yield Reset  
24 Agreement

25 15. Filed April 27, 2017, request by Chino basin desalter authority member  
26 agencies regarding desalter pumping  
27  
28

## SEPTEMBER 23, 2016, HEARING AND ADDITIONAL BRIEFING

After extensive briefing and consideration, on September 23, 2016, the court held a hearing on the 2015 SYRA and related motions. Before the hearing, the court had issued a lengthy (over 60 pages) proposed order. At the hearing on September 23, there was extensive oral argument, and the court concluded that some aspects of the court's proposed order were confusing or erroneous. Therefore, the court ordered that there be even further briefing, and the court ordered additional briefing through questions by the parties about the proposed order. In its order entitled "Revised Proposed Order Re SYRA in Response to Questions: Issues for Further Briefing," and the current order, the court addressed the parties' questions.

### I. INTRODUCTION, DEFINITIONS, BACKGROUND

A. The 1978 judgment in *Chino Basin Municipal Water District v. City of Chino* (San Bernardino Superior Court Case No. 51010) set the Safe Yield of the Chino Basin at 140,000 acre-feet per year (AFY), but reserved continuing jurisdiction to the court to amend the Judgment, inter alia, to redetermine the Safe Yield after the first 10 years of operation of the Physical Solution established under the Judgment. The Physical Solution identified three groups of parties (Pools) with water interests in the Chino Basin, and set forth their allocations as follows:

Pool	Allocation	Acre-feet Yearly Allocation
Overlying (Agricultural) Pool*	414,000 acre-feet in any five (5) consecutive years [note: $414,000 \div 5 = 82,800$ per year]	82,800
Overlying (Non-agricultural)	7,366 acre-feet	7,366

Pool**		
Appropriative Pool***	49,834 acre-feet	49,834
	Yearly total allocation	140,000

\*The members of this pool included dairy farms.

\*\*The members of this pool include businesses which use water in their production processes.

\*\*\*The members of this pool include cities and water companies. They “appropriate” the water by pumping and selling it.

Over the course of the Court-Approved Management Agreements (set forth in the next section), the court allowed up to 600,000 AF of water to be produced/pumped out of the Chino Basin without any replenishment obligation. “While the parties are not limited in the quantities of water they may produce, the Judgment requires that beyond the permitted Controlled Overdraft comprising an initial 200,000 AF and an additional 400,000 AF of Re-operation water (Restated Judgment, Exhibit “T”, ¶¶ 2.(b), 3.(a)), there must be a bucket for bucket replenishment [and associated cost to the producer/pumper] to offset production in excess of the Basin’s Safe Yield. (Restated Judgment, ¶¶ 13, 42).” (Watermaster’s Response to Questions for Clarification in Final Orders for Watermaster’s Motion Regarding 2015 Safe Yield Reset Agreement, Amendment of Restated Judgment, Paragraph 6, page 2, line 23 to page 3, line 4, filed October 28, 2016.)

The court notes that this total “controlled overdraft” i.e., pumping without replenishment cost, (aka “Re-Operation Water”) of 600,000 AF has just about been exhausted.

This motion is the first time the court has redetermined the Safe Yield since the Judgment was entered in 1978.

B. Since the entry of the judgment, the court has previously approved agreements to

1 implement the Physical Solution (“Court Approved Management Agreements” aka  
2 “CAMA”). There is no dispute that the court has the authority and duty to  
3 independently review the evidence de novo and determine whether proposals by  
4 Watermaster or any party comply with the Judgment and the Court Approved  
5 Management Agreements. (Restated Judgment ¶31(d).) The Court Approved  
6 Management Agreements are:

7 1. The Chino Basin Peace Agreement (Peace I Agreement), dated June 29,  
8 2000, as subsequently amended in September 2004 and December 2007.

- 9 a. In 2000 the parties executed Peace Agreement Chino Basin (Peace I  
10 Agreement) and agreed to Watermaster’s adoption of the Optimum  
11 Basin Management Plan (OBMP) Implementation Plan. At about the  
12 same time, the court ordered Watermaster to proceed in a manner  
13 consistent with Peace I and the OBMP, including Program Element 8  
14 (Develop and Implement Groundwater Storage Management Program)  
15 and Program Element 9 (Develop and Implement Storage and  
16 Recovery Programs). The implementation plan acknowledged the need  
17 to obtain better production data through the metering of non-exempt  
18 production within the Basin. Program Elements 8 and 9 provided for  
19 Watermaster to redetermine and reset the Basin’s Safe Yield in the year  
20 2010/11. The basis of the redetermination and reset would be  
21 production data derived from the collection of additional data regarding  
22 the parties’ production (i.e., parties who pumped water out of the Basin)  
23 within the basin during the 10-year period 2000/01 through 2009/10.  
24 The study for redetermination and reset was not completed until 2015,  
25 and the motion regarding determination and reset was not filed until  
26 October 2015.
- 27 b. The Peace I Agreement introduced the installation of Desalters in the  
28 southwest portion of the Basin. The Desalters pump ground water

1 from the aquifer and supply that water to water companies and other  
2 users. By pumping water out of the aquifer, the Desalters also lowered  
3 the ground water table to help obtain Hydrologic Control, i.e.,  
4 preventing Chino Basin ground water from reaching the Santa Ana  
5 River south of the Basin. The Santa Ana River is a major source of  
6 water for Orange County, and water impurities and contaminants, some  
7 of which came from the Chino Basin dairy farms ("salts") were in the  
8 groundwater flowing from the Basin into the Santa Ana River. The  
9 Desalter capacity has now expanded to 40 MGD (40 million gallons per  
10 day) as provided in the OBMP Implementation Plan to protect against a  
11 decline in Safe Yield and for water quality benefits, but the court  
12 reserved the question of how "Future Desalter" capacity would be  
13 addressed. The Chino Basin Desalter Authority (CDA), which includes  
14 the City of Chino, participated in the construction of the Desalters  
15 which represented a substantial engineering and financial undertaking.  
16 These Desalters were completed and fully operational in 2006.

17 2. The Peace II Measures (court approved on December 21, 2007).

- 18 a. In 2007, the parties entered into the Peace II Agreement. The objective  
19 was to increase the Desalter capacity to 40 MGD to achieve the OBMP  
20 Implementation Plan objectives. In order to do this, the parties  
21 designed and financed an additional 10 million gallons per day (MGD)  
22 of expanded Desalter capacity. The expansion of the Desalters to the  
23 full plant capacity will be completed in 2017. With the completion of  
24 this construction, Hydraulic Control will be achieved. Hydraulic  
25 Control now means only a de minimus amount of groundwater will  
26 flow from the Chino Basin south into the Santa Ana River. In fact, the  
27 Desalters now have lowered the water table in the south end of the  
28 Basin so that ground water is now flowing from the Santa Ana River

1 north into the Chino Basin. ~~This is called Re-Operation water.~~

2 3. The Optimum Basin Management Plan (OBMP) Implementation Plan  
3 dated June 29, 2000, was supplemented in December 2007.

4 4. The Recharge Master Plan, dated 1998, was updated in 2010 and  
5 amended in 2013.

6 5. The Watermaster Rules and Regulations dated June 2000, as amended.

7 6. The October 8, 2010 Order Approving Watermaster's Compliance with  
8 Condition Subsequent Number Eight and Approving Procedures to be used to  
9 Allocate Surplus Agricultural Pool Water in the Event of a Decline in Safe Yield.

10 7. Watermaster Resolution 2010-04 ("Resolution of the Chino Basin  
11 Watermaster regarding Implementation of the Peace II Agreement and the Phase III  
12 Desalter Expansion in Accordance with the December 21, 2007 Order of the San  
13 Bernardino Superior Court").

14  
15 C. Additional background for motion

16 1. At the September 24, 2015 Watermaster Board Meeting, the board  
17 adopted Resolution 2015-06: Resolution of the Chino Basin Watermaster regarding  
18 the 2015 Safe Yield Reset Agreement (SYRA).

19 2. Through a Facilitation and Non-Disclosure Agreement (FANDA),  
20 Watermaster attempted to obtain agreement as to all issues regarding Safe Yield  
21 redetermination and reset allocation. Those issues included not only a reset of the  
22 Safe Yield from 140,000 acre-feet per year to 135,000 acre-feet per year, but also  
23 Watermaster's accounting for reallocations related to Court Approved Management  
24 Agreements, and a method of allocations for water storage called the Safe Storage  
25 Management Agreements.

26 a) The FANDA process took place starting in November 2014, and  
27 through at least 30 meetings, by May 27, 2015, all but one of the then-  
28 active parties to the FANDA reached a non-binding agreement among

1 their negotiating representatives on certain key principles (apparently  
2 also called the “term sheet”) embodied in the Safe Yield Summary of  
3 Non-Binding Key Principles Derived from the Facilitated Process.

- 4 b) The parties continued to negotiate, with a goal of reducing the Key  
5 Principles into a binding instrument for execution by September 1,  
6 2015. That agreement is identified as the 2015 Safe Yield Reset  
7 Agreement (SYRA). The Appropriative Pool, the Overlying  
8 (Agricultural) Pool, and the Three Valleys Municipal Water District  
9 approved the 22-page agreement, as did many other parties. The City  
10 of Chino refused to sign the agreement.
- 11 c) On September 24, 2015, the board at its regular meeting adopted  
12 resolution 2015-06, and previously – on September 17, 2015 – the  
13 advisory committee approved resolution 2015-06: “Resolution of Chino  
14 Basin Watermaster regarding 2015 Safe Yield Reset Agreement  
15 (SYRA).”
- 16 d) Watermaster’s instant motion asks the court to address the issues  
17 covered in the SYRA as follows:
- 18 I) The reset of the Basin Safe Yield from 140,000 acre-fee per year (AFY)  
19 to 135,000 AFY pursuant to the Restated Judgment, the OBMP  
20 Implementation Plan, and Watermaster’s Rules and Regulations;
- 21 II) The manner in which Watermaster should account for various  
22 components of the recharge to the Basin implementing the Court-  
23 Approved Management Agreements; and
- 24 III) Establishment of Safe Storage Management Measures (SSMM)  
25 intended to ensure that withdrawals of groundwater from authorized  
26 storage accounts within the Basin are safe, sustainable, and will not  
27 cause Material Physical Injury or undesirable results.
- 28



1 D. SUMMARY RULINGS:

2 In its motion, Watermaster requests an order acknowledging the 2015 Safe  
3 Yield Reset Agreement and ordering Watermaster to proceed in accordance with its  
4 terms with respect to amending the restated judgment to reset the Safe Yield of the  
5 Basin from 135,000 AFY to 135,000 AFY and amending the schedule for access to  
6 Re-Operation water. For the reasons set forth herein, the court grants the motion  
7 with respect to amending the restated judgment to reset the Safe Yield of the basin to  
8 135,000 AFY. However, the court denies the rest of the motions including the motions  
9 to amend the schedule for access to Re-operation water and the motion to institute  
10 Safe Storage Management Measures. The court makes additional orders with respect  
11 to Desalter water as set forth herein.

12  
13 **II. Severability of SYRA**

14 Watermaster has questioned whether the court can sever SYRA and enforce  
15 certain sections and not others. For the following reasons, except for the Safe Yield  
16 reset itself, the court has concluded that it cannot enforce some of sections and not  
17 others:

18 A. Watermaster itself has argued that SYRA is an integrated document which  
19 cannot be divided.

20 1. Watermaster's "Response to Questions for Clarification, etc." filed  
21 October 28, 2016, states: "the SYRA is the product of the Facilitation and Non-  
22 Disclosure Agreement (FANDA) process, during which the parties to that agreement  
23 comprehensively settled and compromised their disagreements, so as to enable  
24 Watermaster to implement the CAMA's through and following the reset of Safe  
25 Yield."

26 a) The court does not find a basis for this characterization. *Most* of the  
27 parties settled and compromised their disagreements, but not all,  
28 notably the city of Chino and Jurupa Community Services District.

1           2.     Watermaster further argues that approving “some, but not all, of  
2 SYRA’s provisions can materially advantage one party over another, in that the full  
3 benefit of the parties intended settlement and compromise is not achieved, as one or  
4 more parties may be denied the consideration for which it bargained.”

5           a)     For the reasons set forth below, the court refuses to adopt SYRA in  
6 whole. Following Watermaster’s own all-or-nothing argument, the  
7 court must conclude that not only is there no legal basis to enforce part  
8 of SYRA, but also that it is fundamentally unfair to the parties to  
9 enforce portions of SYRA for which the parties did not bargain.

10          3.     However, the court concludes there is a qualitative difference between  
11 the safe yield reset and the balance of SYRA.

12          a)     The request to reduce the Safe Yield to 135,000 AFY is a legal  
13 determination for the court.

14          b)     The request to reduce Safe Yield is based on the Reset Technical  
15 Memorandum report and model. That memorandum has nothing to do  
16 with interactions, bargaining, or allocations among the parties.

17               I) There ample technical and scientific support for the reset in the  
18 Technical Memorandum and the 2013 Chino Basin Groundwater  
19 Model Update and Recalculation of Safe Yield Pursuant to the Peace  
20 Agreement prepared by Wildermuth Environmental, Inc. dated  
21 October 2015.

22          c)     The request to reduce Safe Yield is in response to the court order itself  
23 to evaluate the yield every 10 years

24               I) Although the study should have been done in 2010, at least it was  
25 completed in 2015.

26               II) None of the other aspects of SYRA were pursuant to a court order.

27               III) The safe yield reset is a legal determination for the court. There  
28 is no “bargained-for exchange” for the court to consider.

1 d) Therefore for these reasons and those set forth in section III below ~~HH~~  
2 the court adopts the following provisions of Article 4-SAFE YIELD  
3 RESET TO 135,000 AFY of the SYRA AND ORDERS AS  
4 FOLLOWS:

5 4.1 Safe Yield Reset. Consistent with the prior orders of the Court pursuant to its  
6 continuing jurisdiction, effective July 1, 2010 and continuing until June 30, 2020, the  
7 Safe Yield for the Basin is reset at 135,000 AFY. For all purposes arising under the  
8 Judgment, the Peace Agreements and the OBMP Implementation Plan, the Safe  
9 Yield shall be 135,000 AFY, without exception, unless and until Safe Yield is reset in  
10 accordance with the procedures set forth in this order, and determined by the Court  
11 pursuant to its retained continuing jurisdiction.

12  
13 4.2 Scheduled Reset. Watermaster will initiate a process to evaluate and reset the  
14 Safe Yield by July 1, 2020 as further provided in this order. Subject to the provisions  
15 of Paragraph 4.3 below, the Safe Yield, as it is reset effective July 1, 2020 will  
16 continue until June 30, 2030. Watermaster will initiate the reset process no later than  
17 January 1, 2019, in order to ensure that the Safe Yield, as reset, may be approved by  
18 the court no later than June 30, 2020. Consistent with the provisions of the OBMP  
19 Implementation Plan, thereafter Watermaster will conduct a Safe Yield evaluation  
20 and reset process no less frequently than every ten years. This Paragraph is deemed  
21 to satisfy Watermaster's obligation, under Paragraph 3.(b) of Exhibit "I" to the  
22 Restated Judgment, to provide notice of a potential change in Operating Safe Yield.

23  
24 4.3 Interim Correction. In addition to the scheduled reset set forth in Paragraph  
25 4.2 above, the Safe Yield may be reset in the event that, with the recommendation  
26 and advice of the Pools and Advisory Committee and in the exercise of prudent  
27 management discretion described in Paragraph 4.5(c), below, Watermaster  
28 recommends to the court that the Safe Yield must be changed by an amount greater

1 (more or less) than 2.5% of the then-effective Safe Yield.

2  
3 4.4 Safe Yield Reset Methodology. The Safe Yield has been reset effective July 1,  
4 2010 and shall be subsequently evaluated pursuant to the methodology set forth in  
5 the Reset Technical Memorandum. The reset will rely upon long-term hydrology and  
6 will include data from 1921 to the date of the reset evaluation. The long-term  
7 hydrology will be continuously expanded to account for new data from each year,  
8 through July 2030, as it becomes available. This methodology will thereby account  
9 for short-term climatic variations, wet and dry. Based on the best information  
10 practicably available to Watermaster, the Reset Technical Memorandum sets forth a  
11 prudent and reasonable professional methodology to evaluate the then prevailing  
12 Safe Yield in a manner consistent with the Judgment, the Peace Agreements, and the  
13 OBMP Implementation Plan. In furtherance of the goal of maximizing the  
14 beneficial use of the waters of the Chino Basin, Watermaster, with the  
15 recommendation and advice of the Pools and Advisory Committee, may supplement  
16 the Reset Technical Memorandum's methodology to incorporate future advances in  
17 best management practices and hydrologic science as they evolve over the term of  
18 this order.

19  
20 4.5 Annual Data Collection and Evaluation. In support of its obligations to  
21 undertake the reset in accordance with the Reset Technical Memorandum and this  
22 order, Watermaster shall annually undertake the following actions:

23 (a) Ensure that, unless a Party to the Judgment is excluded from reporting,  
24 all production by all Parties to the Judgment is metered, reported, and reflected in  
25 Watermaster's approved Assessment Packages;

26 (b) Collect data concerning cultural conditions annually with cultural  
27 conditions including, but not limited to, land use, water use practices, production,  
28 and facilities for the production, generation, storage, recharge, treatment, or

1 transmission of water;

2 (c) Evaluate the potential need for prudent management discretion to avoid  
3 or mitigate undesirable results including, but not limited to, subsidence, water quality  
4 degradation, and unreasonable pump lifts. Where the evaluation of available data  
5 suggests that there has been or will be a material change from existing and projected  
6 conditions or threatened undesirable results, then a more significant evaluation,  
7 including modeling, as described in the Reset Technical Memorandum, will be  
8 undertaken; and,

9 (d) As part of its regular budgeting process, develop a budget for the  
10 annual data collection, data evaluation, and any scheduled modeling efforts, including  
11 the methodology for the allocation of expenses among the Parties to the Judgment.  
12 Such budget development shall be consistent with section 5.4(a) of the Peace  
13 Agreement.

14  
15 4.6 Modeling. Watermaster shall cause the Basin Model to be updated and a  
16 model evaluation of Safe Yield, in a manner consistent with the Reset Technical  
17 Memorandum, to be initiated no later than January 1, 2024, in order to ensure that  
18 the same may be completed by June 30, 2025.

19  
20 4.7 Peer Review. The Pools shall be provided with reasonable opportunity, no  
21 less frequently than annually, for peer review of the collection of data and the  
22 application of the data collected in regard to the activities described in Paragraphs  
23 4.4, 4.5, and 4.6 above.

24  
25 4.8 No Retroactive Accounting. Notwithstanding that the initial Safe Yield reset,  
26 described in Paragraph 4.1 above, shall be effective as of July 1, 2010, Watermaster  
27 will not, in any manner, including through the approval of its Assessment Packages,  
28 seek to change prior accounting of the prior allocation of Safe Yield and Operating

1 Safe Yield among the Parties to the Judgment for production years prior to July 1,  
2 2014.

3  
4  
5 **III. THE COURT FURTHER ORDERS AS FOLLOWS:**

6 A. The court amends the restated judgment ¶6 and sets the safe yield to 135,000  
7 AFY for the following reasons:

8 1. The court accepts the findings and conclusions of Wildermuth for the  
9 following reasons. Those conclusions are set forth in the reset Technical  
10 Memorandum.

11 a) Wildermuth has been the authoritative resource for the parties and the  
12 court during the pendency of the case for the last 15 years.

13 b) Wildermuth has performed a detailed analysis with substantiated facts  
14 and findings in the reset technical memorandum, the supplemental  
15 declaration of Mark Wildermuth in support of Watermaster's reply to  
16 oppositions to the motion regarding 2015 Safe Yield Reset Agreement,  
17 and the memo to restated judgment, paragraph 6 aka Wildermuth  
18 supplemental declaration.

19 c) The court accepts the net recharge approach and calculations set forth  
20 in the Wildermuth report.

21 d) The Wildermuth report gives the most comprehensive analysis and  
22 credible evaluation of the historic condition of the Basin.

23 e) The court does not accept the conclusions of Robert Shibatani for the  
24 following reasons:

25 I) Shibatani recognizes that the net recharge calculation is a legitimate  
26 approach to a determination of Safe Yield.

27 II) The Shibatani approach is unnecessarily quantitative. The Wildermuth  
28 analysis allows for the definitions required for the analysis of the Chino

1 Basin, including cultural conditions and undesirable results.

2 III) Wildermuth has considered the effects of climate change of  
3 Basin precipitation. The court accepts Wildermuth's conclusion that  
4 there are not any better predictive modeling scenarios generally available  
5 at this time accurately calibrated to the historical rainfall and are  
6 therefore not reliable as a predictive tool.

7 2. The Restated Judgment's definition of Safe Yield includes the  
8 consideration of the evolutionary land-use conditions the need to protect the Basin  
9 against undesirable results.

10 3. No party has objected to the reduction in Safe Yield, except the city of  
11 Chino. Chino's objections were discussed and rejected/overruled for the reasons set  
12 forth in Joinders and Filings, Section A.2 above.

13 4. The reduction safe yield is consistent with the Court-Approved  
14 Management Agreements.

15 5. The court finds that the provisions of SYRA set for in Section II above  
16 set forth an approach to a determination of future Safe Yield determinations in a  
17 manner consistent with the Court Approved Management Agreements.

18 a) The declaration of Peter Wildermuth and the supporting  
19 documentation, analysis supports the court's conclusion.

20 b) Wildermuth declaration, paragraph 14, states his opinion that the Basin  
21 protection measures to which the parties have agreed and the 2015 Safe  
22 Yield Reset Agreement will ensure that the Basin is not harmed by  
23 extraction of 135,000 AFY through fiscal 2020. However, again the  
24 court emphasizes that its ruling is not based on the agreement of the  
25 parties. The court's ruling is based upon the Restated Judgment, the  
26 Court Approved Management Agreements, and its legal conclusions  
27 supported by the technical analyses identified in the court's order.

28 I) Although the court concludes the Safe Storage Management Measures

1 are useful and advisable, the court concludes there is no specific factual  
2 basis requiring the Safe Yield reset to include Safe Storage Management  
3 Measures. Therefore the court concludes that even without the Safe  
4 Storage Management Measures, reduction of Safe Yield to 135,000 AFY  
5 will not harm the Basin.

6 II) The 2013 Chino Basin Groundwater Model Update and Recalculation  
7 of Safe Yield Pursuant to the Peace Agreement is sufficiently  
8 documented and the court finds the data reliable.

9 c) Wildermuth declaration, paragraph 15, states that the Basin protection  
10 measures to which the parties have agreed and the 2015 Safe Yield  
11 Reset Agreement, including the Safe Storage Management Measures,  
12 will ensure that the Basin is not harmed by extractions of the 20,000 AF  
13 that was allocated in the past 4 years and would have been allocated if  
14 the Safe Yield have been reset to 135,000 AFY in 2011.

15 I) However, again Wildermuth does not specifically address the necessity  
16 of the Safe Storage Measures with respect to complying with the Court  
17 Approved Management Agreements. Therefore, the court again  
18 concludes that even without the Safe Storage Management Measures,  
19 reduction of Safe Yield to 135,000 AFY will not harm the Basin.

20 II) Again, the 2013 Chino Basin Groundwater Model Update and  
21 Recalculation of Safe Yield Pursuant to the Peace Agreement is  
22 sufficiently documented and the court finds the data reliable.

23 d) Therefore, the court concludes that the extraction of 135,000 AFY is  
24 consistent with the Court Approved Management Agreements and does  
25 not create any undesirable result or Material Physical Injury to the Basin.  
26

27 B. The measures set forth in Article 4 are consistent with the Physical Solution  
28 under the judgment and Article X, section 2 of the California Constitution.



C. Paragraph 6 of the Restated Judgment is hereby amended to read as follows:  
“Safe Yield. The Safe Yield of the Basin is 135,000 acre feet per year.”

1. The effective date of this amendment of Paragraph 6 of the Restated Judgement is July 1, 2010.

#### IV. SAFE YIELD RESET AGREEMENT (SYRA): WATERMASTER ALLOCATION HISTORY, EARLY TRANSFERS, AND THE DESALTERS

A. The 1978 Judgment as amended

1. The 1978 Judgment ¶44 made the following allocation of rights to Safe Yield in the Chino Basin (“the physical solution”):

Pool	Allocation
Overlying (Agricultural) Pool	414,000 acre-feet in any 5 consecutive years (82,800 acre-feet per year)* **
Overlying (Non-agricultural) Pool	7366 acre-feet per year**
Appropriative Pool	49,834 acre-feet per year
Total	140,000 acre-feet per year

\*Note:  $414,000 \div 5 = 82,800$ . 82,800 acre-feet per year has been the basis of calculations for the Appropriative Pool going forward from the judgment.

\*\*Note: the rights of the members of the Overlying (Agricultural) Pool and the Overlying (Non-Agricultural) Pool are fixed (Restated Judgment ¶8, ¶44, see also Exhibits “C” and “D” to the Restated Judgment). **Therefore the effect of a decline of the safe yield is borne entirely by the members of the Appropriative Pool (Restated Judgment ¶9).**

2. The Judgment ¶1(x) defines Safe Yield as “the long-term average annual

1 quantity of groundwater (excluding replenishment or stored water but including  
2 return flow to the basin from use of replenishment or stored water) which can be  
3 produced [*i.e.*, pumped] from the basin under cultural conditions of the particular  
4 year without causing an undesirable result.”

5 3. The judgment fixed the amount of water production (pumping) that  
6 could be allocated to the Overlying (Agricultural) Pool and the Overlying (Non-  
7 agricultural) Pool. However, the Appropriative Pool allocation could be changed.

8 a) The court concludes that the disputes in the oppositions concern  
9 relationship between unproduced (*i.e.*, unpumped) Overlying  
10 Agricultural Pool water (aka Ag Pool water) and the water available to  
11 the Appropriative Pool.

12 4. Exhibit “I” to the judgment is the Engineering Appendix. It discusses  
13 Hydraulic Control and Re-Operation, which are described in more detail below.  
14 Section 3 defines Operating Safe Yield as consisting in any “year of the  
15 Appropriative Pool’s share of Safe Yield of the Basin, plus any controlled overdraft  
16 of the Basin which Watermaster may authorize.”

17 a) Section 3(b) states that “in no event shall Operating Safe Yield in any  
18 year be less than the Appropriative Pool’s share of Safe Yield, nor shall  
19 it exceed such share of Safe Yield by more than 10,000 acre feet. The  
20 initial Operating Safe Yield is hereby set at 54,834 acre feet per year.”

21 I) The figure of 54,834 acre feet per year is the initial 1978 Judgment  
22 allocation of 49,834 acre-feet per year plus 5,000 acre feet per year. The  
23 additional 5,000 AFY comes from 200,000 acre-feet of overdraft (water  
24 pumped without a replenishment obligation) allocated by the Judgment  
25 to the Appropriative Pool. This overdraft total was later increased by  
26 400,000 AF to a total of 600,000 AF. The overdraft will be exhausted  
27 in 2016/2017. (Watermaster Motion Regarding 2015 Safe Yield Reset  
28 Agreement, Amendment of Restated Judgement, Paragraph 6, page 3,

line 27.)

- b) Operating Safe Yield has also come to mean water that the Appropriative Pool could produce/pump without having to purchase replenishment water. (Exhibit “H” ¶5.)

5. Exhibit “H” to the judgment described the Appropriative Pool Pooling Plan, paragraph 10 described “Unallocated Safe Yield Water” as follows: “to the extent that, in any 5 years, any portion of the share of Safe Yield allocated to the Overlying (Agricultural) Pool is not produced, such water shall be available for reallocation to members of the Appropriative Pool as follows:

(a) Priorities. Such allocation shall be made in the following sequence:

(1) to supplement, in the particular year, water available from Operating Safe Yield to compensate for any reduction in the Safe Yield by reason of recalculation thereof after the tenth year of operation hereunder. [This Exhibit H ¶10(a)(1) priority is sometimes called ‘unproduced Agricultural Pool water’ or ‘unproduced Ag Pool water.’ The current credited production (pumping) for agricultural groundwater is about 33,600 AFY, but that includes agricultural land irrigated with reclaimed water. The actual groundwater production for agricultural purposes is about 22,000 AFY. (Jurupa Services District’s response to Judge Reichert’s Request for Clarification, March 22, 2016, page 2, lines 8–10.)]

(2) pursuant to conversion claims as defined in Subparagraph (b) hereof.

(3) as a supplement to Operating Safe Yield, without regard to reductions in Safe Yield.”

6. In an order dated November 17, 1995, Conversion Claims were defined in Exhibit “H” ¶10(b) [this is the Subparagraph (b) to which the preceding paragraph--page 23, line 21--refers]. Peace I modified this definition in Exhibit “H” ¶10(b) to state as follows:

(b) Conversion Claims. The following procedures may be utilized by any

1 appropriator:

2 1) Record of Unconverted Agricultural Acreage. Watermaster shall maintain  
3 on an ongoing basis a record with appropriate related maps of all agricultural  
4 acreage within the Chino Basin subject to being converted to appropriate  
5 water use pursuant to the provisions of this paragraph. An initial  
6 identification of such acreage as of June 30, 1995 is attached hereto as  
7 Appendix 1.

8 (2) Record of Water Service Conversion. Any appropriator who undertakes  
9 to permanently provide water service to lands subject to conversion may  
10 report such intent to change water service to Watermaster. Watermaster  
11 should thereupon verify such change in water service and shall maintain a  
12 record and account for each appropriator of the total acreage involved.  
13 Should, at any time, converted acreage return to water service from the  
14 Overlying (Agricultural) Pool, Watermaster shall return such acreage to  
15 unconverted status and correspondingly reduce or eliminate any allocation  
16 accorded to the appropriator involved.

17 (3) Allocation of Safe Yield Rights

18 (i) For the term of the Peace Agreement in any year in which sufficient  
19 unallocated Safe Yield from the Overlying (Agricultural) Pool is available for  
20 such conversion claims, Watermaster shall allocate to each appropriator with  
21 the conversion claim 2.0 acre-feet of unallocated Safe Yield water for each  
22 converted acre for which conversion has been approved and recorded by  
23 Watermaster.

24 (ii) In any year in which the unallocated Safe Yield water from the Overlying  
25 (Agricultural) Pool is not sufficient to satisfy all outstanding conversion claims  
26 pursuant to subparagraph (i) herein above, Watermaster shall establish  
27 allocation percentages for each appropriator with conversion claims. The  
28 percentages shall be based upon the ratio of the total of such converted

1 acreage approved and recorded for each appropriators's [sic] account in  
2 comparison to the total of converted acreage approved and recorded for all  
3 appropriators. Watermaster shall apply such allocation percentage for each  
4 appropriator to the total unallocated Safe Yield water available for conversion  
5 claims to derive the amount allocable to each appropriator.

6 7. CONCLUSION: With the 1995 amendments, the Judgment set a  
7 prioritized list of claims upon unproduced Ag Pool water.

8 Ag Pool water--1995 Judgment amendment

9 82,800 AFY of the Ag Pool's water available to the Appropriative Pool with  
10 Appropriative Pool claims prioritized as follows:

- 11 (1) to supplement, in the particular year, water available from Operating Safe  
12 Yield to compensate for any reduction in the Safe Yield by reason of recalculation  
13 thereof after the tenth year of operation as required by the Judgment;  
14 (2) pursuant to conversion claims as defined in Subparagraph (b of Exhibit "H"  
15 ¶10(b);  
16 (3) as a supplement to Operating Safe Yield, without regard to reductions in Safe  
17 Yield.

18 The court notes that there is currently more than 49,000 AFY of unproduced  
19 Agricultural Pool water available. (Jurupa Services District's response to Judge  
20 Reichert's Request for Clarification, March 22, 2016, page 2, lines 10-14.)  
21

22 B. The 2000 Peace Agreement aka Peace I

23 1. With the agreements made in Peace I, the elements of Desalters and of  
24 water transfers entered the water allocations to the parties.

25 2. Peace I Section V-Watermaster Performance defined how Watermaster  
26 was to perform regarding procedures for Recharge and Replenishment. In paragraph  
27 ¶5.3(g), Watermaster was ordered to approve an "Early Transfer" from the  
28 Agricultural Pool to the Appropriative Pool of not less than 32,800 acre-feet per year

1 which was the expected approximate quantity of water not produced by the  
2 Agricultural Pool. ¶5.3(g)(i) further stated that “the quantity of water subject to Early  
3 Transfer under this paragraph shall be the greater of (i) 32,800 acre-feet or (ii) 32,800  
4 acre-feet plus the actual quantity of water not produced by the Agricultural Pool for  
5 that Fiscal Year that is remaining after all the land use conversions are satisfied  
6 pursuant to” the following provision: “the Early Transfer water shall be annually  
7 allocated among members of the Appropriative Pool in accordance with their pro-  
8 rata share of the initial Safe Yield.” The court notes that after this deduction, the  
9 Safe Yield water available to the Agricultural Pool became 50,000 acre-feet per year.

10 3. Peace I also introduced the construction and operation of Desalters in  
11 Section VII. ¶7.5 described replenishment for the Desalters provided from the  
12 following sources in the following order:

13 a) Watermaster Desalter replenishment account composed of 25,000 acre-feet  
14 of water abandoned by Kaiser and other water previously dedicated by the  
15 Appropriative Pool;

16 (b) New Yield of the Basin, unless the water Produced and treated by the  
17 Desalters is dedicated by purchaser of the Desalter water to offset the price of  
18 Desalter water to the extent of the dedication;

19 (c) Safe Yield of the Basin, unless the water Produced and treated by the  
20 Desalters is dedicated by a purchaser of the desalted water to offset the price of  
21 Desalter water to the extent of the dedication; [and then]

22 d) Additional Replenishment Water purchased by Watermaster, the cost of  
23 which shall be levied as an Assessment by Watermaster.

24 4. The court also concludes that the conversion claims have priority over  
25 the Early Transfers because the conversion claims pre-existed the Early Transfer  
26 allocations. The conversion claims came into existence with the 1995 Judgment  
27 amendment. The Early Transfers came into existence with Peace I in 2000. The  
28 Early Transfers must be interpreted in the context of the pre-existing 1995 Judgment

1 amendment.

2 5. CONCLUSION: With Peace I, there were major changes regarding the  
3 allocation of water among the parties as set forth in the following table.

4 Ag Pool water	Status and/or change	Comments
5	result	
6 1995 Judgment 7 amendment	8 82,800 AFY of the Ag 9 Pool's water available to 10 the Appropriate Pool with 11 Appropriative Pool claims 12 prioritized as follows: 13 (1) to supplement, in the 14 particular year, water 15 available from Operating 16 Safe Yield to compensate 17 for any reduction in the 18 Safe Yield by reason of 19 recalculation thereof after 20 the tenth year of 21 operation hereunder. 22 (2) pursuant to conversion 23 claims as defined in 24 Subparagraph (b) hereof. 25 (3) as a supplement to 26 Operating Safe Yield, without regard to reductions in Safe Yield.	
27 2000 Peace I–Desalters 28 start construction and	Early Transfers of 32,800 AFY of Ag Pool water	New Yield (with conditions) is source of

1 2 3 4 5 6 7 8 9 10 11 12	pumping water	going straight to the Appropriative Pool (leaving 50,000 AFY to Ag Pool). The remaining Ag Pool water is subject to Appropriative Pool's prioritized claims.	water to replenish water pumped by the Desalters. Under Peace I therefore Desalters do not affect Safe Yield or Operating Safe Yield. Water produced/pumped by the Desalters is not added to or subtracted from Safe Yield of the Basin.
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13 The court concludes that Peace I interrelated Early Transfers and conversion  
14 claims in the following way. The Appropriative Pool received unproduced Ag Pool  
15 water in at least the amount of 32,800 AFY, but the Appropriative Pool could receive  
16 more unproduced Ag Pool water if 1) the Ag Pool did not produce/pump its leftover  
17 50,000 AFY and 2) also after subtracting from the 50,000 AFY the Appropriative  
18 Pool's conversion claims at the rate of 2 acre-feet per year per converted acre.

19 However, the court also concludes that Peace I did not rearrange the priority  
20 of allocation claims on unproduced/unpumped water. The priorities of the  
21 judgment remain. Specifically, the priority set forth in Judgment, Exhibit "H,"  
22 Paragraph 10.

23 EXAMPLE 1: So, for example in a particular year,

- 24 1. If one Appropriative Pool producer/pumper (e.g., municipality, such as the City of  
25 Chino) had 1000 acres of converted land resulting in 2000 acre-feet of conversion  
26 claims (1000 acres x 2.0 acre feet of water/one acre converted), and assuming those  
27 were the only conversion claims; and
- 28 2. If the Ag Pool produced/pumped only 33,600 AFY leaving 49,200 AFY available



for further allocation (82,800 AFY– 33,600 AFY= 49,200 AFY; the court notes that 33,600 AFY is the approximate Ag Pool credited production [Jurupa response to court’s clarification request, page 2, lines 9-10], but the court is using this figure only for illustration); then,

3. The Ag Pool water that would be available to the Appropriative Pool would be based on the following calculation

Example 1-A	Explanation	Comments
Initial Ag Pool allocation	82,800 AFY	
Ag Pool production/pumping	- 33,600 AFY	Assumption
Initial balance after production	49,200 AFY	(82,800 acre-feet – 33,600 acre-feet = 49,200 acre-feet per year)
Conversion claims	- 2000 acre-feet	1000 acres x 2.0 acre feet of water/one acre converted = 2000 acre-feet per year.  The subtraction for satisfying conversion claims comes before any reallocation. The conversion claims are applied first because they are set forth in the 1995 Amendment to the Judgment
Ag Pool balance after reduction for conversion claims	47,200 AFY	(49,200 acre-feet - 2000 acre-feet = 47,200 acre-feet per year)  Balance: Ag Pool water available to Appropriative Pool after conversion priority claims pursuant to Judgment Exhibit

		"H" Paragraph 10.
Reduction for Early Transfers	- 32,800 AFY	The Early Transfer is now applied because Early Transfers were instituted in Peace I in 2000. The Early Transfer from 82,800 AFY allocation leaving 50,000 AFY for the Ag Pool itself to produce/pump and for additional claims by the Appropriative Pool pursuant to Peace I and Peace II.*
Balance: Ag Pool water available to the Appropriative Pool after conversion priority claims and Early Transfers	14,400 AFY	(47,200 acre-feet -32,800 acre-feet = 14,400 acre-feet per year.) This is the total Ag Pool water available for reallocation to Appropriative Pool for production/pumping after subtraction of conversion priority claims of 2,000 acre-feet per year from and the 32,800 Early Transfer from the allotment of Ag Pool water.**

\*It appears to the court that for convenience, many parties first simply take the reduction of the 32,800 acre-feet for Early Transfers and start these calculations with 50,000 acre-feet of Ag Pool water.

1. That calculation is simply to start with the 50,000 acre-feet of unproduced/unpumped Ag Pool water and then subtract the amount 33,600 acre-feet that was actually pumped in this example. The result is 16,400 acre-

1 feet available for conversion claims.

2 2. Then subtract the 2,000 acre-feet for conversion claims to get the 14,400 acre-  
3 feet of Ag Pool water available for allocation to the Appropriative Pool.

4 3. However, this procedure is inconsistent with the judgment and Peace  
5 Agreements as interpreted by the court for the reasons stated above.

6 \*\*The also court notes that the particular producer who serviced the converted acres  
7 would actually be able to pump the additional conversion claim water as an  
8 allocation.

9  
10 EXAMPLE 2: The following example demonstrates complications arising  
11 from a decrease in the amount of Ag Pool water available to the Appropriative Pool.  
12 If the Ag Pool produced/pumped more than 48,000 AFY there would be no  
13 available water for the Appropriative Pool.

14	Example 2		Comment
15	Initial Ag Pool	82,800 AFY	
16	allocation		
17	Ag Pool	48,000 AFY	Assumption
18	production/pumping		
19	Initial balance after	34,800 AFY	82,800 acre-feet – 48,000 acre-feet =
20	production		34,800 acre-feet per year
21	Conversion claims	- 2000 acre-	The subtraction for satisfying
22		feet	conversion claims before any
23			reallocation. (1000 acres x 2.0 acre
24			feet of water/one acre converted =
25			2000 acre-feet).
26	Balance:	32,800 AFY	34,800 acre-feet – 2,000 acre-feet =
27			32,800 acre-feet per year. Ag Pool
28			Water Available after conversion

		priority claims pursuant to Judgment Exhibit "H" Paragraph
Reduction for Early Transfers	- 32,800 AFY	Early Transfer of 32,800 AFY from 82,800 AFY allocation leaving 50,000 AFY for the Ag Pool itself to produce/pump. Any water which the Ag Pool did not produce/pump water up to the 50,000 AFY would be available for allocation to the Appropriative Pool pursuant to Peace I and Peace II.
Balance: Ag Pool water available after conversion priority claims and Early Transfers	0 AFY	32,800 acre-feet - 32,800 acre-feet = 0 acre-feet per year. There would be no Ag Pool water available for reallocation to Appropriative Pool after subtraction of conversion priority claims of 2,000 acre-feet and the 32,800 Early Transfer of unproduced/unpumped from the allotment of Ag Pool water.
<p>Conclusion:</p> <p>Under this scenario, the Appropriative Pool would not get any additional allocation from Ag Pool water</p>		

6. Regarding replenishment for the Desalters, Peace I ¶7.5 sets forth the hierarchy of sources of replenishment water for the Desalters as follows:

Replenishment Water. Replenishment for the Desalters shall be provided from the following sources in the following order of priority.

(a) Watermaster Desalter Replenishment account composed of 25,000

1 acre-feet of water abandoned by Kaiser pursuant to the "Salt Offset  
2 Agreement" dated October 21, 1993, between Kaiser and the RWQB, and  
3 other water previously dedicated by the Appropriative Pool.

4 (b) New Yield of the Basin, unless the water Produced and treated by  
5 the Desalters is dedicated by a purchaser of the desalters water to offset the  
6 price of the salted water to the extent of the dedication;

7 (c) Safe Yield of the Basin, unless the water Produced and treated by  
8 the Desalters is dedicated by a purchaser of the the salted water to offset the  
9 price of the salted water to the extent of the dedication;

10 (d) Additional Replenishment Water purchased by Watermaster, the  
11 cost of which shall be levied as an Assessment by Watermaster.

12  
13 C. The 2007 Peace II Agreement (Peace II)

14 1. Peace II Agreement Article VI-Groundwater Production by and  
15 Replenishment for Desalters and Article VII-Yield Accounting further defined the  
16 accounting for the Desalters and Desalter Production Offsets.

17 2. Peace II Paragraph 6.2(a)(iii) states as follows in pertinent part:  
18 Peace II Desalter Production Offsets. To facilitate Hydraulic Control through  
19 Basin Re-Operation, [court note: that is, water pumped as part of the 600,000  
20 AF controlled overdraft] in accordance with the 2007 Supplement to the  
21 OBMP Implementation Plan and the amended Exhibits G and I to the  
22 Judgment, additional sources of water will be made available for purposes of  
23 Desalter Production and thereby some or all of a Replenishment obligation.  
24 With these available sources, the Replenishment obligation attributable to  
25 Desalter production in any year will be determined by Watermaster as follows:

26 (a) Watermaster will calculate the total Desalter Production for the  
27 preceding year and then apply a credit against the total quantity from: . . .

28 (iii) New Yield (other than Stormwater (Peace Agreement Section

7.5(b)); . . .

v) Safe Yield that may be contributed by the parties (Peace Agreement Section 7.5(c));

(vi) any Production of groundwater attributable to the controlled overdraft authorized pursuant to amended Exhibit I to the Judgment. [The Judgment allowed for a temporary controlled overdraft, *i.e.*, initially 200,000 AF and then an additional 400,000 AF total production/pumping starting in 2007 and ending in 2026 without replenishment, in order to achieve Hydraulic Control. (Safe Yield Reset Implementation Desalter Replenishment Accounting Illustration (per Peace II Agreement, Section 6.2 (PIIA, 6.2) and June 11, 2015 Key Principles)–Exhibit C to Attachment 1, Watermaster’s Motion regarding 2015 Safe Yield Reset Agreement, Amendment of Restated Judgment, Paragraph 6.]

Paragraph 7.1 provides as follows:

New Yield Attributable to the Desalters. Watermaster will make an annual finding as to the quantity of New Yield that is made available by Basin Re-Operation including that portion that is specifically attributable to the Existing and Future Desalters. Any subsequent recalculation of New Yield as Safe Yield by Watermaster will not change the priority set forth above for offsetting Desalter production as set forth in Article VII, Section 7.5 of the Peace Agreement. For the initial term of the Peace Agreement, neither Watermaster nor the Parties will request that Safe Yield be recalculated in a manner that incorporates New Yield *attributable to the Desalters* [emphasis in original] into a determination of Safe Yield so that this source of supply will be available for Desalter Production rather than for use by individual parties to the Judgment.

2. Additionally, in 2007 Peace II ¶1.1(d) defined Re-Operation as “the

1 controlled overdraft [pumping without replenishment] of the Basin by the managed  
2 withdrawal of groundwater Production for the Desalters and the potential increase in  
3 the cumulative un-replenished Production from 200,000 [acre-feet] authorized by  
4 paragraph 3 Engineering Appendix Exhibit I to the Judgment, to 600,000 acre-feet  
5 for the express purpose of securing and maintaining Hydraulic Control as a  
6 component of the Physical Solution.” The Peace II agreement amended the Restated  
7 Judgment’s Engineering Appendix to specify the additional 400,000 acre-feet that  
8 would be dedicated exclusively to the purpose of Desalter replenishment (Restated  
9 Judgement Exhibit “T” §2(b)[3]).

10 3. Peace II, Paragraph 6.2(a)(iii) gives Watermaster a basis to calculate the  
11 total Desalter production from the preceding year and then apply against that  
12 production/pumping a “credit” (*i.e.*, a reduction) which included a number of  
13 factors, including New Yield referencing Peace I, paragraph 7.5(b). This credit  
14 procedure is an important issue going forward for the administration of water  
15 allocations:

16 a) Peace I, paragraph 1.1(aa) defines New Yield as “proven increases in  
17 yield in quantities greater than historical amounts from sources of  
18 supply including, but not limited to, operation of the Desalters  
19 (including the Chino I Desalter), induced Recharge and other  
20 management activities implemented in operational after June 1, 2000.”

21 I) The court concludes that New Yield in the above paragraph means  
22 water produced/pumped by the Desalters, because that is how yield is  
23 always used, e.g., Safe Yield, Operating Safe Yield, etc., and the source  
24 of supply is the Desalters as identified in the definition.

25 II) So, New Yield includes water produced/pumped by the Desalters.

26 b) Peace I, paragraph 1.1(nn) defines “Recharge and Recharge Water as  
27 “introduction of water to the Basin, directly or indirectly, ... .” Recharge  
28 references the physical act of introducing water to the Basin.”

- 1 c) The conclusion of the court is that after Peace II, the definition New  
2 Yield now includes both Desalter operation, *i.e.*, production/pumping  
3 from the Desalters, and induced Recharge (*i.e.*, groundwater flowing  
4 back into the Basin from the Santa Ana River as the result of Desalter  
5 operation).
- 6 d) Peace II was consistent with Peace I. Peace II provided that the parties  
7 would avoid some or all or a replenishment obligation for Desalter  
8 production by getting credit/reduction against that production from  
9 sources such as New Yield which includes induced Recharge.
- 10 I) Peace I defined New Yield to include “operation of the Desalters” and  
11 “induced Recharge.”
- 12 II) The court concludes that the Peace I and Peace II when read together  
13 recognized that some of the water which the Desalters  
14 produced/pumped came from induced recharge from the Santa Ana  
15 River.
- 16 III) Peace II was not explicit it stating that the Desalter production  
17 offset should follow the priorities of Peace I ¶7.5, but the court  
18 concludes that the replenishment water, *i.e.*, Desalter-induced recharge,  
19 must follow the priorities of Peace I.
- 20 (a) The agreements must be read together and interpreted together  
21 because they form a context for each other.
- 22 e) In its response to Judge Reichert’s questions, Chino argued that SYRA’s  
23 failure to give a specific definition to “Desalter-induced recharge” was  
24 purposeful because the failure allowed SYRA to use “Desalter-induced  
25 recharge” synonymously with New Yield. The court does not find  
26 “Desalter-induced recharge” to be synonymous with New Yield. The  
27 court finds that “Desalter-induced recharge” is only synonymous with  
28 “induced Recharge.” Therefore Desalter-Inducted Recharge is included



1 in the definition of New Yield, as set forth in Peace I ¶1(aa): “induced  
2 Recharge and other management activities implemented in operational  
3 after June 1, 2000” includes Desalter-induced recharge.

4 I) . The court further finds that “Desalter-induced recharge” and  
5 “induced Recharge” mean water flowing back into the Basin from the  
6 Santa Ana River due to production/pumping by the Desalters lowering  
7 the ground water table in the Basin. Finally, the court notes that New  
8 Yield includes Desalter production and Desalter-induced recharge.

9 (a) This result is exactly what the Desalters were designed to  
10 accomplish. They have achieved Hydraulic Control, meaning they  
11 have lowered the water table at the south end of the Basin, so that  
12 only a de minimus amount of Basin water is flows into the Santa  
13 Ana River.

14 (b) In fact the Desalters have accomplished their design objective so  
15 well that now some water flows from the Santa Ana River into the  
16 Chino Basin. The court finds that his water is New Yield as set  
17 forth above.

18 II) The court further finds that “Desalter-induced recharge” aka “induced  
19 Recharge” is measureable, part of which comes from the Santa Ana  
20 River, and is set forth in Watermaster’s response to the court’s  
21 questions. This water is also known as Santa Ana River Underflow or  
22 SARU.

23 4. Peace II specified Desalter production/pumping replenishment to  
24 include induced Recharge, controlled overdraft, and other sources set forth in Peace  
25 II ¶6.2(a). The Peace I and Peace II agreements did not specify any additional  
26 sources of Desalter replenishment, such as Ag Pool water or Safe Yield.

27 5. CONCLUSION:

28 Now, after Peace II, there were additional sources of water for the Basin, the

Desalter operation/Desalter-induced recharge, as well as the historical overdraft, as summarized below.

Ag Pool water		Comments
1995 Judgment amendment	82,800 AFY of the Ag Pool's water available to the Appropriate Pool with Appropriative Pool claims prioritized as follows: (1) to supplement, and the particular year, water available from Operating Safe Yield to compensate for any reduction in the Safe Yield by reason of recalculation thereof after the tenth year of operation hereunder. (2) pursuant to conversion claims as defined in Subparagraph (b) hereof. (3) as a supplement to Operating Safe Yield, without regard to reductions in Safe Yield.	
2000 Peace I-Desalters start construction and pumping water	Early Transfers of 32,800 AFY of Ag Pool water now go to the Appropriative Pool	New Yield (with conditions) is source of water to replenish water pumped by the

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	<p>(leaving 50,000 AFY to Ag Pool). The remaining Ag Pool water is subject to Appropriative Pool's prioritized claims. Peace I §1.1(aa) defines New Yield to include water produced/pumped from the Desalters.</p>	<p>Desalters. Water produced/pumped by the Desalters is New Yield and sourced by induced recharge and overdraft. As New Yield, water pumped by the Desalters is not Safe Yield or Safe Operating Yield. That water is "yield" attributable to specific sources of supply not included in Safe Yield.</p> <p>(Watermaster's Response to Order for Additional Briefing, page 5, line 22-23.)</p> <p>Therefore at the time of Peace I Desalter operations did not affect Safe Yield or Operating Safe Yield. Water produced/pumped by the Desalters was not added to or subtracted from yield of the Basin.</p> <p>Water</p>
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		produced/pumped by the Desalters had a separate allocation.
2007 Peace II-overdraft increased	Additional 400,000 AF above the 200,000 AF provided in the Judgment for a total of 600,000 AF.	This is a diminishing pumping allocation as the overdraft goes to 0 in 2017. Its purpose was to help establish Hydraulic Control.
Peace II Desalters	Peace II ¶7.1 requires Desalter production (defined as New Yield) excluded from the definition of Safe Yield. However, Peace II Article VI identifies offsets for Desalter production, which includes New Yield the meaning of which includes induced Recharge. (Peace I, ¶1.1(aa).)	Desalter production reaches above 20,000 AFY. Watermaster's Response to Order for Additional Briefing, Exhibit 1.

The court concludes that Peace II did not change any of the priorities for claims on actual water production. Peace II addressed Desalter replenishment and production/pumping but did not affect the priorities for allocations of unproduced Ag Pool water.

1 **V. SYRA ARTICLE 5-STORMWATER RECHARGE PLAN AND**  
2 **WATERMASTER ACCOUNTING ANALYSIS**

3 In the instant motion, Watermaster asks the court to approve 1) a stormwater  
4 recharge plan, and 2) an accounting for allocation transfers as set forth in the Safe  
5 Yield and Reset Agreement (SYRA). The court will address these proposals  
6 separately.

7 A. Stormwater Recharge–SYRA ¶5.1

8 1. Although there have been no objections to this aspect of SYRA, the  
9 court denies its enforcement because the court finds that SYRA’s provisions  
10 regarding anything other than they Safe Yield reset cannot be severed for the reasons  
11 set forth in Section II above.

12  
13 B. Desalter-Induced Recharge Allocations, Early Transfers, Land Use  
14 Conversion–SYRA ¶5.2 and SYRA ¶5.3.

15 1. Because these provisions are major sources of contention among the  
16 parties, the court will set them forth in their entirety.

17 SYRA ¶5.2 sets forth the following provisions regarding Desalter Induced  
18 Recharge, and SYRA ¶5.3 sets forth the following provisions regarding Post 2030  
19 Land Use Conversions and Early Transfers.

20 5.2 Desalter-Induced Recharge. After the Effective Date and until  
21 termination of this Agreement, the parties expressly consent to Watermaster’s  
22 accounting for Basin recharge arising from or attributable to the Desalters as  
23 follows:

24 (a) 2001-2014 Desalter-Induced Recharge. Induced recharge that  
25 arises from or is attributable to the Desalters for the period of production  
26 years 2001-2014 shall be accounted for as Safe Yield, in the manner it has been  
27 distributed through approved Watermaster Assessment Packages, shall not be  
28 considered New Yield, and shall not be considered to have been available for

1 production by the Desalters.

2 (b) 2015-2030 Desalter-Induced Recharge. For the production years  
3 of 2015- 2030, Watermaster shall account for induced recharge that arises  
4 from or is attributable to the Desalters as equal to fifty (50) percent of the total  
5 Desalter Production during each applicable production year up to a maximum  
6 of twenty-thousand (20,000) AFY of recharge. Consistent with Paragraph  
7 6.2(a)(iii) of the Peace II Agreement, Watermaster shall deem the induced  
8 recharge as having been produced by the Desalters. During each applicable  
9 production year, Watermaster shall reduce Safe Yield by an amount equal to  
10 fifty (50) percent of the total Desalter Production, up to a maximum of  
11 twenty-thousand (20,000) AFY, and require a corresponding supplementation  
12 by the reallocation of available unproduced Agricultural Pool's share of the  
13 Basin's Safe Yield.

14  
15 Claims for reallocation of the remaining unproduced quantity of the  
16 Agricultural Pool's share of Safe Yield shall be satisfied consistent with section  
17 6.3(c) of Watermaster's Rules and Regulations, as amended as part of the  
18 Peace II Measures, and the October 8, 2010 Order Approving Watermaster's  
19 Compliance with Condition Subsequent Number Eight and Approving  
20 Procedures to be used to Allocated Surplus Agricultural Pool Water in the  
21 Event of a Decline in Safe Yield.

22 (c) 2031-2060 Desalter-Induced Recharge. Should the term of the  
23 Peace Agreement be extended pursuant to Paragraph 8.4 thereof, the  
24 treatment of Desalter-Induced Recharge shall be subject to the negotiation of  
25 a new and separate agreement among the Parties to the Judgment. The  
26 accounting provided for in Section 5.2(b), above, shall be without prejudice to  
27 the negotiation of such a new and separate agreement among the Parties to the  
28 Judgment. Unless otherwise agreed by the Parties or ordered by the court,

during the extension term, Watermaster shall not consider such recharge to require supplementation by the reallocation of a portion of the unproduced Agricultural Pool's share of Safe Yield.

5.3 Post-2030 Priority among Land Use Conversion and Early Transfer Claims. At the expiration of the Peace II Agreement, the Peace II provisions relating to the distribution of surplus water by the Agricultural Pool requiring that claims for the Early Transfer of 32,800 AFY and for Land Use Conversion be treated equally are expressly repealed including (i) the amendment to Section 6.3(c) of Watermaster's Rules and Regulations, pursuant to the Peace II measures, and (ii) Section III.(6) of the October 8, 2010 Order Approving Watermaster's Compliance with Condition Subsequent Number Eight and Approving Procedures to be used to Allocate Surplus Agricultural Pool Water in the Event of a Decline in Safe Yield. In any Peace Agreement extension term, the previous changes to Restated Judgment, Exhibit "H", Paragraph 10(b)(3)(i) effectuated by Paragraph 4.4(c) of the Peace Agreement, which, to the extent sufficient unallocated Safe Yield from the Agricultural Pool is available for conversion claims, allocate 2.0 acre-feet of unallocated Safe Yield water for each converted acre, shall remain in effect.

C. The court summarizes the effect of these SYRA proposals ¶5.2 and ¶5.3 as follows:

Ag Pool water		Comments
1995 Judgment amendment	82,800 AFY of the Ag Pool's water available to the Appropriate Pool with Appropriative Pool claims prioritized as follows:	

	<p>(1) to supplement, and the particular year, water available from Operating Safe Yield to compensate for any reduction in the Safe Yield by reason of recalculation thereof after the tenth year of operation hereunder.</p> <p>(2) pursuant to conversion claims as defined in Subparagraph (b) hereof.</p> <p>(3) as a supplement to Operating Safe Yield, without regard to reductions in Safe Yield.</p>	
<p>2000 Peace I— Desalters start construction and pumping water</p>	<p>Early Transfers of 32,800 AFY of Ag Pool water now goes to the Appropriative Pool (leaving 50,000 AFY to Ag Pool). The remaining Ag Pool water is subject to Appropriative Pool's prioritized claims.</p>	<p>New Yield (with conditions) is source of water to replenish water pumped by the Desalters. Therefore Desalters do not affect Safe Yield or Operating Safe Yield. Water produced/pumped by the Desalters is not added to or subtracted from Safe Yield or</p>



		Operating Safe Yield of the Basin.
2007 Peace II-overdraft increased	Additional 400,000 AF above the 200,000 AF provided in the Judgment for a total of 600,000 AF.	This is a diminishing pumping allocation as the overdraft goes to 0 in 2017.
SYRA proposal: (see column to right for <i>Steps 1-3</i> ): <i>Step 4</i> : SYRA ¶5.2(b) subtracts 50% of total Desalter production up to 20,000 AFY from Ag Pool Water and then adds that 50% of total Desalter production up to 20,000 AFY to Safe Yield (to make up for the subtraction in <i>Step 3</i> ).*	SYRA proposal <i>Step 1</i> : The Desalter production/pumping up to 20,000 AFY is allocated to the Desalters, not as Safe Yield or Safe Operating Yield [or New Yield]. <i>Step 2</i> : Under SYRA ¶5.2(b) one-half of the source of Desalter production up to 20,000 AFY is attributed to “Desalter-induced recharge.” Desalter-induced Recharge means water flowing back into the Basin from the Santa Ana River. <i>Step 3</i> : SYRA then subtracts the other half of Desalter production up to 20,000 AFY from Safe Yield.	
<b>Additional SYRA Effects: <i>Step 5</i></b> (see above for <i>Steps 1-4</i> )		
The Ag Pool water allocation is reduced by up to 20,000 AFY for the Desalters.		

SYRA is unclear where the priority lies with respect to priority of allocation as required by Judgment Exhibit "H" Paragraph 10. The court orders that those priorities must be followed. Because the court has ordered that those priorities be followed, court concludes that it cannot order these provisions of SYRA in addition to SYRA's not being severable. At best SYRA is ambiguous with respect to following the priorities set by the Judgment and the Court Approved Management Agreements. At worst, SYRA contradicts them.

\*So, the court concludes that previous to SYRA, the Desalter water production/pumping could be offset from a prioritized list of sources including New Yield (induced recharge). Now under SYRA:

1) All of the induced recharge gets allocated to water produced/pumped by the Desalters.

2) Watermaster reduces Safe Yield by 50% of the Desalter production up to 20,000 AFY.

3) Then, Watermaster adds to Safe Yield 50% of the Desalter production up to 20,000 AFY, from water allocated to the Ag Pool, to make up for (aka backfill) the reduction in Safe Yield allocated to Desalter production.

4) This means that the availability of Ag Pool water goes down and thereby the availability of unproduced Ag Pool water for the priorities set forth in the Judgment and the Court Approved Management Agreements. The priorities are also set forth in Watermaster Rules and Regulations ¶6.3(a).

5) Elaborating on Example 1-A from Section IV.B.5 of this order above, the court's analysis is as follows

Example 1-B	Explanation	Comment
Initial Ag Pool allocation	82,800 AFY	Judgment
Ag Pool production/pumping	- 33,600 AFY	Assumption based the current credited production (pumping)

		for agricultural groundwater is about 33,600 AFY, but that includes agricultural land irrigated with reclaimed water. [The actual groundwater production for agricultural purposes is about 22,000 AFY. Jurupa Services District's response to Judge Reichert's Request for Clarification, March 22, 2016 page 2, lines 8–10.]
Initial balance after production	49,200 AFY	82,800 acre-feet – 33,600 acre-feet = 49,200 acre-feet
Conversion claims	- 2000 acre-feet	Assumption: The subtraction for satisfying conversion claims before any reallocation. (1000 acres x 2.0 acre feet of water/one acre converted = 2000 acre-feet).
Balance:	47,200 AFY	49,200 acre-feet - 2000 acre-feet = 47,200 acre-feet. Ag Pool Water available after conversion priority claims pursuant to Judgment Exhibit "H" Paragraph 10
Reduction for Early Transfers	- 32,800 AFY	Basic Early Transfer from 82,800 AFY allocation leaving 50,000 AFY for the Ag Pool itself to produce/pump and for

		additional claims by the Appropriative Pool pursuant to Peace I and Peace II.*
Balance	14,400 AFY	(47,200 acre-feet - 32,800 acre-feet = 14,400 acre-feet. This is the Ag Pool water available for reallocation to Appropriative Pool after subtraction of conversion priority claims of 2,000 acre-feet from and the 32,800 Early Transfer of unproduced/unpumped from the allotment of Ag Pool water.

Now, to examine the effect of SYRA on the Appropriative Pool:

Starting balance available Ag Pool water	14,400 AFY	Total Ag Pool water available for production/pumping from the example above
Desalter reallocation	- 20,000 AFY	SYRA Desalter reallocation: 20,000 AFY of Desalter production is allocated from Ag Pool water to Safe Yield.
Balance:	- 5,600 AFY	A negative amount. This plausible scenario assumes 2,000 AFY of conversion claims. The negative balance shows that this scenario under SYRA would not leave sufficient Ag Pool water for

	that amount of conversion claims. In order to meet conversion claims and Early Transfer allocations, the Ag Pool would only be able to produce/pump 26,000 AFY, well below their current credited pumping. Calculation follows: $82,800/\text{initial allocation}$ $- 26,000/\text{pumped} = 56,800$ $56,800 - 2,000/\text{conversion claims} = 54,800$ $54,800 - 32,800/\text{Early Transfer} = 20,000$ $20,000 - 20,000/\text{Desalter reduction from Ag Pool Allocation} = 0$
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The court concludes that there is no basis in the Judgement or any of the Court Approved Management Agreements for the post SYRA result identified in the plausible scenario above.

D. Further Analysis and orders:

1. In addition to SYRA's not being severable, the court denies Watermaster's motion with respect to the implementation of ¶5.2 and ¶5.3 of SYRA for the following reason:

- a) The court concludes that SYRA paragraphs 5.2 and 5.3 fundamentally change the allocations of Appropriative Pool and of Ag Pool water. Those fundamental changes are inconsistent with the Judgment and the

1 Court Approved Management Agreements

2 b) Peace I and Peace II both define Desalter production as within the  
3 definition of New Yield and therefore outside of the definition of Safe  
4 Yield. Through a several step re-allocation reassignment described  
5 above and summarized in this section of the court's order, SYRA now  
6 moves Desalter production into Safe Yield. The parties have not  
7 demonstrated any legal ~~or practical requirement~~ basis which allows this.  
8 Peace I and Peace II prohibit this.

9 c) The court concludes that Peace II Agreement Paragraphs 6.2(a)(iii) and  
10 7.1 provide that through 2030 (the initial term of Peace I Agreement as  
11 set forth in ¶8.2) recharge attributable to the Desalters is allocated for  
12 Desalter Production and not allocated as Safe Yield producible (*i.e.*,  
13 water available to be pumped without a replenishment obligation by  
14 purchase or otherwise).

15 I) Peace II ¶7.1 excluded New Yield attributable to the Desalters from  
16 a determination of Safe Yield, at least for the 30 year term of Peace  
17 Agreement.

18 II) Peace I ¶1.1(aa) defines New Yield to include induced recharge.

19 (a) The court finds that induced recharge includes Desalter-  
20 induced recharge.

21 III) The court finds that Peace I ¶7.5 defines replenishment water for  
22 the Desalters includes New Yield, but not Safe Yield.

23 IV) The court finds that Peace II ¶7.1 states that no party can  
24 incorporate New Yield attributable to the Desalters into Safe Yield.

25 (a) In contradiction to Peace I and Peace II, SYRA ¶5.2(a)  
26 explicitly defines Desalter-induced recharge as Safe Yield, in  
27 contradiction to Peace I and Peace II.

28 V) In contradiction to the Peace I and Peace II, the court finds that

1 SYRA attempts to incorporate New Yield from the Desalters into  
2 Safe Yield through the accounting method of 1) taking Desalter  
3 induced yield water coming from Desalter-induced recharge, then 2)  
4 moving that water into Safe Yield, then 3) backfilling Safe Yield  
5 from unproduced Ag Pool water.

6 (a) This is an unacceptable circumvention of the court's orders  
7 based on Peace I and Peace II.

8 d) The analysis above shows that these SYRA provisions are contrary to  
9 the Judgment and the Court Approved Management Agreements,  
10 specifically Peace I and Peace II. These SYRA provisions can prevent  
11 the application of the Judgment provisions regarding conversion claims.  
12 They are invalid.

13 e) There is no basis in the Judgment or the Court Approved Management  
14 Agreements for the attribution of water production from Desalters into  
15 the definition of Safe Yield.

16 f) There is no basis in the Judgment or any of the Court Approved  
17 Management Agreements for the splitting and reallocation of Desalter  
18 production/pumping to one-half to Desalter-induced recharge and one-  
19 half to Safe Yield.

20 g) There is no basis in the Judgment or any of the Court Approved  
21 Management Agreements to reallocate Ag Pool water to Safe Yield to  
22 make up for the Safe Yield reallocated to the Desalters.

23 h) Due to the Desalters, there is now recharge coming from the Santa Ana  
24 River back into the Chino Basin. SYRA Paragraph 5.2(b) takes the  
25 Peace I and Peace II agreements one step—wrongfully—farther by  
26 identifying how this recharge quantity will be estimated, *i.e.*, 50% of  
27 Desalter Production, and then further specifies that amount of recharge  
28 will be allocated to Desalter production and not to the parties as part of

1 their allocation of the Safe Yield. There is no legal basis in the  
2 Judgment or the Court Approved Management Agreements for this  
3 redefinition of Safe Yield to include of 50% of Desalter Production up  
4 to 20,000 AFY through a mechanism of passing the amounts through  
5 the Appropriative Pool allocation.

- 6 i) SYRA attempts now to remove the special exception for New Yield  
7 from Desalter induced recharge and production and incorporate it into  
8 Safe Yield. The mechanism by which SYRA attempts to do this is by 1)  
9 taking half of the Desalter production and sourcing that  
10 production/pumping from Desalter induced recharge from the Santa  
11 Ana River and 2) sourcing the other half from the Appropriative Pool  
12 through unproduced Ag Pool water. The court concludes and finds  
13 that this attempt is not justified because it can interfere with the priority  
14 of claims on unproduced Ag Pool water set forth in the judgment and  
15 the Court-Approved Management Agreements.

16 I) The court notes that Peace II, Article VII-Yield Accounting, ¶7.2(d)  
17 discusses a contingency if Western Municipal Water District  
18 (WMWD) and the Appropriative Pool “do not reach agreement on  
19 apportionment of controlled overdraft of Future Desalters, then no  
20 later than August 31, 2009, the members of the Appropriative Pool  
21 will submit a plan to Watermaster that achieves the identified goals  
22 of increasing the physical capacity of the Desalters and potable water  
23 use of approximately 40,000 acre-feet of groundwater production  
24 from the Desalters from the Basin no later than 2012.”

25 II) The court concludes that the Desalter production of 40,000 acre-feet  
26 has been under discussion since Peace II in 2007.

27 III) However, the court cannot accept the resolution set forth in  
28 SYRA for the reasons stated in this order.



- 1           j) SYRA ¶5.2 and ¶5.3 contradict and conflict with Peace I and Peace II.
- 2           I) Peace II ¶7.1 requires neither Watermaster nor the parties to request
- 3           that safe yield be recalculated in a manner that incorporates New
- 4           Yield *attributable to the Desalters* into the determination of Safe Yield
- 5           so that this source of supply will be available for Desalter
- 6           Production rather than for use by individual parties to the judgment.
- 7           (Emphasis in original.)
- 8           II) SYRA now includes New Yield in the determination of Safe Yield in
- 9           two ways.
- 10          (a) First, SYRA takes up to 20,000 AFY away from Safe Yield
- 11          through Desalter Production.
- 12          (b) Second, SYRA adds back up to 20,000 AFY to Safe Yield
- 13          from unproduced Ag Pool water.
- 14          (c) The net change to Safe Yield is 0, but available Ag Pool water
- 15          for allocation is reduced up to 20,000 AFY. This re-allocation
- 16          and re-accounting, is not justified or supported in the Peace I,
- 17          Peace II, Watermaster Rules and Regulations, or the court's
- 18          orders of implementation, the Judgment, or the CAMAs.
- 19          (d) The following chain shows SYRA's violations of the previous
- 20          orders:
- 21               (i) Desalter-induced recharge is New Yield. (Peace
- 22               ¶1(aa).)
- 23               (ii) Peace II ¶7.1 prevents New Yield from being
- 24               incorporated within Safe Yield.
- 25               (iii) SYRA moves 20,000 AFY of Desalter-induced
- 26               recharge to the Ag Pool.
- 27               (iv) Then SYRA moves the 20,000 of Desalter-induced
- 28               recharge (now characterized as Ag Pool Water) into

1 Safe Yield.

2 (v) Therefore, SRYA recalculates Safe Yield to incorporate  
3 New Yield in violation of Peace II ¶7.1

4 (vi) Moving the 20,000 AFY of Desalter-induced Recharge  
5 through the portal of the Ag Pool water does not  
6 change its definition of New Yield.

7 k) The court does not find a legal ~~or factual basis~~ for determining a post-  
8 2030 priority among land use conversion and early transfer claims. The  
9 priority is set forth in the judgment and as specified in this order

10 l) In addition to SYRA's not being severable, the court's 2010 order does  
11 not require the implementation of ¶5.2 or ¶5.3.

12 Section III.(6) of the October 8, 2010 order states:

13 Watermaster is ordered to utilize the procedures regarding the re-  
14 allocation of surplus Agricultural Pool water the event of a  
15 decline in Safe Yield as described in the December 2008 staff  
16 report and the December 4, 2008 memorandum from legal  
17 counsel. Specifically, in the event that Operating Safe Yield is  
18 reduced because of a reduction in Safe Yield, Watermaster will  
19 follow the hierarchy provided for in the Judgment, exhibit "H,"  
20 by first applying the unproduced Agricultural Pool water to  
21 compensate Appropriative Pool members for the reduction in  
22 Safe Yield. (Judgment, Exhibit "H," paragraph 10 (a).) If there  
23 is unallocated water left, Watermaster will then follow the  
24 remainder of the hierarchy and reallocate unallocated Agricultural  
25 Pool water next to conversion claims then to supplement the  
26 Operating Safe Yield without regard to reductions in Safe Yield  
27 according to the guidance provided by Peace Agreement I & II  
28 and Watermaster's rules and regulations as amended. If, after

1 applying the unallocated Agricultural Pool water to compensate  
2 the Appropriate Pool members for the reduction in Safe Yield,  
3 the actual combined production from the Safe Yield made  
4 available to the Agricultural Pool, which includes overlying  
5 Agricultural Pool uses combined with land use conversions and  
6 the Early Transfer, exceeds 82,800 in any year, the amount of  
7 water available to members of the Appropriative Pool shall be  
8 reduced pro rata in proportion to the benefits received according  
9 to the procedures outlined in Watermaster Rules and  
10 Regulations.

11 I) In considering the reference to Watermaster Rules and  
12 Regulations in the preceding paragraph, if the order is vague, the court  
13 now clarifies it. In the instant order, the court has clarified that  
14 Watermaster must follow the priorities set forth in the Judgment for  
15 allocations of unproduced Ag Pool water.

16 II) The court has the continuing jurisdiction to interpret and apply  
17 its previous orders in light of changing circumstances. In light of the  
18 instant motion, the court is doing so.

19 III) JCSD correctly points out that pursuant to the Judgment  
20 ¶15 the court is authorized “to make such further or supplemental  
21 orders or directions as may be necessary or appropriate for  
22 interpretation, enforcement or tearing out of this judgment . . . .”

23 IV) Because there has not been a reset in Safe Yield, the court  
24 does not find that there has been a detrimental reliance on the court’s  
25 October 8, 2010 Order. This would not be the first time that the  
26 court’s orders and interpretations thereof have the subject of further  
27 litigation.

28 V) Watermaster’s further response to order for additional briefing,

1 filed April 11, page 3, lines 15-19 states:

2 Both responses provided by the City of Chino and JCSD omit  
3 the key fact: Section 6.3(c) Watermaster Rules and Regulations,  
4 as amended pursuant to Peace II measures provides that water  
5 unused by members of the Agricultural Pool shall be divided  
6 equally between Land Use Conversions and Early Transfers. The  
7 Court's October 8, 2010 Order provides that this shall be done  
8 even if the safe yield declines. For the first time, approximately  
9 five years following this Order, the City and JCSD would set it  
10 aside and thereby unwind accounting, court approvals, and  
11 agreements impliedly if not expressly made in reliance thereon.

12 m) No party has offered any specific detriment that would occur from the  
13 court's instant orders regarding the priorities.

14 n) Watermaster is relying on its own interpretation of its own rules and  
15 regulations which the court does not accept for the reasons set forth  
16 herein. The court has clarified its October 8, 2010 Order.

17 I) Watermaster cannot use its own interpretations of the court's  
18 orders to contradict the court's interpretation. The final decision is the  
19 court's, not Watermaster's.

20 II) If there is any ambiguity that Watermaster finds the current  
21 circumstances for the application of that Order III.(6) the court clarifies  
22 it now. SYRA's reference to that order's provision does not help in its  
23 clarification or application.

24 III) Watermaster argues that "in the event that Operating Safe  
25 Yield is reduced because of a reduction in Safe Yield, Watermaster will  
26 follow the reallocation hierarchy provided for in the Appropriative Pool  
27 Pooling Plan by first applying the unallocated Ag Pool water to  
28 compensate the Appropriate Pool members for the reduction in safe

1 yield. (Restated Judgment, exhibit “H), paragraph 10 (a).) If, thereafter,  
2 there is unallocated water left, Watermaster then followed the  
3 remainder of the hierarchy and reallocate unallocated agricultural Pool  
4 water next to land use conversion claims and Early Transfer, and then  
5 to supplement the Operating Safe Yield without regard reductions in  
6 safe yield.” (Watermaster’s Reply to Oppositions to Motion regarding  
7 2015 Safe Yield Recent Agreement, Amendment Restated Judgment,  
8 Paragraph 6, page 24, lines 7-14.)

9 IV) This argument equates land use conversion claims and  
10 Early transfer claims. This argument is incorrect for the reasons stated  
11 herein. Additionally:

12 (a) The court’s order filed October 8, 2010, paragraph III.(6)  
13 is quoted in full in section “I” above:

14 (b) This paragraph III.(6) provides no basis to equate land use  
15 conversions and Early Transfers. The specific language of the  
16 order requires Watermaster to follow the hierarchy in Judgment,  
17 Exhibit “H” which does not include, or even mention, Early  
18 Transfers. Early transfers were an aspect of Peace I, and the  
19 court has interpreted and ordered the hierarchy to require  
20 conversion claims to have priority over Early Transfer claims.

21 o) Additionally, the court rejects and denies the implementation of SYRA  
22 ¶5.3 specifically because, as with SYRA ¶5.2, this provision has the  
23 same problems of interpretation of the court’s 2010 Order Approving  
24 Watermaster’s Compliance with Condition Subsequent Number Eight  
25 and Approving Procedures to be used to Allocate Surplus Agricultural  
26 Pool Water in the Event of a Decline in Safe Yield.

27 p) Watermaster’s erroneous interpretation of the order of priorities is not a  
28 basis to continue that erroneous interpretation. If Watermaster has to

1 make a reallocation, then it must do so in order to follow the court's  
2 order. A wrong practice can be long-standing, and still be wrong. A  
3 wrong practice cannot be a basis of prejudice.

- 4 q) The court rejects any argument that this issue is subject to issue  
5 preclusion. The specific issues raised by the oppositions to the motion  
6 have not been specifically addressed by the court. They are not barred  
7 by laches. The issues have been timely raised within the context of the  
8 instant motion, and the court always retains jurisdiction to modify its  
9 orders as those orders are drawn to the attention of the court, and the  
10 court determines they require modification for the reasons set forth in  
11 this order.

12  
13 E. Dispute re priority of claims

14 A dispute has arisen concerning the priority of claims. The dispute concerns  
15 the priority of allocation claims to unproduced/unpumped Ag Pool water. The 1978  
16 Judgment, Exhibit "H," Paragraph 10 was very specific as set forth in section A of  
17 this ruling above. For convenience, it is repeated here.

18 Paragraph 10 described "Unallocated Safe Yield Water" as follows:

19 To the extent that, in any 5 years, any portion of the share of Safe Yield  
20 allocated to the Overlying (Agricultural) Pool is not produced, such  
21 water shall be available for reallocation to members of the  
22 Appropriative Pool as follows:

23 (a) Priorities. Such allocation shall be made in the following sequence:

24 (1) to supplement, and the particular year, water available from  
25 Operating Safe Yield to compensate for any reduction in the Safe Yield  
26 by reason of recalculation thereof after the tenth year of operation  
27 hereunder.

28 (2) pursuant to conversion claims as defined in Subparagraph (b)

1 hereof.

2 (3) as a supplement to Operating Safe Yield, without regard to  
3 reductions in Safe Yield.”

4 Confusion has arisen with respect to the relationship between the Judgment,  
5 Exhibit “H,” Paragraph 10 on the one hand, and Watermaster Rules and Regulations  
6 ¶6.3(a) on the other. Watermaster Rules and Regulations ¶6.3(a) states as follows:

7 Accounting of Unallocated Agricultural Portion of Safe Yield. In each  
8 year, the 82,800 acre-feet being that portion of the Safe Yield Made  
9 available to the Agricultural Pool under the Judgment, shall be made  
10 available:

- 11 (i) To the Agricultural Pool to satisfy all demands for overlying  
12 Agricultural Pool lands;  
13 (ii) To land-use conversions were completed prior to October 1,  
14 2000;  
15 (iii) To land use conversions that have been completed after October  
16 1, 2000; and  
17 (iv) To the Early Transfer of 32,800 acre-feet from the Agricultural  
18 Pool to the Appropriative Pool in accordance with their pro-rather  
19 assigned share of Operating State Yield.

20 The confusion arises because Watermaster Rules and Regulation ¶6.3(a) does  
21 not explicitly confirm the priority of allegations set forth in the Judgment and as  
22 ordered by the court.

23 Chino has argued that

24 [T]he members of the Appropriative Pool have received the right to  
25 participate in annual allocations of the Unproduced Agricultural Pool  
26 Water instead of every five years called “Early Transfers” (Paragraph  
27 5.3(f-g), Peace Agreement) and the right to an equal priority of Early  
28 Transfers with Land Use Conversion Claims, which have a higher

1 priority under the Judgment, in order to maximize the amount of their  
2 Early Transfer water to the appropriators do not have Land Use  
3 Conversion Claims. (Paragraph 3.1(a)(i) and Attachment “F”, Peace II  
4 Agreement). City of Chino’s Opposition Watermaster Motion  
5 regarding 2015 Safe Yield Reset Agreement, Amendment of Restated  
6 Judgment, Paragraph 6, page 13, lines 19-25.

7 Attachment “F” refers to the Watermaster Rules and Regulations 6.3(c). As  
8 stated above, the court finds Watermaster Rules and Regulations 6.3(c) ambiguous.

9 The court finds that the Judgment must govern and take priority and  
10 precedent for the interpretation of any Watermaster rule or regulation, including  
11 Watermaster Rules and Regulations 6.3(c).

12  
13 **At this time, the court additionally orders as follows:**

14 A. The order of priorities set forth in the Judgment, Exhibit “H,” Paragraph  
15 10 must be followed; and

16 B. Watermaster Rules and Regulations ¶ 6.3, and particularly ¶¶6.3(a) and (c),  
17 are to be interpreted to follow the priorities set forth in Judgment, Exhibit “H,”  
18 Paragraph 10. In particular, the court orders conversion claims are to receive a  
19 higher priority than Early Transfer claims for the following reasons:

- 20 (1) The conversion claims are set forth in the judgment;
- 21 (2) Early Transfer claims were a creation of Peace I;
- 22 (3) Early Transfer claims did not affect the priority of claims set forth in  
23 the judgment;
- 24 (4) Early Transfer claims were ordered after the judgment and so must  
25 be considered subordinate to the original terms of the judgment.
- 26 (5) The parties to Peace I made their agreement in the context of the  
27 judgment and therefore used the Judgment priorities as a basis for additional  
28 allocations of Ag Pool water.



1  
2  
3 **VI. SAFE STORAGE MANAGEMENT MEASURES**

4 A. Through the facilitation and nondisclosure agreement (FANDA) Watermaster  
5 attempted to facilitate an agreement among all parties avoid an accelerated  
6 cumulative draw on Excess Carry Over stored water in order to avoid undue risks.  
7 SYRA had provisions to establish a mechanism for a safe storage reserve of 130,000  
8 AF of water in the non-Supplemental Water storage accounts of the members of the  
9 Appropriative Pool as a reserve sufficient to protect the Basin. However, the  
10 concern for basin protection was balanced with temporary needs in the event of an  
11 emergency or to support Desalter Replenishment. Up to 100,000 AF could be  
12 accessed in the event of an emergency subject to conditions

- 13 a) The plan which Watermaster attempted to facilitate is identified in  
14 SYRA as “the safe storage reserve and safe storage management plan”  
15 or the safe storage management measures (SSMM).  
16 b) The City of Chino (Chino) has the largest component of Excess Carry-  
17 Over water and was the most significantly affected party.  
18 c) Chino refused to agree to SSMM.  
19

20 B. The court rejects the adoption of the Safe Storage Management Measures set  
21 forth in the SYRA Article 6. The court is not going to set forth the provisions of  
22 SYRA Article 6 because the court is rejects the article as a whole.  
23

24 C. The court rejects Article 6 of SYRA for the following reasons:

- 25 1. SYRA is not severable as set forth above.  
26 2. Watermaster states that access to safe storage in the short term is  
27 extremely remote.  
28 3. The volume in stored water accounts of Appropriative Pool members is

1 about 357,000 AF as of June 30, 2014.

2 4. The Judgment Parties presently lack the infrastructure capability (wells  
3 and pipelines) that would produce the quantity of water from storage that would  
4 trigger production from the safe storage reserve that is identified in SYRA.

5 5. Article 6 is essentially a statement of intent without specificity of  
6 implementation. The court refuses to consider or authorize an inchoate plan.

7 a) Although Watermaster argues that the Safe Storage Management  
8 Agreement provisions are still subject to “stakeholder process get to be  
9 initiated” (Watermaster’s Reply to Oppositions to Motion regarding  
10 2015 Safe Yield Reset Agreement, Amendment of Restated Judgment,  
11 Paragraph 6, page 1, line 18), the court does not approve policy  
12 statements and therefore rejects any implementation.

13 6. The Safe Storage Technical Memorandum (Exhibit E to the motion)  
14 does not set forth a factual basis for the court to order the parties to proceed with  
15 the provisions of Article 6. While the memorandum states that the SSMM will not  
16 cause Material Physical Injury or undesirable results, the memorandum does not  
17 include that the SSMM are essential to the OBMP.

18 7. The court notes that from 2000 to 2014, the short-term actual measured  
19 net recharge was less total rights allocated to the judgment Parties by as much as  
20 130,000 AF.

21 a) From this the court concludes that during this period from 2000 to  
22 2014, after offsets for production, there was recharge to the basin in  
23 excess of what water was actually produced by as much as 130,000 AF.

24 b) This recharge was accounted for in the storage of Excess Carry-Over  
25 water.

26 8. The court does not reach the arguments of Chino that the SSMM  
27 constitutes a “taking”.

28 9. The safe storage measures are not required by the physical solution of

1 the Judgment, Peace I, Peace II, the court approved management agreements, the  
2 OBMP, the court orders of implementation, or Article X, section 2 of the California  
3 Constitution.

## 4 5 6 **VII. The Safe Yield Reset and Ag Pool Water: Recalculation**

7 A. The court finds that the Safe Yield reset to 135,000 AFY is a “recalculation”  
8 within the definition of Judgment, Exhibit “H” ¶10.

9 1. SYRA used the term “reset” to describe lowering the Safe Yield to  
10 135,000 AFY.

11 a) Now that the court has rejected all of SYRA except the lowering of Safe  
12 Yield to 135,000 AFY, the court finds that “reset” is a legally unjustified  
13 and legally incorrect term for describing the lowering the Safe Yield to  
14 135,000 AFY. For the reasons stated herein, the court finds that  
15 lowering the Safe Yield to 135,000 is a recalculation within the  
16 definition of Judgment, Exhibit “H” ¶10(a)(1). For the rest of this  
17 order, the court will correctly use the term recalculation for lowering the  
18 Safe Yield from 140,000 AFY to 135,000 AFY.

19 b) Wildermuth himself calls it a recalculation. Exhibit 1 to his declaration  
20 is entitled Declaration of Mark Wildermuth-2013 Chino Basin  
21 Groundwater Model Update and *Recalculation* of Safe Yield Pursuant to  
22 all the Peace Agreements. [Emphasis added.]

23 c) The recalculation to 135,000 is pursuant to the “tenth year” of  
24 operation evaluation required by the Judgment.

25 d) Watermaster and the City of Ontario argue to the contrary, but the  
26 “reset” lowering of Safe Yield fits any ordinary definition of the word  
27 “recalculation.”

28 I) The whole point of the SYRA motion, related motions, and series of

1 hearings has been for the court to determine how to integrate the  
2 reduction of the Safe Yield from 140,000 AFY to 135,000 AFY.  
3 The court finds this reduction to be a recalculation of the Safe Yield  
4 into the current reality of the Chino Basin.

5 (a) In the context of SYRA, the use of the term “reset” might have  
6 made some legal sense. However, now that the court has  
7 rejected everything but the reduction, the label “reset” has no  
8 basis in fact or law.

9 II) The court cannot find any other way to reconcile these provisions and  
10 their interpretations while keeping the ruling consistent with reality.  
11 The reduction in Safe Yield is a recalculation, no matter how subtle the  
12 attorneys’ arguments are.

13 2. Therefore, the court finds and orders that the first 5,000 AFY of any  
14 unproduced Ag Pool water now has a top priority over any other claims, such as  
15 conversion claims and early transfers, and that 5,000 AFY of Ag Pool water be  
16 allocated to Operating Safe Yield pursuant to Judgment Exhibit H ¶10(a).

17 a) This 5,000 AFY has top priority because it is part of the Judgment.

18 b) To further illustrate the court’s orders, based on the tables in sections  
19 IV.B.5 and V.C.5 above

20	Example 1-B	Explanation	Comment
21	Initial Ag Pool	82,800 AFY	Judgment
22	allocation		
23	Subtract 5,000 AFY	- 5,000	Safe Yield recalculation reduction
24			pursuant to Judgment Exhibit H
25			¶10
26	Ag Pool	- 33,600 AFY	Assumption based the current
27	production/pumping		credited production (pumping)
28			for agricultural groundwater is

		about 33,600 AFY, but that includes agricultural land irrigated with reclaimed water. The actual groundwater production for agricultural purposes is about 22,000 AFY. Jurupa Services District's response to Judge Reichert's Request for Clarification, March 22, 2016 page 2, lines 8–10.]
Initial balance after production and reset	44,200 AFY	82,800 acre-feet – 5,000 - 33,600 acre-feet = 44,200 acre-feet
Conversion claims	- 2000 acre-feet	Assumption: The subtraction for satisfying conversion claims before any reallocation. (1000 acres x 2.0 acre feet of water/one acre converted = 2000 acre-feet).
Balance:	42,200 AFY	44,200 acre-feet - 2000 acre-feet = 42,200 acre-feet. Ag Pool Water available after conversion priority claims pursuant to Judgment Exhibit "H" Paragraph 10
Reduction for Early Transfers	- 32,800 AFY	Basic Early Transfer from 82,800 AFY allocation leaving 50,000 AFY for the Ag Pool itself to produce/pump and for additional claims by the

		Appropriative Pool pursuant to Peace I and Peace II.
Balance	9,400 AFY	(42,200 acre-feet - 32,800 acre-feet = 14,400 acre-feet. This is the Ag Pool water available for reallocation to Appropriative Pool after subtraction of the recalculation reallocation, the conversion priority claims of 2,000 acre-feet from and the 32,800 Early Transfer of unproduced/unpumped from the allotment of Ag Pool water.

### VIII. Safe Yield Reset and Desalter-Induced Recharge

The court concludes and orders that Desalter-Induced Recharge is only to be applied to offset Desalter production. The court's analysis involves going back to the basics of the judgment and the Peace Agreements.

#### A. The Revised Judgment

1. The Judgment ¶I.4.(x) defines "Safe Yield" as "the long-term average annual quantity of groundwater . . . which can be produced from the Basin under cultural conditions of a particular year without causing an undesirable result."

2. The Judgment ¶I.4.(l) defines "Operating Safe Yield" as "the annual amount of water which Watermaster shall determine, pursuant to the criteria specified in Exhibit "T", can be produced from Chino Basin by the Appropriative Pool parties free of replenishment obligation under the Physical Solution herein.

a) Exhibit "T" is the Engineering Appendix which has come to include the

1 definitions of Hydraulic Control, Re-Operation water, and Desalter  
2 production.

- 3 3. Judgment Exhibit “H” ¶10 Unallocated Safe Yield Water states:  
4 “to the extent that, in any five years, any portion of the share of  
5 Safe Yield allocated to the Overlying (Agricultural) pool is not  
6 produced, such water shall be available for reallocation to members of  
7 the appropriative pool, as follows:

8 (a) Priorities.—Such allocation shall be made in the following sequence:

9 (1) to supplement, in the particular year, water available from  
10 Operating Safe Yield to compensate for any reduction in the Safe Yield  
11 by reason of recalculation thereof after the tenth year of operation  
12 hereunder.

13 (2) pursuant to conversion claims as defined in Subparagraph (b)  
14 hereof.

15 (3) as a supplement to Operating Safe Yield, without regard to  
16 reductions in Safe Yield.

17  
18 B. The 2000 Peace Agreement I

19 1. Peace I Section I(ee) defines “Operating Safe Yield” as the “annual  
20 amount of groundwater which Watermaster shall determine, pursuant to criteria  
21 specified in Exhibit “T” to the judgment, can be produced from Chino Basin by the  
22 Appropriative Pool free of Replenishment obligation under the Physical Solution.  
23 Watermaster shall include any New Yield in determining Operating Safe Yield.”

- 24 a) This is a modification of the definition of “Operating Safe Yield” from  
25 the Judgment. In fact, the court notes “IV-Mutual Covenants, ¶ 4.5  
26 Construction of “Operating Yield” Under the Judgment. Exhibit I to  
27 the Judgment shall be construed to authorize Watermaster to include  
28 New Yield as a component of Operating Safe Yield.”

1  
2 C. The 2007 Peace Agreement II

3 1. Article VII Yield Accounting, ¶7.1 New Yield Attributable to the  
4 Desalters states “for the initial term of the Peace Agreement, neither Watermaster  
5 nor the Parties will request that Safe Yield be recalculated in a manner that  
6 incorporates New Yield *attributable to the Desalters* into the determination of Safe Yield  
7 so that this source of supply will be available for Desalter Production rather than for  
8 use by individual parties to the Judgment.” (Emphasis in original.)  
9

10 D. The Safe Yield Recalculation and Desalter-Induced Recharge

11 1. Watermaster correctly states that that desalter induced recharge can  
12 only be used to offset desalter production. From this Watermaster concludes that  
13 Safe Yield of 135,000 acre-feet per year must include Desalter-induced recharge.  
14 This conclusion is wrong.

15 a) Through many avenues, Watermaster has attempted to include  
16 Desalter-Induced Recharge (with the new abbreviation of “DIR”)  
17 within the definition of Safe Yield.

18 b) Watermaster has never explicitly offered an explanation of why  
19 Watermaster has attempted so diligently to convince the court to  
20 include Desalter-Induced Recharge within the definition of Safe Yield.

21 I) The court considers that Watermaster’s explanation might include an  
22 argument that if Desalter-Induced Recharge is not included within the  
23 definition of Safe Yield, the parties could produce/pump water from  
24 Desalters without limit, with the result that water could be drained from  
25 the Santa Ana River without limit. That result would be not only  
26 detrimental to the hydrology of the entire region, but also legally  
27 unjustified.

28 c) In its latest argument, Watermaster has offered to “sequester” the



1 portion of Safe Yield attributable to Desalter-Induced Recharge.

2 I) The court does not accept this characterization of Desalter  
3 production/pumping allocation because it is simply a characterization  
4 of an accounting.

5 II) The “sequestration” has no basis in the CAMA’s and adds a new, vague,  
6 undefined term to an already complicated structure of accounting.

7 III) Watermaster argues “that Desalter-Induced Recharge is an inflow  
8 to the Basin and therefore a component of Safe Yield.”

9 (a) The court rejects this argument because it contradicts the  
10 requirement of Peace II that for the initial term of the Peace  
11 Agreement, Safe Yield will not be recalculated to include New Yield  
12 attributable to the Desalters.

13 (b) Desalter-Induced Recharge is the source of (and offset to) New  
14 Yield attributable to the Desalters. That New Yield cannot be  
15 included in Safe Yield. So, so under Peace II, Safe Yield also does  
16 not include Desalter-Induced Recharge. (Peace I ¶ 1.1(aa)-definition  
17 of New Yield; Peace I ¶7.5-Replenishment Water; Peace II ¶6.2-  
18 Peace II Desalter Production Offsets.)

19 IV) The Responding AP Members argue that the court can only be  
20 consistent in its orders if the court resets the Safe Yield to 115,000  
21 AFY. The court also rejects this argument for the following reasons.

22 (a) Using Watermaster's own proposal, the court recognizes that there is  
23 some logic to the position of the Responding AP Members because  
24 1) if the 20,000 AFY is “sequestered” that it is not available for  
25 production/pumping without a replenishment obligation and 2)  
26 then the reality is the safe yield should be 135,000 AFY - 20,000  
27 AFY for a net of 115,000 AFY.

28 (b) However, the court concludes that the structure set up by the

Judgment, Peace I, and Peace II require that there be separate analyses for Safe Yield and New Yield attributable to the Desalters.

(i) The analysis for Safe Yield is illustrated in this order Sec. VII.5.a above.

(ii) The analysis for Desalter-Induced Recharge and New Yield attributable to the Desalters is described in Peace I and Peace II and the further order as set forth herein.

(iii) Watermaster has been accounting for these analyses since 2007, so it should not be a problem for Watermaster to continue to do so.

(c) The Responding AP Members also argues that the technical reports show that the basin can safely only sustain 135,000 AFY.

(d) However, in Exhibit 1 to the Declaration of Mark Wildermuth - 2013 Chino Basin Groundwater Model Update and Recalculation of Safe Yield Pursuant to Peace Agreements, section 1.2.3, "the updated Watermaster Model was used to estimate Santa Ana River Underflow New Yield (SARUNY) from the desalters and reoperation from both the calibration and planning periods. SARUNY means the same thing as that term *Desalter Induced Recharge* as used in the 2015 Safe Yield Reset Agreement." This definition is repeated in section 7.3.7.

(e) The Wildermuth declaration filed March 10, 2017, with the Chino Basin Watermaster Response to February 22, 2017 Order section 7.3.7 which states:

(i) "The net Santa Ana River recharge in the fiscal year spending July 1999 through June 2000 [one year] is the baseline from which to measure SARUNY, which was estimated to be -2,153 acre-ft/yr, indicating that the Chino Basin discharged to

1 the Santa Ana River more water than was recharged by the River  
2 into the Basin. . . . Table 7-10 compares Chino Desalter  
3 production and SARUNY over the period of July 2000 through  
4 July 2030. . . . The effect of 's the Chino Desalters and  
5 reoperation becomes clear in 2005 when SARUNY reaches about  
6 50 percent of CDA production. The New Yield results from the  
7 implementation of the Chino Desalters is consistent with the  
8 planning estimates that were assumed during the development of  
9 the Peace Agreements."

- 10 (f) Table 7-10 shows that starting in 2017, the ratio of new yield to  
11 CDA production is about an average of 45 percent, meaning that  
12 New Yield Desalter-Induced Recharge those years is about 45% of  
13 the Desalter production.
- 14 (g) From these facts the court concludes that the Wildermuth Safe Yield  
15 reset/recalculation has taken into account the Desalter-Induced  
16 Recharge and production, so there is no need to reduce the Safe  
17 Yield ~~to~~ 115,000 AFY as argued by the Responding AP Members.
- 18 (h) The Peace Agreement offsets for new yield production attributable  
19 to the Desalters are an accounting requirement process, not a feature  
20 of determination of Safe Yield.
- 21 (i) The court also concludes that the reset/recalculation has included  
22 the contractual features of the Peace Agreements, and one of those  
23 features is that Safe Yield not be recalculated to incorporate New  
24 Yield attributable to the Desalters. Wildermuth has considered this  
25 feature.
- 26 (j) Again, therefore the safe yield of 135,000 AFY does not include  
27 New Yield attributable to the Desalters.

28 2. The court still concludes for the term of Peace I (*i.e.*, until 2030), Safe

1 Yield not be recalculated in a manner that incorporates New Yield attributable to the  
2 Desalters into the determination of Safe Yield.

3 a) The 20,000 AFY of Desalter-Induced Recharge is not included with the  
4 definition of Safe Yield for the term of the Peace Agreements. To rule  
5 otherwise would contradict the Peace Agreements.

6 b) The court analogizes its ruling to the controlled overdraft allowed to  
7 achieve hydraulic control. That aspect of production/pumping was not  
8 allocated to Safe Yield. The court orders that Desalter-Induced  
9 Recharge New Yield remain unallocated to Safe Yield.

10 c) The court does not address the City of Chino's briefing regarding the  
11 Safe Yield Implementation Replenishment Accounting Illustration (Per  
12 Peace II agreement, Section 6.2 (PIIA, 6.2) and June 11, 2015 Key  
13 Principles) Watermaster motion filed October 23, 2015, Exhibit "F"  
14 Attachment 2 for the following reasons:

15 I) Chino asks if the Column G – Desalter-Induced Recharge  
16 replenishment water was coming from Desalter production.

17 II) Footnote 4 for this Column G states that "the desalter-induced  
18 recharge projection in the table is now shown at 50% of the annual total  
19 desalter production for years 2015 through 2030. Desalter -induced  
20 recharge from 2001 to 2014 (187,000 acre-feet) will be deemed Safe  
21 Yield and not available to offset Desalter production."

22 III) As part of its order that SYRA cannot be implemented, the court  
23 rejects the Safe Yield Reset Implementation Desalter Replenishment  
24 Accounting Illustration.

25 IV) The City of Ontario has argued that Desalter Induced Recharge  
26 to offset Desalter production should be "backfilled" from Safe Yield.

27 The court rejects this argument for the following reasons:

28 (a) This is merely a characterization of what SYRA proposed to do, and,

1 for the reasons already stated, the court has rejected SYRA except  
2 for the Safe Yield recalculation.

3 (b) The Judgment, the Peace Agreements, and the CAMA's do not  
4 support this accounting, again for the reasons already stated.

5 (c) Again, for the reasons stated herein, the court rejects that Ontario's  
6 argument that a Safe Yield recalculation to 135,000 AFY is not a  
7 "Safe Yield recalculation." The argument has no merit and is  
8 completely unpersuasive.

9 (d) The court finds that the definitions of Safe Yield and New Yield are  
10 sufficiently set forth in the Judgment, Peace I and Peace II.

11 (i) Watermaster does not point to any specific conflict between the  
12 court's current/instant order and the court's order implementing  
13 Watermaster Resolution 07-05, and the court finds none.

14 (ii) The court reaffirms the definitions of Peace II which have been  
15 in effect for 10 years, and of course the definitions of the  
16 Judgement and Peace I.

17 (iii) The court finds no basis for Watermaster's attempt to define  
18 Desalter-Induced Recharge into directly, indirectly, Safe Yield or  
19 by a "sequester."

20 (iv) In reaffirming the definitions of the Judgment, Peace I, and  
21 Peace II, the court of course also notes the definition of "Safe  
22 Yield" in the Judgment ¶I.1(x) inclusive of "undesirable result,"  
23 and the "Material Physical Injury" of Peace I ¶I.1 (y).

24 V) The court finds and orders that Desalter production is not Safe Yield  
25 and Desalter production is to be offset only as provided in Peace II.  
26  
27

28 **IX. Additional Bases for Rulings**

1 A. The court has refused to implement the sections of SYRA identified above for  
2 the reasons set forth above. In the court's view, those reasons are sufficient under  
3 the law. Therefore, the court has not addressed other objections raised by the  
4 parties, such as those of the City of Chino, that Watermaster has failed to prove a  
5 change in circumstances, that Watermaster has improperly advocated for certain  
6 parties, that the parties are collaterally estopped from re-litigating the parties' rights,  
7 that the parties are equitably estopped from reducing their replenishment obligations,  
8 that SYRA fails to comply with CEQA, that SYRA provisions resulted in an unlawful  
9 taking of Chino's property.

10  
11 B. Although the court understands the necessity of accounting for Desalter  
12 induced recharge from the Santa Ana River, the court does not find a basis in the  
13 law, the Judgment, or the Court Approved Management Agreements for  
14 simultaneously reducing Safe Yield and adding unproduced/unpumped Ag Pool  
15 water to account for Desalter induced recharge.

16 1. Watermaster argues that the court should approve SYRA because it is  
17 only a confirmation of "interpretation of the manner in which Watermaster should  
18 comply with the provisions of the Court Approved Management Agreements.  
19 (Watermaster's Reply to Oppositions to Motion regarding 2015 Safe Yield Reset  
20 Agreement, Amendment of Restated Judgment, Paragraph 6, page 10, line 26.)

21 a) The court does not accept this argument. The court interprets SYRA as  
22 an attempt for a major qualitative revision of the Court Approved  
23 Management Agreements, but the Court Approved Management  
24 Agreements do not support the SYRA revision for the reasons stated  
25 herein.


26 2. The court finds that the rulings herein will not cause material physical  
27 injury or an undesirable result.

28 a) Although many parties have approved SYRA, parties' approval or

1 disapproval of SYRA is not a legal basis for the court to enforce SYRA.  
2 The court must look to the previous agreements of the parties, the  
3 previous court orders, the Court Approved Management Agreements,  
4 the Judgement, and the California Constitution.  
5

6 Date:

4-28-17

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10 Judge Stanford E. Reichert

11 San Bernardino County Superior Court  
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FILED  
SUPERIOR COURT  
COUNTY OF SAN BERNARDINO  
SAN BERNARDINO DISTRICT

APR 28 2017

BY *Tiffany Kretzmeier*  
TIFFANY KRETZMEIER, DEPUTY

SUPERIOR COURT FOR THE STATE OF CALIFORNIA  
FOR THE COUNTY OF SAN BERNARDINO

CHINO BASIN MUNICIPAL WATER  
DISTRICT,

Plaintiff,

vs.

CITY OF CHINO, et al.,  
Defendants

CASE NOS. RCV 51010

CIVDS 1518945

) Additional/Final Further Revised

) Proposed Order Re SYRA and

) Additional/Final Rulings and Order for

) Oral Argument

) Date: April 28, 2017

) Time: 1:30 PM

) Department: S35

CITY OF CHINO,

Plaintiff,

vs.

Cucamonga Water District, et al.  
Defendants

PLEASE TAKE NOTICE that the additional/final further revised proposed order for the SYRA reset motion in case RCV 51010 is attached. A hearing is set for the additional/further revised proposed order for April 28, 2017, 1:30 PM, Dept. S35



1 of the above-entitled court.

2 NOTES RE FURTHER REVISED PROPOSED ORDER

3 A. Attached are two versions of the additional further revised proposed order.

4 1. One version, for the convenience of the parties, has parts of the order  
5 which the court has added in the following **font**. From the previous proposed order,  
6 filed April 18, 2017, the court has ~~stricken~~ anything that relates to limiting production  
7 /pumping of the Desalters. Court has not made any other substantive changes in the  
8 additional/further revised proposed orders from those orders filed April 18, 2017.

9 a) The court has received and considered the request by Chino Basin Desalter  
10 Authority Member Agencies regarding desalter pumping.

11 b) The court concludes that the court should not have made any orders  
12 whatsoever with respect to limiting production/pumping of the desalters in  
13 its previous orders for the following reasons:

14 I) Such orders were outside of the scope of any briefing regarding SYRA  
15 and the motions, requests, and disputes concerning SYRA.

16 II) Any limitation on Desalter production/pumping would require  
17 additional briefing and unreasonably postpone the resolution of SYRA  
18 motion, requests, and disputes.

19 III) In further review of the court's tentative rulings, the court further  
20 concludes that there were no legal or factual reasons set forth in the  
21 briefing for the court to make such an order.

22 (a) Therefore, from the previous proposed rulings, the parties are not to  
23 derive any conclusions on how the court might rule with respect to a  
24 request to limit Desalter production/pumping. This was only  
25 tentative ruling without sufficient briefing by the parties and  
26 sufficient analysis by the court. In the court's current view, it is  
27 erroneous.

28 (b) Specifically, to help the parties, the court has ordered stricken from

1 the additional safe yield reset agreement motion and additional  
2 further revised proposed rulings and orders, the court has stricken:

3 (i) page 2 of 84: lines 5-6,

4 (ii) page 75 of 84: line 7-8, and

5 (iii) page 77 of 84: lines 8-10.

6 (a) The court has also deleted these lines from the additional safe yield  
7 reset agreement motion additional final rulings and order

8 2. The other version of the additional/further revised proposed order has  
9 all the changes incorporated into a final, "clean" proposed order as of 4/28/17.

10 B. Therefore the court's conclusion is the only remaining issue for oral argument  
11 is whether the Safe Yield reset to 135,000 AFY is an event that requires a  
12 recalculation within the definition of the Judgment, Exhibit "H" ¶10 for the reasons  
13 set forth in the additional/further revised proposed order.  
14

15 Dated: 4-28-17  
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19 Stanford E. Reichert, Judge  
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7 SUPERIOR COURT FOR THE STATE OF CALIFORNIA  
8 FOR THE COUNTY OF SAN BERNARDINO  
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10 CHINO BASIN MUNICIPAL WATER  
11 DISTRICT,

12 Plaintiff,

13 vs.

14 CITY OF CHINO, et al.,

15 Defendants  
16  
17

Case No. RCV 51010

[Additional/Further Revised Proposed]

ORDERS for Watermaster's Motion  
Regarding 2015 Safe Yield Reset  
Agreement, Amendment of Restated  
Judgement, Paragraph 6

Date: April 28, 2017

Time: 1:30 PM

Department: S35

18 Watermaster's Motion Regarding 2015 Safe Yield Reset Agreement,  
19 Amendment of Restated Judgment, Paragraph 6, joined by The Chino Basin  
20 Overlying (Agricultural) Pool Committee and The Inland Empire Utilities Agency  
21 ("IEUA") and opposed by Jurupa Community Services District ("JCSD") and the  
22 City of Chino ("Chino") is granted in part and denied in part for the reasons set forth  
23 herein. The court grants the motion with respect to amending the restated judgment  
24 to reset the Safe Yield of the basin to 135,000 AFY.

25 However, the court denies **all other parts of SYRA** including the motions  
26 to amend the schedule for access to Re-Operation Water **and**. ~~The court denies the~~  
27 motion to institute Safe Storage Management Measures. The court makes additional  
28 orders **regarding priorities and** ~~with respect to access for Re-Operation~~ **Desalter**

1 water as set forth herein.

2 **Additionally, the court orders that the Safe Yield reset to 135,000 AFY is**  
3 **an event that requires a “recalculation” with the definition of the Judgment,**  
4 **Exhibit “H” ¶10.**

5 ~~Additionally, the order orders that production/pumping of the Desalters is~~  
6 ~~limited to 20,000 AFY.~~

## 8 **REQUEST FOR JUDICIAL NOTICE**

9 The court grants requests for judicial notice of JCSD as follows:

- 10 1. Restated Judgment (“Judgment”) in case number RCV 51010.
- 11 2. Implementation Plan Optimum Basin Management Program for the Chino Basin
- 12 (“OBMP Implementation Plan”).
- 13 3. Chino Basin Watermaster Rules and Regulations (“Rules and Regulations”).
- 14 4. 2015 Safe Yield Reset Agreement (“SYRA”).
- 15 5. Order Concerning Motion for Approval of Peace II Documents (“2007 Order”)
- 16 in case number RCV 51010.
- 17 6. 2000 Peace Agreement Chino Basin (“Peace I Agreement” or “Peace I”).
- 18 7. Watermaster Compliance with Condition Subsequent Number Eight: Proposed
- 19 Order Submitted Concurrently.
- 20 8. Peace II Agreement: party support for Watermaster’s OBMP Implementation
- 21 Plan, Settlement and Release of Claims Regarding Future Desalters (“Peace II
- 22 Agreement” or “Peace II”).

## 24 **JOINDERS AND FILINGS**

25 A. Watermaster's motion regarding 2015 Safe Yield Reset Agreement,  
26 amendment of restated Judgement, Paragraph 6.

- 27 1. City of Chino’s objections to declaration of Kavounas submitted with
- 28 Watermaster’s Motion regarding 2015 Safe Yield Reset Agreement, Amendment of

1 Restated Judgment, Paragraph 6

2 Rulings in separate document.

3 2. City of Chino's objections to declaration of Wildermuth submitted with  
4 Watermaster's Motion regarding 2015 Safe Yield Reset Agreement, Amendment of  
5 Restated Judgment, Paragraph 6

6 Rulings in separate document.

7 B. The following parties joined in Watermaster's motion:

8 1. Overlying (Agricultural) Pool

9 2. Inland Empire Utilities Agency

10 C. Oppositions to Watermaster's motion

11 1. City of Chino with supporting documents

12 a) Declaration of Robert Shibatani, physical hydrologist

13 b) Declaration of David Crosley, civil engineer, water and environmental  
14 manager for City of Chino

15 2. Jurupa Community Services District (JCSD) with supporting documents

16 a) Request for judicial notice identified above

17 b) Declaration of Todd Corbin, general manager of JCSD

18 c) Declaration of Robert Donlan, attorney

19 D. Watermaster's reply to oppositions to motion regarding 2015 Safe Yield Reset  
20 Agreement, amendment of Restate Judgement, Paragraph 6

21 1. Supplemental declaration of Kavounas

22 a) City of Chino's objections Kavounas supplemental declaration in  
23 support of Watermaster's reply the Chino opposition

24 b) Watermaster's Response to City of Chino's objections to supplemental  
25 declaration of Peter Kavounas in support of Watermaster's reply to  
26 Chino's Opposition to Motion regarding 2015 Safe Yield Reset  
27 Agreement, Amendment of Restated Judgment, Paragraph 6

28 I) Motion to strike denied. The court finds that the declaration did not

1 raise new issues.

2 II) All objections overruled.

3 2. Supplemental declaration of Wildermuth

4 a) City of Chino's objections to Wildermuth supplemental declaration in  
5 support of Watermaster's reply to Chino opposition.

6 b) Watermaster's Response to City of Chino's objections to supplemental  
7 declaration of Mark Wildermuth in support of Watermaster's reply to  
8 Chino's Opposition to Motion regarding 2015 Safe Yield Reset  
9 Agreement, Amendment of Restated Judgment, Paragraph 6.

10 I) Motion to strike denied. The court finds that the declaration did not  
11 raise new issues.

12 II) All objections overruled.

13 3. Declaration of Danielle Maurizio, assistant general manager of Chino

14 Basin

15 a) City of Chino's objections to supplemental declaration of Danielle D.  
16 Maurizio in support of Watermaster's reply to chino opposition

17 b) Watermaster's Response to City of Chino's objections to supplemental  
18 declaration of Danielle E. Maurizio in support of Watermaster's reply to  
19 Chino's Opposition to Motion regarding 2015 Safe Yield Reset  
20 Agreement, Amendment of Restated Judgment, Paragraph 6

21 I) Motion to strike denied. The court finds that the declaration did not  
22 raise new issues.

23 II) All objections overruled.

24 4. Joinders in Watermaster's reply to oppositions

25 a) Overlying (Agricultural) Pool

26 b) City of Pomona and (in one pleading document)

27 I) City of Upland

28 II) Monte Vista Water District

1                   III) Cucamonga Valley Water District

2                   IV) Fontana Union Water Company

3 E. In an order Dated March 22, 2016, the court served the parties with questions  
4 and a request for further briefing in response to the questions. The responses were  
5 as follows:

6           1. Jurupa Community Services District response to Judge Reichert's  
7 request for clarification filed April 1, 2016.

8           2. City of Chino's responses to Judge Reichert's questions, filed April 1,  
9 2016.

10          3. Watermaster's response to order for additional briefing filed April 1,  
11 2016.

12          a) Chino's reply to Watermaster's response to order for additional briefing,  
13 filed April 11, 2016.

14          b) Jurupa Community Services District's additional response to Judge  
15 Reichert's request for clarification, filed April 11, 2016

16          4. Watermaster's further response to order for additional briefing, filed  
17 April 11, 2016

18 F. At the hearing on February 22, 2017, the court ordered that the parties  
19 may file questions regarding the court's tentative draft order, and the court set a  
20 briefing schedule. In response, the court received the following:

21          1. Filed March 10, 2017-Chino Basin Watermaster response to  
22 February 22, 2017 order

23          2. Filed March 10, 2017-City of Chino's response to issue in section II  
24 of Judge Reichert's revised proposed order re SYRA

25          3. Filed March 10, 2017-Responding AP members (Monte Vista Water  
26 District, Cucamonga Valley Water District, City of Pomona, and City of Upland)  
27 filed March 10, 2017

28          4. Filed March 24, 2017-Chino Basin Watermaster further response to

1 **February 22, 2017 order**

2       **5. Filed March 24, 2017-City of Chino's response to court authorized**  
3 **further briefing re revised tentative order re Watermaster's motion re 2015 Safe**  
4 **Yield reset Agreement**

5       **6. Filed March 24, 2017-City of Chino's response to Chino Basin**  
6 **Watermaster's response to February 22, 2017 order**

7       **7. Filed March 24, 2017-City of Ontario's response regarding issue for**  
8 **further briefing**

9       **8. Filed March 24, 2017-Jurupa Community Services District**  
10 **opposition to Monte Vista Water District's response to court's February 22, 2017**  
11 **order re SYRA and response to questions [joins in the opposition filed by the City**  
12 **of Ontario]**

13       **9. Filed March 24, 2017-Responding AP members response to both**  
14 **Watermaster and City of Chino's further briefing re revised tentative order re**  
15 **Watermaster's motion re 2015 Safe Yield Reset Agreement**

16       **10. Filed April 4, 2017-errata to City of Chino's response to Chino Basin**  
17 **Watermaster's response to February 22, 2017 order**

18       **11. Filed April 7, 2017-Chino Basin Watermaster further response to**  
19 **February 22, 2017 order**

20       **12. Filed April 7, 2017-City of Chino's reply to responses of**  
21 **Watermaster, 4AP Members, Ontario and Jurupa**

22       **13. Filed April 7, 2017-Jurupa Community Services District's limited**  
23 **reply to *City of Chino's response to Chino Basin Watermaster's response***  
24 ***to February 22, 2017 order, dated March 24, 2017***

25       **14. Filed April 7, 2017-Responding AP Members reply to opposition**  
26 **briefs re revised tentative order re Watermaster's motion re 2015 Safe Yield**  
27 **Reset Agreement**

28       **15. Filed April 17, Request by Chino Basin Desalter Authority Member**



Agencies regarding Desalter Pumping.

## **SEPTEMBER 23, 2016, HEARING AND ADDITIONAL BRIEFING**

After extensive briefing and consideration, on September 23, 2016, the court held a hearing on the 2015 SYRA and related motions. Before the hearing, the court had issued an lengthy (over 60 pages) proposed order. At the hearing on September 23, there was extensive oral argument, and the court concluded that some aspects of the court's proposed order were confusing or erroneous. Therefore, the ordered that there be even further briefing, and the court ordered additional briefing through questions by the parties about the proposed order. In its order entitled "Revised Proposed Order Re SYRA in Response to Questions: Issues for Further Briefing," and the current order, the court addressed the parties' questions.

### **I. INTRODUCTION, DEFINITIONS, BACKGROUND**

A. The 1978 judgment in *Chino Basin Municipal Water District v. City of Chino* (San Bernardino Superior Court Case No. 51010) set the Safe Yield of the Chino Basin at 140,000 acre-feet per year (AFY), but reserved continuing jurisdiction to the court to amend the Judgment, inter alia, to redetermine the Safe Yield after the first 10 years of operation of the Physical Solution established under the Judgment. The Physical Solution identified three groups of parties (Pools) with water interests in the Chino Basin, and set forth their allocations as follows:

Pool	Allocation	Acre-feet Yearly Allocation
Overlying (Agricultural) Pool*	414,000 acre-feet in any five (5) consecutive years [note: $414,000 \div 5 = 82,800$ per	82,800

	year]	
Overlying (Non-agricultural) Pool**	7,366 acre-feet	7,366
Appropriative Pool***	49,834 acre-feet	49,834
	Yearly total allocation	140,000

\*The members of this pool included dairy farms.

\*\*The members of this pool include businesses which use water in their production processes.

\*\*\*The members of this pool include cities and water companies. They "appropriate" the water by pumping and selling it.

Over the course of the Court-Approved Management Agreements (set forth in the next section), the court allowed up to 600,000 AF of water to be produced/pumped out of the Chino Basin without any replenishment obligation. "While the parties are not limited in the quantities of water they may produce, the Judgment requires that beyond the permitted Controlled Overdraft comprising an initial 200,000 AF and an additional 400,000 AF of Re-operation water (Restated Judgment, Exhibit "I", ¶¶ 2.(b), 3.(a)), there must be a bucket for bucket replenishment [and associated cost to the producer/pumper] to offset production in excess of the Basin's Safe Yield. (Restated Judgment, ¶¶ 13, 42)." (Watermaster's Response to Questions for Clarification in Final Orders for Watermaster's Motion Regarding 2015 Safe Yield Reset Agreement, Amendment of Restated Judgment, Paragraph 6, page 2, line 23 to page 3, line 4, filed October 28, 2016.)

The court notes that this total "controlled overdraft" *i.e.*, pumping without replenishment cost, (aka "Re-Operation Water") of 600,000 AF

1 has just about been exhausted.

2 This motion is the first time the court has redetermined the Safe Yield since  
3 the Judgment was entered in 1978.

4  
5 B. Since the entry of the judgment, the court has previously approved agreements to  
6 implement the Physical Solution (“Court Approved Management Agreements” aka  
7 “CAMA”). There is no dispute that the court has the authority and duty to  
8 independently review the evidence de novo and determine whether proposals by  
9 Watermaster or any party comply with the Judgment and the Court Approved  
10 Management Agreements. (Restated Judgment ¶31(d).) The Court Approved  
11 Management Agreements are:

12 1. The Chino Basin Peace Agreement (Peace I Agreement), dated June 29,  
13 2000, as subsequently amended in September 2004 and December 2007.

14 a. In 2000 the parties executed Peace Agreement Chino Basin (Peace I  
15 Agreement) and agreed to Watermaster’s adoption of the Optimum  
16 Basin Management Plan (OBMP) Implementation Plan. At about the  
17 same time, the court ordered Watermaster to proceed in a manner  
18 consistent with Peace I and the OBMP, including Program Element 8  
19 (Develop and Implement Groundwater Storage Management Program)  
20 and Program Element 9 (Develop and Implement Storage and  
21 Recovery Programs). The implementation plan acknowledged the need  
22 to obtain better production data through the metering of non-exempt  
23 production within the Basin. Program Elements 8 and 9 provided for  
24 Watermaster to redetermine and reset the Basin’s Safe Yield in the year  
25 2010/11. The basis of the redetermination and reset would be  
26 production data derived from the collection of additional data regarding  
27 the parties’ production (*i.e.*, parties who pumped water out of the Basin)  
28 within the basin during the 10-year period 2000/01 through 2009/10.

1 The study for redetermination and reset was not completed  
2 until 2015, and the motion regarding determination and reset  
3 was not filed until October 2015.

- 4 b. The Peace I Agreement introduced the installation of Desalters in the  
5 southwest portion of the Basin. The Desalters pump ground water  
6 from the aquifer and supply that water to water companies and other  
7 users. By pumping water out of the aquifer, the Desalters also lowered  
8 the ground water table to help obtain Hydrologic Control, *i.e.*,  
9 preventing Chino Basin ground water from reaching the Santa Ana  
10 River south of the Basin. The Santa Ana River is a major source of  
11 water for Orange County, and water impurities and contaminants, some  
12 of which came from the Chino Basin dairy farms ("salts") were in the  
13 groundwater flowing from the Basin into the Santa Ana River. The  
14 Desalter capacity has now expanded to ~~20~~ 40 MGD (40 million  
15 gallons per day) as provided in the OBMP Implementation Plan to  
16 protect against a decline in Safe Yield and for water quality benefits, but  
17 the court reserved the question of how "Future Desalter" capacity  
18 would be addressed. The Chino Basin Desalter Authority (CDA),  
19 which includes the City of Chino, participated in the construction of the  
20 Desalters which represented a substantial engineering and financial  
21 undertaking. These Desalters were completed and fully operational in  
22 2006.

23 2. The Peace II Measures (court approved on December 21, 2007).

- 24 a. In 2007, the parties entered into the Peace II Agreement. The objective  
25 was to increase the Desalter capacity to 40 MGD to achieve the OBMP  
26 Implementation Plan objectives. In order to do this, the parties  
27 designed and financed an additional 10 million gallons per day (MGD)  
28 of expanded Desalter capacity. The expansion of the Desalters to the

1 full plant capacity will be completed in 2017. With the completion of  
2 this construction, Hydraulic Control will be achieved. Hydraulic  
3 Control now means only a de minimus amount of groundwater will  
4 flow from the Chino Basin south into the Santa Ana River. In fact, the  
5 Desalters now have lowered the water table in the south end of the  
6 Basin so that ground water is now flowing from the Santa Ana River  
7 north into the Chino Basin. ~~This is called Re-Operation water.~~

8 3. The Optimum Basin Management Plan (OBMP) Implementation Plan  
9 dated June 29, 2000, was supplemented in December 2007.

10 4. The Recharge Master Plan, dated 1998, was updated in 2010 and  
11 amended in 2013.

12 5. The Watermaster Rules and Regulations dated June 2000, as amended.

13 6. The October 8, 2010 Order Approving Watermaster's Compliance with  
14 Condition Subsequent Number Eight and Approving Procedures to be used to  
15 Allocate Surplus Agricultural Pool Water in the Event of a Decline in Safe Yield.

16 7. Watermaster Resolution 2010-04 ("Resolution of the Chino Basin  
17 Watermaster regarding Implementation of the Peace II Agreement and the Phase III  
18 Desalter Expansion in Accordance with the December 21, 2007 Order of the San  
19 Bernardino Superior Court").

20  
21 C. Additional background for motion

22 1. At the September 24, 2015 Watermaster Board Meeting, the board  
23 adopted Resolution 2015-06: Resolution of the Chino Basin Watermaster regarding  
24 the 2015 Safe Yield Reset Agreement (SYRA).

25 2. Through a Facilitation and Non-Disclosure Agreement (FANDA),  
26 Watermaster attempted to obtain agreement as to all issues regarding Safe Yield  
27 redetermination and reset allocation. Those issues included not only a reset of the  
28 Safe Yield from 140,000 acre-feet per year to 135,000 acre-feet per year, but also

1 Watermaster's accounting for reallocations related to Court Approved Management  
2 Agreements, and a method of allocations for water storage called the Safe Storage  
3 Management Agreements.

- 4 a) The FANDA process took place starting in November 2014, and  
5 through at least 30 meetings, by May 27, 2015, all but one of the then-  
6 active parties to the FANDA reached a non-binding agreement among  
7 their negotiating representatives on certain key principles (apparently  
8 also called the "term sheet") embodied in the Safe Yield Summary of  
9 Non-Binding Key Principles Derived from the Facilitated Process.
- 10 b) The parties continued to negotiate, with a goal of reducing the Key  
11 Principles into a binding instrument for execution by September 1,  
12 2015. That agreement is identified as the 2015 Safe Yield Reset  
13 Agreement (SYRA). The Appropriative Pool, the Overlying  
14 (Agricultural) Pool, and the Three Valleys Municipal Water District  
15 approved the 22-page agreement, as did many other parties. The City  
16 of Chino refused to sign the agreement.
- 17 c) On September 24, 2015, the board at its regular meeting adopted  
18 resolution 2015-06, and previously – on September 17, 2015 – the  
19 advisory committee approved resolution 2015-06: "Resolution of Chino  
20 Basin Watermaster regarding 2015 Safe Yield Reset Agreement  
21 (SYRA)."
- 22 d) Watermaster's instant motion asks the court to address the issues  
23 covered in the SYRA as follows:
  - 24 I) The reset of the Basin Safe Yield from 140,000 acre-foot per year (AFY)  
25 to 135,000 AFY pursuant to the Restated Judgment, the OBMP  
26 Implementation Plan, and Watermaster's Rules and Regulations;
  - 27 II) The manner in which Watermaster should account for various  
28 components of the recharge to the Basin implementing the Court-

1 Approved Management Agreements; and  
2 III) Establishment of Safe Storage Management Measures (SSMM)  
3 intended to ensure that withdrawals of groundwater from authorized  
4 storage accounts within the Basin are safe, sustainable, and will not  
5 cause Material Physical Injury or undesirable results.  
6

7 D. SUMMARY RULINGS:

8 In its motion, Watermaster requests an order acknowledging the 2015 Safe  
9 Yield Reset Agreement and ordering Watermaster to proceed in accordance with its  
10 terms with respect to amending the restated judgment to reset the Safe Yield of the  
11 Basin from 135,000 AFY to 135,000 AFY and amending the schedule for access to  
12 Re-Operation water ~~(water pumped by the Desalters)~~. For the reasons set forth  
13 herein, the court grants the motion with respect to amending the restated judgment  
14 to reset the Safe Yield of the basin to 135,000 AFY. However, the court denies **the**  
15 **rest of the motions including** the motions to amend the schedule for access to  
16 Re-operation water ~~pumped by the Desalters ("Desalter water") and . The court~~  
17 ~~denies~~ **and** the motion to institute Safe Storage Management Measures. The court  
18 makes additional orders with respect to Desalter water as set forth herein.  
19

20 **II. Severability of SYRA**

21 Watermaster has questioned whether the court can sever SYRA and  
22 enforce certain sections and not others. For the following reasons, except  
23 for the Safe Yield reset itself, the court has concluded that it cannot  
24 enforce some of sections and not others:

25 A. Watermaster itself has argued that SYRA is an integrated document  
26 which cannot be divided.

27 1. Watermaster's "Response to Questions for Clarification, etc."  
28 filed October 28, 2016, states: "the SYRA is the product of the Facilitation

1 and Non-Disclosure Agreement (FANDA) process, during which the parties  
2 to that agreement comprehensively settled and compromised their  
3 disagreements, so as to enable Watermaster to implement the CAMA's  
4 through and following the reset of Safe Yield."

5 a) The court does not find a basis for this characterization. *Most*  
6 of the parties settled and compromised their disagreements,  
7 but not all, notably the city of Chino and Jurupa Community  
8 Services District.

9 2. Watermaster further argues that approving "some, but not all,  
10 of SYRA's provisions can materially advantage one party over another, in  
11 that the full benefit of the parties intended settlement and compromise is  
12 not achieved, as one or more parties may be denied the consideration for  
13 which it bargained."

14 a) For the reasons set forth below, the court refuses to adopt  
15 SYRA in whole. Following Watermaster's own all-or-nothing  
16 argument, the court must conclude that not only is there no  
17 legal basis to enforce part of SYRA, but also that it is  
18 fundamentally unfair to the parties to enforce portions of SYRA  
19 for which the parties did not bargain.

20 3. However, the court concludes there is a qualitative difference  
21 between the safe yield reset and the balance of SYRA.

22 a) The request to reduce the Safe Yield to 135,000 AFY is a legal  
23 determination for the court.

24 b) The request to reduce Safe Yield is based on the Reset  
25 Technical Memorandum report and model. That memorandum  
26 has nothing to do with interactions, bargaining, or allocations  
27 among the parties.

28 I) There ample technical and scientific support for the reset in



1 the Technical Memorandum and the 2013 Chino Basin  
2 Groundwater Model Update and Recalculation of Safe Yield  
3 Pursuant to the Peace Agreement prepared by Wildermuth  
4 Environmental, Inc. dated October 2015.

5 c) The request to reduce Safe Yield is in response to the court  
6 order itself to evaluate the yield every 10 years

7 I) Although the study should have been done in 2010, at least  
8 it was completed in 2015.

9 II) None of the other aspects of SYRA were pursuant to a court  
10 order.

11 III) The safe yield reset is a legal determination for the  
12 court. There is no "bargained-for exchange" for the court  
13 to consider.

14 d) Therefore for these reasons and those set forth in section III  
15 below ~~III~~ the court adopts the following provisions of Article 4-  
16 SAFE YIELD RESET TO 135,000 AFY of the SYRA AND ORDERS  
17 AS FOLLOWS:

18 4.1 Safe Yield Reset. Consistent with the prior orders of the Court pursuant to its  
19 continuing jurisdiction, effective July 1, 2010 and continuing until June 30, 2020, the  
20 Safe Yield for the Basin is reset at 135,000 AFY. For all purposes arising under the  
21 Judgment, the Peace Agreements and the OBMP Implementation Plan, the Safe  
22 Yield shall be 135,000 AFY, without exception, unless and until Safe Yield is reset in  
23 accordance with the procedures set forth in this order, and determined by the Court  
24 pursuant to its retained continuing jurisdiction.

25  
26 4.2 Scheduled Reset. Watermaster will initiate a process to evaluate and reset the  
27 Safe Yield by July 1, 2020 as further provided in this order. Subject to the provisions  
28 of Paragraph 4.3 below, the Safe Yield, as it is reset effective July 1, 2020 will

1 continue until June 30, 2030. Watermaster will initiate the reset process no later than  
2 January 1, 2019, in order to ensure that the Safe Yield, as reset, may be approved by  
3 the court no later than June 30, 2020. Consistent with the provisions of the OBMP  
4 Implementation Plan, thereafter Watermaster will conduct a Safe Yield evaluation  
5 and reset process no less frequently than every ten years. This Paragraph is deemed  
6 to satisfy Watermaster's obligation, under Paragraph 3.(b) of Exhibit "I" to the  
7 Restated Judgment, to provide notice of a potential change in Operating Safe Yield.  
8

9 4.3 Interim Correction. In addition to the scheduled reset set forth in Paragraph  
10 4.2 above, the Safe Yield may be reset in the event that, with the recommendation  
11 and advice of the Pools and Advisory Committee and in the exercise of prudent  
12 management discretion described in Paragraph 4.5(c), below, Watermaster  
13 recommends to the court that the Safe Yield must be changed by an amount greater  
14 (more or less) than 2.5% of the then-effective Safe Yield.  
15

16 4.4 Safe Yield Reset Methodology. The Safe Yield has been reset effective July 1,  
17 2010 and shall be subsequently evaluated pursuant to the methodology set forth in  
18 the Reset Technical Memorandum. The reset will rely upon long-term hydrology and  
19 will include data from 1921 to the date of the reset evaluation. The long-term  
20 hydrology will be continuously expanded to account for new data from each year,  
21 through July 2030, as it becomes available. This methodology will thereby account  
22 for short-term climatic variations, wet and dry. Based on the best information  
23 practicably available to Watermaster, the Reset Technical Memorandum sets forth a  
24 prudent and reasonable professional methodology to evaluate the then prevailing  
25 Safe Yield in a manner consistent with the Judgment, the Peace Agreements, and the  
26 OBMP Implementation Plan. In furtherance of the goal of maximizing the  
27 beneficial use of the waters of the Chino Basin, Watermaster, with the  
28 recommendation and advice of the Pools and Advisory Committee, may supplement

1 the Reset Technical Memorandum's methodology to incorporate future advances in  
2 best management practices and hydrologic science as they evolve over the term of  
3 this order.

4  
5 4.5 Annual Data Collection and Evaluation. In support of its obligations to  
6 undertake the reset in accordance with the Reset Technical Memorandum and this  
7 order, Watermaster shall annually undertake the following actions:

8 (a) Ensure that, unless a Party to the Judgment is excluded from reporting,  
9 all production by all Parties to the Judgment is metered, reported, and reflected in  
10 Watermaster's approved Assessment Packages;

11 (b) Collect data concerning cultural conditions annually with cultural  
12 conditions including, but not limited to, land use, water use practices, production,  
13 and facilities for the production, generation, storage, recharge, treatment, or  
14 transmission of water;

15 (c) Evaluate the potential need for prudent management discretion to avoid  
16 or mitigate undesirable results including, but not limited to, subsidence, water quality  
17 degradation, and unreasonable pump lifts. Where the evaluation of available data  
18 suggests that there has been or will be a material change from existing and projected  
19 conditions or threatened undesirable results, then a more significant evaluation,  
20 including modeling, as described in the Reset Technical Memorandum, will be  
21 undertaken; and,

22 (d) As part of its regular budgeting process, develop a budget for the  
23 annual data collection, data evaluation, and any scheduled modeling efforts, including  
24 the methodology for the allocation of expenses among the Parties to the Judgment.  
25 Such budget development shall be consistent with section 5.4(a) of the Peace  
26 Agreement.

27  
28 4.6 Modeling. Watermaster shall cause the Basin Model to be updated and a

1 model evaluation of Safe Yield, in a manner consistent with the Reset Technical  
2 Memorandum, to be initiated no later than January 1, 2024, in order to ensure that  
3 the same may be completed by June 30, 2025.

4  
5 4.7 Peer Review. The Pools shall be provided with reasonable opportunity, no  
6 less frequently than annually, for peer review of the collection of data and the  
7 application of the data collected in regard to the activities described in Paragraphs  
8 4.4, 4.5, and 4.6 above.

9  
10 4.8 No Retroactive Accounting. Notwithstanding that the initial Safe Yield reset,  
11 described in Paragraph 4.1 above, shall be effective as of July 1, 2010, Watermaster  
12 will not, in any manner, including through the approval of its Assessment Packages,  
13 seek to change prior accounting of the prior allocation of Safe Yield and Operating  
14 Safe Yield among the Parties to the Judgment for production years prior to July 1,  
15 2014.

16  
17 **III. IV. THE COURT FURTHER ORDERS AS FOLLOWS:**

18 A. The court amends the restated judgment ¶6 and sets the safe yield to 135,000  
19 AFY for the following reasons:

20 1. The court accepts the findings and conclusions of Wildermuth for the  
21 following reasons. Those conclusions are set forth in the reset Technical  
22 Memorandum.

23 a) Wildermuth has been the authoritative resource for the parties and the  
24 court during the pendency of the case for the last 15 years.

25 b) Wildermuth has performed a detailed analysis with substantiated facts  
26 and findings in the reset technical memorandum, the supplemental  
27 declaration of Mark Wildermuth in support of Watermaster's reply to  
28 oppositions to the motion regarding 2015 Safe Yield Reset Agreement,

1 and the memo to restated judgment, paragraph 6 aka Wildermuth  
2 supplemental declaration.

3 c) The court accepts the net recharge approach and calculations set forth  
4 in the Wildermuth report.

5 d) The Wildermuth report gives the most comprehensive analysis and  
6 credible evaluation of the historic condition of the Basin.

7 e) The court does not accept the conclusions of Robert Shibatani for the  
8 following reasons:

9 I) Shibatani recognizes that the net recharge calculation is a legitimate  
10 approach to a determination of Safe Yield.

11 II) The Shibatani approach is unnecessarily quantitative. The Wildermuth  
12 analysis allows for the definitions required for the analysis of the Chino  
13 Basin, including cultural conditions and undesirable results.

14 III) Wildermuth has considered the effects of climate change of  
15 Basin precipitation. The court accepts Wildermuth's conclusion that  
16 there are not any better predictive modeling scenarios generally available  
17 at this time accurately calibrated to the historical rainfall and are  
18 therefore not reliable as a predictive tool.

19 2. The Restated Judgment's definition of Safe Yield includes the  
20 consideration of the evolutionary land-use conditions the need to protect the Basin  
21 against undesirable results.

22 3. No party has objected to the reduction in Safe Yield, except the city of  
23 Chino. Chino's objections were discussed and rejected/overruled for the reasons set  
24 forth in Joinders and Filings, Section A.2 above.

25 4. The reduction safe yield is consistent with the Court-Approved  
26 Management Agreements.

27 5. The court finds that the provisions of SYRA set for in Section II  
28 above set forth an approach to a determination of future Safe Yield determinations

1 in a manner consistent with the Court Approved Management Agreements.

2 a) The declaration of Peter Wildermuth and the supporting  
3 documentation, analysis supports the court's conclusion.

4 b) Wildermuth declaration, paragraph 14, states his opinion that the Basin  
5 protection measures to which the parties have agreed and the 2015 Safe  
6 Yield Reset Agreement will ensure that the Basin is not harmed by  
7 extraction of 135,000 AFY through fiscal 2020. However, again the  
8 court emphasizes that its ruling is not based on the agreement  
9 of the parties. The court's ruling is based upon the Restated  
10 Judgment, the Court Approved Management Agreements, and  
11 its legal conclusions supported by the technical analyses  
12 identified in the court's order.

13 I) Although the court concludes the Safe Storage Management Measures  
14 are useful and advisable, the court concludes there is no specific factual  
15 basis requiring the Safe Yield reset to include Safe Storage Management  
16 Measures. Therefore the court concludes that even without the Safe  
17 Storage Management Measures, reduction of Safe Yield to 135,000 AFY  
18 will not harm the Basin.

19 II) The 2013 Chino Basin Groundwater Model Update and Recalculation  
20 of Safe Yield Pursuant to the Peace Agreement is sufficiently  
21 documented and the court finds the data reliable.

22 c) Wildermuth declaration, paragraph 15, states that the Basin protection  
23 measures to which the parties have agreed and the 2015 Safe Yield  
24 Reset Agreement, including the Safe Storage Management Measures,  
25 will ensure that the Basin is not harmed by extractions of the 20,000 AF  
26 that was allocated in the past 4 years and would have been allocated if  
27 the Safe Yield have been reset to 135,000 AFY in 2011.

28 I) However, again Wildermuth does not specifically address the necessity

of the Safe Storage Measures with respect to complying with the Court Approved Management Agreements. Therefore, the court again concludes that even without the Safe Storage Management Measures, reduction of Safe Yield to 135,000 AFY will not harm the Basin.

II) Again, the 2013 Chino Basin Groundwater Model Update and Recalculation of Safe Yield Pursuant to the Peace Agreement is sufficiently documented and the court finds the data reliable.

d) Therefore, the court concludes that the extraction of 135,000 AFY is consistent with the Court Approved Management Agreements and does not create any undesirable result or Material Physical Injury to the Basin.

B. The measures set forth in Article 4 are consistent with the Physical Solution under the judgment and Article X, section 2 of the California Constitution.

C. Paragraph 6 of the Restated Judgment is hereby amended to read as follows: "Safe Yield. The Safe Yield of the Basin is 135,000 acre feet per year."

1. The effective date of this amendment of Paragraph 6 of the Restated Judgement is July 1, 2010.

#### **¶ IV. SAFE YIELD RESET AGREEMENT (SYRA): WATERMASTER ALLOCATION HISTORY, EARLY TRANSFERS, AND THE DESALTERS**

A. The 1978 Judgment as amended

1. The 1978 Judgment ¶44 made the following allocation of rights to Safe Yield in the Chino Basin ("the physical solution"):

Pool	Allocation
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Overlying (Agricultural) Pool	414,000 acre-feet in any 5 consecutive years (82,800 acre-feet per year)* **
Overlying (Non-agricultural) Pool	7366 acre-feet per year**
Appropriative Pool	49,834 acre-feet per year
Total	140,000 acre-feet per year

\*Note:  $414,000 \div 5 = 82,800$ . 82,800 acre-feet per year has been the basis of calculations for the Appropriative Pool going forward from the judgment.

\*\*Note: the rights of the members of the Overlying (Agricultural) Pool and the Overlying (Non-Agricultural) Pool are fixed (Restated Judgment ¶8, ¶44, see also Exhibits “C” and “D” to the Restated Judgment). **Therefore the effect of a decline of the safe yield is borne entirely by the members of the Appropriative Pool (Restated Judgment ¶9).**

2. The Judgment ¶1(x) defines Safe Yield as “the long-term average annual quantity of groundwater (excluding replenishment or stored water but including return flow to the basin from use of replenishment or stored water) which can be produced [*i.e.*, pumped] from the basin under cultural conditions of the particular year without causing an undesirable result.”

3. The judgment fixed the amount of water production (pumping) that could be allocated to the Overlying (Agricultural) Pool and the Overlying (Non-agricultural) Pool. However, the Appropriative Pool allocation could be changed.

a) The court concludes that the disputes in the oppositions concern relationship between unproduced (*i.e.*, unpumped) Overlying Agricultural Pool water (aka Ag Pool water) and the water available to the Appropriative Pool.

4. Exhibit “T” to the judgment is the Engineering Appendix. It discusses Hydraulic Control and Re-Operation, which are described in more detail below. Section 3 defines Operating Safe Yield as consisting in any “year of the



1 Appropriative Pool's share of Safe Yield of the Basin, plus any controlled overdraft  
2 of the Basin which Watermaster may authorize."

3 a) Section 3(b) states that "in no event shall Operating Safe Yield in any  
4 year be less than the Appropriative Pool's share of Safe Yield, nor shall  
5 it exceed such share of Safe Yield by more than 10,000 acre feet. The  
6 initial Operating Safe Yield is hereby set at 54,834 acre feet per year."

7 I) The figure of 54,834 acre feet per year is the initial 1978 Judgment  
8 allocation of 49,834 acre-feet per year plus 5,000 acre feet per year. The  
9 additional 5,000 AFY comes from 200,000 acre-feet of overdraft (water  
10 pumped without a replenishment obligation) allocated by the Judgment  
11 to the Appropriative Pool. **This overdraft total was later increased**  
12 **by 400,000 AF to a total of 600,000 AF.** The overdraft will be  
13 exhausted in 2016/2017. (Watermaster Motion Regarding 2015 Safe  
14 Yield Reset Agreement, Amendment of Restated Judgement, Paragraph  
15 6, page 3, line 27.)

16 b) Operating Safe Yield has also come to mean water that the  
17 Appropriative Pool could produce/pump without having to purchase  
18 replenishment water. (Exhibit "H" ¶5.)

19 5. Exhibit "H" to the judgment described the Appropriative Pool Pooling  
20 Plan, paragraph 10 described "Unallocated Safe Yield Water" as follows: "to the  
21 extent that, in any 5 years, any portion of the share of Safe Yield allocated to the  
22 Overlying (Agricultural) Pool is not produced, such water shall be available for  
23 reallocation to members of the Appropriative Pool as follows:

24 (a) Priorities. Such allocation shall be made in the following sequence:

25 (1) to supplement, in the particular year, water available from Operating Safe  
26 Yield to compensate for any reduction in the Safe Yield by reason of  
27 recalculation thereof after the tenth year of operation hereunder. [This  
28 Exhibit H ¶10(a)(1) priority is sometimes called 'unproduced Agricultural Pool

1 water' or 'unproduced Ag Pool water.' The current credited production  
2 (pumping) for agricultural groundwater is about 33,600 AFY, but that includes  
3 agricultural land irrigated with reclaimed water. The actual groundwater  
4 production for agricultural purposes is about 22,000 AFY. (Jurupa Services  
5 District's response to Judge Reichert's Request for Clarification, March 22,  
6 2016, page 2, lines 8–10.)]

7 (2) pursuant to conversion claims as defined in Subparagraph (b) hereof.

8 (3) as a supplement to Operating Safe Yield, without regard to reductions in  
9 Safe Yield.”

10 6. In an order dated November 17, 1995, Conversion Claims were defined  
11 in Exhibit “H” ¶10(b) [this is the Subparagraph (b) to which the preceding  
12 paragraph--page 49 24, line 8 7--refers]. Peace I modified this definition in Exhibit  
13 “H” ¶10(b) to state as follows:

14 (b) Conversion Claims. The following procedures may be utilized by any  
15 appropriator:

16 1) Record of Unconverted Agricultural Acreage. Watermaster shall maintain  
17 on an ongoing basis a record with appropriate related maps of all agricultural  
18 acreage within the Chino Basin subject to being converted to appropriate  
19 water use pursuant to the provisions of this paragraph. An initial  
20 identification of such acreage as of June 30, 1995 is attached hereto as  
21 Appendix 1.

22 (2) Record of Water Service Conversion. Any appropriator who undertakes  
23 to permanently provide water service to lands subject to conversion may  
24 report such intent to change water service to Watermaster. Watermaster  
25 should thereupon verify such change in water service and shall maintain a  
26 record and account for each appropriator of the total acreage involved.  
27 Should, at any time, converted acreage return to water service from the  
28 Overlying (Agricultural) Pool, Watermaster shall return such acreage to

1 unconverted status and correspondingly reduce or eliminate any allocation  
2 accorded to the appropriator involved.

3 (3) Allocation of Safe Yield Rights

4 (i) For the term of the Peace Agreement in any year in which sufficient  
5 unallocated Safe Yield from the Overlying (Agricultural) Pool is available for  
6 such conversion claims, Watermaster shall allocate to each appropriator with  
7 the conversion claim 2.0 acre-feet of unallocated Safe Yield water for each  
8 converted acre for which conversion has been approved and recorded by  
9 Watermaster.

10 (ii) In any year in which the unallocated Safe Yield water from the Overlying  
11 (Agricultural) Pool is not sufficient to satisfy all outstanding conversion claims  
12 pursuant to subparagraph (i) herein above, Watermaster shall establish  
13 allocation percentages for each appropriator with conversion claims. The  
14 percentages shall be based upon the ratio of the total of such converted  
15 acreage approved and recorded for each appropriators's [sic] account in  
16 comparison to the total of converted acreage approved and recorded for all  
17 appropriators. Watermaster shall apply such allocation percentage for each  
18 appropriator to the total unallocated Safe Yield water available for conversion  
19 claims to derive the amount allocable to each appropriator.

20 7. CONCLUSION: With the 1995 amendments, the Judgment set a  
21 prioritized list of claims upon unproduced Ag Pool water.

22 Ag Pool water--1995 Judgment amendment

23 82,800 AFY of the Ag Pool's water available to the Appropriative Pool with  
24 Appropriative Pool claims prioritized as follows:

25 (1) to supplement, in the particular year, water available from Operating Safe  
26 Yield to compensate for any reduction in the Safe Yield by reason of recalculation  
27 thereof after the tenth year of operation as required by the Judgment;

28 (2) pursuant to conversion claims as defined in Subparagraph (b of Exhibit "H"

¶10(b);

(3) as a supplement to Operating Safe Yield, without regard to reductions in Safe Yield.

The court notes that there is currently more than 49,000 AFY of unproduced Agricultural Pool water available. (Jurupa Services District's response to Judge Reichert's Request for Clarification, March 22, 2016, page 2, lines 10–14.)

B. The 2000 Peace Agreement aka Peace I

1. With the agreements made in Peace I, the elements of Desalters and of water transfers entered the water allocations to the parties.

2. Peace I Section V-Watermaster Performance defined how Watermaster was to perform regarding procedures for Recharge and Replenishment. In paragraph ¶5.3(g), Watermaster was ordered to approve an "Early Transfer" from the Agricultural Pool to the Appropriative Pool of not less than 32,800 acre-feet per year which was the expected approximate quantity of water not produced by the Agricultural Pool. ¶5.3(g)(i) further stated that "the quantity of water subject to Early Transfer under this paragraph shall be the greater of (i) 32,800 acre-feet or (ii) 32,800 acre-feet plus the actual quantity of water not produced by the Agricultural Pool for that Fiscal Year that is remaining after all the land use conversions are satisfied pursuant to" the following provision: "the Early Transfer water shall be annually allocated among members of the Appropriative Pool in accordance with their pro-rata share of the initial Safe Yield." The court notes that after this deduction, the Safe Yield water available to the Agricultural Pool became 50,000 acre-feet per year.

3. Peace I also introduced the construction and operation of Desalters in Section VII. ¶7.5 described replenishment for the Desalters provided from the following sources in the following order:

a) Watermaster Desalter replenishment account composed of 25,000 acre-feet of water abandoned by Kaiser and other water previously dedicated by the

1 Appropriative Pool;

2 (b) New Yield of the Basin, unless the water Produced and treated by the  
3 Desalters is dedicated by purchaser of the Desalter water to offset the price of  
4 Desalter water to the extent of the dedication;

5 (c) Safe Yield of the Basin, unless the water Produced and treated by the  
6 Desalters is dedicated by a purchaser of the desalted water to offset the price of  
7 Desalter water to the extent of the dedication; [and then]

8 d) Additional Replenishment Water purchased by Watermaster, the cost of  
9 which shall be levied as an Assessment by Watermaster.

10 4. The court also concludes that the conversion claims have priority over  
11 the Early Transfers because the conversion claims pre-existed the Early Transfer  
12 allocations. The conversion claims came into existence with the 1995 Judgment  
13 amendment. The Early Transfers came into existence with Peace I in 2000. The  
14 Early Transfers must be interpreted in the context of the pre-existing 1995 Judgment  
15 amendment.

16 5. CONCLUSION: With Peace I, there were major changes regarding the  
17 allocation of water among the parties as set forth in the following table.

18 Ag Pool water	Status and/or change	Comments
19	result	
20 1995 Judgment	82,800 AFY of the Ag	
21 amendment	Pool's water available to	
22	the Appropriate Pool with	
23	Appropriative Pool claims	
24	prioritized as follows:	
25	(1) to supplement, in the	
26	particular year, water	
27	available from Operating	
28	Safe Yield to compensate	

	for any reduction in the Safe Yield by reason of recalculation thereof after the tenth year of operation hereunder. (2) pursuant to conversion claims as defined in Subparagraph (b) hereof. (3) as a supplement to Operating Safe Yield, without regard to reductions in Safe Yield.	
2000 Peace I–Desalters start construction and pumping water	Early Transfers of 32,800 AFY of Ag Pool water going straight to the Appropriative Pool (leaving 50,000 AFY to Ag Pool). The remaining Ag Pool water is subject to Appropriative Pool’s prioritized claims.	New Yield (with conditions) is source of water to replenish water pumped by the Desalters. <b>Under Peace I</b> therefore Desalters do not affect Safe Yield or Operating Safe Yield. Water produced/pumped by the Desalters is not added to or subtracted from <b>Safe</b> Yield of the Basin.

The court concludes that Peace I interrelated Early Transfers and conversion claims in the following way. The Appropriative Pool received unproduced Ag Pool

1 water in at least the amount of 32,800 AFY, but the Appropriative Pool could receive  
2 more unproduced Ag Pool water if 1) the Ag Pool did not produce/pump its  
3 leftover 50,000 AFY and 2) also after subtracting from the 50,000 AFY the  
4 Appropriative Pool's conversion claims at the rate of 2 acre-feet per year per  
5 converted acre.

6 However, the court also concludes that Peace I did not rearrange the priority  
7 of allocation claims on unproduced/unpumped water. The priorities of the  
8 judgment remain. Specifically, the priority set forth in Judgment, Exhibit "H,"  
9 Paragraph 10.

10 EXAMPLE 1: So, for example in a particular year,

- 11 1. If one Appropriative Pool producer/pumper (*e.g.*, municipality, such as the City of  
12 Chino) had 1000 acres of converted land resulting in 2000 acre-feet of conversion  
13 claims (1000 acres x 2.0 acre feet of water/one acre converted), and assuming those  
14 were the only conversion claims; and
- 15 2. If the Ag Pool produced/pumped only 33,600 AFY leaving 49,200 AFY available  
16 for further allocation (82,800 AFY– 33,600 AFY= 49,200 AFY; the court notes that  
17 33,600 AFY is the approximate Ag Pool credited production [Jurupa response to  
18 court's clarification request, page 2, lines 9-10], but the court is using this figure only  
19 for illustration); then,
- 20 3. The Ag Pool water that would be available to the Appropriative Pool would be  
21 based on the following calculation

Example 1-A	Explanation	Comments
Initial Ag Pool allocation	82,800 AFY	
Ag Pool production/pumping	- 33,600 AFY	Assumption
Initial balance after production	49,200 AFY	(82,800 acre-feet – 33,600 acre-feet = 49,200 acre-feet per year)

Conversion claims	- 2000 acre-feet	1000 acres x 2.0 acre feet of water/one acre converted = 2000 acre-feet per year.  The subtraction for satisfying conversion claims comes before any reallocation. The conversion claims are applied first because they are set forth in the 1995 Amendment to the Judgment
Ag Pool balance after reduction for conversion claims	47,200 AFY	(49,200 acre-feet - 2000 acre-feet = 47,200 acre-feet per year)  Balance: Ag Pool water available to Appropriative Pool after conversion priority claims pursuant to Judgment Exhibit "H" Paragraph 10.
Reduction for Early Transfers	- 32,800 AFY	The Early Transfer is now applied because Early Transfers were instituted in Peace I in 2000. The Early Transfer from 82,800 AFY allocation leaving 50,000 AFY for the Ag Pool itself to produce/pump and for additional claims by the Appropriative Pool pursuant to Peace I and Peace II.*
Balance: Ag Pool water available to the Appropriative Pool	14,400 AFY	(47,200 acre-feet - 32,800 acre-feet = 14,400 acre-feet per year.)  This is the total Ag Pool water



after conversion priority claims and Early Transfers		available for reallocation to Appropriative Pool for production/pumping after subtraction of conversion priority claims of 2,000 acre-feet per year from and the 32,800 Early Transfer from the allotment of Ag Pool water.**

\*It appears to the court that for convenience, many parties first simply take the reduction of the 32,800 acre-feet for Early Transfers and start these calculations with 50,000 acre-feet of Ag Pool water.

1. That calculation is simply to start with the 50,000 acre-feet of unproduced/unpumped Ag Pool water and then subtract the amount 33,600 acre-feet that was actually pumped in this example. The result is 16,400 acre-feet available for conversion claims.
2. Then subtract the 2,000 acre-feet for conversion claims to get the 14,400 acre-feet of Ag Pool water available for allocation to the Appropriative Pool.
3. However, this procedure is inconsistent with the judgment and Peace Agreements as interpreted by the court for the reasons stated above.

\*\*The also court notes that the particular producer who serviced the converted acres would actually be able to pump the additional conversion claim water as an allocation.

EXAMPLE 2: The following example demonstrates complications arising from a decrease in the amount of Ag Pool water available to the Appropriative Pool. If the Ag Pool produced/pumped more than 48,000 AFY there would be no available water for the Appropriative Pool.

1	Example 2		Comment
2	Initial Ag Pool	82,800 AFY	
3	allocation		
4	Ag Pool	48,000 AFY	Assumption
5	production/pumping		
6	Initial balance after	34,800 AFY	82,800 acre-feet – 48,000 acre-feet =
7	production		34,800 acre-feet per year
8	Conversion claims	- 2000 acre-	The subtraction for satisfying
9		feet	conversion claims before any
10			reallocation. (1000 acres x 2.0 acre
11			feet of water/one acre converted =
12			2000 acre-feet).
13	Balance:	32,800 AFY	34,800 acre-feet – 2,000 acre-feet =
14			32,800 acre-feet per year. Ag Pool
15			Water Available after conversion
16			priority claims pursuant to Judgment
17			Exhibit “H” Paragraph
18	Reduction for Early	- 32,800 AFY	Early Transfer of 32,800 AFY from
19	Transfers		82,800 AFY allocation leaving 50,000
20			AFY for the Ag Pool itself to
21			produce/pump. Any water which the
22			Ag Pool did not produce/pump water
23			up to the 50,000 AFY would be
24			available for allocation to the
25			Appropriative Pool pursuant to Peace
26			I and Peace II.
27	Balance: Ag Pool	0 AFY	32,800 acre-feet -32,800 acre-feet = 0
28	water available after		acre-feet per year. There would be no

conversion priority claims and Early Transfers		Ag Pool water available for reallocation to Appropriative Pool after subtraction of conversion priority claims of 2,000 acre-feet and the 32,800 Early Transfer of unproduced/unpumped from the allotment of Ag Pool water.
<p>Conclusion:</p> <p>Under this scenario, the Appropriative Pool would not get any additional allocation from Ag Pool water</p>		

6. Regarding replenishment for the Desalters, Peace I ¶7.5 sets forth the hierarchy of sources of replenishment water for the Desalters as follows:

Replenishment Water. Replenishment for the Desalters shall be provided from the following sources in the following order of priority.

(a) Watermaster Desalter Replenishment account composed of 25,000 acre-feet of water abandoned by Kaiser pursuant to the "Salt Offset Agreement" dated October 21, 1993, between Kaiser and the RWQB, and other water previously dedicated by the Appropriative Pool.

(b) New Yield of the Basin, unless the water Produced and treated by the Desalters is dedicated by a purchaser of the desalters water to offset the price of the salted water to the extent of the dedication;

(c) Safe Yield of the Basin, unless the water Produced and treated by the Desalters is dedicated by a purchaser of the the salted water to offset the price of the salted water to the extent of

1 the dedication;

2 (d) Additional Replenishment Water purchased by  
3 Watermaster, the cost of which shall be levied as an Assessment by  
4 Watermaster.

5  
6 C. The 2007 Peace II Agreement (Peace II)

7 1. Peace II Agreement ~~Paragraphs 6.2(a)(iii) and 7.1~~ Article VI-  
8 Groundwater by and Replenishment for Desalters and Article VII-Yield  
9 Accounting further defined the accounting for the Desalters and Desalter  
10 Production Offsets.

11 2. Peace II Paragraph 6.2(a)(iii) states as follows in pertinent part:  
12 Peace II Desalter Production Offsets. To facilitate Hydraulic Control through  
13 Basin Re-Operation, [court note: that is, water pumped by the Desalters as  
14 part of the 600,000 AF controlled overdraft] in accordance with the 2007  
15 Supplement to the OBMP Implementation Plan and the amended Exhibits G  
16 and I to the Judgment, additional sources of water will be made available for  
17 purposes of Desalter Production and thereby some or all of a Replenishment  
18 obligation. With these available sources, the Replenishment obligation  
19 attributable to Desalter production in any year will be determined by  
20 Watermaster as follows:

21 (a) Watermaster will calculate the total Desalter Production for the  
22 preceding year and then apply a credit against the total quantity from: . . .

23 (iii) New Yield (other than Stormwater (Peace Agreement Section  
24 7.5(b)); . . .

25 v) Safe Yield that may be contributed by the parties (Peace  
26 Agreement Section 7.5(c));

27 (vi) any Production of groundwater attributable to the controlled  
28 overdraft authorized pursuant to amended Exhibit I to the Judgment.

1 [The Judgment allowed for a temporary controlled overdraft, *i.e.*,  
2 initially 200,000 AF and then an additional 400,000 AF total  
3 production/pumping starting in 2007 and ending in 2026 without  
4 replenishment, in order to achieve Hydraulic Control. (Safe Yield Reset  
5 Implementation Desalter Replenishment Accounting Illustration (per  
6 Peace II Agreement, Section 6.2 (PIIA, 6.2) and June 11, 2015 Key  
7 Principles)–Exhibit C to Attachment 1, Watermaster’s Motion regarding  
8 2015 Safe Yield Reset Agreement, Amendment of Restated Judgment,  
9 Paragraph 6.]

10 Paragraph 7.1 provides as follows:

11 New Yield Attributable to the Desalters. Watermaster will make an annual  
12 finding as to the quantity of New Yield that is made available by Basin Re-  
13 Operation including that portion that is specifically attributable to the Existing  
14 and Future Desalters. Any subsequent recalculation of New Yield as Safe  
15 Yield by Watermaster will not change the priority set forth above for  
16 offsetting Desalter production as set forth in Article VII, Section 7.5 of the  
17 Peace Agreement. For the initial term of the Peace Agreement, neither  
18 Watermaster nor the Parties will request that Safe Yield be recalculated in a  
19 manner that incorporates New Yield *attributable to the Desalters* [emphasis in  
20 original] into a determination of Safe Yield so that this source of supply will be  
21 available for Desalter Production rather than for use by individual parties to  
22 the Judgment.

23 2. Additionally, in 2007 Peace II ¶1.1(d) defined Re-Operation as “the  
24 controlled overdraft [pumping without replenishment] of the Basin by the managed  
25 withdrawal of groundwater Production for the Desalters and the potential increase in  
26 the cumulative un-replenished Production from 200,000 [acre-feet] authorized by  
27 paragraph 3 Engineering Appendix Exhibit I to the Judgment, to 600,000 acre-feet  
28 for the express purpose of securing and maintaining Hydraulic Control as a

1 component of the Physical Solution.” The Peace II agreement amended the Restated  
2 Judgment’s Engineering Appendix to specify the additional 400,000 acre-feet that  
3 would be dedicated exclusively to the purpose of Desalter replenishment (Restated  
4 Judgement Exhibit “I” §2(b)[3]).

5 3. ~~Peace II injected confusion into the definitions in the chain of~~  
6 ~~agreements. This confusion is identified in Chino’s Opposition to Watermaster’s~~  
7 ~~Motion regarding 2015 Safe Yield Reset Agreement Amendment of Restated~~  
8 ~~Judgment, Paragraph 6, page 18, lines 19-28: Peace II, Paragraph 6.2(a)(iii) gives~~  
9 ~~Watermaster a basis to calculate the total Desalter production from the preceding~~  
10 ~~year and then apply against that production/pumping a “credit” (i.e., a reduction)~~  
11 ~~which included a number of factors, including New Yield referencing Peace I,~~  
12 ~~paragraph 7.5(b). The court must resolve this confusion because it~~ **This credit**  
13 **procedure** ~~is the central opposition of JCSD, and it is an important issue going~~  
14 ~~forward for the administration of water allocations:~~

15 a) Peace I, paragraph 1.1(aa) defines New Yield as “proven increases in  
16 yield in quantities greater than historical amounts from sources of  
17 supply including, but not limited to, operation of the Desalters  
18 (including the Chino I Desalter), induced Recharge and other  
19 management activities implemented in operational after June 1, 2000.”

20 I) The court concludes that New Yield in the above paragraph means  
21 water produced/pumped by the Desalters, because that is how yield is  
22 always used, e.g., Safe Yield, Operating Safe Yield, etc., and the source  
23 of supply is the Desalters as identified in the definition.

24 II) So, New Yield includes water produced/pumped by the Desalters.

25 b) Peace I, paragraph 1.1(nn) defines “Recharge and Recharge Water as  
26 “introduction of water to the Basin, directly or indirectly, ... .” Recharge  
27 references the physical act of introducing water to the Basin.”

28 c) The conclusion of the court is that after Peace II, the definition New

1 Yield now includes both Desalter operation, *i.e.*, production/pumping  
2 from the Desalters, and induced Recharge (*i.e.*, groundwater flowing  
3 back into the Basin from the Santa Ana River as the result of Desalter  
4 operation).

5 ~~I) Up to and including Peace II, Desalter production and recharge had~~  
6 ~~always been defined as New Yield, and excluded from Safe Yield.~~

7 d) Peace II was consistent with Peace I. Peace II provided that  
8 the parties would avoid some or all or a replenishment  
9 obligation for Desalter production by getting credit/reduction  
10 against that production from sources such as New Yield which  
11 includes induced Recharge.

12 I) Peace I defined New Yield to include "operation of the  
13 Desalters" and "induced Recharge."

14 II) The court concludes that the Peace I and Peace II when read  
15 together recognized that some of the water which the  
16 Desalters produced/pumped came from induced recharge from  
17 the Santa Ana River.

18 III) Peace II was not explicit it stating that the Desalter  
19 production offset should follow the priorities of Peace I ¶7.5,  
20 but the court concludes that the replenishment water, *i.e.*,  
21 Desalter-induced recharge, must follow the priorities of Peace  
22 I.

23 (a) The agreements must be read together and interpreted  
24 together because they form a context for each other.

25 e) In its response to Judge Reichert's questions, Chino argued that SYRA's  
26 failure to give a specific definition to "Desalter-induced recharge" was  
27 purposeful because the failure allowed SYRA to use "Desalter-induced  
28 recharge" synonymously with New Yield. The court does not find

1 “Desalter-induced recharge” to be synonymous with New Yield. The  
2 court finds that “Desalter-induced recharge” is only synonymous with  
3 “induced Recharge.” Therefore Desalter-Inducted Recharge is included  
4 in the definition of New Yield, as set forth in Peace I ¶1(aa): “induced  
5 Recharge and other management activities implemented in operational  
6 after June 1, 2000” includes Desalter-induced recharge.

7 I) . The court further finds that “Desalter-induced recharge” and  
8 “induced Recharge” mean water flowing back into the Basin from the  
9 Santa Ana River due to production/pumping by the Desalters lowering  
10 the ground water table in the Basin. Finally, the court notes that New  
11 Yield includes Desalter production and Desalter-induced recharge as  
12 well as Desalter overdraft.

13 (a) This result is exactly what the Desalters were designed to  
14 accomplish. They have achieved Hydraulic Control, meaning they  
15 have lowered the water table at the south end of the Basin, so that  
16 only a de minimus amount of Basin water is flows into the Santa  
17 Ana River.

18 (b) In fact the Desalters have accomplished their design objective so  
19 well that now some water flows from the Santa Ana River into the  
20 Chino Basin. The court finds that his water is New Yield as set  
21 forth above.

22 II) The court further finds that “Desalter-induced recharge” aka “induced  
23 Recharge” is measureable, part of which comes from the Santa Ana  
24 River, and is set forth in Watermaster’s response to the court’s  
25 questions. This water is also known as Santa Ana River Underflow or  
26 SARU.

27 4. Peace II specified Desalter production/pumping replenishment to  
28 include induced Recharge, controlled overdraft, and other sources set forth in Peace



II ¶6.2(a). The Peace I and Peace II agreements did not specify any additional sources of Desalter replenishment, such as Ag Pool water or Safe Yield.

5. CONCLUSION:

Now, after Peace II, there were additional sources of water for the Basin, the Desalter operation/Desalter-induced recharge, as well as the historical overdraft, as summarized below.

Ag Pool water		Comments
1995 Judgment amendment	82,800 AFY of the Ag Pool's water available to the Appropriate Pool with Appropriative Pool claims prioritized as follows: (1) to supplement, and the particular year, water available from Operating Safe Yield to compensate for any reduction in the Safe Yield by reason of recalculation thereof after the tenth year of operation hereunder. (2) pursuant to conversion claims as defined in Subparagraph (b) hereof. (3) as a supplement to Operating Safe Yield, without regard to reductions in Safe Yield.	

<p>2000 Peace I–Desalters start construction and pumping water</p>	<p>Early Transfers of 32,800 AFY of Ag Pool water now go to the Appropriative Pool (leaving 50,000 AFY to Ag Pool). The remaining Ag Pool water is subject to Appropriative Pool’s prioritized claims. Peace I §1.1(aa) defines New Yield to include water produced/pumped from the Desalters.</p>	<p>New Yield (with conditions) is source of water to replenish water pumped by the Desalters. Water produced/pumped by the Desalters is New Yield and sourced by induced recharge and overdraft. As New Yield, water pumped by the Desalters is not Safe Yield or Safe Operating Yield. That water is “yield” attributable to specific sources of supply not included in Safe Yield. (Watermaster’s Response to Order for Additional Briefing, page 5, line 22-23.) Therefore <b>at the time of Peace I</b> Desalter operations did not affect Safe Yield or Operating Safe Yield. Water produced/pumped by</p>
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		the Desalters <del>is</del> <b>was</b> not added to or subtracted from yield of the Basin. Water produced/pumped by the Desalters <del>has</del> <b>had</b> a separate allocation.
2007 Peace II-overdraft increased	Additional 400,000 AF above the 200,000 AF provided in the Judgment for a total of 600,000 AF.	This is a diminishing pumping allocation as the overdraft goes to 0 in 2017. Its purpose was to help establish Hydraulic Control.
Peace II Desalters	Peace II ¶7.1 requires Desalter production (defined as New Yield) excluded from the definition of Safe Yield. However, Peace II Article VI identifies offsets for Desalter production, which includes New Yield the meaning of which includes induced Recharge. (Peace I, ¶1.1(aa).)	Desalter production reaches above 20,000 AFY. Watermaster's Response to Order for Additional Briefing, Exhibit 1.

The court concludes that Peace II did not change any of the priorities for

1 claims on actual water production. Peace II addressed Desalter replenishment and  
2 production/pumping but did not affect the priorities for allocations of unproduced  
3 Ag Pool water.

4  
5  
6 **~~VI~~ V. SYRA ARTICLE 5-STORMWATER RECHARGE PLAN AND**  
7 **WATERMASTER ACCOUNTING ANALYSIS**

8 In the instant motion, Watermaster asks the court to approve 1) a stormwater  
9 recharge plan, and 2) an accounting for allocation transfers as set forth in the Safe  
10 Yield and Reset Agreement (SYRA). The court will address these proposals  
11 separately.

12 ~~A. Stormwater Recharge SYRA ¶5.1. SYRA ¶5.1 sets forth the following~~  
13 ~~provisions regarding Stormwater Recharge.~~

14 ~~5.1 Stormwater Recharge. After the Effective Date and until termination~~  
15 ~~of this Agreement, the Parties expressly consent to Watermaster's accounting~~  
16 ~~for Basin recharge arising from stormwater as follows:~~

17 ~~(a) 2001-2014 Stormwater Recharge Program. Stormwater recharge~~  
18 ~~that arises from or is attributable to the 2001-2014 Stormwater Recharge~~  
19 ~~Program shall be: (i) New Yield for the period 2001-2014 in the manner that~~  
20 ~~it has been distributed through approved Watermaster Assessment Packages;~~  
21 ~~and (ii) Safe Yield in each subsequent year. For the 2001-2014 Stormwater~~  
22 ~~Recharge Program, Watermaster shall cause no reduction against Safe Yield~~  
23 ~~requiring supplementation by the reallocation of a portion of the unproduced~~  
24 ~~Overlying (Agricultural) Pool's share of the Basin's Safe Yield.~~

25 ~~(b) Post-2014 Stormwater Recharge Projects. For the remainder of~~  
26 ~~the term of the Peace Agreement, inclusive of an extension term, if any,~~  
27 ~~stormwater recharge that arises from or is attributable to Post-2014~~  
28 ~~Stormwater Recharge Projects shall be allocated as set forth in this Paragraph~~

1 5.1(b).

2 ~~(i) Interim Accounting between Resets. For any and all Post-~~  
3 ~~2014 Stormwater Recharge Projects completed in the interim period~~  
4 ~~between subsequent Safe Yield resets, Net New Recharge attributable~~  
5 ~~to specific Post-2014 Stormwater Recharge Projects shall be New~~  
6 ~~Yield, as that term is defined in the Peace Agreement and will be~~  
7 ~~allocated based upon observed and quantified annual net increases~~  
8 ~~rather than projected future estimates of annual performance. New~~  
9 ~~Yield attributable to Post-2014 Stormwater Recharge Projects shall be~~  
10 ~~credited annually to the Project participants, in the Production Year in~~  
11 ~~which such New Yield actually arises. Post-2014 Stormwater Recharge~~  
12 ~~Project New Yield is in addition to Safe Yield and therefore by~~  
13 ~~definition it shall cause no reduction against Safe Yield requiring~~  
14 ~~supplementation by the reallocation of a portion of the unproduced~~  
15 ~~Overlying (Agricultural) Pool's share of the Basin's Safe Yield.~~

16 ~~(ii) Post-Safe Yield Reset Accounting for Post-2014~~  
17 ~~Stormwater Recharge Projects. Upon any reset of the Safe Yield after~~  
18 ~~2015, any Net New Recharge that occurs as a result of specific Post-~~  
19 ~~2014 Stormwater Recharge Projects that have been previously approved~~  
20 ~~and fully implemented at the time of the reset shall be considered as a~~  
21 ~~potential change in cultural conditions as provided in the Reset~~  
22 ~~Technical Memorandum and thereafter considered a component of the~~  
23 ~~Safe Yield, if the Post-2014 Stormwater Recharge Projects to which the~~  
24 ~~Net New Recharge is attributable have been constructed and in~~  
25 ~~operation for a minimum of five (5) years prior to the reset. The Net~~  
26 ~~New Recharge will be measured and accounted for and will be made~~  
27 ~~available exclusively to the members of the Appropriative Pool in~~  
28 ~~accordance with Paragraph 5.1(c) below. Following a reset of the Safe~~

1 ~~Yield, Post-2014 Stormwater Recharge Project recharge will be included~~  
2 ~~within Safe Yield and its separate measurement and allocation shall~~  
3 ~~cause no reduction against Safe Yield requiring supplementation by the~~  
4 ~~reallocation of a portion of the unproduced Overlying (Agricultural)~~  
5 ~~Pool's share of the Basin's Safe Yield. Moreover, Post-2014~~  
6 ~~Stormwater Recharge Projects that have been fully constructed and in~~  
7 ~~operation for less than five (5) years, or the Net New Recharge from~~  
8 ~~which is otherwise not included as a component of Safe Yield pursuant~~  
9 ~~to the Reset Technical Memorandum, will be treated "as if" the Net~~  
10 ~~New Recharge were Safe Yield for the limited and exclusive purpose of~~  
11 ~~quantifying the annual supplementation by the reallocation of a portion~~  
12 ~~of the unproduced Overlying (Agricultural) Pool's share of the Basin's~~  
13 ~~Safe Yield. Examples of how Watermaster will conduct the accounting~~  
14 ~~described in this Section 5.1(b) (ii) are included in Exhibit "B" hereto.~~

15 ~~(c) Participation in Post-2014 Stormwater Recharge Programs. The~~  
16 ~~Parties contemplate that Post-2014 Stormwater Recharge Projects, such as~~  
17 ~~those projects described in Watermaster's Court approved 2013 Amendment~~  
18 ~~to 2010 Recharge Master Plan Update, may be completed after the after the~~  
19 ~~Effective Date, as part of suites of such Projects (each suite of Projects, a~~  
20 ~~"Post-2014 Stormwater Recharge Program" and collectively, "Post-2014~~  
21 ~~Stormwater Recharge Programs"). Watermaster shall prepare an estimate of~~  
22 ~~the Net New Recharge projected to arise from or be attributable to proposed~~  
23 ~~Post-2014 Stormwater Recharge Programs. Based on this pre-approval~~  
24 ~~estimate, Watermaster shall quantify each member of the Appropriative Pool's~~  
25 ~~proportionate share of the potential Net New Recharge benefits in accordance~~  
26 ~~with its percentage of Operating Safe Yield and calculate its corresponding~~  
27 ~~capital financing obligations. Each Appropriative Pool member's~~  
28 ~~proportionate share of the potential Program Net New Recharge benefits and~~

1 corresponding financing obligations shall be referred to as its "Participation  
2 Share" in the Program. The Participation Shares in a particular Program shall  
3 remain unchanged regardless of actual Program yield. Within six months of  
4 the Effective Date, Watermaster, with the recommendation and advice of the  
5 Pools and Advisory Committee, will develop rules and regulations for the  
6 definition of Post-2014 Stormwater Programs and Participation Shares therein.

7 Any member of the Appropriative Pool may elect, in its discretion, not  
8 to participate in certain Post-2014 Stormwater Recharge Programs. In the  
9 case a member of the Appropriative Pool has cast a final vote against an  
10 approved Post-2014 Stormwater Recharge Program, then that member may  
11 elect, in its complete discretion, to opt out of its Participation Share, by  
12 providing written notice to the members of the Appropriative Pool, within  
13 ninety (90) days of the approval of the Post-2014 Stormwater Recharge  
14 Program. Notice shall be provided through a request that the election be  
15 placed on the agenda of a regularly scheduled meeting of the Appropriative  
16 Pool, and offering the other members of the Appropriative Pool the right to  
17 assume its respective Participation Share of stormwater recharge New Yield or  
18 Safe Yield attributable to the Post-2014 Stormwater Recharge Program, along  
19 with the Pool member's assumption of all applicable rights and  
20 responsibilities.

21 (i) In the event that one or more members of the  
22 Appropriative Pool voting against the approval of a Post-2014  
23 Stormwater Recharge Program elects to opt out of its Participation  
24 Share therein, each shall permanently waive and relinquish, without  
25 limitation, all right to all the benefits accruing under its Participation  
26 Share of a Post-2014 Stormwater Recharge Program;

27 (ii) An Appropriative Pool member electing to opt out of  
28 participation in a Post-2014 Stormwater Recharge Program shall be

1 assigned no further financial obligation attributable to a Participation  
2 Share in the Post-2014 Stormwater Recharge Program that was the  
3 subject of the election;

4 (iii) ~~Fontana Water Company (FWC), a member of the~~  
5 ~~Appropriative Pool, and any successor in interest thereto, shall have the~~  
6 ~~first priority and exclusive right and obligation to acquire the~~  
7 ~~Participation Shares, representing up to 2,000 AFY (cumulative~~  
8 ~~maximum) of projected annual average recharge arising from or~~  
9 ~~attributable to one or more Post-2014 Stormwater Recharge Programs,~~  
10 ~~which may be made available by one or more members of the~~  
11 ~~Appropriative Pool opting out of the Post-2014 Stormwater Recharge~~  
12 ~~Programs. If Participation Shares in Post-2014 Stormwater Recharge~~  
13 ~~Programs are available in excess of FWC's first priority right of up to~~  
14 ~~2,000 AFY under this provision, then each member of the~~  
15 ~~Appropriative Pool may elect to participate in the acquisition of the~~  
16 ~~excess Participation Shares along with its corresponding assumption of~~  
17 ~~duties associated therewith. Available Participation Shares shall be~~  
18 ~~distributed among the members of the Appropriative Pool electing to~~  
19 ~~acquire the Participation Shares, pro rata based on the total number of~~  
20 ~~members electing to acquire, including FWC. The acquisition of any~~  
21 ~~obligations and benefits pursuant to this Paragraph shall survive the~~  
22 ~~expiration of the Peace Agreement, for the life of the Post-2014~~  
23 ~~Stormwater Recharge Program, pursuant to the same terms and~~  
24 ~~conditions generally applicable to all Project Participants.~~

25 (iv) ~~FWC shall have a right of first refusal (ROFR) as to any~~  
26 ~~transfer, lease, or assignment (collectively "transfer") of any portion of a~~  
27 ~~Participation Share by any member of the Appropriative Pool until a~~  
28 ~~cumulative maximum of 2,000 AFY of Participation Shares has been~~



1           acquired by FWC. ~~Any member of the Appropriative Pool desiring to~~  
2           ~~transfer any portion of its Participation Share will provide sixty (60)~~  
3           ~~days written notice of its intention to transfer to FWC along with a~~  
4           ~~copy of any agreement and accompanied by a reasonable description of~~  
5           ~~the transfer. Upon its receipt of written notice, FWC may, in its~~  
6           ~~complete discretion, elect to match the offer and the Appropriative~~  
7           ~~Pool member providing its notice of intention to transfer must sell the~~  
8           ~~identified Participation Shares. After FWC has acquired a cumulative~~  
9           ~~total of 2,000 AFY of Participation Shares, its right to share in Post-~~  
10           ~~2014 Stormwater Recharge Programs shall be limited to the provisions~~  
11           ~~of Paragraph 5.1(c)(iii) above. FWC's ROFR, as described in this~~  
12           ~~Section 5.1(c)(iv), shall be limited only to those transfers as to which the~~  
13           ~~City of Ontario is not the proposed transferee.~~

14   B. ~~Analysis and orders re Stormwater Recharge Plan SYRA ¶5.1~~

15           ~~The court approves the Stormwater Recharge Plan as set forth in SYRA ¶5.1~~  
16           ~~and orders Watermaster and the parties to comply for the following reasons:~~

17           1. ~~There have been no objections to this aspect of SYRA.~~

18           2. ~~The court notes that the previous Court Approved Management~~  
19           ~~Agreements have not covered the aspects of stormwater recharge addressed in this~~  
20           ~~paragraph.~~

21           3. ~~The court finds that the Stormwater Recharge Plan is consisted with the~~  
22           ~~Court Approved Management Agreements.~~

23           4. ~~This method of dealing with stormwater recharge has the agreement of~~  
24           ~~the parties. There has not been any opposition to these terms of SYRA.~~

25           5. ~~There not appear to the court to be a legal or practical reason why these~~  
26           ~~provisions cannot be implemented without regard to the other terms of SYRA.~~

27           6. ~~The court recognizes that Stormwater Recharge is a necessary element~~  
28           ~~for achieving the objectives of the Court Approved Management agreements.~~

1       ~~7. The court also notes that paragraph 5.1(c) provides flexibility for future~~  
2 ~~stormwater recharge “yield enhancement” projects and a mechanism whereby~~  
3 ~~members of the Appropriative Pool can opt out.~~

4       ~~8. The court finds that Watermaster’s prior allocation and accounting for~~  
5 ~~stormwater recharge is consistent with the Court Approved Management~~  
6 ~~Agreements both before and after the Safe Yield reset.~~

7       ~~9. The stormwater recharge is consistent with the Article X Section 2 of~~  
8 ~~the California Constitution.~~

9       A. Stormwater Recharge–SYRA ¶5.1

10       1. Although there have been no objections to this aspect of  
11 SYRA, the court denies its enforcement because the court finds that  
12 SYRA’s provisions regarding anything other than they Safe Yield reset  
13 cannot be severed for the reasons set forth in Section II above.

14  
15       B. Desalter-Induced Recharge Allocations, Early Transfers, Land Use  
16 Conversion–SYRA ¶5.2 and SYRA ¶5.3.

17       1. Because these provisions are major sources or contention  
18 among the parties, the court will set them forth in their entirety.

19       SYRA ¶5.2 sets forth the following provisions regarding Desalter Induced  
20 Recharge, and SYRA ¶5.3 sets forth the following provisions regarding Post 2030  
21 Land Use Conversions and Early Transfers.

22       5.2 Desalter-Induced Recharge. After the Effective Date and until  
23 termination of this Agreement, the parties expressly consent to Watermaster’s  
24 accounting for Basin recharge arising from or attributable the Desalters as  
25 follows:

26       (a) 2001-2014 Desalter-Induced Recharge. Induced recharge that  
27 arises from or is attributable to the Desalters for the period of production  
28 years 2001-2014 shall be accounted for as Safe Yield, in the manner it has been

1 distributed through approved Watermaster Assessment Packages, shall not be  
2 considered New Yield, and shall not be considered to have been available for  
3 production by the Desalters.

4 (b) 2015-2030 Desalter-Induced Recharge. For the production years  
5 of 2015- 2030, Watermaster shall account for induced recharge that arises  
6 from or is attributable to the Desalters as equal to fifty (50) percent of the total  
7 Desalter Production during each applicable production year up to a maximum  
8 of twenty-thousand (20,000) AFY of recharge. Consistent with Paragraph  
9 6.2(a)(iii) of the Peace II Agreement, Watermaster shall deem the induced  
10 recharge as having been produced by the Desalters. During each applicable  
11 production year, Watermaster shall reduce Safe Yield by an amount equal to  
12 fifty (50) percent of the total Desalter Production, up to a maximum of  
13 twenty-thousand (20,000) AFY, and require a corresponding supplementation  
14 by the reallocation of available unproduced Agricultural Pool's share of the  
15 Basin's Safe Yield.

16  
17 Claims for reallocation of the remaining unproduced quantity of the  
18 Agricultural Pool's share of Safe Yield shall be satisfied consistent with section  
19 6.3(c) of Watermaster's Rules and Regulations, as amended as part of the  
20 Peace II Measures, and the October 8, 2010 Order Approving Watermaster's  
21 Compliance with Condition Subsequent Number Eight and Approving  
22 Procedures to be used to Allocated Surplus Agricultural Pool Water in the  
23 Event of a Decline in Safe Yield.

24 (c) 2031-2060 Desalter-Induced Recharge. Should the term of the  
25 Peace Agreement be extended pursuant to Paragraph 8.4 thereof, the  
26 treatment of Desalter-Induced Recharge shall be subject to the negotiation of  
27 a new and separate agreement among the Parties to the Judgment. The  
28 accounting provided for in Section 5.2(b), above, shall be without prejudice to

1 the negotiation of such a new and separate agreement among the Parties to the  
2 Judgment. Unless otherwise agreed by the Parties or ordered by the court,  
3 during the extension term, Watermaster shall not consider such recharge to  
4 require supplementation by the reallocation of a portion of the unproduced  
5 Agricultural Pool's share of Safe Yield.

6  
7 5.3 Post-2030 Priority among Land Use Conversion and Early Transfer  
8 Claims. At the expiration of the Peace II Agreement, the Peace II provisions  
9 relating to the distribution of surplus water by the Agricultural Pool requiring  
10 that claims for the Early Transfer of 32,800 AFY and for Land Use  
11 Conversion be treated equally are expressly repealed including (i) the  
12 amendment to Section 6.3(c) of Watermaster's Rules and Regulations,  
13 pursuant to the Peace II measures, and (ii) Section III.(6) of the October 8,  
14 2010 Order Approving Watermaster's Compliance with Condition Subsequent  
15 Number Eight and Approving Procedures to be used to Allocate Surplus  
16 Agricultural Pool Water in the Event of a Decline in Safe Yield. In any Peace  
17 Agreement extension term, the previous changes to Restated Judgment,  
18 Exhibit "H", Paragraph 10(b)(3)(i) effectuated by Paragraph 4.4(c) of the  
19 Peace Agreement, which, to the extent sufficient unallocated Safe Yield from  
20 the Agricultural Pool is available for conversion claims, allocate 2.0 acre-feet  
21 of unallocated Safe Yield water for each converted acre, shall remain in effect.

22  
23 C. The court summarizes the effect of these SYRA proposals ¶5.2 and ¶5.3 as  
24 follows:

Ag Pool water		Comments
1995 Judgment amendment	82,800 AFY of the Ag Pool's water available to the Appropriate Pool with	

1		Appropriative Pool claims	
2		prioritized as follows:	
3		(1) to supplement, and the	
4		particular year, water	
5		available from Operating	
6		Safe Yield to compensate for	
7		any reduction in the Safe	
8		Yield by reason of	
9		recalculation thereof after	
10		the tenth year of operation	
11		hereunder.	
12		(2) pursuant to conversion	
13		claims as defined in	
14		Subparagraph (b) hereof.	
15		(3) as a supplement to	
16		Operating Safe Yield,	
17		without regard to reductions	
18		in Safe Yield.	
19	2000 Peace I—	Early Transfers of 32,800	New Yield (with
20	Desalters start	AFY of Ag Pool water now	conditions) is source of
21	construction and	goes to the Appropriative	water to replenish water
22	pumping water	Pool (leaving 50,000 AFY to	pumped by the
23		Ag Pool). The remaining Ag	Desalters. Therefore
24		Pool water is subject to	Desalters do not affect
25		Appropriative Pool's	Safe Yield or Operating
26		prioritized claims.	Safe Yield. Water
27			produced/pumped by
28			the Desalters is not

		added to or subtracted from Safe Yield or Operating Safe Yield of the Basin.
2007 Peace II-overdraft increased	Additional 400,000 AF above the 200,000 AF provided in the Judgment for a total of 600,000 AF.	This is a diminishing pumping allocation as the overdraft goes to 0 in 2017.
SYRA proposal: (see column to right for <i>Steps 1-3</i> ): <i>Step 4</i> : SYRA ¶5.2(b) subtracts 50% of total Desalter production up to 20,000 AFY from Ag Pool Water and then adds that 50% of total Desalter production up to 20,000 AFY to Safe Yield (to make up for the subtraction in <i>Step 3</i> ).*	SYRA proposal <i>Step 1</i> : The Desalter production/pumping up to 20,000 AFY is allocated to the Desalters, not as Safe Yield or Safe Operating Yield [or New Yield]. <i>Step 2</i> : Under SYRA ¶5.2(b) one-half of the source of Desalter production up to 20,000 AFY is attributed to “Desalter-induced recharge.” Desalter-induced Recharge means water flowing back into the Basin from the Santa Ana River. <i>Step 3</i> : SYRA then subtracts the other half of Desalter production up to 20,000 AFY from Safe Yield.	

**Additional SYRA Effects: *Step 5*** (see above for *Steps 1-4*)

The Ag Pool water allocation is reduced by up to 20,000 AFY for the Desalters. SYRA is unclear where the priority lies with respect to priority of allocation as required by Judgment Exhibit “H” Paragraph 10. The court orders that those priorities must be followed. Because the court has ordered that those priorities be followed, court concludes that it cannot order these provisions of SYRA in addition to SYRA’s not being severable. At best SYRA is ambiguous with respect to following the priorities set by the Judgment and the Court Approved Management Agreements. At worst, SYRA contradicts them.

\*So, the court concludes that previous to SYRA, the Desalter water ~~was considered to have its own source (Desalter-Induced Recharge and/or overdraft) and its own production allocation (New Yield)~~ production/pumping could be offset from a prioritized list of sources including New Yield (induced recharge). Now under SYRA:

1) All of the induced recharge gets allocated to water produced/pumped by the Desalters.

2) Watermaster reduces Safe Yield by 50% of the Desalter production up to 20,000 AFY.

3) Then, Watermaster adds to Safe Yield 50% of the Desalter production up to 20,000 AFY, from water allocated to the Ag Pool, to make up for (aka backfill) the reduction in Safe Yield allocated to Desalter production.

4) This means that the availability of Ag Pool water goes down and thereby the availability of unproduced Ag Pool water for the priorities set forth in the Judgment and the Court Approved Management Agreements. The priorities are also set forth in Watermaster Rules and Regulations ¶6.3(a).

5) Elaborating on Example 1-A from Section V.B.2 IV.B.5 of this order above, the court’s analysis is as follows

Example 1-B	Explanation	Comment
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Initial Ag Pool allocation	82,800 AFY	Judgment
Ag Pool production/pumping	- 33,600 AFY	Assumption based the current credited production (pumping) for agricultural groundwater is about 33,600 AFY, but that includes agricultural land irrigated with reclaimed water. [The actual groundwater production for agricultural purposes is about 22,000 AFY. Jurupa Services District's response to Judge Reichert's Request for Clarification, March 22, 2016 page 2, lines 8–10.]
Initial balance after production	49,200 AFY	82,800 acre-feet – 33,600 acre-feet = 49,200 acre-feet
Conversion claims	- 2000 acre-feet	Assumption: The subtraction for satisfying conversion claims before any reallocation. (1000 acres x 2.0 acre feet of water/one acre converted = 2000 acre-feet).
Balance:	47,200 AFY	49,200 acre-feet - 2000 acre-feet = 47,200 acre-feet. Ag Pool Water available after conversion priority claims pursuant to Judgment Exhibit "H" Paragraph 10



Reduction for Early Transfers	- 32,800 AFY	Basic Early Transfer from 82,800 AFY allocation leaving 50,000 AFY for the Ag Pool itself to produce/pump and for additional claims by the Appropriative Pool pursuant to Peace I and Peace II.*
Balance	14,400 AFY	(47,200 acre-feet - 32,800 acre-feet = 14,400 acre-feet. This is the Ag Pool water available for reallocation to Appropriative Pool after subtraction of conversion priority claims of 2,000 acre-feet from and the 32,800 Early Transfer of unproduced/unpumped from the allotment of Ag Pool water.

Now, to examine the effect of SYRA on the Appropriative Pool:

Starting balance available Ag Pool water	14,400 AFY	Total Ag Pool water available for production/pumping from the example above
Desalter reallocation	- 20,000 AFY	SYRA Desalter reallocation: 20,000 AFY of Desalter production is allocated from Ag Pool water to Safe Yield.
Balance:	- 5,600 AFY	A negative amount. This plausible scenario assumes 2,000

		<p>AFY of conversion claims. The negative balance shows that this scenario under SYRA would not leave sufficient Ag Pool water for that amount of conversion claims. In order to meet conversion claims and Early Transfer allocations, the Ag Pool would only be able to produce/pump 26,000 AFY, well below their current credited pumping. Calculation follows:</p> $82,800/\text{initial allocation}$ $- 26,000/\text{pumped} = 56,800$ $56,800 - 2,000/\text{conversion claims} = 54,800$ $54,800 - 32,800/\text{Early Transfer} = 20,000$ $20,000 - 20,000/\text{Desalter reduction from Ag Pool Allocation} = 0$
--	--	---

The court concludes that there is no basis in the Judgement or any of the Court Approved Management Agreements for the post SYRA result identified in the plausible scenario above.

D. Further Analysis and orders:

1. In addition to SYRA's not being severable, the court denies Watermaster's motion with respect to the implementation of ¶5.2 and ¶5.3 of SYRA

1 for the following reason:

- 2 a) The court concludes that SYRA paragraphs 5.2 and 5.3 fundamentally  
3 change the allocations of Appropriative Pool and of Ag Pool water.  
4 Those fundamental changes are inconsistent with the Judgment and the  
5 Court Approved Management Agreements
- 6 b) Peace I and Peace II both define Desalter production as within the  
7 definition of New Yield and therefore outside of the definition of Safe  
8 Yield. Through a several step re-allocation reassignment described  
9 above and summarized in this section of the court's order, SYRA now  
10 moves Desalter production into Safe Yield. The parties have not  
11 demonstrated any legal ~~or practical requirement~~ basis which allows this.  
12 Peace I and Peace II prohibit this.
- 13 c) The court concludes that Peace II Agreement Paragraphs 6.2(a)(iii) and  
14 7.1 provide that through 2030 (the initial term of Peace I Agreement as  
15 set forth in ¶8.2) recharge attributable to the Desalters is allocated for  
16 Desalter Production and not allocated as Safe Yield producible (*i.e.*,  
17 water available to be pumped without a replenishment obligation by  
18 purchase or otherwise).
- 19 I) Peace II ¶7.1 excluded New Yield attributable to the Desalters from  
20 a determination of Safe Yield, at least for the 30 year term of Peace  
21 Agreement.
- 22 II) Peace I ¶1.1(aa) defines New Yield to include induced recharge.
- 23 (a) The court finds that induced recharge includes Desalter-  
24 induced recharge.
- 25 III) The court finds that Peace I ¶7.5 defines replenishment water for  
26 the Desalters includes New Yield, but not Safe Yield.
- 27 IV) The court finds that Peace II ¶7.1 states that no party can  
28 incorporate New Yield attributable to the Desalters into Safe Yield.

1 (a) In contradiction to Peace I and Peace II, SYRA ¶5.2(a)  
2 explicitly defines Desalter-induced recharge as Safe Yield, in  
3 contradiction to Peace I and Peace II.

4 V) In contradiction to the Peace I and Peace II, the court finds that  
5 SYRA attempts to incorporate New Yield from the Desalters into  
6 Safe Yield through the accounting method of 1) taking Desalter  
7 induced yield water coming from Desalter-induced recharge, then 2)  
8 moving that water into Safe Yield, then 3) backfilling Safe Yield  
9 from unproduced Ag Pool water.

10 (a) This is an unacceptable circumvention of the court's  
11 orders based on Peace I and Peace II.

12 d) The analysis above shows that these SYRA provisions are contrary to  
13 the Judgment and the Court Approved Management Agreements,  
14 specifically Peace I and Peace II. These **SYRA** provisions can prevent  
15 the application of the Judgment provisions regarding conversion claims.  
16 They are invalid.

17 e) There is no basis in the Judgment or the Court Approved Management  
18 Agreements for the attribution of water production from Desalters into  
19 the definition of Safe Yield.

20 f) There is no basis in the Judgment or any of the Court Approved  
21 Management Agreements for the splitting and reallocation of Desalter  
22 production/pumping to one-half to Desalter-induced recharge and one-  
23 half to Safe Yield.

24 g) There is no basis in the Judgment or any of the Court Approved  
25 Management Agreements to reallocate Ag Pool water to Safe Yield to  
26 make up for the Safe Yield reallocated to the Desalters.

27 h) Due to the Desalters, there is now recharge coming from the Santa Ana  
28 River back into the Chino Basin. SYRA Paragraph 5.2(b) takes the

1 Peace I and Peace II agreements one step—wrongfully—farther by  
2 identifying how this recharge quantity will be estimated, *i.e.*, 50% of  
3 Desalter Production, and then further specifies that amount of recharge  
4 will be allocated to Desalter production and not to the parties as part of  
5 their allocation of the Safe Yield. There is no legal basis in the  
6 Judgment or the Court Approved Management Agreements for this  
7 redefinition of Safe Yield to include of 50% of Desalter Production up  
8 to 20,000 AFY through a mechanism of passing the amounts through  
9 the Appropriative Pool allocation.

- 10 i) SYRA attempts now to remove the special exception for New Yield  
11 from Desalter induced recharge and production and incorporate it into  
12 Safe Yield. The mechanism by which SYRA attempts to do this is by 1)  
13 taking half of the Desalter production and sourcing that  
14 production/pumping from Desalter induced recharge from the Santa  
15 Ana River and 2) sourcing the other half from the Appropriative Pool  
16 through unproduced Ag Pool water. The court concludes and finds  
17 that this attempt is not justified because it can interfere with the priority  
18 of claims on unproduced Ag Pool water set forth in the judgment and  
19 the Court-Approved Management Agreements.

- 20 I) The court notes that Peace II, Article VII-Yield Accounting,  
21 ¶7.2(d) discusses a contingency if Western Municipal Water  
22 District (WMWD) and the Appropriative Pool “do not reach  
23 agreement on apportionment of controlled overdraft of  
24 Future Desalters, then no later than August 31, 2009, the  
25 members of the Appropriative Pool will submit a plan to  
26 Watermaster that achieves the identified goals of increasing  
27 the physical capacity of the Desalters and potable water use  
28 of approximately 40,000 acre-feet of groundwater

1 production from the Desalters from the Basin no later than  
2 2012."

3 II) The court concludes that the Desalter production of 40,000  
4 acre-feet has been under discussion since Peace II in 2007.

5 III) However, the court cannot accept the resolution set forth  
6 in SYRA for the reasons stated in this order.

7 j) SYRA ¶5.2 and ¶5.3 contradict and conflict with Peace I and Peace II.

8 I) Peace II ¶7.1 requires neither Watermaster nor the parties to request  
9 that safe yield be recalculated in a manner that incorporates New  
10 Yield *attributable to the Desalters* into the determination of Safe Yield  
11 so that this source of supply will be available for Desalter  
12 Production rather than for use by individual parties to the judgment.  
13 (Emphasis in original.)

14 II) SYRA now includes New Yield in the determination of Safe Yield in  
15 two ways.

16 (a) First, SYRA takes up to 20,000 AFY away from Safe Yield  
17 through Desalter Production.

18 (b) Second, SYRA adds back up to 20,000 AFY to Safe Yield  
19 from unproduced Ag Pool water.

20 (c) The net change to Safe Yield is 0, but available Ag Pool water  
21 for allocation is reduced up to 20,000 AFY. This re-allocation  
22 and re-accounting, is not justified or supported in the Peace I,  
23 Peace II, Watermaster Rules and Regulations, or the court's  
24 orders of implementation, the Judgment, or the CAMAs.

25 (d) The following chain shows SYRA's violations of the  
26 previous orders:

27 (i) Desalter-induced recharge is New Yield. (Peace  
28 ¶1(aa).)

- (ii) Peace II ¶7.1 prevents New Yield from being incorporated within Safe Yield.
- (iii) SYRA moves 20,000 AFY of Desalter-induced recharge to the Ag Pool.
- (iv) Then SYRA moves the 20,000 of Desalter-induced recharge (now characterized as Ag Pool Water) into Safe Yield.
- (v) Therefore, SRYA recalculates Safe Yield to incorporate New Yield in violation of Peace II ¶7.1
- (vi) Moving the 20,000 AFY of Desalter-induced Recharge through the portal of the Ag Pool water does not change its definition of New Yield.

k) The court does not find a legal ~~or factual basis~~ for determining a post-2030 priority among land use conversion and early transfer claims. The priority is set forth in the judgment and as specified in this order

l) In addition to SYRA's not being severable, the court's 2010 order does not require the implementation of ¶5.2 or ¶5.3.

Section III.(6) of the October 8, 2010 order states:

Watermaster is ordered to utilize the procedures regarding the re-allocation of surplus Agricultural Pool water the event of a decline in Safe Yield as described in the December 2008 staff report and the December 4, 2008 memorandum from legal counsel. Specifically, in the event that Operating Safe Yield is reduced because of a reduction in Safe Yield, Watermaster will follow the hierarchy provided for in the Judgment, exhibit "H," by first applying the unproduced Agricultural Pool water to

1 compensate Appropriative Pool members for the reduction in  
2 Safe Yield. (Judgment, Exhibit “H,” paragraph 10 (a).) If there  
3 is unallocated water left, Watermaster will then follow the  
4 remainder of the hierarchy and reallocate unallocated Agricultural  
5 Pool water next to conversion claims then to supplement the  
6 Operating Safe Yield without regard to reductions in Safe Yield  
7 according to the guidance provided by Peace Agreement I & II  
8 and Watermaster’s rules and regulations as amended. If, after  
9 applying the unallocated Agricultural Pool water to compensate  
10 the Appropriate Pool members for the reduction in Safe Yield,  
11 the actual combined production from the Safe Yield made  
12 available to the Agricultural Pool, which includes overlying  
13 Agricultural Pool uses combined with land use conversions and  
14 the Early Transfer, exceeds 82,800 in any year, the amount of  
15 water available to members of the Appropriative Pool shall be  
16 reduced pro rata in proportion to the benefits received according  
17 to the procedures outlined in Watermaster Rules and  
18 Regulations.

19 I) In considering the reference to Watermaster Rules and  
20 Regulations in the preceding paragraph, **if the order is vague**, the  
21 court now ~~considers the order vague~~ **clarifies it**. In the instant order,  
22 the court has clarified that Watermaster must follow the priorities set  
23 forth in the Judgment for allocations of unproduced Ag Pool water.

24 II) The court has the continuing jurisdiction to interpret and apply  
25 its previous orders in light of changing circumstances. In light of the  
26 instant motion, the court is doing so.

27 III) JCSD correctly points out that pursuant to the Judgment  
28 ¶15 the court is authorized “to make such further or supplemental



1 orders or directions as may be necessary or appropriate for  
2 interpretation, enforcement or tearing out of this judgment ... .”

3 IV) Because there has not been a reset in Safe Yield, the court  
4 does not find that there has been a detrimental reliance on the court’s  
5 October 8, 2010 Order. This would not be the first time that the  
6 court’s orders and interpretations thereof have the subject of further  
7 litigation.

8 V) Watermaster’s further response to order for additional briefing,  
9 filed April 11, page 3, lines 15-19 states:

10 Both responses provided by the City of Chino and JCSD omit  
11 the key fact: Section 6.3(c) Watermaster Rules and Regulations,  
12 as amended pursuant to Peace II measures provides that water  
13 unused by members of the Agricultural Pool shall be divided  
14 equally between Land Use Conversions and Early Transfers. The  
15 Court’s October 8, 2010 Order provides that this shall be done  
16 even if the safe yield declines. For the first time, approximately  
17 five years following this Order, the City and JCSD would set it  
18 aside and thereby unwind accounting, court approvals, and  
19 agreements impliedly if not expressly made in reliance thereon.

20 m) No party has offered any specific detriment that would occur from the  
21 court’s instant orders regarding the priorities.

22 n) Watermaster is relying on its own interpretation of its own rules and  
23 regulations which the court does not accept for the reasons set forth  
24 herein. The court has clarified its October 8, 2010 Order.

25 I) Watermaster cannot use its own interpretations of the  
26 court’s orders to contradict the court’s interpretation. The final  
27 decision is the court’s, not Watermaster’s.

28 II) If there is any ambiguity that Watermaster finds ~~The court finds~~

1 also that in the current circumstances for the application of that Order  
2 III.(6) ~~is may also be ambiguous~~ the court clarifies it now. SYRA's  
3 reference to that order's provision does not help in its clarification or  
4 application.

5 III) Watermaster argues that "in the event that Operating Safe  
6 Yield is reduced because of a reduction in Safe Yield, Watermaster will  
7 follow the reallocation hierarchy provided for in the Appropriative Pool  
8 Pooling Plan by first applying the unallocated Ag Pool water to  
9 compensate the Appropriate Pool members for the reduction in safe  
10 yield. (Restated Judgment, exhibit "H), paragraph 10 (a).) If, thereafter,  
11 there is unallocated water left, Watermaster then followed the  
12 remainder of the hierarchy and reallocate unallocated agricultural Pool  
13 water next to land use conversion claims and Early Transfer, and then  
14 to supplement the Operating Safe Yield without regard reductions in  
15 safe yield." (Watermaster's Reply to Oppositions to Motion regarding  
16 2015 Safe Yield Recent Agreement, Amendment Restated Judgment,  
17 Paragraph 6, page 24, lines 7-14.)

18 IV) This argument equates land use conversion claims and  
19 Early transfer claims. This argument is incorrect for the reasons stated  
20 herein. Additionally:

21 (a) The court's order filed October 8, 2010, paragraph III.(6)  
22 ~~actually states~~ is quoted in full in section "I" above:

23 ~~Watermaster is ordered to utilize the procedures regarding the~~  
24 ~~re-allocation of surplus Agricultural Pool water in the event of~~  
25 ~~a decline in Safe Yield as described in the December 2008~~  
26 ~~staff report and December 4, 2008 memorandum from legal~~  
27 ~~counsel. Specifically, in the event that the Operating Safe~~  
28 ~~Yield is reduced because of a reduction in Safe Yield,~~

1                   ~~Watermaster will follow the hierarchy provided for in the~~  
2                   ~~Judgment, Exhibit "H," by first applying the unallocated~~  
3                   ~~Agricultural Pool water to compensate the Appropriate Pool~~  
4                   ~~members for the reduction in Safe Yield. (Judgment, Exhibit~~  
5                   ~~"H," Paragraph 10(a).) If there is unallocated water left,~~  
6                   ~~Watermaster will then follow the remainder of the hierarchy~~  
7                   ~~and reallocate unallocated Agricultural Pool water next to~~  
8                   ~~conversion claims then to supplement Operating Safe Yield~~  
9                   ~~without regard to reductions in Safe Yield according to the~~  
10                  ~~guidance provided by Peace Agreement I & II and~~  
11                  ~~Watermaster's Rules and Regulations as amended. If, after~~  
12                  ~~applying the unallocated Agricultural Pool water to~~  
13                  ~~compensate the Appropriate Pool members for the~~  
14                  ~~reduction in Safe Yield, the actual combined production from~~  
15                  ~~the Safe Yield made available to the Agricultural Pool, which~~  
16                  ~~includes overlying Agricultural Pool uses combined with land~~  
17                  ~~use conversions and the early transfer, exceeds 82,800 in any~~  
18                  ~~year, the amount of water available to members of the~~  
19                  ~~Appropriate Pool shall be reduced pro rata in proportion to~~  
20                  ~~benefits received according to the procedures outlined in the~~  
21                  ~~Watermaster Rules and Regulations.~~

22                  (b) This paragraph III.(6) provides no basis to equate land use  
23                  conversions and Early Transfers. The specific language of the  
24                  order requires Watermaster to follow the hierarchy in Judgment,  
25                  Exhibit "H" which does not include, or even mention, Early  
26                  Transfers. Early transfers were an aspect of Peace I, and the  
27                  court has interpreted and ordered the hierarchy to require  
28                  conversion claims to have priority over Early Transfer claims.

- 1 o) **Additionally**, the court rejects and denies the implementation of SYRA  
2 ¶5.3 specifically because, as with SYRA ¶5.2, this provision has the  
3 same problems of interpretation of the court's 2010 Order Approving  
4 Watermaster's Compliance with Condition Subsequent Number Eight  
5 and Approving Procedures to be used to Allocate Surplus Agricultural  
6 Pool Water in the Event of a Decline in Safe Yield.
- 7 p) Watermaster's erroneous interpretation of the order of priorities is not a  
8 basis to continue that erroneous interpretation. If Watermaster has to  
9 make a reallocation, then it must do so in order to follow the court's  
10 order. A wrong practice can be long-standing, and still be wrong. A  
11 wrong practice cannot be a basis of prejudice.
- 12 q) The court rejects any argument that this issue is subject to issue  
13 preclusion. The specific issues raised by the oppositions to the motion  
14 have not been specifically addressed by the court. They are not barred  
15 by laches. The issues have been timely raised within the context of the  
16 instant motion, and the court always retains jurisdiction to modify its  
17 orders as those orders are drawn to the attention of the court, and the  
18 court determines they require modification for the reasons set forth in  
19 this order.

20  
21 D. Dispute re priority of claims

22 A dispute has arisen concerning the priority of claims. The dispute concerns  
23 the priority of allocation claims to unproduced/unpumped Ag Pool water. The 1978  
24 Judgment, Exhibit "H," Paragraph 10 was very specific as set forth in section A of  
25 this ruling above. For convenience, it is repeated here.

26 Paragraph 10 described "Unallocated Safe Yield Water" as follows:

27 To the extent that, in any 5 years, any portion of the share of Safe Yield  
28 allocated to the Overlying (Agricultural) Pool is not produced, such

1 water shall be available for reallocation to members of the  
2 Appropriative Pool as follows:

3 (a) Priorities. Such allocation shall be made in the following sequence:

4 (1) to supplement, and the particular year, water available from  
5 Operating Safe Yield to compensate for any reduction in the Safe Yield  
6 by reason of recalculation thereof after the tenth year of operation  
7 hereunder.

8 (2) pursuant to conversion claims as defined in Subparagraph (b)  
9 hereof.

10 (3) as a supplement to Operating Safe Yield, without regard to  
11 reductions in Safe Yield.”

12 Confusion has arisen with respect to the relationship between the Judgment,  
13 Exhibit “H,” Paragraph 10 on the one hand, and Watermaster Rules and Regulations  
14 ¶6.3(a) on the other. Watermaster Rules and Regulations ¶6.3(a) states as follows:

15 Accounting of Unallocated Agricultural Portion of Safe Yield. In each  
16 year, the 82,800 acre-feet being that portion of the Safe Yield Made  
17 available to the Agricultural Pool under the Judgment, shall be made  
18 available:

19 (i) To the Agricultural Pool to satisfy all demands for overlying  
20 Agricultural Pool lands;

21 (ii) To land-use conversions were completed prior to October 1,  
22 2000;

23 (iii) To land use conversions that have been completed after October  
24 1, 2000; and

25 (iv) To the Early Transfer of 32,800 acre-feet from the Agricultural  
26 Pool to the Appropriative Pool in accordance with their pro-rather  
27 assigned share of Operating State Yield.

28 The confusion arises because Watermaster Rules and Regulation ¶6.3(a) does

1 not explicitly confirm the priority of allegations set forth in the Judgment and as  
2 ordered by the court.

3 Chino has argued that

4 [T]he members of the Appropriative Pool have received the right to  
5 participate in annual allocations of the Unproduced Agricultural Pool  
6 Water instead of every five years called "Early Transfers" (Paragraph  
7 5.3(f-g), Peace Agreement) and the right to an equal priority of Early  
8 Transfers with Land Use Conversion Claims, which have a higher  
9 priority under the Judgment, in order to maximize the amount of their  
10 Early Transfer water to the appropriators do not have Land Use  
11 Conversion Claims. (Paragraph 3.1(a)(i) and Attachment "F", Peace II  
12 Agreement). City of Chino's Opposition Watermaster Motion  
13 regarding 2015 Safe Yield Reset Agreement, Amendment of Restated  
14 Judgment, Paragraph 6, page 13, lines 19-25.

15 Attachment "F" refers to the Watermaster Rules and Regulations 6.3(c). As  
16 stated above, the court finds Watermaster Rules and Regulations 6.3(c) ambiguous.

17 The court finds that the Judgment must govern and take priority and  
18 precedent for the interpretation of any Watermaster rule or regulation, including  
19 Watermaster Rules and Regulations 6.3(c).

20  
21 **At this time, the court additionally orders as follows:**

22 A. The order of priorities set forth in the Judgment, Exhibit "H," Paragraph  
23 10 must be followed; and

24 B. Watermaster Rules and Regulations ¶ 6.3, and particularly ¶¶6.3(a) and (c),  
25 are to be interpreted to follow the priorities set forth in Judgment, Exhibit "H,"  
26 Paragraph 10. In particular, **the court orders** conversion claims are to receive a  
27 higher priority than Early Transfer claims for the following reasons:

28 (1) The conversion claims are set forth in the judgment;

1 (2) Early Transfer claims were a creation of Peace I;

2 (3) Early Transfer claims did not affect the priority of claims set forth in  
3 the judgment;

4 (4) Early Transfer claims were ordered after the judgment and so must  
5 be considered subordinate to the original terms of the judgment.

6 (5) The parties to Peace I made their agreement in the context of the  
7 judgment and therefore used the Judgement priorities as a basis for additional  
8 allocations of Ag Pool water.

9  
10 **¶ VI. SAFE STORAGE MANAGEMENT MEASURES**

11 A. Through the facilitation and nondisclosure agreement (FANDA) Watermaster  
12 attempted to facilitate an agreement among all parties avoid an accelerated  
13 cumulative draw on Excess Carry Over stored water in order to avoid undue risks.  
14 SYRA had provisions to establish a mechanism for a safe storage reserve of 130,000  
15 AF of water in the non-Supplemental Water storage accounts of the members of the  
16 Appropriative Pool as a reserve sufficient to protect the Basin. However, the  
17 concern for basin protection was balanced with temporary needs in the event of an  
18 emergency or to support Desalter Replenishment. Up to 100,000 AF could be  
19 accessed in the event of an emergency subject to conditions

- 20 a) The plan which Watermaster attempted to facilitate is identified in  
21 SYRA as “the safe storage reserve and safe storage management plan”  
22 or the safe storage management measures (SSMM).  
23 b) The City of Chino (Chino) has the largest component of Excess Carry-  
24 Over water and was the most significantly affected party.  
25 c) Chino refused to agree to SSMM.

26  
27 B. The court rejects the adoption of the Safe Storage Management Measures set  
28 forth in the SYRA Article 6. The court is not going to set forth the provisions of

1 SYRA Article 6 because the court is rejects the article as a whole.

2  
3 C. The court rejects Article 6 of SYRA for the following reasons:

4 1. **SYRA is not severable as set forth above.**

5 2. Watermaster states that access to safe storage in the short term is  
6 extremely remote.

7 3. The volume in stored water accounts of Appropriative Pool members is  
8 about 357,000 AF as of June 30, 2014.

9 4. The Judgment Parties presently lack the infrastructure capability (wells  
10 and pipelines) that would produce the quantity of water from storage that would  
11 trigger production from the safe storage reserve that is identified in SYRA.

12 5. Article 6 is essentially a statement of intent without specificity of  
13 implementation. The court refuses to consider or authorize an inchoate plan.

14 a) Although Watermaster argues that the Safe Storage Management  
15 Agreement provisions are still subject to “stakeholder process get to be  
16 initiated” (Watermaster’s Reply to Oppositions to Motion regarding  
17 2015 Safe Yield Reset Agreement, Amendment of Restated Judgment,  
18 Paragraph 6, page 1, line 18), the court does not approve policy  
19 statements and therefore rejects any implementation.

20 6. The Safe Storage Technical Memorandum (Exhibit E to the motion)  
21 does not set forth a factual basis for the court to order the parties to proceed with  
22 the provisions of Article 6. While the memorandum states that the SSMM will not  
23 cause Material Physical Injury or undesirable results, the memorandum does not  
24 include that the SSMM are essential to the OBMP.

25 ~~a) However, the court encourages the parties to continue to negotiate~~  
26 ~~SSMM, and notwithstanding this ruling, the court of course reserves the~~  
27 ~~option to revisit the plan set forth in Article 6 or similar storage~~  
28 ~~management plans.~~



1           7.     The court notes that from 2000 to 2014, the short-term actual measured  
2 net recharge was less total rights allocated to the judgment Parties by as much as  
3 130,000 AF.

4           a)     From this the court concludes that during this period from 2000 to  
5 2014, after offsets for production, there was recharge to the basin in  
6 excess of what water was actually produced by as much as 130,000 AF.

7           b)     This recharge was accounted for in the storage of Excess Carry-Over  
8 water.

9           ~~c)     The court finds that Watermaster was not biased in its facilitation for~~  
10 ~~the SYRA.~~

11          8.     The court does not reach the arguments of Chino that the SSMM  
12 constitutes a “taking”.

13          9.     The safe storage measures are not required by the physical solution of  
14 the Judgment, Peace I, Peace II, the court approved management agreements, the  
15 OBMP, the court orders of implementation, or Article X, section 2 of the California  
16 Constitution.

## 17 18 19 **VII. The Safe Yield Reset and Ag Pool Water: Recalculation**

20 **A.     The court finds that the Safe Yield reset to 135,000 AFY is a**  
21 **“recalculation” within the definition of Judgment, Exhibit “H” ¶10.**

22          1.     SYRA used the term “reset” to describe lowering the Safe Yield to  
23 **135,000 AFY.**

24          a)     Now that the court has rejected all of SYRA except the lowering of  
25 Safe Yield to 135,000 AFY, the court finds that “reset” is a legally  
26 unjustified and legally incorrect term for describing the lowering the  
27 Safe Yield to 135,000 AFY. For the reasons stated herein, the court  
28 finds that lowering the Safe Yield to 135,000 is a recalculation

1 within the definition of Judgment, Exhibit “H” ¶10(a)(1). For the  
2 rest of this order, the court will correctly use the term recalculation  
3 for lowering the Safe Yield from 140,000 AFY to 135,000 AFY.

4 b) Wildermuth himself calls it a recalculation. Exhibit 1 to his  
5 declaration is entitled Declaration of Mark Wildermuth-2013 Chino  
6 Basin Groundwater Model Update and *Recalculation* of Safe Yield  
7 Pursuant to all the Peace Agreements. [Emphasis added.]

8 c) The recalculation to 135,000 is pursuant to the “tenth year” of  
9 operation evaluation required by the Judgment.

10 d) Watermaster and the City of Ontario argue to the contrary, but the  
11 “reset” lowering of Safe Yield fits any ordinary definition of the  
12 word “recalculation.”

13 I) The whole point of the SYRA motion, related motions, and series  
14 of hearings has been for the court to determine how to integrate  
15 the reduction of the Safe Yield from 140,000 AFY to 135,000  
16 AFY. The court finds this reduction to be a recalculation of the  
17 Safe Yield into the current reality of the Chino Basin.

18 (a) In the context of SYRA, the use of the term “reset” might  
19 have made some legal sense. However, now that the court  
20 has rejected everything but the reduction, the label “reset”  
21 has no basis in fact or law.

22 II) The court cannot find any other way to reconcile these  
23 provisions and their interpretations while keeping the ruling  
24 consistent with reality. The reduction in Safe Yield is a  
25 recalculation, no matter how subtle the attorneys’ arguments  
26 are.

27 2. Therefore, the court finds and orders that the first 5,000 AFY of any  
28 unproduced Ag Pool water now has a top priority over any other claims, such as

conversion claims and early transfers, and that 5,000 AFY of Ag Pool water be allocated to Operating Safe Yield pursuant to Judgment Exhibit H ¶10(a).

a) This 5,000 AFY has top priority because it is part of the Judgment.

b) To further illustrate the court's orders, based on the tables in sections IV.B.5 and V.D.5 above

Example 1-B	Explanation	Comment
Initial Ag Pool allocation	82,800 AFY	Judgment
Subtract 5,000 AFY	- 5,000	Safe Yield recalculation reduction pursuant to Judgment Exhibit H ¶10
Ag Pool production/pumping	- 33,600 AFY	Assumption based the current credited production (pumping) for agricultural groundwater is about 33,600 AFY, but that includes agricultural land irrigated with reclaimed water. The actual groundwater production for agricultural purposes is about 22,000 AFY. Jurupa Services District's response to Judge Reichert's Request for Clarification, March 22, 2016 page 2, lines 8–10.]
Initial balance after production and reset	44,200 AFY	82,800 acre-feet – 5,000 - 33,600 acre-feet = 44,200 acre-feet

<b>Conversion claims</b>	<b>- 2000 acre-feet</b>	<b>Assumption: The subtraction for satisfying conversion claims before any reallocation. (1000 acres x 2.0 acre feet of water/one acre converted = 2000 acre-feet).</b>
<b>Balance:</b>	<b>42,200 AFY</b>	<b>44,200 acre-feet - 2000 acre-feet = 42,200 acre-feet. Ag Pool Water available after conversion priority claims pursuant to Judgment Exhibit "H" Paragraph 10</b>
<b>Reduction for Early Transfers</b>	<b>- 32,800 AFY</b>	<b>Basic Early Transfer from 82,800 AFY allocation leaving 50,000 AFY for the Ag Pool itself to produce/pump and for additional claims by the Appropriative Pool pursuant to Peace I and Peace II.</b>
<b>Balance</b>	<b>9,400 AFY</b>	<b>(42,200 acre-feet -32,800 acre-feet = 14,400 acre-feet. This is the Ag Pool water available for reallocation to Appropriative Pool after subtraction of the recalculation reallocation, the conversion priority claims of 2,000 acre-feet from and the 32,800 Early Transfer of</b>

		unproduced/unpumped from the allotment of Ag Pool water.
--	--	---

**VIII. Safe Yield Reset and Desalter-Induced Recharge**

The court concludes and orders that Desalter-Induced Recharge is only to be applied to offset Desalter production. ~~However, the court also orders that Desalter production is limited to 20,000 AFY for the term of Peace I.~~ The court's analysis involves going back to the basics of the judgment and the Peace Agreements.

**A. The Revised Judgment**

1. The Judgment ¶I.4.(x) defines "Safe Yield" as "the long-term average annual quantity of groundwater . . . which can be produced from the Basin under cultural conditions of a particular year without causing an undesirable result."

2. The Judgment ¶I.4.(l) defines "Operating Safe Yield" as "the annual amount of water which Watermaster shall determine, pursuant to the criteria specified in Exhibit "I", can be produced from Chino Basin by the Appropriative Pool parties free of replenishment obligation under the Physical Solution herein.

a) Exhibit "I" is the Engineering Appendix which has come to include the definitions of Hydraulic Control, Re-Operation water, and Desalter production.

3. Judgment Exhibit "H" ¶I10 Unallocated Safe Yield Water states: "to the extent that, in any five years, any portion of the share of Safe Yield allocated to the Overlying (Agricultural) pool is not produced, such water shall be available for reallocation to members of the appropriative pool, as follows:

1 (a) Priorities.—Such allocation shall be made in the following  
2 sequence:

3 (1) to supplement, in the particular year, water available  
4 from Operating Safe Yield to compensate for any reduction in the  
5 Safe Yield by reason of recalculation thereof after the tenth year of  
6 operation hereunder.

7 (2) pursuant to conversion claims as defined in Subparagraph  
8 (b) hereof.

9 (3) as a supplement to Operating Safe Yield, without regard  
10 to reductions in Safe Yield.

11  
12 **B. The 2000 Peace Agreement I**

13 1. Peace I Section I(ee) defines “Operating Safe Yield” as the “annual  
14 amount of groundwater which Watermaster shall determine, pursuant to criteria  
15 specified in Exhibit “I” to the judgment, can be produced from Chino Basin by  
16 the Appropriative Pool free of Replenishment obligation under the Physical  
17 Solution. Watermaster shall include any New Yield in determining Operating  
18 Safe Yield.”

19 a) This is a modification of the definition of “Operating Safe Yield”  
20 from the Judgment. In fact, the court notes “IV-Mutual Covenants,  
21 ¶ 4.5 Construction of “Operating Yield” Under the Judgment.  
22 Exhibit I to the Judgment shall be construed to authorize  
23 Watermaster to include New Yield as a component of Operating  
24 Safe Yield.”

25  
26 **C. The 2007 Peace Agreement II**

27 1. Article VII Yield Accounting, ¶7.1 New Yield Attributable to the  
28 Desalters states “for the initial term of the Peace Agreement, neither

1 Watermaster nor the Parties will request that Safe Yield be recalculated in a  
2 manner that incorporates New Yield *attributable to the Desalters* into the  
3 determination of Safe Yield so that this source of supply will be available for  
4 Desalter Production rather than for use by individual parties to the Judgment.”  
5 (Emphasis in original.)  
6

7 **D. The Safe Yield Recalculation and Desalter-Induced Recharge**

8 ~~1. The legal problem for the court is the reconcile the Judgment, Peace~~  
9 ~~I and Peace II with the 20,000 AFY of Desalter Production. The court solves~~  
10 ~~this problem as follows.~~

11 2. Watermaster correctly states that that desalter induced recharge  
12 can only be used to offset desalter production. From this Watermaster concludes  
13 that Safe Yield of 135,000 acre-feet per year must include Desalter-induced  
14 recharge. This conclusion is wrong.

15 a) Through many avenues, Watermaster has attempted to include  
16 Desalter-Induced Recharge (with the new abbreviation of “DIR”)  
17 within the definition of Safe Yield.

18 b) Watermaster has never explicitly offered an explanation of why  
19 Watermaster has attempted so diligently to convince the court to  
20 include Desalter-Induced Recharge within the definition of Safe  
21 Yield.

22 I) The court considers that Watermaster’s explanation might include  
23 an argument that if Desalter-Induced Recharge is not included  
24 within the definition of Safe Yield, the parties could produce/pump  
25 water from Desalters without limit, with the result that water could  
26 be drained from the Santa Ana River without limit. That result  
27 would be not only detrimental to the hydrology of the entire region,  
28 but also legally unjustified.

1 c) In its latest argument, Watermaster has offered to “sequester” the  
2 portion of Safe Yield attributable to Desalter-Induced Recharge.

3 I) The court does not accept this characterization of Desalter  
4 production/pumping allocation because it is simply a  
5 characterization of an accounting.

6 II) The “sequestration” has no basis in the CAMA’s and adds a new,  
7 vague, undefined term to an already complicated structure of  
8 accounting.

9 III) Watermaster argues “that Desalter-Induced Recharge is an  
10 inflow to the Basin and therefore a component of Safe Yield.”

11 (a) The court rejects this argument because it contradicts the  
12 requirement of Peace II that for the initial term of the Peace  
13 Agreement, Safe Yield will not be recalculated to include New  
14 Yield attributable to the Desalters.

15 (b) Desalter-Induced Recharge is the source of (and offset to)  
16 New Yield attributable to the Desalters. That New Yield cannot  
17 be included in Safe Yield. So, so under Peace II, Safe Yield also  
18 does not include Desalter-Induced Recharge. (Peace I ¶  
19 1.1(aa)-definition of New Yield; Peace I ¶7.5-Replenishment  
20 Water; Peace II ¶6.2-Peace II Desalter Production Offsets.)

21 IV) The Responding AP Members argue that the court can only  
22 be consistent in its orders if the court resets the Safe Yield to  
23 115,000 AFY. The court also rejects this argument for the  
24 following reasons.

25 (a) Using Watermaster's own proposal, the court recognizes that  
26 there is some logic to the position of the Responding AP  
27 Members because 1) if the 20,000 AFY is “sequestered” that it is  
28 not available for production/pumping without a replenishment



1 obligation and 2) then the reality is the safe yield should be  
2 135,000 AFY - 20,000 AFY for a net of 115,000 AFY.

3 (b) However, the court concludes that the structure set up by the  
4 Judgment, Peace I, and Peace II require that there be separate  
5 analyses for Safe Yield and New Yield attributable to the  
6 Desalters.

7 (i) The analysis for Safe Yield is illustrated in this order Sec.  
8 VII.5.a above.

9 (ii) The analysis for Desalter-Induced Recharge and New  
10 Yield attributable to the Desalters is described in Peace I and  
11 Peace II and the further order as set forth herein.

12 (iii) Watermaster has been accounting for these analyses  
13 since 2007, so it should not be a problem for Watermaster to  
14 continue to do so.

15 (c) The Responding AP Members also argues that the technical  
16 reports show that the basin can safely only sustain 135,000 AFY.

17 (d) However, in Exhibit 1 to the Declaration of Mark  
18 Wildermuth - 2013 Chino Basin Groundwater Model Update and  
19 Recalculation of Safe Yield Pursuant to Peace Agreements,  
20 section 1.2.3, "the updated Watermaster Model was used to  
21 estimate Santa Ana River Underflow New Yield (SARUNY) from  
22 the desalters and reoperation from both the calibration and  
23 planning periods. SARUNY means the same thing as that term  
24 *Desalter Induced Recharge* as used in the 2015 Safe Yield  
25 Reset Agreement." This definition is repeated in section 7.3.7.

26 (e) The Wildermuth declaration filed March 10, 2017, with the  
27 Chino Basin Watermaster Response to February 22, 2017 Order  
28 section 7.3.7 which states:

1 (i) "The net Santa Ana River recharge in the fiscal year spending  
2 July 1999 through June 2000 [one year] is the baseline from  
3 which to measure SARUNY, which was estimated to be  
4 -2,153 acre-ft/yr, indicating that the Chino Basin discharged  
5 to the Santa Ana River more water than was recharged by the  
6 River into the Basin. . . . Table 7-10 compares Chino Desalter  
7 production and SARUNY over the period of July 2000  
8 through July 2030. . . . The effect of 's the Chino Desalters  
9 and reoperation becomes clear in 2005 when SARUNY  
10 reaches about 50 percent of CDA production. The New Yield  
11 results from the implementation of the Chino Desalters is  
12 consistent with the planning estimates that were assumed  
13 during the development of the Peace Agreements.

14 (f) Table 7-10 shows that starting in 2017, the ratio of new yield to  
15 CDA production is about an average of 45 percent, meaning that  
16 New Yield Desalter-Induced Recharge those years is about 45%  
17 of the Desalter production.

18 (g) From these facts the court concludes that the Wildermuth  
19 Safe Yield reset/recalculation has taken into account the  
20 Desalter-Induced Recharge and production, so there is no need  
21 to reduce the Safe Yield two 115,000 AFY as argued by the  
22 Responding AP Members.

23 (h) The Peace Agreement offsets for new yield production  
24 attributable to the Desalters are an accounting requirement  
25 process, not a feature of determination of Safe Yield.

26 (i) The court also concludes that the reset/recalculation has  
27 included the contractual features of the Peace Agreements, and  
28 one of those features is that Safe Yield not be recalculated to

1 incorporate New Yield attributable to the Desalters. Wildermuth  
2 has considered this feature.

3 (j) Again, therefore the safe yield of 135,000 AFY does not include  
4 New Yield attributable to the Desalters.

5 3. The court still concludes for the term of Peace I (*i.e.*, until 2030),  
6 Safe Yield not be recalculated in a manner that incorporates New Yield  
7 attributable to the Desalters into the determination of Safe Yield.

- 8 a) The 20,000 AFY of Desalter-Induced Recharge is not included with  
9 the definition of Safe Yield for the term of the Peace Agreements.  
10 To rule otherwise would contradict the Peace Agreements.
- 11 b) The court analogizes its ruling to the controlled overdraft allowed to  
12 achieve hydraulic control. That aspect of production/pumping was  
13 not allocated to Safe Yield. The court orders that Desalter-Induced  
14 Recharge New Yield remain unallocated to Safe Yield.
- 15 c) The court does not address the City of Chino's briefing regarding the  
16 Safe Yield Implementation Replenishment Accounting Illustration  
17 (Per Peace II agreement, Section 6.2 (PIIA, 6.2) and June 11, 2015  
18 Key Principles) Watermaster motion filed October 23, 2015, Exhibit  
19 "F" Attachment 2 for the following reasons:

20 I) Chino asks if the Column G – Desalter-Induced Recharge  
21 replenishment water was coming from Desalter production.

22 II) Footnote 4 for this Column G states that "the desalter-induced  
23 recharge projection in the table is now shown at 50% of the annual  
24 total desalter production for years 2015 through 2030. Desalter -  
25 induced recharge from 2001 to 2014 (187,000 acre-feet) will be  
26 deemed Safe Yield and not available to offset Desalter production."

27 III) As part of its order that SYRA cannot be implemented, the  
28 court rejects the Safe Yield Reset Implementation Desalter

**Replenishment Accounting Illustration.**

**IV) The City of Ontario has argued that Desalter Induced Recharge to offset Desalter production should be “backfilled” from Safe Yield. The court rejects this argument for the following reasons:**

- (a) This is merely a characterization of what SYRA proposed to do, and, for the reasons already stated, the court has rejected SYRA except for the Safe Yield recalculation.**
- (b) The Judgment, the Peace Agreements, and the CAMA’s do not support this accounting, again for the reasons already stated.**
- (c) Again, for the reasons stated herein, the court rejects that Ontario’s argument that a Safe Yield recalculation to 135,000 AFY is not a “Safe Yield recalculation.” The argument has no merit and is completely unpersuasive.**
- (d) The court finds that the definitions of Safe Yield and New Yield are sufficiently set forth in the Judgment, Peace I and Peace II.**
  - (i) Watermaster does not point to any specific conflict between the court’s current/instant order and the court’s order implementing Watermaster Resolution 07-05, and the court finds none.**
  - (ii) The court reaffirms the definitions of Peace II which have been in effect for 10 years, and of course the definitions of the Judgement and Peace I.**
  - (iii) The court finds no basis for Watermaster’s attempt to define Desalter-Induced Recharge into directly, indirectly, Safe Yield or by a “sequester.”**
  - (iv) In reaffirming the definitions of the Judgment, Peace I,**

1 and Peace II, the court of course also notes the definition of  
2 “Safe Yield” in the Judgment ¶I.1(x) inclusive of  
3 “undesirable result,” and the “Material Physical Injury” of  
4 Peace I ¶I.1 (y).

5 V) The court finds and orders that Desalter production is not Safe Yield  
6 and Desalter production is to be offset only as provided in Peace II.  
7

8 **IX. Additional Bases for Rulings**

9 A. The court has refused to implement the sections of SYRA identified above for  
10 the reasons set forth above. In the court’s view, those reasons are sufficient under  
11 the law. Therefore, the court has not addressed other objections raised by the  
12 parties, such as those of the City of Chino, that Watermaster has failed to prove a  
13 change in circumstances, that Watermaster has improperly advocated for certain  
14 parties, that the parties are collaterally estopped from re-litigating the parties’ rights,  
15 that the parties are equitably estopped from reducing their replenishment obligations,  
16 that SYRA fails to comply with CEQA, that SYRA provisions resulted in an unlawful  
17 taking of Chino’s property.  
18

19 B. Although the court understands the necessity of accounting for Desalter  
20 induced recharge from the Santa Ana River, the court does not find a basis in the  
21 law, the Judgment, or the Court Approved Management Agreements for  
22 simultaneously reducing Safe Yield and adding unproduced/unpumped Ag Pool  
23 water to account for Desalter induced recharge.

24 1. ~~The court encourages the parties and Watermaster to continue efforts~~  
25 ~~to come to an agreement on the allocation of Desalter induced recharge.~~

26 2. ~~Withdrawal of water from storage is already subject to limitations that it~~  
27 ~~be done without Material Physical Injury. (Watermaster Rules and Regulations, ¶8.1.)~~

28 1. Watermaster argues that the court should approve SYRA because it is

1 only a confirmation of "interpretation of the manner in which Watermaster should  
2 comply with the provisions of the Court Approved Management Agreements.  
3 (Watermaster's Reply to Oppositions to Motion regarding 2015 Safe Yield Reset  
4 Agreement, Amendment of Restated Judgment, Paragraph 6, page 10, line 26.)

5 a) The court does not accept this argument. The court interprets SYRA as  
6 an attempt for a major qualitative revision of the Court Approved  
7 Management Agreements, but the Court Approved Management  
8 Agreements do not support the SYRA revision for the reasons stated  
9 herein.

10 2. The court finds that the rulings herein will not cause material physical  
11 injury or an undesirable result.

12 a) Although many parties have approved SYRA, parties' approval or  
13 disapproval of SYRA is not a legal basis for the court to enforce SYRA.  
14 The court must look to the previous agreements of the parties, the  
15 previous court orders, the Court Approved Management Agreements,  
16 the Judgement, and the California Constitution.

17  
18 Date: \_\_\_\_\_  
19  
20  
21

22 \_\_\_\_\_  
23 Judge Stanford E. Reichert  
24 San Bernardino County Superior Court  
25  
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7 SUPERIOR COURT FOR THE STATE OF CALIFORNIA  
8 FOR THE COUNTY OF SAN BERNARDINO  
9

10 CHINO BASIN MUNICIPAL WATER )  
11 DISTRICT, )  
12 Plaintiff, )  
13 vs. )  
14 CITY OF CHINO, et al., )  
15 Defendants )  
16  
17

Case No. RCV 51010

[Additional/Final Revised Proposed]

ORDERS for Watermaster's Motion  
Regarding 2015 Safe Yield Reset  
Agreement, Amendment of Restated  
Judgement, Paragraph 6

Date: April 28, 2017  
Time: 1:30 PM  
Department: S35

18 Watermaster's Motion Regarding 2015 Safe Yield Reset Agreement,  
19 Amendment of Restated Judgment, Paragraph 6, joined by The Chino Basin  
20 Overlying (Agricultural) Pool Committee and The Inland Empire Utilities Agency  
21 ("IEUA") and opposed by Jurupa Community Services District ("JCSD") and the  
22 City of Chino ("Chino") is granted in part and denied in part for the reasons set forth  
23 herein. The court grants the motion with respect to amending the restated judgment  
24 to reset the Safe Yield of the basin to 135,000 AFY.

25 However, the court denies all other parts of SYRA including the motions to  
26 amend the schedule for access to Re-Operation Water and. The court denies the  
27 motion to institute Safe Storage Management Measures. The court makes additional  
28 orders regarding priorities and with respect to access for Re-Operation Desalter

1 water as set forth herein.

2 Additionally, the court orders that the Safe Yield reset to 135,000 AFY is an  
3 event that requires a “recalculation” with the definition of Judgment, Exhibit “H”  
4 ¶10.

## 6 **REQUEST FOR JUDICIAL NOTICE**

7 The court grants requests for judicial notice of JCSD as follows:

- 8 1. Restated Judgment (“Judgment”) in case number RCV 51010.
- 9 2. Implementation Plan Optimum Basin Management Program for the Chino Basin  
10 (“OBMP Implementation Plan”).
- 11 3. Chino Basin Watermaster Rules and Regulations (“Rules and Regulations”).
- 12 4. 2015 Safe Yield Reset Agreement (“SYRA”).
- 13 5. Order Concerning Motion for Approval of Peace II Documents (“2007 Order”)  
14 in case number RCV 51010.
- 15 6. 2000 Peace Agreement Chino Basin (“Peace I Agreement” or “Peace I”).
- 16 7. Watermaster Compliance with Condition Subsequent Number Eight: Proposed  
17 Order Submitted Concurrently.
- 18 8. Peace II Agreement: party support for Watermaster’s OBMP Implementation  
19 Plan, Settlement and Release of Claims Regarding Future Desalters (“Peace II  
20 Agreement” or “Peace II”).

## 22 **JOINDERS AND FILINGS**

23 A. Watermaster's motion regarding 2015 Safe Yield Reset Agreement,  
24 amendment of restated Judgement, Paragraph 6.

25 1. City of Chino’s objections to declaration of Kavounas submitted with  
26 Watermaster’s Motion regarding 2015 Safe Yield Reset Agreement, Amendment of  
27 Restated Judgment, Paragraph 6

28 Rulings in separate document.



2. City of Chino's objections to declaration of Wildermuth submitted with Watermaster's Motion regarding 2015 Safe Yield Reset Agreement, Amendment of Restated Judgment, Paragraph 6

Rulings in separate document.

B. The following parties joined in Watermaster's motion:

1. Overlying (Agricultural) Pool
2. Inland Empire Utilities Agency

C. Oppositions to Watermaster's motion

1. City of Chino with supporting documents
  - a) Declaration of Robert Shibatani, physical hydrologist
  - b) Declaration of David Crosley, civil engineer, water and environmental manager for City of Chino
2. Jurupa Community Services District (JCSD) with supporting documents
  - a) Request for judicial notice identified above
  - b) Declaration of Todd Corbin, general manager of JCSD
  - c) Declaration of Robert Donlan, attorney

D. Watermaster's reply to oppositions to motion regarding 2015 Safe Yield Reset Agreement, amendment of Restate Judgement, Paragraph 6

1. Supplemental declaration of Kavounas
  - a) City of Chino's objections Kavounas supplemental declaration in support of Watermaster's reply the Chino opposition
  - b) Watermaster's Response to City of Chino's objections to supplemental declaration of Peter Kavounas in support of Watermaster's reply to Chino's Opposition to Motion regarding 2015 Safe Yield Reset Agreement, Amendment of Restated Judgment, Paragraph 6
- I) Motion to strike denied. The court finds that the declaration did not raise new issues.
- II) All objections overruled.

2. Supplemental declaration of Wildermuth
- a) City of Chino's objections to Wildermuth supplemental declaration in support of Watermaster's reply to Chino opposition.
- b) Watermaster's Response to City of Chino's objections to supplemental declaration of Mark Wildermuth in support of Watermaster's reply to Chino's Opposition to Motion regarding 2015 Safe Yield Reset Agreement, Amendment of Restated Judgment, Paragraph 6.
- I) Motion to strike denied. The court finds that the declaration did not raise new issues.
- II) All objections overruled.
3. Declaration of Danielle Maurizio, assistant general manager of Chino Basin
- a) City of Chino's objections to supplemental declaration of Danielle D. Maurizio in support of Watermaster's reply to chino opposition
- b) Watermaster's Response to City of Chino's objections to supplemental declaration of Danielle E. Maurizio in support of Watermaster's reply to Chino's Opposition to Motion regarding 2015 Safe Yield Reset Agreement, Amendment of Restated Judgment, Paragraph 6
- I) Motion to strike denied. The court finds that the declaration did not raise new issues.
- II) All objections overruled.
4. Joinders in Watermaster's reply to oppositions
- a) Overlying (Agricultural) Pool
- b) City of Pomona and (in one pleading document)
- I) City of Upland
- II) Monte Vista Water District
- III) Cucamonga Valley Water District
- IV) Fontana Union Water Company

1 E. In an order Dated March 22, 2016, the court served the parties with questions  
2 and a request for further briefing in response to the questions. The responses were  
3 as follows:

4 1. Jurupa Community Services District response to Judge Reichert's  
5 request for clarification filed April 1, 2016.

6 2. City of Chino's responses to Judge Reichert's questions, filed April 1,  
7 2016.

8 3. Watermaster's response to order for additional briefing filed April 1,  
9 2016.

10 a) Chino's reply to Watermaster's response to order for additional briefing,  
11 filed April 11, 2016.

12 b) Jurupa Community Services District's additional response to Judge  
13 Reichert's request for clarification, filed April 11, 2016

14 4. Watermaster's further response to order for additional briefing, filed  
15 April 11, 2016

16 F. At the hearing on February 22, 2017, the court ordered that the parties may  
17 file questions regarding the court's tentative draft order, and the court set a briefing  
18 schedule. In response, the court received the following:

19 1. Filed March 10, 2017-Chino Basin Watermaster response to February  
20 22, 2017 order

21 2. Filed March 10, 2017-City of Chino's response to issue in section II of  
22 Judge Reichert's revised proposed order re SYRA

23 3. Filed March 10, 2017-Responding AP members (Monte Vista Water  
24 District, Cucamonga Valley Water District, City of Pomona, and City of Upland)  
25 filed March 10, 2017

26 4. Filed March 24, 2017-Chino Basin Watermaster further response to  
27 February 22, 2017 order

28 5. Filed March 24, 2017-City of Chino's response to court authorized

1 further briefing re revised tentative order re Watermaster's motion re 2015 Safe Yield  
2 reset Agreement

3 6. Filed March 24, 2017-City of Chino's response to Chino Basin  
4 Watermaster's response to February 22, 2017 order

5 7. Filed March 24, 2017-City of Ontario's response regarding issue for  
6 further briefing

7 8. Filed March 24, 2017-Jurupa Community Services District opposition  
8 to Monte Vista Water District's response to court's February 22, 2017 order re SYRA  
9 and response to questions [joins in the opposition filed by the City of Ontario]

10 9. Filed March 24, 2017-Responding AP members response to both  
11 Watermaster and City of Chino's further briefing re revised tentative order re  
12 Watermaster's motion re 2015 Safe Yield Reset Agreement

13 10. Filed April 4, 2017-errata to City of Chino's response to Chino Basin  
14 Watermaster's response to February 22, 2017 order

15 11. Filed April 7, 2017-Chino Basin Watermaster further response to  
16 February 22, 2017 order

17 12. Filed April 7, 2017-City of Chino's reply to responses of Watermaster,  
18 4AP Members, Ontario and Jurupa

19 13. Filed April 7, 2017-Jurupa Community Services District's limited reply  
20 to City of Chino's response to Chino Basin Watermaster's response to February 22,  
21 2017 order, dated March 24, 2017

22 14. Filed April 7, 2017-Responding AP Members reply to opposition briefs  
23 re revised tentative order re Watermaster's motion re 2015 Safe Yield Reset  
24 Agreement

25 15. Filed April 27, 2017, request by Chino basin desalter authority member  
26 agencies regarding desalter pumping

## SEPTEMBER 23, 2016, HEARING AND ADDITIONAL BRIEFING

After extensive briefing and consideration, on September 23, 2016, the court held a hearing on the 2015 SYRA and related motions. Before the hearing, the court had issued a lengthy (over 60 pages) proposed order. At the hearing on September 23, there was extensive oral argument, and the court concluded that some aspects of the court's proposed order were confusing or erroneous. Therefore, the ordered that there be even further briefing, and the court ordered additional briefing through questions by the parties about the proposed order. In its order entitled "Revised Proposed Order Re SYRA in Response to Questions: Issues for Further Briefing," and the current order, the court addressed the parties' questions.

### I. INTRODUCTION, DEFINITIONS, BACKGROUND

A. The 1978 judgment in *Chino Basin Municipal Water District v. City of Chino* (San Bernardino Superior Court Case No. 51010) set the Safe Yield of the Chino Basin at 140,000 acre-feet per year (AFY), but reserved continuing jurisdiction to the court to amend the Judgment, inter alia, to redetermine the Safe Yield after the first 10 years of operation of the Physical Solution established under the Judgment. The Physical Solution identified three groups of parties (Pools) with water interests in the Chino Basin, and set forth their allocations as follows:

Pool	Allocation	Acre-feet Yearly Allocation
Overlying (Agricultural) Pool*	414,000 acre-feet in any five (5) consecutive years [note: $414,000 \div 5 = 82,800$ per year]	82,800
Overlying (Non-agricultural)	7,366 acre-feet	7,366

Pool**		
Appropriative Pool***	49,834 acre-feet	49,834
	Yearly total allocation	140,000

\*The members of this pool included dairy farms.

\*\*The members of this pool include businesses which use water in their production processes.

\*\*\*The members of this pool include cities and water companies. They “appropriate” the water by pumping and selling it.

Over the course of the Court-Approved Management Agreements (set forth in the next section), the court allowed up to 600,000 AF of water to be produced/pumped out of the Chino Basin without any replenishment obligation. “While the parties are not limited in the quantities of water they may produce, the Judgment requires that beyond the permitted Controlled Overdraft comprising an initial 200,000 AF and an additional 400,000 AF of Re-operation water (Restated Judgment, Exhibit “I”, ¶¶ 2.(b), 3.(a)), there must be a bucket for bucket replenishment [and associated cost to the producer/pumper] to offset production in excess of the Basin’s Safe Yield. (Restated Judgment, ¶¶ 13, 42).” (Watermaster’s Response to Questions for Clarification in Final Orders for Watermaster’s Motion Regarding 2015 Safe Yield Reset Agreement, Amendment of Restated Judgment, Paragraph 6, page 2, line 23 to page 3, line 4, filed October 28, 2016.)

The court notes that this total “controlled overdraft” i.e., pumping without replenishment cost, (aka “Re-Operation Water”) of 600,000 AF has just about been exhausted.

This motion is the first time the court has redetermined the Safe Yield since the Judgment was entered in 1978.

B. Since the entry of the judgment, the court has previously approved agreements to

1 implement the Physical Solution (“Court Approved Management Agreements” aka  
2 “CAMA”). There is no dispute that the court has the authority and duty to  
3 independently review the evidence de novo and determine whether proposals by  
4 Watermaster or any party comply with the Judgment and the Court Approved  
5 Management Agreements. (Restated Judgment ¶31(d).) The Court Approved  
6 Management Agreements are:

7 1. The Chino Basin Peace Agreement (Peace I Agreement), dated June 29,  
8 2000, as subsequently amended in September 2004 and December 2007.

9 a. In 2000 the parties executed Peace Agreement Chino Basin (Peace I  
10 Agreement) and agreed to Watermaster’s adoption of the Optimum  
11 Basin Management Plan (OBMP) Implementation Plan. At about the  
12 same time, the court ordered Watermaster to proceed in a manner  
13 consistent with Peace I and the OBMP, including Program Element 8  
14 (Develop and Implement Groundwater Storage Management Program)  
15 and Program Element 9 (Develop and Implement Storage and  
16 Recovery Programs). The implementation plan acknowledged the need  
17 to obtain better production data through the metering of non-exempt  
18 production within the Basin. Program Elements 8 and 9 provided for  
19 Watermaster to redetermine and reset the Basin’s Safe Yield in the year  
20 2010/11. The basis of the redetermination and reset would be  
21 production data derived from the collection of additional data regarding  
22 the parties’ production (i.e., parties who pumped water out of the Basin)  
23 within the basin during the 10-year period 2000/01 through 2009/10.  
24 The study for redetermination and reset was not completed until 2015,  
25 and the motion regarding determination and reset was not filed until  
26 October 2015.

27 b. The Peace I Agreement introduced the installation of Desalters in the  
28 southwest portion of the Basin. The Desalters pump ground water

1 from the aquifer and supply that water to water companies and other  
2 users. By pumping water out of the aquifer, the Desalters also lowered  
3 the ground water table to help obtain Hydrologic Control, i.e.,  
4 preventing Chino Basin ground water from reaching the Santa Ana  
5 River south of the Basin. The Santa Ana River is a major source of  
6 water for Orange County, and water impurities and contaminants, some  
7 of which came from the Chino Basin dairy farms ("salts") were in the  
8 groundwater flowing from the Basin into the Santa Ana River. The  
9 Desalter capacity has now expanded to 40 MGD (40 million gallons per  
10 day) as provided in the OBMP Implementation Plan to protect against a  
11 decline in Safe Yield and for water quality benefits, but the court  
12 reserved the question of how "Future Desalter" capacity would be  
13 addressed. The Chino Basin Desalter Authority (CDA), which includes  
14 the City of Chino, participated in the construction of the Desalters  
15 which represented a substantial engineering and financial undertaking.  
16 These Desalters were completed and fully operational in 2006.

17 2. The Peace II Measures (court approved on December 21, 2007).

18 a. In 2007, the parties entered into the Peace II Agreement. The objective  
19 was to increase the Desalter capacity to 40 MGD to achieve the OBMP  
20 Implementation Plan objectives. In order to do this, the parties  
21 designed and financed an additional 10 million gallons per day (MGD)  
22 of expanded Desalter capacity. The expansion of the Desalters to the  
23 full plant capacity will be completed in 2017. With the completion of  
24 this construction, Hydraulic Control will be achieved. Hydraulic  
25 Control now means only a de minimus amount of groundwater will  
26 flow from the Chino Basin south into the Santa Ana River. In fact, the  
27 Desalters now have lowered the water table in the south end of the  
28 Basin so that ground water is now flowing from the Santa Ana River



1 north into the Chino Basin. ~~This is called Re-Operation water.~~

2 3. The Optimum Basin Management Plan (OBMP) Implementation Plan  
3 dated June 29, 2000, was supplemented in December 2007.

4 4. The Recharge Master Plan, dated 1998, was updated in 2010 and  
5 amended in 2013.

6 5. The Watermaster Rules and Regulations dated June 2000, as amended.

7 6. The October 8, 2010 Order Approving Watermaster's Compliance with  
8 Condition Subsequent Number Eight and Approving Procedures to be used to  
9 Allocate Surplus Agricultural Pool Water in the Event of a Decline in Safe Yield.

10 7. Watermaster Resolution 2010-04 ("Resolution of the Chino Basin  
11 Watermaster regarding Implementation of the Peace II Agreement and the Phase III  
12 Desalter Expansion in Accordance with the December 21, 2007 Order of the San  
13 Bernardino Superior Court").

14  
15 C. Additional background for motion

16 1. At the September 24, 2015 Watermaster Board Meeting, the board  
17 adopted Resolution 2015-06: Resolution of the Chino Basin Watermaster regarding  
18 the 2015 Safe Yield Reset Agreement (SYRA).

19 2. Through a Facilitation and Non-Disclosure Agreement (FANDA),  
20 Watermaster attempted to obtain agreement as to all issues regarding Safe Yield  
21 redetermination and reset allocation. Those issues included not only a reset of the  
22 Safe Yield from 140,000 acre-feet per year to 135,000 acre-feet per year, but also  
23 Watermaster's accounting for reallocations related to Court Approved Management  
24 Agreements, and a method of allocations for water storage called the Safe Storage  
25 Management Agreements.

26 a) The FANDA process took place starting in November 2014, and  
27 through at least 30 meetings, by May 27, 2015, all but one of the then-  
28 active parties to the FANDA reached a non-binding agreement among

1 their negotiating representatives on certain key principles (apparently  
2 also called the “term sheet”) embodied in the Safe Yield Summary of  
3 Non-Binding Key Principles Derived from the Facilitated Process.

- 4 b) The parties continued to negotiate, with a goal of reducing the Key  
5 Principles into a binding instrument for execution by September 1,  
6 2015. That agreement is identified as the 2015 Safe Yield Reset  
7 Agreement (SYRA). The Appropriative Pool, the Overlying  
8 (Agricultural) Pool, and the Three Valleys Municipal Water District  
9 approved the 22-page agreement, as did many other parties. The City  
10 of Chino refused to sign the agreement.
- 11 c) On September 24, 2015, the board at its regular meeting adopted  
12 resolution 2015-06, and previously – on September 17, 2015 – the  
13 advisory committee approved resolution 2015-06: “Resolution of Chino  
14 Basin Watermaster regarding 2015 Safe Yield Reset Agreement  
15 (SYRA).”
- 16 d) Watermaster’s instant motion asks the court to address the issues  
17 covered in the SYRA as follows:
- 18 I) The reset of the Basin Safe Yield from 140,000 acre-feet per year (AFY)  
19 to 135,000 AFY pursuant to the Restated Judgment, the OBMP  
20 Implementation Plan, and Watermaster’s Rules and Regulations;
- 21 II) The manner in which Watermaster should account for various  
22 components of the recharge to the Basin implementing the Court-  
23 Approved Management Agreements; and
- 24 III) Establishment of Safe Storage Management Measures (SSMM)  
25 intended to ensure that withdrawals of groundwater from authorized  
26 storage accounts within the Basin are safe, sustainable, and will not  
27 cause Material Physical Injury or undesirable results.
- 28

1 D. SUMMARY RULNGS:

2 In its motion, Watermaster requests an order acknowledging the 2015 Safe  
3 Yield Reset Agreement and ordering Watermaster to proceed in accordance with its  
4 terms with respect to amending the restated judgment to reset the Safe Yield of the  
5 Basin from 135,000 AFY to 135,000 AFY and amending the schedule for access to  
6 Re-Operation water. For the reasons set forth herein, the court grants the motion  
7 with respect to amending the restated judgment to reset the Safe Yield of the basin to  
8 135,000 AFY. However, the court denies the rest of the motions including the motions  
9 to amend the schedule for access to Re-operation water and the motion to institute  
10 Safe Storage Management Measures. The court makes additional orders with respect  
11 to Desalter water as set forth herein.  
12

13 **II. Severability of SYRA**

14 Watermaster has questioned whether the court can sever SYRA and enforce  
15 certain sections and not others. For the following reasons, except for the Safe Yield  
16 reset itself, the court has concluded that it cannot enforce some of sections and not  
17 others:

18 A. Watermaster itself has argued that SYRA is an integrated document which  
19 cannot be divided.

20 1. Watermaster's "Response to Questions for Clarification, etc." filed  
21 October 28, 2016, states: "the SYRA is the product of the Facilitation and Non-  
22 Disclosure Agreement (FANDA) process, during which the parties to that agreement  
23 comprehensively settled and compromised their disagreements, so as to enable  
24 Watermaster to implement the CAMA's through and following the reset of Safe  
25 Yield."

26 a) The court does not find a basis for this characterization. *Most* of the  
27 parties settled and compromised their disagreements, but not all,  
28 notably the city of Chino and Jurupa Community Services District.

1           2.     Watermaster further argues that approving “some, but not all, of  
2 SYRA’s provisions can materially advantage one party over another, in that the full  
3 benefit of the parties intended settlement and compromise is not achieved, as one or  
4 more parties may be denied the consideration for which it bargained.”

- 5           a)     For the reasons set forth below, the court refuses to adopt SYRA in  
6 whole. Following Watermaster’s own all-or-nothing argument, the  
7 court must conclude that not only is there no legal basis to enforce part  
8 of SYRA, but also that it is fundamentally unfair to the parties to  
9 enforce portions of SYRA for which the parties did not bargain.

10          3.     However, the court concludes there is a qualitative difference between  
11 the safe yield reset and the balance of SYRA.

- 12          a)     The request to reduce the Safe Yield to 135,000 AFY is a legal  
13 determination for the court.  
14          b)     The request to reduce Safe Yield is based on the Reset Technical  
15 Memorandum report and model. That memorandum has nothing to do  
16 with interactions, bargaining, or allocations among the parties.

17               I)   There ample technical and scientific support for the reset in the  
18 Technical Memorandum and the 2013 Chino Basin Groundwater  
19 Model Update and Recalculation of Safe Yield Pursuant to the Peace  
20 Agreement prepared by Wildermuth Environmental, Inc. dated  
21 October 2015.

- 22          c)     The request to reduce Safe Yield is in response to the court order itself  
23 to evaluate the yield every 10 years

24               I)   Although the study should have been done in 2010, at least it was  
25 completed in 2015.

26               II) None of the other aspects of SYRA were pursuant to a court order.

27               III) The safe yield reset is a legal determination for the court. There  
28 is no “bargained-for exchange” for the court to consider.

1 d) Therefore for these reasons and those set forth in section III below ~~HH~~  
2 the court adopts the following provisions of Article 4-SAFE YIELD  
3 RESET TO 135,000 AFY of the SYRA AND ORDERS AS  
4 FOLLOWS:

5 4.1 Safe Yield Reset. Consistent with the prior orders of the Court pursuant to its  
6 continuing jurisdiction, effective July 1, 2010 and continuing until June 30, 2020, the  
7 Safe Yield for the Basin is reset at 135,000 AFY. For all purposes arising under the  
8 Judgment, the Peace Agreements and the OBMP Implementation Plan, the Safe  
9 Yield shall be 135,000 AFY, without exception, unless and until Safe Yield is reset in  
10 accordance with the procedures set forth in this order, and determined by the Court  
11 pursuant to its retained continuing jurisdiction.  
12

13 4.2 Scheduled Reset. Watermaster will initiate a process to evaluate and reset the  
14 Safe Yield by July 1, 2020 as further provided in this order. Subject to the provisions  
15 of Paragraph 4.3 below, the Safe Yield, as it is reset effective July 1, 2020 will  
16 continue until June 30, 2030. Watermaster will initiate the reset process no later than  
17 January 1, 2019, in order to ensure that the Safe Yield, as reset, may be approved by  
18 the court no later than June 30, 2020. Consistent with the provisions of the OBMP  
19 Implementation Plan, thereafter Watermaster will conduct a Safe Yield evaluation  
20 and reset process no less frequently than every ten years. This Paragraph is deemed  
21 to satisfy Watermaster's obligation, under Paragraph 3.(b) of Exhibit "I" to the  
22 Restated Judgment, to provide notice of a potential change in Operating Safe Yield.  
23

24 4.3 Interim Correction. In addition to the scheduled reset set forth in Paragraph  
25 4.2 above, the Safe Yield may be reset in the event that, with the recommendation  
26 and advice of the Pools and Advisory Committee and in the exercise of prudent  
27 management discretion described in Paragraph 4.5(c), below, Watermaster  
28 recommends to the court that the Safe Yield must be changed by an amount greater

1 (more or less) than 2.5% of the then-effective Safe Yield.

2  
3 4.4 Safe Yield Reset Methodology. The Safe Yield has been reset effective July 1,  
4 2010 and shall be subsequently evaluated pursuant to the methodology set forth in  
5 the Reset Technical Memorandum. The reset will rely upon long-term hydrology and  
6 will include data from 1921 to the date of the reset evaluation. The long-term  
7 hydrology will be continuously expanded to account for new data from each year,  
8 through July 2030, as it becomes available. This methodology will thereby account  
9 for short-term climatic variations, wet and dry. Based on the best information  
10 practicably available to Watermaster, the Reset Technical Memorandum sets forth a  
11 prudent and reasonable professional methodology to evaluate the then prevailing  
12 Safe Yield in a manner consistent with the Judgment, the Peace Agreements, and the  
13 OBMP Implementation Plan. In furtherance of the goal of maximizing the  
14 beneficial use of the waters of the Chino Basin, Watermaster, with the  
15 recommendation and advice of the Pools and Advisory Committee, may supplement  
16 the Reset Technical Memorandum's methodology to incorporate future advances in  
17 best management practices and hydrologic science as they evolve over the term of  
18 this order.

19  
20 4.5 Annual Data Collection and Evaluation. In support of its obligations to  
21 undertake the reset in accordance with the Reset Technical Memorandum and this  
22 order, Watermaster shall annually undertake the following actions:

23 (a) Ensure that, unless a Party to the Judgment is excluded from reporting,  
24 all production by all Parties to the Judgment is metered, reported, and reflected in  
25 Watermaster's approved Assessment Packages;

26 (b) Collect data concerning cultural conditions annually with cultural  
27 conditions including, but not limited to, land use, water use practices, production,  
28 and facilities for the production, generation, storage, recharge, treatment, or

1 transmission of water;

2 (c) Evaluate the potential need for prudent management discretion to avoid  
3 or mitigate undesirable results including, but not limited to, subsidence, water quality  
4 degradation, and unreasonable pump lifts. Where the evaluation of available data  
5 suggests that there has been or will be a material change from existing and projected  
6 conditions or threatened undesirable results, then a more significant evaluation,  
7 including modeling, as described in the Reset Technical Memorandum, will be  
8 undertaken; and,

9 (d) As part of its regular budgeting process, develop a budget for the  
10 annual data collection, data evaluation, and any scheduled modeling efforts, including  
11 the methodology for the allocation of expenses among the Parties to the Judgment.  
12 Such budget development shall be consistent with section 5.4(a) of the Peace  
13 Agreement.

14  
15 4.6 Modeling. Watermaster shall cause the Basin Model to be updated and a  
16 model evaluation of Safe Yield, in a manner consistent with the Reset Technical  
17 Memorandum, to be initiated no later than January 1, 2024, in order to ensure that  
18 the same may be completed by June 30, 2025.

19  
20 4.7 Peer Review. The Pools shall be provided with reasonable opportunity, no  
21 less frequently than annually, for peer review of the collection of data and the  
22 application of the data collected in regard to the activities described in Paragraphs  
23 4.4, 4.5, and 4.6 above.

24  
25 4.8 No Retroactive Accounting. Notwithstanding that the initial Safe Yield reset,  
26 described in Paragraph 4.1 above, shall be effective as of July 1, 2010, Watermaster  
27 will not, in any manner, including through the approval of its Assessment Packages,  
28 seek to change prior accounting of the prior allocation of Safe Yield and Operating

1 Safe Yield among the Parties to the Judgment for production years prior to July 1,  
2 2014.

3  
4  
5 **III. THE COURT FURTHER ORDERS AS FOLLOWS:**

6 A. The court amends the restated judgment ¶6 and sets the safe yield to 135,000  
7 AFY for the following reasons:

8 1. The court accepts the findings and conclusions of Wildermuth for the  
9 following reasons. Those conclusions are set forth in the reset Technical  
10 Memorandum.

11 a) Wildermuth has been the authoritative resource for the parties and the  
12 court during the pendency of the case for the last 15 years.

13 b) Wildermuth has performed a detailed analysis with substantiated facts  
14 and findings in the reset technical memorandum, the supplemental  
15 declaration of Mark Wildermuth in support of Watermaster's reply to  
16 oppositions to the motion regarding 2015 Safe Yield Reset Agreement,  
17 and the memo to restated judgment, paragraph 6 aka Wildermuth  
18 supplemental declaration.

19 c) The court accepts the net recharge approach and calculations set forth  
20 in the Wildermuth report.

21 d) The Wildermuth report gives the most comprehensive analysis and  
22 credible evaluation of the historic condition of the Basin.

23 e) The court does not accept the conclusions of Robert Shibatani for the  
24 following reasons:

25 I) Shibatani recognizes that the net recharge calculation is a legitimate  
26 approach to a determination of Safe Yield.

27 II) The Shibatani approach is unnecessarily quantitative. The Wildermuth  
28 analysis allows for the definitions required for the analysis of the Chino



1 Basin, including cultural conditions and undesirable results.

2 III) Wildermuth has considered the effects of climate change of  
3 Basin precipitation. The court accepts Wildermuth's conclusion that  
4 there are not any better predictive modeling scenarios generally available  
5 at this time accurately calibrated to the historical rainfall and are  
6 therefore not reliable as a predictive tool.

7 2. The Restated Judgment's definition of Safe Yield includes the  
8 consideration of the evolutionary land-use conditions the need to protect the Basin  
9 against undesirable results.

10 3. No party has objected to the reduction in Safe Yield, except the city of  
11 Chino. Chino's objections were discussed and rejected/overruled for the reasons set  
12 forth in Joinders and Filings, Section A.2 above.

13 4. The reduction safe yield is consistent with the Court-Approved  
14 Management Agreements.

15 5. The court finds that the provisions of SYRA set for in Section II above  
16 set forth an approach to a determination of future Safe Yield determinations in a  
17 manner consistent with the Court Approved Management Agreements.

18 a) The declaration of Peter Wildermuth and the supporting  
19 documentation, analysis supports the court's conclusion.

20 b) Wildermuth declaration, paragraph 14, states his opinion that the Basin  
21 protection measures to which the parties have agreed and the 2015 Safe  
22 Yield Reset Agreement will ensure that the Basin is not harmed by  
23 extraction of 135,000 AFY through fiscal 2020. However, again the  
24 court emphasizes that its ruling is not based on the agreement of the  
25 parties. The court's ruling is based upon the Restated Judgment, the  
26 Court Approved Management Agreements, and its legal conclusions  
27 supported by the technical analyses identified in the court's order.

28 I) Although the court concludes the Safe Storage Management Measures

1 are useful and advisable, the court concludes there is no specific factual  
2 basis requiring the Safe Yield reset to include Safe Storage Management  
3 Measures. Therefore the court concludes that even without the Safe  
4 Storage Management Measures, reduction of Safe Yield to 135,000 AFY  
5 will not harm the Basin.

6 II) The 2013 Chino Basin Groundwater Model Update and Recalculation  
7 of Safe Yield Pursuant to the Peace Agreement is sufficiently  
8 documented and the court finds the data reliable.

9 c) Wildermuth declaration, paragraph 15, states that the Basin protection  
10 measures to which the parties have agreed and the 2015 Safe Yield  
11 Reset Agreement, including the Safe Storage Management Measures,  
12 will ensure that the Basin is not harmed by extractions of the 20,000 AF  
13 that was allocated in the past 4 years and would have been allocated if  
14 the Safe Yield have been reset to 135,000 AFY in 2011.

15 I) However, again Wildermuth does not specifically address the necessity  
16 of the Safe Storage Measures with respect to complying with the Court  
17 Approved Management Agreements. Therefore, the court again  
18 concludes that even without the Safe Storage Management Measures,  
19 reduction of Safe Yield to 135,000 AFY will not harm the Basin.

20 II) Again, the 2013 Chino Basin Groundwater Model Update and  
21 Recalculation of Safe Yield Pursuant to the Peace Agreement is  
22 sufficiently documented and the court finds the data reliable.

23 d) Therefore, the court concludes that the extraction of 135,000 AFY is  
24 consistent with the Court Approved Management Agreements and does  
25 not create any undesirable result or Material Physical Injury to the Basin.

26  
27 B. The measures set forth in Article 4 are consistent with the Physical Solution  
28 under the judgment and Article X, section 2 of the California Constitution.

C. Paragraph 6 of the Restated Judgment is hereby amended to read as follows:  
“Safe Yield. The Safe Yield of the Basin is 135,000 acre feet per year.”

1. The effective date of this amendment of Paragraph 6 of the Restated Judgement is July 1, 2010.

#### IV. SAFE YIELD RESET AGREEMENT (SYRA): WATERMASTER ALLOCATION HISTORY, EARLY TRANSFERS, AND THE DESALTERS

A. The 1978 Judgment as amended

1. The 1978 Judgment ¶44 made the following allocation of rights to Safe Yield in the Chino Basin (“the physical solution”):

Pool	Allocation
Overlying (Agricultural) Pool	414,000 acre-feet in any 5 consecutive years (82,800 acre-feet per year)* **
Overlying (Non-agricultural) Pool	7366 acre-feet per year**
Appropriative Pool	49,834 acre-feet per year
Total	140,000 acre-feet per year

\*Note:  $414,000 \div 5 = 82,800$ . 82,800 acre-feet per year has been the basis of calculations for the Appropriative Pool going forward from the judgment.

\*\*Note: the rights of the members of the Overlying (Agricultural) Pool and the Overlying (Non-Agricultural) Pool are fixed (Restated Judgment ¶8, ¶44, see also Exhibits “C” and “D” to the Restated Judgment). **Therefore the effect of a decline of the safe yield is borne entirely by the members of the Appropriative Pool (Restated Judgment ¶9).**

2. The Judgment ¶1(x) defines Safe Yield as “the long-term average annual

1 quantity of groundwater (excluding replenishment or stored water but including  
2 return flow to the basin from use of replenishment or stored water) which can be  
3 produced [*i.e.*, pumped] from the basin under cultural conditions of the particular  
4 year without causing an undesirable result.”

5 3. The judgment fixed the amount of water production (pumping) that  
6 could be allocated to the Overlying (Agricultural) Pool and the Overlying (Non-  
7 agricultural) Pool. However, the Appropriative Pool allocation could be changed.

8 a) The court concludes that the disputes in the oppositions concern  
9 relationship between unproduced (*i.e.*, unpumped) Overlying  
10 Agricultural Pool water (aka Ag Pool water) and the water available to  
11 the Appropriative Pool.

12 4. Exhibit “T” to the judgment is the Engineering Appendix. It discusses  
13 Hydraulic Control and Re-Operation, which are described in more detail below.  
14 Section 3 defines Operating Safe Yield as consisting in any “year of the  
15 Appropriative Pool’s share of Safe Yield of the Basin, plus any controlled overdraft  
16 of the Basin which Watermaster may authorize.”

17 a) Section 3(b) states that “in no event shall Operating Safe Yield in any  
18 year be less than the Appropriative Pool’s share of Safe Yield, nor shall  
19 it exceed such share of Safe Yield by more than 10,000 acre feet. The  
20 initial Operating Safe Yield is hereby set at 54,834 acre feet per year.”

21 I) The figure of 54,834 acre feet per year is the initial 1978 Judgment  
22 allocation of 49,834 acre-feet per year plus 5,000 acre feet per year. The  
23 additional 5,000 AFY comes from 200,000 acre-feet of overdraft (water  
24 pumped without a replenishment obligation) allocated by the Judgment  
25 to the Appropriative Pool. This overdraft total was later increased by  
26 400,000 AF to a total of 600,000 AF. The overdraft will be exhausted  
27 in 2016/2017. (Watermaster Motion Regarding 2015 Safe Yield Reset  
28 Agreement, Amendment of Restated Judgement, Paragraph 6, page 3,

line 27.)

- b) Operating Safe Yield has also come to mean water that the Appropriative Pool could produce/pump without having to purchase replenishment water. (Exhibit “H” ¶5.)

5. Exhibit “H” to the judgment described the Appropriative Pool Pooling Plan, paragraph 10 described “Unallocated Safe Yield Water” as follows: “to the extent that, in any 5 years, any portion of the share of Safe Yield allocated to the Overlying (Agricultural) Pool is not produced, such water shall be available for reallocation to members of the Appropriative Pool as follows:

(a) Priorities. Such allocation shall be made in the following sequence:

(1) to supplement, in the particular year, water available from Operating Safe Yield to compensate for any reduction in the Safe Yield by reason of recalculation thereof after the tenth year of operation hereunder. [This Exhibit H ¶10(a)(1) priority is sometimes called ‘unproduced Agricultural Pool water’ or ‘unproduced Ag Pool water.’ The current credited production (pumping) for agricultural groundwater is about 33,600 AFY, but that includes agricultural land irrigated with reclaimed water. The actual groundwater production for agricultural purposes is about 22,000 AFY. (Jurupa Services District’s response to Judge Reichert’s Request for Clarification, March 22, 2016, page 2, lines 8–10.)]

(2) pursuant to conversion claims as defined in Subparagraph (b) hereof.

(3) as a supplement to Operating Safe Yield, without regard to reductions in Safe Yield.”

6. In an order dated November 17, 1995, Conversion Claims were defined in Exhibit “H” ¶10(b) [this is the Subparagraph (b) to which the preceding paragraph--page 23, line 21--refers]. Peace I modified this definition in Exhibit “H” ¶10(b) to state as follows:

(b) Conversion Claims. The following procedures may be utilized by any

1 appropriator:

2 1) Record of Unconverted Agricultural Acreage. Watermaster shall maintain  
3 on an ongoing basis a record with appropriate related maps of all agricultural  
4 acreage within the Chino Basin subject to being converted to appropriative  
5 water use pursuant to the provisions of this paragraph. An initial  
6 identification of such acreage as of June 30, 1995 is attached hereto as  
7 Appendix 1.

8 (2) Record of Water Service Conversion. Any appropriator who undertakes  
9 to permanently provide water service to lands subject to conversion may  
10 report such intent to change water service to Watermaster. Watermaster  
11 should thereupon verify such change in water service and shall maintain a  
12 record and account for each appropriator of the total acreage involved.  
13 Should, at any time, converted acreage return to water service from the  
14 Overlying (Agricultural) Pool, Watermaster shall return such acreage to  
15 unconverted status and correspondingly reduce or eliminate any allocation  
16 accorded to the appropriator involved.

17 (3) Allocation of Safe Yield Rights

18 (i) For the term of the Peace Agreement in any year in which sufficient  
19 unallocated Safe Yield from the Overlying (Agricultural) Pool is available for  
20 such conversion claims, Watermaster shall allocate to each appropriator with  
21 the conversion claim 2.0 acre-feet of unallocated Safe Yield water for each  
22 converted acre for which conversion has been approved and recorded by  
23 Watermaster.

24 (ii) In any year in which the unallocated Safe Yield water from the Overlying  
25 (Agricultural) Pool is not sufficient to satisfy all outstanding conversion claims  
26 pursuant to subparagraph (i) herein above, Watermaster shall establish  
27 allocation percentages for each appropriator with conversion claims. The  
28 percentages shall be based upon the ratio of the total of such converted

1 acreage approved and recorded for each appropriators's [sic] account in  
2 comparison to the total of converted acreage approved and recorded for all  
3 appropriators. Watermaster shall apply such allocation percentage for each  
4 appropriator to the total unallocated Safe Yield water available for conversion  
5 claims to derive the amount allocable to each appropriator.

6 7. CONCLUSION: With the 1995 amendments, the Judgment set a  
7 prioritized list of claims upon unproduced Ag Pool water.

8 Ag Pool water--1995 Judgment amendment

9 82,800 AFY of the Ag Pool's water available to the Appropriative Pool with  
10 Appropriative Pool claims prioritized as follows:

11 (1) to supplement, in the particular year, water available from Operating Safe  
12 Yield to compensate for any reduction in the Safe Yield by reason of recalculation  
13 thereof after the tenth year of operation as required by the Judgment;

14 (2) pursuant to conversion claims as defined in Subparagraph (b of Exhibit "H"  
15 ¶10(b);

16 (3) as a supplement to Operating Safe Yield, without regard to reductions in Safe  
17 Yield.

18 The court notes that there is currently more than 49,000 AFY of unproduced  
19 Agricultural Pool water available. (Jurupa Services District's response to Judge  
20 Reichert's Request for Clarification, March 22, 2016, page 2, lines 10-14.)

21  
22 B. The 2000 Peace Agreement aka Peace I

23 1. With the agreements made in Peace I, the elements of Desalters and of  
24 water transfers entered the water allocations to the parties.

25 2. Peace I Section V-Watermaster Performance defined how Watermaster  
26 was to perform regarding procedures for Recharge and Replenishment. In paragraph  
27 ¶5.3(g), Watermaster was ordered to approve an "Early Transfer" from the  
28 Agricultural Pool to the Appropriative Pool of not less than 32,800 acre-feet per year

1 which was the expected approximate quantity of water not produced by the  
2 Agricultural Pool. ¶5.3(g)(i) further stated that “the quantity of water subject to Early  
3 Transfer under this paragraph shall be the greater of (i) 32,800 acre-feet or (ii) 32,800  
4 acre-feet plus the actual quantity of water not produced by the Agricultural Pool for  
5 that Fiscal Year that is remaining after all the land use conversions are satisfied  
6 pursuant to” the following provision: “the Early Transfer water shall be annually  
7 allocated among members of the Appropriative Pool in accordance with their pro-  
8 rata share of the initial Safe Yield.” The court notes that after this deduction, the  
9 Safe Yield water available to the Agricultural Pool became 50,000 acre-feet per year.

10 3. Peace I also introduced the construction and operation of Desalters in  
11 Section VII. ¶7.5 described replenishment for the Desalters provided from the  
12 following sources in the following order:

13 a) Watermaster Desalter replenishment account composed of 25,000 acre-feet  
14 of water abandoned by Kaiser and other water previously dedicated by the  
15 Appropriative Pool;

16 (b) New Yield of the Basin, unless the water Produced and treated by the  
17 Desalters is dedicated by purchaser of the Desalter water to offset the price of  
18 Desalter water to the extent of the dedication;

19 (c) Safe Yield of the Basin, unless the water Produced and treated by the  
20 Desalters is dedicated by a purchaser of the desalted water to offset the price of  
21 Desalter water to the extent of the dedication; [and then]

22 d) Additional Replenishment Water purchased by Watermaster, the cost of  
23 which shall be levied as an Assessment by Watermaster.

24 4. The court also concludes that the conversion claims have priority over  
25 the Early Transfers because the conversion claims pre-existed the Early Transfer  
26 allocations. The conversion claims came into existence with the 1995 Judgment  
27 amendment. The Early Transfers came into existence with Peace I in 2000. The  
28 Early Transfers must be interpreted in the context of the pre-existing 1995 Judgment



1 amendment.

2 5. CONCLUSION: With Peace I, there were major changes regarding the  
3 allocation of water among the parties as set forth in the following table.

4 Ag Pool water	Status and/or change 5 result	Comments
6 1995 Judgment 7 amendment	8 82,800 AFY of the Ag 9 Pool's water available to 10 the Appropriate Pool with 11 Appropriative Pool claims 12 prioritized as follows: 13 (1) to supplement, in the 14 particular year, water 15 available from Operating 16 Safe Yield to compensate 17 for any reduction in the 18 Safe Yield by reason of 19 recalculation thereof after 20 the tenth year of 21 operation hereunder. 22 (2) pursuant to conversion 23 claims as defined in 24 Subparagraph (b) hereof. 25 (3) as a supplement to 26 Operating Safe Yield, without regard to reductions in Safe Yield.	
27 2000 Peace I–Desalters 28 start construction and	Early Transfers of 32,800 AFY of Ag Pool water	New Yield (with conditions) is source of

1 2 3 4 5 6 7 8 9 10 11 12	pumping water	going straight to the Appropriative Pool (leaving 50,000 AFY to Ag Pool). The remaining Ag Pool water is subject to Appropriative Pool's prioritized claims.	water to replenish water pumped by the Desalters. Under Peace I therefore Desalters do not affect Safe Yield or Operating Safe Yield. Water produced/pumped by the Desalters is not added to or subtracted from Safe Yield of the Basin.
---	---------------	--	---

13 The court concludes that Peace I interrelated Early Transfers and conversion  
14 claims in the following way. The Appropriative Pool received unproduced Ag Pool  
15 water in at least the amount of 32,800 AFY, but the Appropriative Pool could receive  
16 more unproduced Ag Pool water if 1) the Ag Pool did not produce/pump its leftover  
17 50,000 AFY and 2) also after subtracting from the 50,000 AFY the Appropriative  
18 Pool's conversion claims at the rate of 2 acre-feet per year per converted acre.

19 However, the court also concludes that Peace I did not rearrange the priority  
20 of allocation claims on unproduced/unpumped water. The priorities of the  
21 judgment remain. Specifically, the priority set forth in Judgment, Exhibit "H,"  
22 Paragraph 10.

23 EXAMPLE 1: So, for example in a particular year,

- 24 1. If one Appropriative Pool producer/pumper (e.g., municipality, such as the City of
- 25 Chino) had 1000 acres of converted land resulting in 2000 acre-feet of conversion
- 26 claims (1000 acres x 2.0 acre feet of water/one acre converted), and assuming those
- 27 were the only conversion claims; and
- 28 2. If the Ag Pool produced/pumped only 33,600 AFY leaving 49,200 AFY available

for further allocation (82,800 AFY– 33,600 AFY= 49,200 AFY; the court notes that 33,600 AFY is the approximate Ag Pool credited production [Jurupa response to court’s clarification request, page 2, lines 9-10], but the court is using this figure only for illustration); then,

3. The Ag Pool water that would be available to the Appropriative Pool would be based on the following calculation

Example 1-A	Explanation	Comments
Initial Ag Pool allocation	82,800 AFY	
Ag Pool production/pumping	- 33,600 AFY	Assumption
Initial balance after production	49,200 AFY	(82,800 acre-feet – 33,600 acre-feet = 49,200 acre-feet per year)
Conversion claims	- 2000 acre-feet	1000 acres x 2.0 acre feet of water/one acre converted = 2000 acre-feet per year.  The subtraction for satisfying conversion claims comes before any reallocation. The conversion claims are applied first because they are set forth in the 1995 Amendment to the Judgment
Ag Pool balance after reduction for conversion claims	47,200 AFY	(49,200 acre-feet - 2000 acre-feet = 47,200 acre-feet per year)  Balance: Ag Pool water available to Appropriative Pool after conversion priority claims pursuant to Judgment Exhibit

		"H" Paragraph 10.
Reduction for Early Transfers	- 32,800 AFY	The Early Transfer is now applied because Early Transfers were instituted in Peace I in 2000. The Early Transfer from 82,800 AFY allocation leaving 50,000 AFY for the Ag Pool itself to produce/pump and for additional claims by the Appropriative Pool pursuant to Peace I and Peace II.*
Balance: Ag Pool water available to the Appropriative Pool after conversion priority claims and Early Transfers	14,400 AFY	(47,200 acre-feet -32,800 acre-feet = 14,400 acre-feet per year.) This is the total Ag Pool water available for reallocation to Appropriative Pool for production/pumping after subtraction of conversion priority claims of 2,000 acre-feet per year from and the 32,800 Early Transfer from the allotment of Ag Pool water.**

\*It appears to the court that for convenience, many parties first simply take the reduction of the 32,800 acre-feet for Early Transfers and start these calculations with 50,000 acre-feet of Ag Pool water.

1. That calculation is simply to start with the 50,000 acre-feet of unproduced/unpumped Ag Pool water and then subtract the amount 33,600 acre-feet that was actually pumped in this example. The result is 16,400 acre-

1 feet available for conversion claims.

2 2. Then subtract the 2,000 acre-feet for conversion claims to get the 14,400 acre-  
3 feet of Ag Pool water available for allocation to the Appropriative Pool.

4 3. However, this procedure is inconsistent with the judgment and Peace  
5 Agreements as interpreted by the court for the reasons stated above.

6 \*\*The also court notes that the particular producer who serviced the converted acres  
7 would actually be able to pump the additional conversion claim water as an  
8 allocation.

9  
10 EXAMPLE 2: The following example demonstrates complications arising  
11 from a decrease in the amount of Ag Pool water available to the Appropriative Pool.  
12 If the Ag Pool produced/pumped more than 48,000 AFY there would be no  
13 available water for the Appropriative Pool.

14	Example 2		Comment
15	Initial Ag Pool	82,800 AFY	
16	allocation		
17	Ag Pool	48,000 AFY	Assumption
18	production/pumping		
19	Initial balance after	34,800 AFY	82,800 acre-feet – 48,000 acre-feet =
20	production		34,800 acre-feet per year
21	Conversion claims	- 2000 acre-	The subtraction for satisfying
22		feet	conversion claims before any
23			reallocation. (1000 acres x 2.0 acre
24			feet of water/one acre converted =
25			2000 acre-feet).
26	Balance:	32,800 AFY	34,800 acre-feet – 2,000 acre-feet =
27			32,800 acre-feet per year. Ag Pool
28			Water Available after conversion

		priority claims pursuant to Judgment Exhibit "H" Paragraph
Reduction for Early Transfers	- 32,800 AFY	Early Transfer of 32,800 AFY from 82,800 AFY allocation leaving 50,000 AFY for the Ag Pool itself to produce/pump. Any water which the Ag Pool did not produce/pump water up to the 50,000 AFY would be available for allocation to the Appropriative Pool pursuant to Peace I and Peace II.
Balance: Ag Pool water available after conversion priority claims and Early Transfers	0 AFY	32,800 acre-feet - 32,800 acre-feet = 0 acre-feet per year. There would be no Ag Pool water available for reallocation to Appropriative Pool after subtraction of conversion priority claims of 2,000 acre-feet and the 32,800 Early Transfer of unproduced/unpumped from the allotment of Ag Pool water.
<p>Conclusion:</p> <p>Under this scenario, the Appropriative Pool would not get any additional allocation from Ag Pool water</p>		

6. Regarding replenishment for the Desalters, Peace I ¶7.5 sets forth the hierarchy of sources of replenishment water for the Desalters as follows:

Replenishment Water. Replenishment for the Desalters shall be provided from the following sources in the following order of priority.

(a) Watermaster Desalter Replenishment account composed of 25,000

1 acre-feet of water abandoned by Kaiser pursuant to the "Salt Offset  
2 Agreement" dated October 21, 1993, between Kaiser and the RWQB, and  
3 other water previously dedicated by the Appropriative Pool.

4 (b) New Yield of the Basin, unless the water Produced and treated by  
5 the Desalters is dedicated by a purchaser of the desalters water to offset the  
6 price of the salted water to the extent of the dedication;

7 (c) Safe Yield of the Basin, unless the water Produced and treated by  
8 the Desalters is dedicated by a purchaser of the the salted water to offset the  
9 price of the salted water to the extent of the dedication;

10 (d) Additional Replenishment Water purchased by Watermaster, the  
11 cost of which shall be levied as an Assessment by Watermaster.

12  
13 C. The 2007 Peace II Agreement (Peace II)

14 1. Peace II Agreement Article VI-Groundwater Production by and  
15 Replenishment for Desalters and Article VII-Yield Accounting further defined the  
16 accounting for the Desalters and Desalter Production Offsets.

17 2. Peace II Paragraph 6.2(a)(iii) states as follows in pertinent part:  
18 Peace II Desalter Production Offsets. To facilitate Hydraulic Control through  
19 Basin Re-Operation, [court note: that is, water pumped as part of the 600,000  
20 AF controlled overdraft] in accordance with the 2007 Supplement to the  
21 OBMP Implementation Plan and the amended Exhibits G and I to the  
22 Judgment, additional sources of water will be made available for purposes of  
23 Desalter Production and thereby some or all of a Replenishment obligation.  
24 With these available sources, the Replenishment obligation attributable to  
25 Desalter production in any year will be determined by Watermaster as follows:

26 (a) Watermaster will calculate the total Desalter Production for the  
27 preceding year and then apply a credit against the total quantity from: . . .

28 (iii) New Yield (other than Stormwater (Peace Agreement Section

1 7.5(b)); . . .

2 v) Safe Yield that may be contributed by the parties (Peace  
3 Agreement Section 7.5(c));

4 (vi) any Production of groundwater attributable to the controlled  
5 overdraft authorized pursuant to amended Exhibit I to the Judgment.  
6 [The Judgment allowed for a temporary controlled overdraft, *i.e.*,  
7 initially 200,000 AF and then an additional 400,000 AF total  
8 production/pumping starting in 2007 and ending in 2026 without  
9 replenishment, in order to achieve Hydraulic Control. (Safe Yield Reset  
10 Implementation Desalter Replenishment Accounting Illustration (per  
11 Peace II Agreement, Section 6.2 (PIIA, 6.2) and June 11, 2015 Key  
12 Principles)–Exhibit C to Attachment 1, Watermaster’s Motion regarding  
13 2015 Safe Yield Reset Agreement, Amendment of Restated Judgment,  
14 Paragraph 6.]

15 Paragraph 7.1 provides as follows:

16 New Yield Attributable to the Desalters. Watermaster will make an annual  
17 finding as to the quantity of New Yield that is made available by Basin Re-  
18 Operation including that portion that is specifically attributable to the Existing  
19 and Future Desalters. Any subsequent recalculation of New Yield as Safe  
20 Yield by Watermaster will not change the priority set forth above for  
21 offsetting Desalter production as set forth in Article VII, Section 7.5 of the  
22 Peace Agreement. For the initial term of the Peace Agreement, neither  
23 Watermaster nor the Parties will request that Safe Yield be recalculated in a  
24 manner that incorporates New Yield *attributable to the Desalters* [emphasis in  
25 original] into a determination of Safe Yield so that this source of supply will be  
26 available for Desalter Production rather than for use by individual parties to  
27 the Judgment.

28 2. Additionally, in 2007 Peace II ¶1.1(d) defined Re-Operation as “the



1 controlled overdraft [pumping without replenishment] of the Basin by the managed  
2 withdrawal of groundwater Production for the Desalters and the potential increase in  
3 the cumulative un-replenished Production from 200,000 [acre-feet] authorized by  
4 paragraph 3 Engineering Appendix Exhibit I to the Judgment, to 600,000 acre-feet  
5 for the express purpose of securing and maintaining Hydraulic Control as a  
6 component of the Physical Solution.” The Peace II agreement amended the Restated  
7 Judgment’s Engineering Appendix to specify the additional 400,000 acre-feet that  
8 would be dedicated exclusively to the purpose of Desalter replenishment (Restated  
9 Judgement Exhibit “I” §2(b)[3]).

10 3. Peace II, Paragraph 6.2(a)(iii) gives Watermaster a basis to calculate the  
11 total Desalter production from the preceding year and then apply against that  
12 production/pumping a “credit” (*i.e.*, a reduction) which included a number of  
13 factors, including New Yield referencing Peace I, paragraph 7.5(b). This credit  
14 procedure is an important issue going forward for the administration of water  
15 allocations:

16 a) Peace I, paragraph 1.1(aa) defines New Yield as “proven increases in  
17 yield in quantities greater than historical amounts from sources of  
18 supply including, but not limited to, operation of the Desalters  
19 (including the Chino I Desalter), induced Recharge and other  
20 management activities implemented in operational after June 1, 2000.”

21 I) The court concludes that New Yield in the above paragraph means  
22 water produced/pumped by the Desalters, because that is how yield is  
23 always used, e.g., Safe Yield, Operating Safe Yield, etc., and the source  
24 of supply is the Desalters as identified in the definition.

25 II) So, New Yield includes water produced/pumped by the Desalters.

26 b) Peace I, paragraph 1.1(nn) defines “Recharge and Recharge Water as  
27 “introduction of water to the Basin, directly or indirectly, ... .” Recharge  
28 references the physical act of introducing water to the Basin.”

- 1 c) The conclusion of the court is that after Peace II, the definition New  
2 Yield now includes both Desalter operation, *i.e.*, production/pumping  
3 from the Desalters, and induced Recharge (*i.e.*, groundwater flowing  
4 back into the Basin from the Santa Ana River as the result of Desalter  
5 operation).
- 6 d) Peace II was consistent with Peace I. Peace II provided that the parties  
7 would avoid some or all or a replenishment obligation for Desalter  
8 production by getting credit/reduction against that production from  
9 sources such as New Yield which includes induced Recharge.
- 10 I) Peace I defined New Yield to include “operation of the Desalters” and  
11 “induced Recharge.”
- 12 II) The court concludes that the Peace I and Peace II when read together  
13 recognized that some of the water which the Desalters  
14 produced/pumped came from induced recharge from the Santa Ana  
15 River.
- 16 III) Peace II was not explicit it stating that the Desalter production  
17 offset should follow the priorities of Peace I ¶7.5, but the court  
18 concludes that the replenishment water, *i.e.*, Desalter-induced recharge,  
19 must follow the priorities of Peace I.
- 20 (a) The agreements must be read together and interpreted together  
21 because they form a context for each other.
- 22 e) In its response to Judge Reichert’s questions, Chino argued that SYRA’s  
23 failure to give a specific definition to “Desalter-induced recharge” was  
24 purposeful because the failure allowed SYRA to use “Desalter-induced  
25 recharge” synonymously with New Yield. The court does not find  
26 “Desalter-induced recharge” to be synonymous with New Yield. The  
27 court finds that “Desalter-induced recharge” is only synonymous with  
28 “induced Recharge.” Therefore Desalter-Inducted Recharge is included

1 in the definition of New Yield, as set forth in Peace I ¶1(aa): “induced  
2 Recharge and other management activities implemented in operational  
3 after June 1, 2000” includes Desalter-induced recharge.

4 I) . The court further finds that “Desalter-induced recharge” and  
5 “induced Recharge” mean water flowing back into the Basin from the  
6 Santa Ana River due to production/pumping by the Desalters lowering  
7 the ground water table in the Basin. Finally, the court notes that New  
8 Yield includes Desalter production and Desalter-induced recharge.

9 (a) This result is exactly what the Desalters were designed to  
10 accomplish. They have achieved Hydraulic Control, meaning they  
11 have lowered the water table at the south end of the Basin, so that  
12 only a de minimus amount of Basin water is flows into the Santa  
13 Ana River.

14 (b) In fact the Desalters have accomplished their design objective so  
15 well that now some water flows from the Santa Ana River into the  
16 Chino Basin. The court finds that his water is New Yield as set  
17 forth above.

18 II) The court further finds that “Desalter-induced recharge” aka “induced  
19 Recharge” is measureable, part of which comes from the Santa Ana  
20 River, and is set forth in Watermaster’s response to the court’s  
21 questions. This water is also known as Santa Ana River Underflow or  
22 SARU.

23 4. Peace II specified Desalter production/pumping replenishment to  
24 include induced Recharge, controlled overdraft, and other sources set forth in Peace  
25 II ¶6.2(a). The Peace I and Peace II agreements did not specify any additional  
26 sources of Desalter replenishment, such as Ag Pool water or Safe Yield.

27 5. CONCLUSION:

28 Now, after Peace II, there were additional sources of water for the Basin, the

Desalter operation/Desalter-induced recharge, as well as the historical overdraft, as summarized below.

Ag Pool water		Comments
1995 Judgment amendment	82,800 AFY of the Ag Pool's water available to the Appropriate Pool with Appropriative Pool claims prioritized as follows: (1) to supplement, and the particular year, water available from Operating Safe Yield to compensate for any reduction in the Safe Yield by reason of recalculation thereof after the tenth year of operation hereunder. (2) pursuant to conversion claims as defined in Subparagraph (b) hereof. (3) as a supplement to Operating Safe Yield, without regard to reductions in Safe Yield.	
2000 Peace I-Desalters start construction and pumping water	Early Transfers of 32,800 AFY of Ag Pool water now go to the Appropriative Pool	New Yield (with conditions) is source of water to replenish water pumped by the

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	<p>(leaving 50,000 AFY to Ag Pool). The remaining Ag Pool water is subject to Appropriative Pool's prioritized claims. Peace I §1.1(aa) defines New Yield to include water produced/pumped from the Desalters.</p>	<p>Desalters. Water produced/pumped by the Desalters is New Yield and sourced by induced recharge and overdraft. As New Yield, water pumped by the Desalters is not Safe Yield or Safe Operating Yield. That water is "yield" attributable to specific sources of supply not included in Safe Yield.</p> <p>(Watermaster's Response to Order for Additional Briefing, page 5, line 22-23.)</p> <p>Therefore at the time of Peace I Desalter operations did not affect Safe Yield or Operating Safe Yield. Water produced/pumped by the Desalters was not added to or subtracted from yield of the Basin.</p> <p>Water</p>
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		produced/pumped by the Desalters had a separate allocation.
2007 Peace II-overdraft increased	Additional 400,000 AF above the 200,000 AF provided in the Judgment for a total of 600,000 AF.	This is a diminishing pumping allocation as the overdraft goes to 0 in 2017. Its purpose was to help establish Hydraulic Control.
Peace II Desalters	Peace II ¶7.1 requires Desalter production (defined as New Yield) excluded from the definition of Safe Yield. However, Peace II Article VI identifies offsets for Desalter production, which includes New Yield the meaning of which includes induced Recharge. (Peace I, ¶1.1(aa).)	Desalter production reaches above 20,000 AFY. Watermaster's Response to Order for Additional Briefing, Exhibit 1.

The court concludes that Peace II did not change any of the priorities for claims on actual water production. Peace II addressed Desalter replenishment and production/pumping but did not affect the priorities for allocations of unproduced Ag Pool water.

1 **V. SYRA ARTICLE 5-STORMWATER RECHARGE PLAN AND**  
2 **WATERMASTER ACCOUNTING ANALYSIS**

3 In the instant motion, Watermaster asks the court to approve 1) a stormwater  
4 recharge plan, and 2) an accounting for allocation transfers as set forth in the Safe  
5 Yield and Reset Agreement (SYRA). The court will address these proposals  
6 separately.

7 A. Stormwater Recharge–SYRA ¶5.1

8 1. Although there have been no objections to this aspect of SYRA, the  
9 court denies its enforcement because the court finds that SYRA's provisions  
10 regarding anything other than they Safe Yield reset cannot be severed for the reasons  
11 set forth in Section II above.

12  
13 B. Desalter-Induced Recharge Allocations, Early Transfers, Land Use  
14 Conversion–SYRA ¶5.2 and SYRA ¶5.3.

15 1. Because these provisions are major sources of contention among the  
16 parties, the court will set them forth in their entirety.

17 SYRA ¶5.2 sets forth the following provisions regarding Desalter Induced  
18 Recharge, and SYRA ¶5.3 sets forth the following provisions regarding Post 2030  
19 Land Use Conversions and Early Transfers.

20 5.2 Desalter-Induced Recharge. After the Effective Date and until  
21 termination of this Agreement, the parties expressly consent to Watermaster's  
22 accounting for Basin recharge arising from or attributable the Desalters as  
23 follows:

24 (a) 2001-2014 Desalter-Induced Recharge. Induced recharge that  
25 arises from or is attributable to the Desalters for the period of production  
26 years 2001-2014 shall be accounted for as Safe Yield, in the manner it has been  
27 distributed through approved Watermaster Assessment Packages, shall not be  
28 considered New Yield, and shall not be considered to have been available for

1 production by the Desalters.

2 (b) 2015-2030 Desalter-Induced Recharge. For the production years  
3 of 2015- 2030, Watermaster shall account for induced recharge that arises  
4 from or is attributable to the Desalters as equal to fifty (50) percent of the total  
5 Desalter Production during each applicable production year up to a maximum  
6 of twenty-thousand (20,000) AFY of recharge. Consistent with Paragraph  
7 6.2(a)(iii) of the Peace II Agreement, Watermaster shall deem the induced  
8 recharge as having been produced by the Desalters. During each applicable  
9 production year, Watermaster shall reduce Safe Yield by an amount equal to  
10 fifty (50) percent of the total Desalter Production, up to a maximum of  
11 twenty-thousand (20,000) AFY, and require a corresponding supplementation  
12 by the reallocation of available unproduced Agricultural Pool's share of the  
13 Basin's Safe Yield.

14  
15 Claims for reallocation of the remaining unproduced quantity of the  
16 Agricultural Pool's share of Safe Yield shall be satisfied consistent with section  
17 6.3(c) of Watermaster's Rules and Regulations, as amended as part of the  
18 Peace II Measures, and the October 8, 2010 Order Approving Watermaster's  
19 Compliance with Condition Subsequent Number Eight and Approving  
20 Procedures to be used to Allocated Surplus Agricultural Pool Water in the  
21 Event of a Decline in Safe Yield.

22 (c) 2031-2060 Desalter-Induced Recharge. Should the term of the  
23 Peace Agreement be extended pursuant to Paragraph 8.4 thereof, the  
24 treatment of Desalter-Induced Recharge shall be subject to the negotiation of  
25 a new and separate agreement among the Parties to the Judgment. The  
26 accounting provided for in Section 5.2(b), above, shall be without prejudice to  
27 the negotiation of such a new and separate agreement among the Parties to the  
28 Judgment. Unless otherwise agreed by the Parties or ordered by the court,



during the extension term, Watermaster shall not consider such recharge to require supplementation by the reallocation of a portion of the unproduced Agricultural Pool's share of Safe Yield.

5.3 Post-2030 Priority among Land Use Conversion and Early Transfer Claims. At the expiration of the Peace II Agreement, the Peace II provisions relating to the distribution of surplus water by the Agricultural Pool requiring that claims for the Early Transfer of 32,800 AFY and for Land Use Conversion be treated equally are expressly repealed including (i) the amendment to Section 6.3(c) of Watermaster's Rules and Regulations, pursuant to the Peace II measures, and (ii) Section III.(6) of the October 8, 2010 Order Approving Watermaster's Compliance with Condition Subsequent Number Eight and Approving Procedures to be used to Allocate Surplus Agricultural Pool Water in the Event of a Decline in Safe Yield. In any Peace Agreement extension term, the previous changes to Restated Judgment, Exhibit "H", Paragraph 10(b)(3)(i) effectuated by Paragraph 4.4(c) of the Peace Agreement, which, to the extent sufficient unallocated Safe Yield from the Agricultural Pool is available for conversion claims, allocate 2.0 acre-feet of unallocated Safe Yield water for each converted acre, shall remain in effect.

C. The court summarizes the effect of these SYRA proposals ¶5.2 and ¶5.3 as follows:

Ag Pool water		Comments
1995 Judgment amendment	82,800 AFY of the Ag Pool's water available to the Appropriate Pool with Appropriative Pool claims prioritized as follows:	

	<p>(1) to supplement, and the particular year, water available from Operating Safe Yield to compensate for any reduction in the Safe Yield by reason of recalculation thereof after the tenth year of operation hereunder.</p> <p>(2) pursuant to conversion claims as defined in Subparagraph (b) hereof.</p> <p>(3) as a supplement to Operating Safe Yield, without regard to reductions in Safe Yield.</p>	
<p>2000 Peace I– Desalters start construction and pumping water</p>	<p>Early Transfers of 32,800 AFY of Ag Pool water now goes to the Appropriative Pool (leaving 50,000 AFY to Ag Pool). The remaining Ag Pool water is subject to Appropriative Pool's prioritized claims.</p>	<p>New Yield (with conditions) is source of water to replenish water pumped by the Desalters. Therefore Desalters do not affect Safe Yield or Operating Safe Yield. Water produced/pumped by the Desalters is not added to or subtracted from Safe Yield or</p>

		Operating Safe Yield of the Basin.
2007 Peace II-overdraft increased	Additional 400,000 AF above the 200,000 AF provided in the Judgment for a total of 600,000 AF.	This is a diminishing pumping allocation as the overdraft goes to 0 in 2017.
SYRA proposal: (see column to right for <i>Steps 1-3</i> ): <i>Step 4</i> : SYRA ¶5.2(b) subtracts 50% of total Desalter production up to 20,000 AFY from Ag Pool Water and then adds that 50% of total Desalter production up to 20,000 AFY to Safe Yield (to make up for the subtraction in <i>Step 3</i> ).*	SYRA proposal <i>Step 1</i> : The Desalter production/pumping up to 20,000 AFY is allocated to the Desalters, not as Safe Yield or Safe Operating Yield [or New Yield]. <i>Step 2</i> : Under SYRA ¶5.2(b) one-half of the source of Desalter production up to 20,000 AFY is attributed to “Desalter-induced recharge.” Desalter-induced Recharge means water flowing back into the Basin from the Santa Ana River. <i>Step 3</i> : SYRA then subtracts the other half of Desalter production up to 20,000 AFY from Safe Yield.	
<b>Additional SYRA Effects: <i>Step 5</i></b> (see above for <i>Steps 1-4</i> )		
The Ag Pool water allocation is reduced by up to 20,000 AFY for the Desalters.		

SYRA is unclear where the priority lies with respect to priority of allocation as required by Judgment Exhibit "H" Paragraph 10. The court orders that those priorities must be followed. Because the court has ordered that those priorities be followed, court concludes that it cannot order these provisions of SYRA in addition to SYRA's not being severable. At best SYRA is ambiguous with respect to following the priorities set by the Judgment and the Court Approved Management Agreements. At worst, SYRA contradicts them.

\*So, the court concludes that previous to SYRA, the Desalter water production/pumping could be offset from a prioritized list of sources including New Yield (induced recharge). Now under SYRA:

1) All of the induced recharge gets allocated to water produced/pumped by the Desalters.

2) Watermaster reduces Safe Yield by 50% of the Desalter production up to 20,000 AFY.

3) Then, Watermaster adds to Safe Yield 50% of the Desalter production up to 20,000 AFY, from water allocated to the Ag Pool, to make up for (aka backfill) the reduction in Safe Yield allocated to Desalter production.

4) This means that the availability of Ag Pool water goes down and thereby the availability of unproduced Ag Pool water for the priorities set forth in the Judgment and the Court Approved Management Agreements. The priorities are also set forth in Watermaster Rules and Regulations ¶6.3(a).

5) Elaborating on Example 1-A from Section IV.B.5 of this order above, the court's analysis is as follows

Example 1-B	Explanation	Comment
Initial Ag Pool allocation	82,800 AFY	Judgment
Ag Pool production/pumping	- 33,600 AFY	Assumption based the current credited production (pumping)

		for agricultural groundwater is about 33,600 AFY, but that includes agricultural land irrigated with reclaimed water. [The actual groundwater production for agricultural purposes is about 22,000 AFY. Jurupa Services District's response to Judge Reichert's Request for Clarification, March 22, 2016 page 2, lines 8–10.]
Initial balance after production	49,200 AFY	82,800 acre-feet – 33,600 acre-feet = 49,200 acre-feet
Conversion claims	- 2000 acre-feet	Assumption: The subtraction for satisfying conversion claims before any reallocation. (1000 acres x 2.0 acre feet of water/one acre converted = 2000 acre-feet).
Balance:	47,200 AFY	49,200 acre-feet - 2000 acre-feet = 47,200 acre-feet. Ag Pool Water available after conversion priority claims pursuant to Judgment Exhibit "H" Paragraph 10
Reduction for Early Transfers	- 32,800 AFY	Basic Early Transfer from 82,800 AFY allocation leaving 50,000 AFY for the Ag Pool itself to produce/pump and for

		additional claims by the Appropriative Pool pursuant to Peace I and Peace II.*
Balance	14,400 AFY	(47,200 acre-feet - 32,800 acre-feet = 14,400 acre-feet. This is the Ag Pool water available for reallocation to Appropriative Pool after subtraction of conversion priority claims of 2,000 acre-feet from and the 32,800 Early Transfer of unproduced/unpumped from the allotment of Ag Pool water.

Now, to examine the effect of SYRA on the Appropriative Pool:

Starting balance available Ag Pool water	14,400 AFY	Total Ag Pool water available for production/pumping from the example above
Desalter reallocation	- 20,000 AFY	SYRA Desalter reallocation: 20,000 AFY of Desalter production is allocated from Ag Pool water to Safe Yield.
Balance:	- 5,600 AFY	A negative amount. This plausible scenario assumes 2,000 AFY of conversion claims. The negative balance shows that this scenario under SYRA would not leave sufficient Ag Pool water for

		<p>that amount of conversion claims. In order to meet conversion claims and Early Transfer allocations, the Ag Pool would only be able to produce/pump 26,000 AFY, well below their current credited pumping. Calculation follows:</p> $82,800/\text{initial allocation}$ $- 26,000/\text{pumped} = 56,800$ $56,800 - 2,000/\text{conversion claims} = 54,800$ $54,800 - 32,800/\text{Early Transfer} = 20,000$ $20,000 - 20,000/\text{Desalter reduction from Ag Pool Allocation} = 0$
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The court concludes that there is no basis in the Judgement or any of the Court Approved Management Agreements for the post SYRA result identified in the plausible scenario above.

D. Further Analysis and orders:

1. In addition to SYRA's not being severable, the court denies Watermaster's motion with respect to the implementation of ¶5.2 and ¶5.3 of SYRA for the following reason:

- a) The court concludes that SYRA paragraphs 5.2 and 5.3 fundamentally change the allocations of Appropriative Pool and of Ag Pool water. Those fundamental changes are inconsistent with the Judgment and the

1 Court Approved Management Agreements

2 b) Peace I and Peace II both define Desalter production as within the  
3 definition of New Yield and therefore outside of the definition of Safe  
4 Yield. Through a several step re-allocation reassignment described  
5 above and summarized in this section of the court's order, SYRA now  
6 moves Desalter production into Safe Yield. The parties have not  
7 demonstrated any legal ~~or practical requirement~~ basis which allows this.  
8 Peace I and Peace II prohibit this.

9 c) The court concludes that Peace II Agreement Paragraphs 6.2(a)(iii) and  
10 7.1 provide that through 2030 (the initial term of Peace I Agreement as  
11 set forth in ¶8.2) recharge attributable to the Desalters is allocated for  
12 Desalter Production and not allocated as Safe Yield producible (*i.e.*,  
13 water available to be pumped without a replenishment obligation by  
14 purchase or otherwise).

15 I) Peace II ¶7.1 excluded New Yield attributable to the Desalters from  
16 a determination of Safe Yield, at least for the 30 year term of Peace  
17 Agreement.

18 II) Peace I ¶1.1(aa) defines New Yield to include induced recharge.

19 (a) The court finds that induced recharge includes Desalter-  
20 induced recharge.

21 III) The court finds that Peace I ¶7.5 defines replenishment water for  
22 the Desalters includes New Yield, but not Safe Yield.

23 IV) The court finds that Peace II ¶7.1 states that no party can  
24 incorporate New Yield attributable to the Desalters into Safe Yield.

25 (a) In contradiction to Peace I and Peace II, SYRA ¶5.2(a)  
26 explicitly defines Desalter-induced recharge as Safe Yield, in  
27 contradiction to Peace I and Peace II.

28 V) In contradiction to the Peace I and Peace II, the court finds that



1 SYRA attempts to incorporate New Yield from the Desalters into  
2 Safe Yield through the accounting method of 1) taking Desalter  
3 induced yield water coming from Desalter-induced recharge, then 2)  
4 moving that water into Safe Yield, then 3) backfilling Safe Yield  
5 from unproduced Ag Pool water.

6 (a) This is an unacceptable circumvention of the court's orders  
7 based on Peace I and Peace II.

8 d) The analysis above shows that these SYRA provisions are contrary to  
9 the Judgment and the Court Approved Management Agreements,  
10 specifically Peace I and Peace II. These SRYA provisions can prevent  
11 the application of the Judgment provisions regarding conversion claims.  
12 They are invalid.

13 e) There is no basis in the Judgment or the Court Approved Management  
14 Agreements for the attribution of water production from Desalters into  
15 the definition of Safe Yield.

16 f) There is no basis in the Judgment or any of the Court Approved  
17 Management Agreements for the splitting and reallocation of Desalter  
18 production/pumping to one-half to Desalter-induced recharge and one-  
19 half to Safe Yield.

20 g) There is no basis in the Judgment or any of the Court Approved  
21 Management Agreements to reallocate Ag Pool water to Safe Yield to  
22 make up for the Safe Yield reallocated to the Desalters.

23 h) Due to the Desalters, there is now recharge coming from the Santa Ana  
24 River back into the Chino Basin. SYRA Paragraph 5.2(b) takes the  
25 Peace I and Peace II agreements one step—wrongfully—farther by  
26 identifying how this recharge quantity will be estimated, *i.e.*, 50% of  
27 Desalter Production, and then further specifies that amount of recharge  
28 will be allocated to Desalter production and not to the parties as part of

1 their allocation of the Safe Yield. There is no legal basis in the  
2 Judgment or the Court Approved Management Agreements for this  
3 redefinition of Safe Yield to include of 50% of Desalter Production up  
4 to 20,000 AFY through a mechanism of passing the amounts through  
5 the Appropriative Pool allocation.

- 6 i) SYRA attempts now to remove the special exception for New Yield  
7 from Desalter induced recharge and production and incorporate it into  
8 Safe Yield. The mechanism by which SYRA attempts to do this is by 1)  
9 taking half of the Desalter production and sourcing that  
10 production/pumping from Desalter induced recharge from the Santa  
11 Ana River and 2) sourcing the other half from the Appropriative Pool  
12 through unproduced Ag Pool water. The court concludes and finds  
13 that this attempt is not justified because it can interfere with the priority  
14 of claims on unproduced Ag Pool water set forth in the judgment and  
15 the Court-Approved Management Agreements.

16 I) The court notes that Peace II, Article VII-Yield Accounting, ¶7.2(d)  
17 discusses a contingency if Western Municipal Water District  
18 (WMWD) and the Appropriative Pool “do not reach agreement on  
19 apportionment of controlled overdraft of Future Desalters, then no  
20 later than August 31, 2009, the members of the Appropriative Pool  
21 will submit a plan to Watermaster that achieves the identified goals  
22 of increasing the physical capacity of the Desalters and potable water  
23 use of approximately 40,000 acre-feet of groundwater production  
24 from the Desalters from the Basin no later than 2012.”

25 II) The court concludes that the Desalter production of 40,000 acre-feet  
26 has been under discussion since Peace II in 2007.

27 III) However, the court cannot accept the resolution set forth in  
28 SYRA for the reasons stated in this order.

- 1 j) SYRA ¶5.2 and ¶5.3 contradict and conflict with Peace I and Peace II.
- 2 I) Peace II ¶7.1 requires neither Watermaster nor the parties to request
- 3 that safe yield be recalculated in a manner that incorporates New
- 4 Yield *attributable to the Desalters* into the determination of Safe Yield
- 5 so that this source of supply will be available for Desalter
- 6 Production rather than for use by individual parties to the judgment.
- 7 (Emphasis in original.)
- 8 II) SYRA now includes New Yield in the determination of Safe Yield in
- 9 two ways.
- 10 (a) First, SYRA takes up to 20,000 AFY away from Safe Yield
- 11 through Desalter Production.
- 12 (b) Second, SYRA adds back up to 20,000 AFY to Safe Yield
- 13 from unproduced Ag Pool water.
- 14 (c) The net change to Safe Yield is 0, but available Ag Pool water
- 15 for allocation is reduced up to 20,000 AFY. This re-allocation
- 16 and re-accounting, is not justified or supported in the Peace I,
- 17 Peace II, Watermaster Rules and Regulations, or the court's
- 18 orders of implementation, the Judgment, or the CAMAs.
- 19 (d) The following chain shows SYRA's violations of the previous
- 20 orders:
- 21 (i) Desalter-induced recharge is New Yield. (Peace
- 22 ¶1(aa).)
- 23 (ii) Peace II ¶7.1 prevents New Yield from being
- 24 incorporated within Safe Yield.
- 25 (iii) SYRA moves 20,000 AFY of Desalter-induced
- 26 recharge to the Ag Pool.
- 27 (iv) Then SYRA moves the 20,000 of Desalter-induced
- 28 recharge (now characterized as Ag Pool Water) into

Safe Yield.

(v) Therefore, SRYA recalculates Safe Yield to incorporate New Yield in violation of Peace II ¶7.1

(vi) Moving the 20,000 AFY of Desalter-induced Recharge through the portal of the Ag Pool water does not change its definition of New Yield.

k) The court does not find a legal ~~or factual basis~~ for determining a post-2030 priority among land use conversion and early transfer claims. The priority is set forth in the judgment and as specified in this order

l) In addition to SYRA's not being severable, the court's 2010 order does not require the implementation of ¶5.2 or ¶5.3.

Section III.(6) of the October 8, 2010 order states:

Watermaster is ordered to utilize the procedures regarding the re-allocation of surplus Agricultural Pool water the event of a decline in Safe Yield as described in the December 2008 staff report and the December 4, 2008 memorandum from legal counsel. Specifically, in the event that Operating Safe Yield is reduced because of a reduction in Safe Yield, Watermaster will follow the hierarchy provided for in the Judgment, exhibit "H," by first applying the unproduced Agricultural Pool water to compensate Appropriative Pool members for the reduction in Safe Yield. (Judgment, Exhibit "H," paragraph 10 (a).) If there is unallocated water left, Watermaster will then follow the remainder of the hierarchy and reallocate unallocated Agricultural Pool water next to conversion claims then to supplement the Operating Safe Yield without regard to reductions in Safe Yield according to the guidance provided by Peace Agreement I & II and Watermaster's rules and regulations as amended. If, after

1 applying the unallocated Agricultural Pool water to compensate  
2 the Appropriate Pool members for the reduction in Safe Yield,  
3 the actual combined production from the Safe Yield made  
4 available to the Agricultural Pool, which includes overlying  
5 Agricultural Pool uses combined with land use conversions and  
6 the Early Transfer, exceeds 82,800 in any year, the amount of  
7 water available to members of the Appropriative Pool shall be  
8 reduced pro rata in proportion to the benefits received according  
9 to the procedures outlined in Watermaster Rules and  
10 Regulations.

11 I) In considering the reference to Watermaster Rules and  
12 Regulations in the preceding paragraph, if the order is vague, the court  
13 now clarifies it. In the instant order, the court has clarified that  
14 Watermaster must follow the priorities set forth in the Judgment for  
15 allocations of unproduced Ag Pool water.

16 II) The court has the continuing jurisdiction to interpret and apply  
17 its previous orders in light of changing circumstances. In light of the  
18 instant motion, the court is doing so.

19 III) JCSD correctly points out that pursuant to the Judgment  
20 ¶15 the court is authorized “to make such further or supplemental  
21 orders or directions as may be necessary or appropriate for  
22 interpretation, enforcement or tearing out of this judgment ... .”

23 IV) Because there has not been a reset in Safe Yield, the court  
24 does not find that there has been a detrimental reliance on the court’s  
25 October 8, 2010 Order. This would not be the first time that the  
26 court’s orders and interpretations thereof have the subject of further  
27 litigation.

28 V) Watermaster’s further response to order for additional briefing,

1 filed April 11, page 3, lines 15-19 states:

2 Both responses provided by the City of Chino and JCSD omit  
3 the key fact: Section 6.3(c) Watermaster Rules and Regulations,  
4 as amended pursuant to Peace II measures provides that water  
5 unused by members of the Agricultural Pool shall be divided  
6 equally between Land Use Conversions and Early Transfers. The  
7 Court's October 8, 2010 Order provides that this shall be done  
8 even if the safe yield declines. For the first time, approximately  
9 five years following this Order, the City and JCSD would set it  
10 aside and thereby unwind accounting, court approvals, and  
11 agreements impliedly if not expressly made in reliance thereon.

12 m) No party has offered any specific detriment that would occur from the  
13 court's instant orders regarding the priorities.

14 n) Watermaster is relying on its own interpretation of its own rules and  
15 regulations which the court does not accept for the reasons set forth  
16 herein. The court has clarified its October 8, 2010 Order.

17 I) Watermaster cannot use its own interpretations of the court's  
18 orders to contradict the court's interpretation. The final decision is the  
19 court's, not Watermaster's.

20 II) If there is any ambiguity that Watermaster finds the current  
21 circumstances for the application of that Order III.(6) the court clarifies  
22 it now. SYRA's reference to that order's provision does not help in its  
23 clarification or application.

24 III) Watermaster argues that "in the event that Operating Safe  
25 Yield is reduced because of a reduction in Safe Yield, Watermaster will  
26 follow the reallocation hierarchy provided for in the Appropriative Pool  
27 Pooling Plan by first applying the unallocated Ag Pool water to  
28 compensate the Appropriate Pool members for the reduction in safe

1 yield. (Restated Judgment, exhibit “H), paragraph 10 (a).) If, thereafter,  
2 there is unallocated water left, Watermaster then followed the  
3 remainder of the hierarchy and reallocate unallocated agricultural Pool  
4 water next to land use conversion claims and Early Transfer, and then  
5 to supplement the Operating Safe Yield without regard reductions in  
6 safe yield.” (Watermaster’s Reply to Oppositions to Motion regarding  
7 2015 Safe Yield Recent Agreement, Amendment Restated Judgment,  
8 Paragraph 6, page 24, lines 7-14.)

9 IV) This argument equates land use conversion claims and  
10 Early transfer claims. This argument is incorrect for the reasons stated  
11 herein. Additionally:

12 (a) The court’s order filed October 8, 2010, paragraph III.(6)  
13 is quoted in full in section “I” above:

14 (b) This paragraph III.(6) provides no basis to equate land use  
15 conversions and Early Transfers. The specific language of the  
16 order requires Watermaster to follow the hierarchy in Judgment,  
17 Exhibit “H” which does not include, or even mention, Early  
18 Transfers. Early transfers were an aspect of Peace I, and the  
19 court has interpreted and ordered the hierarchy to require  
20 conversion claims to have priority over Early Transfer claims.

21 o) Additionally, the court rejects and denies the implementation of SYRA  
22 ¶5.3 specifically because, as with SYRA ¶5.2, this provision has the  
23 same problems of interpretation of the court’s 2010 Order Approving  
24 Watermaster’s Compliance with Condition Subsequent Number Eight  
25 and Approving Procedures to be used to Allocate Surplus Agricultural  
26 Pool Water in the Event of a Decline in Safe Yield.

27 p) Watermaster’s erroneous interpretation of the order of priorities is not a  
28 basis to continue that erroneous interpretation. If Watermaster has to

1 make a reallocation, then it must do so in order to follow the court's  
2 order. A wrong practice can be long-standing, and still be wrong. A  
3 wrong practice cannot be a basis of prejudice.

- 4 q) The court rejects any argument that this issue is subject to issue  
5 preclusion. The specific issues raised by the oppositions to the motion  
6 have not been specifically addressed by the court. They are not barred  
7 by laches. The issues have been timely raised within the context of the  
8 instant motion, and the court always retains jurisdiction to modify its  
9 orders as those orders are drawn to the attention of the court, and the  
10 court determines they require modification for the reasons set forth in  
11 this order.

12  
13 E. Dispute re priority of claims

14 A dispute has arisen concerning the priority of claims. The dispute concerns  
15 the priority of allocation claims to unproduced/unpumped Ag Pool water. The 1978  
16 Judgment, Exhibit "H," Paragraph 10 was very specific as set forth in section A of  
17 this ruling above. For convenience, it is repeated here.

18 Paragraph 10 described "Unallocated Safe Yield Water" as follows:

19 To the extent that, in any 5 years, any portion of the share of Safe Yield  
20 allocated to the Overlying (Agricultural) Pool is not produced, such  
21 water shall be available for reallocation to members of the  
22 Appropriative Pool as follows:

23 (a) Priorities. Such allocation shall be made in the following sequence:

24 (1) to supplement, and the particular year, water available from  
25 Operating Safe Yield to compensate for any reduction in the Safe Yield  
26 by reason of recalculation thereof after the tenth year of operation  
27 hereunder.

28 (2) pursuant to conversion claims as defined in Subparagraph (b)



1 hereof.

2 (3) as a supplement to Operating Safe Yield, without regard to  
3 reductions in Safe Yield.”

4 Confusion has arisen with respect to the relationship between the Judgment,  
5 Exhibit “H,” Paragraph 10 on the one hand, and Watermaster Rules and Regulations  
6 ¶6.3(a) on the other. Watermaster Rules and Regulations ¶6.3(a) states as follows:

7 Accounting of Unallocated Agricultural Portion of Safe Yield. In each  
8 year, the 82,800 acre-feet being that portion of the Safe Yield Made  
9 available to the Agricultural Pool under the Judgment, shall be made  
10 available:

- 11 (i) To the Agricultural Pool to satisfy all demands for overlying  
12 Agricultural Pool lands;  
13 (ii) To land-use conversions were completed prior to October 1,  
14 2000;  
15 (iii) To land use conversions that have been completed after October  
16 1, 2000; and  
17 (iv) To the Early Transfer of 32,800 acre-feet from the Agricultural  
18 Pool to the Appropriative Pool in accordance with their pro-rather  
19 assigned share of Operating State Yield.

20 The confusion arises because Watermaster Rules and Regulation ¶6.3(a) does  
21 not explicitly confirm the priority of allegations set forth in the Judgment and as  
22 ordered by the court.

23 Chino has argued that

24 [T]he members of the Appropriative Pool have received the right to  
25 participate in annual allocations of the Unproduced Agricultural Pool  
26 Water instead of every five years called “Early Transfers” (Paragraph  
27 5.3(f-g), Peace Agreement) and the right to an equal priority of Early  
28 Transfers with Land Use Conversion Claims, which have a higher

1 priority under the Judgment, in order to maximize the amount of their  
2 Early Transfer water to the appropriators do not have Land Use  
3 Conversion Claims. (Paragraph 3.1(a)(i) and Attachment "F", Peace II  
4 Agreement). City of Chino's Opposition Watermaster Motion  
5 regarding 2015 Safe Yield Reset Agreement, Amendment of Restated  
6 Judgment, Paragraph 6, page 13, lines 19-25.

7 Attachment "F" refers to the Watermaster Rules and Regulations 6.3(c). As  
8 stated above, the court finds Watermaster Rules and Regulations 6.3(c) ambiguous.

9 The court finds that the Judgment must govern and take priority and  
10 precedent for the interpretation of any Watermaster rule or regulation, including  
11 Watermaster Rules and Regulations 6.3(c).

12  
13 **At this time, the court additionally orders as follows:**

14 A. The order of priorities set forth in the Judgment, Exhibit "H," Paragraph  
15 10 must be followed; and

16 B. Watermaster Rules and Regulations ¶ 6.3, and particularly ¶¶6.3(a) and (c),  
17 are to be interpreted to follow the priorities set forth in Judgment, Exhibit "H,"  
18 Paragraph 10. In particular, the court orders conversion claims are to receive a  
19 higher priority than Early Transfer claims for the following reasons:

- 20 (1) The conversion claims are set forth in the judgment;  
21 (2) Early Transfer claims were a creation of Peace I;  
22 (3) Early Transfer claims did not affect the priority of claims set forth in  
23 the judgment;  
24 (4) Early Transfer claims were ordered after the judgment and so must  
25 be considered subordinate to the original terms of the judgment.  
26 (5) The parties to Peace I made their agreement in the context of the  
27 judgment and therefore used the Judgement priorities as a basis for additional  
28 allocations of Ag Pool water.

1  
2  
3 **VI. SAFE STORAGE MANAGEMENT MEASURES**

4 A. Through the facilitation and nondisclosure agreement (FANDA) Watermaster  
5 attempted to facilitate an agreement among all parties avoid an accelerated  
6 cumulative draw on Excess Carry Over stored water in order to avoid undue risks.  
7 SYRA had provisions to establish a mechanism for a safe storage reserve of 130,000  
8 AF of water in the non-Supplemental Water storage accounts of the members of the  
9 Appropriative Pool as a reserve sufficient to protect the Basin. However, the  
10 concern for basin protection was balanced with temporary needs in the event of an  
11 emergency or to support Desalter Replenishment. Up to 100,000 AF could be  
12 accessed in the event of an emergency subject to conditions

- 13 a) The plan which Watermaster attempted to facilitate is identified in  
14 SYRA as “the safe storage reserve and safe storage management plan”  
15 or the safe storage management measures (SSMM).  
16 b) The City of Chino (Chino) has the largest component of Excess Carry-  
17 Over water and was the most significantly affected party.  
18 c) Chino refused to agree to SSMM.  
19

20 B. The court rejects the adoption of the Safe Storage Management Measures set  
21 forth in the SYRA Article 6. The court is not going to set forth the provisions of  
22 SYRA Article 6 because the court is rejects the article as a whole.  
23

24 C. The court rejects Article 6 of SYRA for the following reasons:

- 25 1. SYRA is not severable as set forth above.  
26 2. Watermaster states that access to safe storage in the short term is  
27 extremely remote.  
28 3. The volume in stored water accounts of Appropriative Pool members is

1 about 357,000 AF as of June 30, 2014.

2 4. The Judgment Parties presently lack the infrastructure capability (wells  
3 and pipelines) that would produce the quantity of water from storage that would  
4 trigger production from the safe storage reserve that is identified in SYRA.

5 5. Article 6 is essentially a statement of intent without specificity of  
6 implementation. The court refuses to consider or authorize an inchoate plan.

7 a) Although Watermaster argues that the Safe Storage Management  
8 Agreement provisions are still subject to “stakeholder process get to be  
9 initiated” (Watermaster’s Reply to Oppositions to Motion regarding  
10 2015 Safe Yield Reset Agreement, Amendment of Restated Judgment,  
11 Paragraph 6, page 1, line 18), the court does not approve policy  
12 statements and therefore rejects any implementation.

13 6. The Safe Storage Technical Memorandum (Exhibit E to the motion)  
14 does not set forth a factual basis for the court to order the parties to proceed with  
15 the provisions of Article 6. While the memorandum states that the SSMM will not  
16 cause Material Physical Injury or undesirable results, the memorandum does not  
17 include that the SSMM are essential to the OBMP.

18 7. The court notes that from 2000 to 2014, the short-term actual measured  
19 net recharge was less total rights allocated to the judgment Parties by as much as  
20 130,000 AF.

21 a) From this the court concludes that during this period from 2000 to  
22 2014, after offsets for production, there was recharge to the basin in  
23 excess of what water was actually produced by as much as 130,000 AF.

24 b) This recharge was accounted for in the storage of Excess Carry-Over  
25 water.

26 8. The court does not reach the arguments of Chino that the SSMM  
27 constitutes a “taking”.

28 9. The safe storage measures are not required by the physical solution of

1 the Judgment, Peace I, Peace II, the court approved management agreements, the  
2 OBMP, the court orders of implementation, or Article X, section 2 of the California  
3 Constitution.

## 4 5 6 **VII. The Safe Yield Reset and Ag Pool Water: Recalculation**

7 A. The court finds that the Safe Yield reset to 135,000 AFY is a “recalculation”  
8 within the definition of Judgment, Exhibit “H” ¶10.

9 1. SYRA used the term “reset” to describe lowering the Safe Yield to  
10 135,000 AFY.

11 a) Now that the court has rejected all of SYRA except the lowering of Safe  
12 Yield to 135,000 AFY, the court finds that “reset” is a legally unjustified  
13 and legally incorrect term for describing the lowering the Safe Yield to  
14 135,000 AFY. For the reasons stated herein, the court finds that  
15 lowering the Safe Yield to 135,000 is a recalculation within the  
16 definition of Judgment, Exhibit “H” ¶10(a)(1). For the rest of this  
17 order, the court will correctly use the term recalculation for lowering the  
18 Safe Yield from 140,000 AFY to 135,000 AFY.

19 b) Wildermuth himself calls it a recalculation. Exhibit 1 to his declaration  
20 is entitled Declaration of Mark Wildermuth-2013 Chin'o Basin  
21 Groundwater Model Update and *Recalculation* of Safe Yield Pursuant to  
22 all the Peace Agreements. [Emphasis added.]

23 c) The recalculation to 135,000 is pursuant to the “tenth year” of  
24 operation evaluation required by the Judgment.

25 d) Watermaster and the City of Ontario argue to the contrary, but the  
26 “reset” lowering of Safe Yield fits any ordinary definition of the word  
27 “recalculation.”

28 I) The whole point of the SYRA motion, related motions, and series of

hearings has been for the court to determine how to integrate the reduction of the Safe Yield from 140,000 AFY to 135,000 AFY. The court finds this reduction to be a recalculation of the Safe Yield into the current reality of the Chino Basin.

(a) In the context of SYRA, the use of the term “reset” might have made some legal sense. However, now that the court has rejected everything but the reduction, the label “reset” has no basis in fact or law.

II) The court cannot find any other way to reconcile these provisions and their interpretations while keeping the ruling consistent with reality. The reduction in Safe Yield is a recalculation, no matter how subtle the attorneys’ arguments are.

2. Therefore, the court finds and orders that the first 5,000 AFY of any unproduced Ag Pool water now has a top priority over any other claims, such as conversion claims and early transfers, and that 5,000 AFY of Ag Pool water be allocated to Operating Safe Yield pursuant to Judgment Exhibit H ¶10(a).

a) This 5,000 AFY has top priority because it is part of the Judgment.

b) To further illustrate the court’s orders, based on the tables in sections IV.B.5 and V.C.5 above

Example 1-B	Explanation	Comment
Initial Ag Pool allocation	82,800 AFY	Judgment
Subtract 5,000 AFY	- 5,000	Safe Yield recalculation reduction pursuant to Judgment Exhibit H ¶10
Ag Pool production/pumping	- 33,600 AFY	Assumption based the current credited production (pumping) for agricultural groundwater is

		Appropriative Pool pursuant to Peace I and Peace II.
Balance	9,400 AFY	(42,200 acre-feet -32,800 acre-feet = 14,400 acre-feet. This is the Ag Pool water available for reallocation to Appropriative Pool after subtraction of the recalculation reallocation, the conversion priority claims of 2,000 acre-feet from and the 32,800 Early Transfer of unproduced/unpumped from the allotment of Ag Pool water.

### VIII. Safe Yield Reset and Desalter-Induced Recharge

The court concludes and orders that Desalter-Induced Recharge is only to be applied to offset Desalter production. The court's analysis involves going back to the basics of the judgment and the Peace Agreements.

#### A. The Revised Judgment

1. The Judgment ¶I.4.(x) defines "Safe Yield" as "the long-term average annual quantity of groundwater . . . which can be produced from the Basin under cultural conditions of a particular year without causing an undesirable result."

2. The Judgment ¶I.4.(l) defines "Operating Safe Yield" as "the annual amount of water which Watermaster shall determine, pursuant to the criteria specified in Exhibit "T", can be produced from Chino Basin by the Appropriative Pool parties free of replenishment obligation under the Physical Solution herein.

a) Exhibit "T" is the Engineering Appendix which has come to include the

1 definitions of Hydraulic Control, Re-Operation water, and Desalter  
2 production.

3 3. Judgment Exhibit “H” ¶10 Unallocated Safe Yield Water states:

4 “to the extent that, in any five years, any portion of the share of  
5 Safe Yield allocated to the Overlying (Agricultural) pool is not  
6 produced, such water shall be available for reallocation to members of  
7 the appropriative pool, as follows:

8 (a) Priorities.—Such allocation shall be made in the following sequence:

9 (1) to supplement, in the particular year, water available from  
10 Operating Safe Yield to compensate for any reduction in the Safe Yield  
11 by reason of recalculation thereof after the tenth year of operation  
12 hereunder.

13 (2) pursuant to conversion claims as defined in Subparagraph (b)  
14 hereof.

15 (3) as a supplement to Operating Safe Yield, without regard to  
16 reductions in Safe Yield.

17  
18 B. The 2000 Peace Agreement I

19 1. Peace I Section I(ee) defines “Operating Safe Yield” as the “annual  
20 amount of groundwater which Watermaster shall determine, pursuant to criteria  
21 specified in Exhibit “I” to the judgment, can be produced from Chino Basin by the  
22 Appropriative Pool free of Replenishment obligation under the Physical Solution.  
23 Watermaster shall include any New Yield in determining Operating Safe Yield.”

24 a) This is a modification of the definition of “Operating Safe Yield” from  
25 the Judgment. In fact, the court notes “IV-Mutual Covenants, ¶ 4.5  
26 Construction of “Operating Yield” Under the Judgment. Exhibit I to  
27 the Judgment shall be construed to authorize Watermaster to include  
28 New Yield as a component of Operating Safe Yield.”



1  
2 C. The 2007 Peace Agreement II

3 1. Article VII Yield Accounting, ¶7.1 New Yield Attributable to the  
4 Desalters states “for the initial term of the Peace Agreement, neither Watermaster  
5 nor the Parties will request that Safe Yield be recalculated in a manner that  
6 incorporates New Yield *attributable to the Desalters* into the determination of Safe Yield  
7 so that this source of supply will be available for Desalter Production rather than for  
8 use by individual parties to the Judgment.” (Emphasis in original.)  
9

10 D. The Safe Yield Recalculation and Desalter-Induced Recharge

11 1. Watermaster correctly states that that desalter induced recharge can  
12 only be used to offset desalter production. From this Watermaster concludes that  
13 Safe Yield of 135,000 acre-feet per year must include Desalter-induced recharge.

14 This conclusion is wrong.

- 15 a) Through many avenues, Watermaster has attempted to include  
16 Desalter-Induced Recharge (with the new abbreviation of “DIR”)  
17 within the definition of Safe Yield.  
18 b) Watermaster has never explicitly offered an explanation of why  
19 Watermaster has attempted so diligently to convince the court to  
20 include Desalter-Induced Recharge within the definition of Safe Yield.  
21 I) The court considers that Watermaster’s explanation might include an  
22 argument that if Desalter-Induced Recharge is not included within the  
23 definition of Safe Yield, the parties could produce/pump water from  
24 Desalters without limit, with the result that water could be drained from  
25 the Santa Ana River without limit. That result would be not only  
26 detrimental to the hydrology of the entire region, but also legally  
27 unjustified.  
28 c) In its latest argument, Watermaster has offered to “sequester” the

1           portion of Safe Yield attributable to Desalter-Induced Recharge.

2           I) The court does not accept this characterization of Desalter  
3           production/pumping allocation because it is simply a characterization  
4           of an accounting.

5           II) The “sequestration” has no basis in the CAMA’s and adds a new, vague,  
6           undefined term to an already complicated structure of accounting.

7           III)       Watermaster argues “that Desalter-Induced Recharge is an inflow  
8           to the Basin and therefore a component of Safe Yield.”

9           (a) The court rejects this argument because it contradicts the  
10          requirement of Peace II that for the initial term of the Peace  
11          Agreement, Safe Yield will not be recalculated to include New Yield  
12          attributable to the Desalters.

13          (b) Desalter-Induced Recharge is the source of (and offset to) New  
14          Yield attributable to the Desalters. That New Yield cannot be  
15          included in Safe Yield. So, so under Peace II, Safe Yield also does  
16          not include Desalter-Induced Recharge. (Peace I ¶ 1.1(aa)-definition  
17          of New Yield; Peace I ¶7.5-Replenishment Water; Peace II ¶6.2-  
18          Peace II Desalter Production Offsets.)

19          IV)       The Responding AP Members argue that the court can only be  
20          consistent in its orders if the court resets the Safe Yield to 115,000  
21          AFY. The court also rejects this argument for the following reasons.

22          (a) Using Watermaster's own proposal, the court recognizes that there is  
23          some logic to the position of the Responding AP Members because  
24          1) if the 20,000 AFY is “sequestered” that it is not available for  
25          production/pumping without a replenishment obligation and 2)  
26          then the reality is the safe yield should be 135,000 AFY - 20,000  
27          AFY for a net of 115,000 AFY.

28          (b) However, the court concludes that the structure set up by the

Judgment, Peace I, and Peace II require that there be separate analyses for Safe Yield and New Yield attributable to the Desalters.

(i) The analysis for Safe Yield is illustrated in this order Sec. VII.5.a above.

(ii) The analysis for Desalter-Induced Recharge and New Yield attributable to the Desalters is described in Peace I and Peace II and the further order as set forth herein.

(iii) Watermaster has been accounting for these analyses since 2007, so it should not be a problem for Watermaster to continue to do so.

(c) The Responding AP Members also argues that the technical reports show that the basin can safely only sustain 135,000 AFY.

(d) However, in Exhibit 1 to the Declaration of Mark Wildermuth - 2013 Chino Basin Groundwater Model Update and Recalculation of Safe Yield Pursuant to Peace Agreements, section 1.2.3, "the updated Watermaster Model was used to estimate Santa Ana River Underflow New Yield (SARUNY) from the desalters and reoperation from both the calibration and planning periods. SARUNY means the same thing as that term *Desalter Induced Recharge* as used in the 2015 Safe Yield Reset Agreement." This definition is repeated in section 7.3.7.

(e) The Wildermuth declaration filed March 10, 2017, with the Chino Basin Watermaster Response to February 22, 2017 Order section 7.3.7 which states:

(i) "The net Santa Ana River recharge in the fiscal year spending July 1999 through June 2000 [one year] is the baseline from which to measure SARUNY, which was estimated to be -2,153 acre-ft/yr, indicating that the Chino Basin discharged to

1 the Santa Ana River more water than was recharged by the River  
2 into the Basin. . . . Table 7-10 compares Chino Desalter  
3 production and SARUNY over the period of July 2000 through  
4 July 2030. . . . The effect of 's the Chino Desalters and  
5 reoperation becomes clear in 2005 when SARUNY reaches about  
6 50 percent of CDA production. The New Yield results from the  
7 implementation of the Chino Desalters is consistent with the  
8 planning estimates that were assumed during the development of  
9 the Peace Agreements.

- 10 (f) Table 7-10 shows that starting in 2017, the ratio of new yield to  
11 CDA production is about an average of 45 percent, meaning that  
12 New Yield Desalter-Induced Recharge those years is about 45% of  
13 the Desalter production.
- 14 (g) From these facts the court concludes that the Wildermuth Safe Yield  
15 reset/recalculation has taken into account the Desalter-Induced  
16 Recharge and production, so there is no need to reduce the Safe  
17 Yield two 115,000 AFY as argued by the Responding AP Members.
- 18 (h) The Peace Agreement offsets for new yield production attributable  
19 to the Desalters are an accounting requirement process, not a feature  
20 of determination of Safe Yield.
- 21 (i) The court also concludes that the reset/recalculation has included  
22 the contractual features of the Peace Agreements, and one of those  
23 features is that Safe Yield not be recalculated to incorporate New  
24 Yield attributable to the Desalters. Wildermuth has considered this  
25 feature.
- 26 (j) Again, therefore the safe yield of 135,000 AFY does not include  
27 New Yield attributable to the Desalters.

28 2. The court still concludes for the term of Peace I (*i.e.*, until 2030), Safe

1 Yield not be recalculated in a manner that incorporates New Yield attributable to the  
2 Desalters into the determination of Safe Yield.

3 a) The 20,000 AFY of Desalter-Induced Recharge is not included with the  
4 definition of Safe Yield for the term of the Peace Agreements. To rule  
5 otherwise would contradict the Peace Agreements.

6 b) The court analogizes its ruling to the controlled overdraft allowed to  
7 achieve hydraulic control. That aspect of production/pumping was not  
8 allocated to Safe Yield. The court orders that Desalter-Induced  
9 Recharge New Yield remain unallocated to Safe Yield.

10 c) The court does not address the City of Chino's briefing regarding the  
11 Safe Yield Implementation Replenishment Accounting Illustration (Per  
12 Peace II agreement, Section 6.2 (PIIA, 6.2) and June 11, 2015 Key  
13 Principles) Watermaster motion filed October 23, 2015, Exhibit "F"  
14 Attachment 2 for the following reasons:

15 I) Chino asks if the Column G – Desalter-Induced Recharge  
16 replenishment water was coming from Desalter production.

17 II) Footnote 4 for this Column G states that "the desalter-induced  
18 recharge projection in the table is now shown at 50% of the annual total  
19 desalter production for years 2015 through 2030. Desalter -induced  
20 recharge from 2001 to 2014 (187,000 acre-feet) will be deemed Safe  
21 Yield and not available to offset Desalter production."

22 III) As part of its order that SYRA cannot be implemented, the court  
23 rejects the Safe Yield Reset Implementation Desalter Replenishment  
24 Accounting Illustration.

25 IV) The City of Ontario has argued that Desalter Induced Recharge  
26 to offset Desalter production should be "backfilled" from Safe Yield.  
27 The court rejects this argument for the following reasons:

28 (a) This is merely a characterization of what SYRA proposed to do, and,

1 for the reasons already stated, the court has rejected SYRA except  
2 for the Safe Yield recalculation.

3 (b) The Judgment, the Peace Agreements, and the CAMA's do not  
4 support this accounting, again for the reasons already stated.

5 (c) Again, for the reasons stated herein, the court rejects that Ontario's  
6 argument that a Safe Yield recalculation to 135,000 AFY is not a  
7 "Safe Yield recalculation." The argument has no merit and is  
8 completely unpersuasive.

9 (d) The court finds that the definitions of Safe Yield and New Yield are  
10 sufficiently set forth in the Judgment, Peace I and Peace II.

11 (i) Watermaster does not point to any specific conflict between the  
12 court's current/instant order and the court's order implementing  
13 Watermaster Resolution 07-05, and the court finds none.

14 (ii) The court reaffirms the definitions of Peace II which have been  
15 in effect for 10 years, and of course the definitions of the  
16 Judgement and Peace I.

17 (iii) The court finds no basis for Watermaster's attempt to define  
18 Desalter-Induced Recharge into directly, indirectly, Safe Yield or  
19 by a "sequester."

20 (iv) In reaffirming the definitions of the Judgment, Peace I, and  
21 Peace II, the court of course also notes the definition of "Safe  
22 Yield" in the Judgment ¶I.1(x) inclusive of "undesirable result,"  
23 and the "Material Physical Injury" of Peace I ¶I.1 (y).

24 V) The court finds and orders that Desalter production is not Safe Yield  
25 and Desalter production is to be offset only as provided in Peace II.  
26  
27

28 **IX. Additional Bases for Rulings**

1 A. The court has refused to implement the sections of SYRA identified above for  
2 the reasons set forth above. In the court's view, those reasons are sufficient under  
3 the law. Therefore, the court has not addressed other objections raised by the  
4 parties, such as those of the City of Chino, that Watermaster has failed to prove a  
5 change in circumstances, that Watermaster has improperly advocated for certain  
6 parties, that the parties are collaterally estopped from re-litigating the parties' rights,  
7 that the parties are equitably estopped from reducing their replenishment obligations,  
8 that SYRA fails to comply with CEQA, that SYRA provisions resulted in an unlawful  
9 taking of Chino's property.

10  
11 B. Although the court understands the necessity of accounting for Desalter  
12 induced recharge from the Santa Ana River, the court does not find a basis in the  
13 law, the Judgment, or the Court Approved Management Agreements for  
14 simultaneously reducing Safe Yield and adding unproduced/unpumped Ag Pool  
15 water to account for Desalter induced recharge.

16 1. Watermaster argues that the court should approve SYRA because it is  
17 only a confirmation of "interpretation of the manner in which Watermaster should  
18 comply with the provisions of the Court Approved Management Agreements.  
19 (Watermaster's Reply to Oppositions to Motion regarding 2015 Safe Yield Reset  
20 Agreement, Amendment of Restated Judgment, Paragraph 6, page 10, line 26.)

21 a) The court does not accept this argument. The court interprets SYRA as  
22 an attempt for a major qualitative revision of the Court Approved  
23 Management Agreements, but the Court Approved Management  
24 Agreements do not support the SYRA revision for the reasons stated  
25 herein.

26 2. The court finds that the rulings herein will not cause material physical  
27 injury or an undesirable result.

28 a) Although many parties have approved SYRA, parties' approval or

1 disapproval of SYRA is not a legal basis for the court to enforce SYRA.  
2 The court must look to the previous agreements of the parties, the  
3 previous court orders, the Court Approved Management Agreements,  
4 the Judgement, and the California Constitution.  
5

6 Date: \_\_\_\_\_  
7  
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10 \_\_\_\_\_  
11 Judge Stanford E. Reichert  
12 San Bernardino County Superior Court  
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**CHINO BASIN WATERMASTER**  
**Case No. RCV 51010**  
**Chino Basin Municipal Water District v. The City of Chino**

**PROOF OF SERVICE**

I declare that:

I am employed in the County of San Bernardino, California. I am over the age of 18 years and not a party to the within action. My business address is Chino Basin Watermaster, 9641 San Bernardino Road, Rancho Cucamonga, California 91730; telephone (909) 484-3888.

On April 24, 2017 I served the following:

1. NOTICE OF RULINGS AFTER HEARING ON WATERMASTER'S MOTION REGARDING 2015 SAFE YIELD RESET AGREEMENT, AMENDMENT OF RESTATED JUDGMENT, PARAGRAPH 6

/ X / BY MAIL: in said cause, by placing a true copy thereof enclosed with postage thereon fully prepaid, for delivery by United States Postal Service mail at Rancho Cucamonga, California, addresses as follows:

**See attached service list: Mailing List 1**

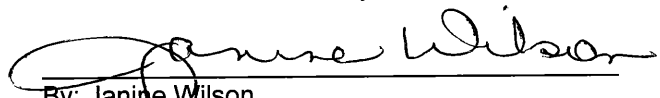
/ BY PERSONAL SERVICE: I caused such envelope to be delivered by hand to the addressee.

/ BY FACSIMILE: I transmitted said document by fax transmission from (909) 484-3890 to the fax number(s) indicated. The transmission was reported as complete on the transmission report, which was properly issued by the transmitting fax machine.

/ X / BY ELECTRONIC MAIL: I transmitted notice of availability of electronic documents by electronic transmission to the email address indicated. The transmission was reported as complete on the transmission report, which was properly issued by the transmitting electronic mail device.

I declare under penalty of perjury under the laws of the State of California that the above is true and correct.

Executed on April 28, 2017 in Rancho Cucamonga, California.

  
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20 SUPERIOR COURT OF THE STATE OF CALIFORNIA  
21 COUNTY OF SAN BERNARDINO

22 CHINO BASIN MUNICIPAL WATER  
23 DISTRICT,

24 Petitioner,

25 v.

26 CITY OF CHINO, et al.,

27 Defendants.

Exempt from Filing Fees  
Per Gov't Code § 6103

**FILED**  
SUPERIOR COURT OF CALIFORNIA  
COUNTY OF SAN BERNARDINO  
SAN BERNARDINO CIVIL DIVISION

MAR 15 2019

BY   
ASHLEY LAWLESS, DEPUTY

Case No. RCVRS 51010  
Judge: Stanford E. Reichert

~~[Proposed]~~ ORDER

[filed with Notice of Mot. and Mot. to  
Approve Amendments to Appropriative  
Pool Pooling Plan and Ct.-Approved  
Management Agreements; and Decl. of  
Sarah Christopher Foley]

Date: March 15, 2019  
Time: 1:30 p.m.  
Dept.: S35

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~~PROPOSED~~ ORDER

On March 15, 2019, in Department S35 of the above-entitled Court, the Motion to Approve Amendments to Appropriative Pool Pooling Plan and Court-Approved Management Agreements by Defendants and Appellants Cucamonga Valley Water District, Monte Vista Water District, and City of Pomona and Defendants and Respondents City of Chino, Jurupa Community Services District, and City of Ontario ("Motion to Approve") came on for hearing, the Honorable Stanford E. Reichert, Judge presiding. The parties stated their appearances on the record.

After consideration of the papers filed in connection with the Motion to Approve and arguments of counsel, the Court hereby:

(1) Approves amendments to the Appropriative Pool Pooling Plan, ~~the Peace Agreement, and the Peace II Agreement~~ ("Appropriative Pool Pooling Plan" and CAMA Amendments") that are attached hereto, and *amendments attached hereto.*

*2. Watermaster shall proceed in accordance with Resolution 2017-03 and the amendments attached thereto.*

~~(2) Orders Watermaster to implement the Judgment in accordance with the Appropriative Pool Pooling Plan and CAMA Amendments that are attached hereto.~~

*3. Directing Watermaster to proceed to redetermine Safe Yield as set forth on pages 15-18 of the Court's April 28, 2017, order.*  
IT IS SO ORDERED.

Dated: \_\_\_\_\_, \_\_\_, 2019

Honorable Stanford E. Reichert  
Judge of the Superior Court

*4. Except as explicitly set forth above the motion is denied.*

*Date: 3-15-19*



IT IS SO ORDERED

Judge

STANFORD E. REICHERT

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ATTACHMENT

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## Exhibit A

### Proposed Changes to Appropriative Pool Pooling Plan and CAMA

**1. Appropriative Pool Pooling Plan.** The introductory sentence to Exhibit H, ¶10 of the Judgment is amended to read as follows:

10. Unallocated Safe Yield Water. To the extent that, in any ~~year~~ five years, any portion of the share of Safe Yield allocated to the Overlying (Agricultural) Pool is not produced, such water shall be available for reallocation to members of the Appropriative Pool, as follows:

#### 2. Early Transfer

A. Section 1.1(o) of the Peace Agreement is amended to read as follows:

(o) "Early Transfer" means the reallocation of Safe Yield not Produced by the Agricultural Pool to the Appropriative Pool on an annual basis ~~after the allocations in subdivisions (a)(1) and (a)(2) of rather than according to the five year increment described in Paragraph 10 of Exhibit "H" of the Judgment;~~

B. Section 5.3(g) of the Peace Agreement is amended to read as follows:

(g) Watermaster shall approve an "Early Transfer" of water to the Appropriative Pool ~~in an amount not less than 32,800 acre-feet per year that is the expected approximate quantity of water not Produced by the Agricultural Pool on an annual basis. The quantity of water subject to Early Transfer under this paragraph shall be the greater of (i) 32,800 acre-feet of (ii) 32,800 acre-feet plus the actual quantity of water not Produced by the Agricultural Pool for that Fiscal Year that is remaining after all the land use conversions are satisfied pursuant to 5.3(h) below.~~

(i) The Early Transfer water shall be annually allocated among the members of the Appropriative Pool in accordance with their pro-rata share of the initial Safe Yield.

(ii) The Transfer shall not limit the Production right of the Agricultural Pool under the Judgment to Produce up to 82,800 acre-feet of water in any year or 414,000 acre-feet in any five years as provided in the Judgment.

(iii) The combined Production of all parties to the Judgment shall not cause a Replenishment assessment on the members of the Agricultural Pool. The Agricultural Pool shall be responsible for any Replenishment obligation created by the Agricultural Pool Producing more than 414,000 acre-feet in any five-year period.

(iv) The parties to the Judgment and Watermaster shall Produce water in accordance with the Operating Safe Yield and shall procure sufficient quantities of Replenishment Water to satisfy over-Production requirements, whatever they may be, and avoid Material Physical Injury to any party to the Judgment or the Basin;

(v) Nothing herein shall be construed as modifying the procedures or voting rights within or by the members of the Agricultural Pool.

3. **Conversion Claims.** Subparagraph (b)(3)(i) of Exhibit H, ¶ 10 of the Judgment is amended to read as follows:

(i) For the term of the Peace Agreement *and any extension thereof*, in any year in which sufficient unallocated Safe Yield from the Overlying (Agricultural) Pool is available for such conversion claims, Watermaster shall allocate to each appropriator with a conversion claim 2.0 acre-feet of unallocated Safe Yield water for each converted acre for which conversion has been approved and recorded by the Watermaster.

4. **Controlled Overdraft.** Pursuant to section 7.2(e)(ii) of the Peace II Agreement, 175,000 acre-feet of controlled overdraft (Re-Operation water) will be allocated to Desalter replenishment over a 17-year period, beginning in 2013-14 and ending in 2029-30, according to the schedule attached as Exhibit A.

5. **New Yield.** Section 7.1 of the Peace II Agreement, entitled "New Yield Attributable to Desalters," is deleted. It is replaced by new section 6.2(b)(ii) as set forth in section 6 below.

6. **Desalter Replenishment.** Section 6.2(b) of the Peace II Agreement is amended to read as follows:

(b) To the extent available credits are insufficient to fully offset the quantity of groundwater production attributable to the Desalters, Watermaster will use water or revenue obtained by levying the following assessments among the members of the Overlying (Non-Agricultural) Pool and the Appropriative Pool to meet any remaining replenishment obligation as follows.

(i) A Special OBMP Assessment against the Overlying (Non-Agricultural) Pool as more specifically authorized and described in amendment to Exhibit "G" paragraph 8(e) 5(c) to the Judgment will be dedicated by Watermaster to further off-set replenishment of the Desalters. However, to the extent there is no remaining replenishment obligation attributable to the Desalters in any year after applying the off-sets set forth in 6.2(a), the OBMP Special Assessment levied by Watermaster will be distributed as provided in section 9.2 below. The Special OBMP Assessment will be assessed pro-rata on each member's share of Safe Yield, followed by

(ii) *The members of the Appropriative Pool will contribute a total of 10,000 afy toward Desalter replenishment, allocated among Appropriative Pool members as follows:*

(1) *85% of the total (8,500 afy) will be allocated according to the Operating Safe Yield percentage of each Appropriative Pool member; and*

(2) *15% of the total (1,500 afy) will be allocated according to each land use conversion agency's percentage of the total land use conversion claims, based on the actual land use conversion allocations of the year.*

The annual desalter replenishment obligation contribution of each Appropriative Pool member will be calculated using the following formula:

$$\text{Desalter replenishment obligation contribution} = (8,500 * \% \text{ Appropriator's share of total initial 49,834 afy Operating Safe Yield}) + (1,500 * \% \text{ Appropriator's proportional share of that year's total conversion claims})$$

A sample calculation of the desalter replenishment obligation contribution for each Appropriative Pool member is shown on Exhibit \_\_ to this Peace II Agreement, as amended.

(iii) (ii) A Replenishment Assessment against the Appropriative Pool for any remaining Desalter replenishment obligation after applying both 6(b)(i) and 6(b)(ii), allocated pro-rata to each Appropriative Pool member according to the combined total of the member's share of Operating Safe Yield and the member's Adjusted Physical Production, as defined below. ~~pro-rata based on each Producer's combined total share of Operating Safe Yield and the previous year's actual production. Desalter Production is excluded from this calculation. A sample calculation of the allocation of the remaining desalter obligation is shown in Exhibit \_\_ to this Peace II Agreement. However, if there is a material reduction in the net cost of Desalter product water to the purchasers of product water, Watermaster may re-evaluate whether to continue the exclusion of Desalter Production but only after giving due regard to the contractual commitment of the parties.~~

(iv) Adjusted Physical Production is the Appropriative Pool member's total combined physical production (i.e., all groundwater pumped or produced by the Appropriative Pool member's groundwater wells in the Chino Basin, including water transferred from the Non-Agricultural Pool under Exhibit G, ¶9 of the Judgment), with the following adjustments:

- (1) In the case of assignments among Appropriative Pool members, or between Appropriative Pool members and Non-Agricultural Pool members under Exhibit G, ¶6 of the Judgment, resulting in pumping or production by one party to the Judgment for use by another party to the Judgment, the production for purposes of Adjusted Physical Production shall be assigned to the party making beneficial use of the water, not the actual producer.
- (2) Production offset credits pursuant to voluntary agreements under section 5.3(i) of the Peace Agreement are calculated at 50% of the total voluntary agreement credit in the determination of Adjusted Physical Production for an Appropriative Pool member participating in a voluntary agreement for that year. In the determination of Adjusted Physical Production, the voluntary agreement credit is subtracted from physical production. Reduction of the voluntary agreement credit from 100% to 50% is applicable only to the calculation of the Adjusted Physical Production hereunder; but in all other applications, the voluntary agreement credit shall remain unchanged (i.e. remain at 100%).

(3) *Production associated with approved storage and recovery programs (e.g., Dry Year Yield recovery program with MWD) is not counted in Adjusted Physical Production, except for in-lieu participation in such programs: in-lieu put quantities shall be added to physical production, and in-lieu take quantities shall be subtracted from physical production.*

(4) *Metered pump-to-waste Production that is determined by Watermaster to be subsequently recharged to the groundwater basin is deducted from physical production; unmetered pump-to-waste production that is determined by Watermaster not to be subsequently recharged to the groundwater basin is added to physical production.*

(5) *The Appropriative Pool may approve, by unanimous vote, the inclusion of other items in the determination of Adjusted Physical Production, with the exception of Non-Agricultural Pool water assigned or transferred under Exhibit G, ¶6 or ¶10 of the Judgment.*

(v) *Any member of the Non-Agricultural Pool that is also a member of the Appropriative Pool may elect to transfer (a) some or all of the annual share of Operating Safe Yield of the transferor in and for the year in which the transfer occurs (except that such transfer shall exclude any dedication to the Watermaster required by section 6.2(b)(1)), and (b) any quantity of water held in storage by the transferor (including without limitation carryover and excess carryover) to any member of the Appropriative Pool, in either case at any price that the transferor and transferee may deem appropriate and for the purpose of satisfying the transferee's desalter replenishment obligation. The transferee's desalter replenishment obligation shall be credited by the number of acre-feet so transferred.*

(vi) ~~(iii)~~ *The quantification of any Party's share of Operating Safe Yield does not include either land use conversions or Early Transfers.*

7. **Allocation of Non-Agricultural Pool OBMP Special Assessment.** The introductory sentence of section 9.2(a) of the Peace II Agreement is amended to read as follows:

a. For a period of ten years from the effective date of the Peace II Measures, any water (or financial equivalent) that may be contributed from the Overlying (Non-Agricultural) Pool in accordance with paragraph 8(e)-5(c) of Exhibit G to the Judgment (as amended) will be apportioned among the members of the Appropriative Pool in each year as follows:



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**Attachment: Peace Agreement, Section 7.2 ( e )(ii)**  
Schedule for Use of Re-Operation Water\*\*, and  
Calculation of Remaining Desalter Replenishment Obligation (DRO)  
Production from 2017-18 through 2029-30 is estimated

Production Year	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
Peace I Desalter Production	29,227.997	29,541.300	27,008.810	26,275.588	30,000.000	30,000.000	30,000.000	30,000.000	30,000.000
Peace II Desalter Production	14.555	448.690	1,154.052	1,527.215	10,000.000	10,000.000	10,000.000	10,000.000	10,000.000
Appropriative Pool DRO Contribution	(10,000.000)	(10,000.000)	(10,000.000)	(10,000.000)	(10,000.000)	(10,000.000)	(10,000.000)	(10,000.000)	(10,000.000)
Re-Operation Water**	(12,500.000)	(12,500.000)	(12,500.000)	(12,500.000)	(12,500.000)	(12,500.000)	(12,500.000)	(12,500.000)	(12,500.000)
Non-Agricultural Pool Assessment	0.000	0.000	0.000	(735.000)	(735.000)	(735.000)	(735.000)	(735.000)	(735.000)
Remaining DRO	6,742.552	7,489.990	5,662.862	4,567.803	16,765.000	16,765.000	16,765.000	16,765.000	16,765.000

Production Year	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
Peace I Desalter Production	30,000.000	30,000.000	30,000.000	30,000.000	30,000.000	30,000.000	30,000.000	30,000.000
Peace II Desalter Production	10,000.000	10,000.000	10,000.000	10,000.000	10,000.000	10,000.000	10,000.000	10,000.000
Appropriative Pool "DRO Contribution	(10,000.000)	(10,000.000)	(10,000.000)	(10,000.000)	(10,000.000)	(10,000.000)	(10,000.000)	(10,000.000)
Re-Operation Water**	(12,500.000)	(12,500.000)	(12,500.000)	(5,000.000)	(5,000.000)	(5,000.000)	(5,000.000)	(5,000.000)
Non-Agricultural Pool Assessment	(735.000)	(735.000)	(735.000)	(735.000)	(735.000)	(735.000)	(735.000)	(735.000)
Remaining DRO	16,765.000	16,765.000	16,765.000	24,265.000	24,265.000	24,265.000	24,265.000	24,265.000

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Best Best & Krieger LLP  
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**Attachment: Peace II Agreement, Section 6.2(b)(ii)**

**Allocation of Appropriative Pool Desalter Replenishment Obligation (DRO) Contributions (by agency)**

**Production Year 2013-14 Desalter Replenishment Obligation (DRO) Contribution:**

**10,000.000 AF**

Appropriative Pool Party	Production Year 2013/14 Common Data (Headings from Approved 2014/2015 Assessment Package)			Methodology for 85/15 split between shares of Operating Safe Yield and % of Land Use Conversions		
	a	b	c = %b	d = (DRO Contrib*.85)*a	e = (DRO Contrib*.15)*c	f = d + e
	Percent of Operating Safe Yield (Column 2A)	Land Use Conversions (Page 12A)*	Percent of Land Use Conversions	85% DRO Contribution Based on Percent of Operating Safe Yield	15% DRO Contribution Based on Percent of Land Use Conversions	Desalter Replenishment Obligation Contribution
Arrowhead Mtn Spring Water Co	0.000%	0.000	0.000%	0.000	0.000	0.000
Chino Hills, City of	3.851%	1,133.906	4.334%	327.335	65.013	392.348
Chino, City of	7.357%	7,623.064	29.138%	625.345	437.074	1,062.419
Cucamonga Valley Water District	6.601%	598.364	2.287%	561.085	34.308	595.393
Fontana Union Water Company	11.657%	0.000	0.000%	990.845	0.000	990.845
Fontana Water Company	0.002%	834.000	3.188%	0.170	47.818	47.988
Fontana, City of	0.000%	0.000	0.000%	0.000	0.000	0.000
Golden State Water Company	0.750%	0.000	0.000%	63.750	0.000	63.750
Jurupa Community Services District	3.759%	13,876.196	53.040%	319.515	795.602	1,115.117
Marygold Mutual Water Company	1.195%	0.000	0.000%	101.575	0.000	101.575
Monte Vista Irrigation Company	1.234%	0.000	0.000%	104.890	0.000	104.890
Monte Vista Water District	8.797%	55.075	0.211%	747.745	3.158	750.903
Niagara Bottling, LLC	0.000%	0.000	0.000%	0.000	0.000	0.000
Nicholson Trust	0.007%	0.000	0.000%	0.595	0.000	0.595
Norco, City of	0.368%	0.000	0.000%	31.280	0.000	31.280
Ontario, City of	20.742%	2,041.095	7.802%	1,763.070	117.028	1,880.098
Pomona, City of	20.454%	0.000	0.000%	1,738.590	0.000	1,738.590
San Antonio Water Company	2.748%	0.000	0.000%	233.580	0.000	233.580
San Bernardino, County of (Shooting Park)	0.000%	0.000	0.000%	0.000	0.000	0.000
Santa Ana River Water Company	2.373%	0.000	0.000%	201.705	0.000	201.705
Upland, City of	5.202%	0.000	0.000%	442.170	0.000	442.170
West End Consolidated Water Co	1.728%	0.000	0.000%	146.880	0.000	146.880
West Valley Water District	1.175%	0.000	0.000%	99.875	0.000	99.875
	100.000%	26,161.700	100.000%	8,500.000	1,500.000	10,000.000

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**Attachment: Peace II Agreement, Section 6.2 (b)(iii)**  
**Allocation of Appropriative Pool Remaining Desalter Replenishment Obligation (RDRO)**

<b>Production Year 2013-14:</b>	<b>acre-feet</b>
CDA Production - Peace I Allocation	29,227.997
CDA Production - Peace II Allocation	14.555
<b>Total Desalter Replenishment Obligation (Total DRO):</b>	<b>29,242.552</b>
Desalter Replenishment Obligation Contribution (DROC)	(10,000.000)
Re-Operation Water	(12,500.000)
<b>RDRO</b>	<b>6,742.552</b>

Appropriative Pool Party	Operating Safe Yield	Production Year 2013/14 Common Data (From Approved 2014/2015 Assessment Package - Appendix A)						Methodology for Calculation of Adjusted Physical Production (APP)	Methodology for Calculation of "RDRO"
	a	b	c	d	e	f		APP = [b+(c*50%)+d+e+f]	Individual Party RDRO = ((a+APP)/(Total a + Total APP)) * RDRO
	Assessment Package Page 2A: Column 2D	Physical Production	Voluntary Agreements (w/Ag)	Assignments (w/Non-Ag)	Storage and Recovery Programs	Other Adjustments		*Note: APP for City of Chino does not include "Other Adjustments" for this period	
Arrowhead Mtn Spring Water Co	0.000	379.111	0.000	0.000	0.000	0.000		379.111	15.905
Chino Hills, City of	2,111.422	2,150.925	(286.221)	0.000	0.000	5,359.300		7,367.115	397.669
Chino, City of	4,033.857	6,725.430	(6,686.440)	(104.278)	0.000	65.288		3,277.932	306.764
Cucamonga Valley Water District	3,619.454	16,121.550	0.000	0.000	0.000	0.000		16,121.550	828.227
Fontana Union Water Company	6,391.736	0.000	0.000	0.000	0.000	0.000		0.000	268.163
Fontana Water Company	1.000	15,377.579	0.000	0.000	0.000	0.000		15,377.579	645.203
Fontana, City of	0.000	0.000	0.000	0.000	0.000	0.000		0.000	0.000
Golden State Water Company	411.476	736.362	0.000	0.000	0.000	0.000		736.362	48.157
Jurupa Community Services District	2,061.118	18,406.630	0.000	(279.499)	0.000	(8,764)		18,018.347	842.427
Manygold Mutual Water Company	655.317	1,314.734	0.000	0.000	0.000	0.000		1,314.734	82.653
Monte Vista Irrigation Company	676.759	0.000	0.000	0.000	0.000	0.000		0.000	28.393
Monte Vista Water District	4,823.954	12,521.892	(131.480)	0.000	0.000	(5,771.667)		7,074.485	499.195
Niagara Bottling, LLC	0.000	1,342.588	0.000	0.000	0.000	0.000		1,342.588	56.328
Nicholson Trust	4.000	0.000	0.000	0.000	0.000	0.000		0.000	0.168
Norco, City of	201.545	0.000	0.000	0.000	0.000	0.000		0.000	8.456
Ontario, City of	11,373.816	21,980.342	(6,428.101)	(1,857.155)	0.000	0.000		17,911.096	1,228.639
Pomona, City of	11,215.852	12,909.293	0.000	0.000	0.000	0.000		12,909.293	1,012.163
San Antonio Water Company	1,506.888	1,159.242	0.000	0.000	0.000	0.000		1,159.242	111.857
San Bernardino, County of (Shooting Park)	0.000	16.390	0.000	0.000	0.000	0.000		16.390	0.688
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Upland, City of	2,852.401	2,822.046	0.000	0.000	0.000	0.000		2,822.046	238.070
West End Consolidated Water Co	947.714	0.000	0.000	0.000	0.000	0.000		0.000	39.761
West Valley Water District	644.317	0.000	0.000	0.000	0.000	0.000		0.000	27.032
	54,834.000	113,964.114	(21,552.242)	(2,338.973)	0.000	92.652		105,876.384	6,742.552

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FILED  
SUPERIOR COURT OF CALIFORNIA  
COUNTY OF SAN BERNARDINO  
SAN BERNARDINO CIVIL DIVISION

MAR 15 2019

BY   
AARON LAWLESS, DEPUTY

SUPERIOR COURT OF THE STATE OF CALIFORNIA  
FOR THE COUNTY OF SAN BERNARDINO

CHINO BASIN MUNICIPAL WATER  
DISTRICT,

Plaintiff,

v.

CITY OF CHINO et al.,

Defendant.

Case No. RCV RS51010

Assigned for All Purposes to the  
Honorable Stanford E. Reichert

~~PROPOSED~~ FINDINGS AND ORDER  
REGARDING AMENDMENTS TO  
RESTATED JUDGMENT, PEACE  
AGREEMENT, PEACE II AGREEMENT,  
AND RE-OPERATION SCHEDULE

The Court having read, reviewed, and considered all pleadings, declarations, and exhibits presented for the March 15, 2019 hearing, and the arguments of counsel, if any, the Court finds as follows:

(1) Watermaster is in substantial compliance with the approved Recharge Master Plan as required by Restated Judgment Exhibit "I", paragraph 2(b)(6), and the amended schedule set forth in Exhibit "B" to Watermaster's Resolution 2019-03 providing the quantities of Re-Operation Water that may be accessed by the Parties will not cause material physical injury to the Basin.

(2) The signatories to the Peace Agreement and the Peace II Agreement have been notified of Watermaster's Motion Regarding Amendments to Restated Judgment, Peace Agreement, Peace II agreement, and Re-Operation Schedule and have consented to the proposed

1 amendments to the Peace Agreement and Peace II Agreement set forth in Watermaster's  
2 Resolution 2019-03;

3 (3) The proposed amendments to the Court Approved Management Agreements are  
4 implementable by Watermaster provided that it can proceed to redetermine Safe Yield on a timely  
5 basis as provided on pages 15-18 of this Court's April 28, 2017 Order.

6 SUBJECT TO THE CONTINUING JURISDICTION OF THE COURT, the Court hereby  
7 makes the following Orders:

8 (1) Watermaster's adoption of its Resolution 2019-03 is approved and Watermaster  
9 shall proceed in accordance with the Resolution and the documents attached thereto;

10 (2) Watermaster shall proceed to redetermine Safe Yield as set forth on pages 15-18 of  
11 the Court's April 28, 2017 Order;

12 (3) The amendment to Paragraph 10 of Exhibit "H" to the Restated Judgment as  
13 shown in Attachment A hereto is approved;

14 (4) The amended schedule for access to Re-Operation water shown in Attachment B  
15 hereto is approved;

16 (5) The amendments to Paragraphs 6, 9, and 10 of Exhibit "G" to the Restated  
17 Judgment as shown in Attachment C hereto are approved; and

18 (6) Watermaster shall implement the Restated Judgment and continue to comply with  
19 all commitments made in the Court Approved Management Agreements, as amended by this  
20 Order.

21  
22 IT IS SO ORDERED.

23 Dated: 3.15.19



Stanford E. Reichert  
24 JUDGE OF THE SUPERIOR COURT  
25  
26  
27  
28

18540473

**ATTACHMENT A**  
**[PROPOSED] ORDER**

**Exhibit A**

**Proposed Changes to Appropriative Pool Pooling Plan and CAMA**

1. **Appropriative Pool Pooling Plan.** The introductory sentence to Exhibit H, ¶10 of the Judgment is amended to read as follows:

10. Unallocated Safe Yield Water. To the extent that, in any ~~year~~ **five years**, any portion of the share of Safe Yield allocated to the Overlying (Agricultural) Pool is not produced, such water shall be available for reallocation to members of the Appropriative Pool, as follows:

**2. Early Transfer**

- A. Section 1.1(o) of the Peace Agreement is amended to read as follows:

(o) "Early Transfer" means the reallocation of Safe Yield not Produced by the Agricultural Pool to the Appropriative Pool on an annual basis ***after the allocations in subdivisions (a)(1) and (a)(2) of*** ~~rather than according to the five year increment described in Paragraph 10 of Exhibit "H" of the Judgment;~~

- B. Section 5.3(g) of the Peace Agreement is amended to read as follows:

(g) Watermaster shall approve an "Early Transfer" of water to the Appropriative Pool ~~in an amount not less than 32,800 acre-feet per year that is the expected approximate quantity of water not Produced by the Agricultural Pool~~ ***on an annual basis*** ~~The quantity of water subject to Early Transfer under this paragraph shall be the greater of (i) 32,800 acre-feet of (ii) 32,800 acre-feet plus the actual quantity of water not Produced by the Agricultural Pool for that Fiscal Year that is remaining after all the land use conversions are satisfied pursuant to 5.3(h) below.~~

- (i) The Early Transfer water shall be annually allocated among the members of the Appropriative Pool in accordance with their pro-rata share of the initial Safe Yield.
- (ii) The Transfer shall not limit the Production right of the Agricultural Pool under the Judgment to Produce up to 82,800 acre-feet of water in any year or 414,000 acre-feet in any five years as provided in the Judgment.
- (iii) The combined Production of all parties to the Judgment shall not cause a Replenishment assessment on the members of the Agricultural Pool. The Agricultural Pool shall be responsible for any Replenishment obligation created by the Agricultural Pool Producing more than 414,000 acre-feet in any five-year period.
- (iv) The parties to the Judgment and Watermaster shall Produce water in accordance with the Operating Safe Yield and shall procure sufficient quantities of Replenishment Water to satisfy over-Production requirements, whatever they may be, and avoid Material Physical Injury to any party to the Judgment or the Basin;

(v) Nothing herein shall be construed as modifying the procedures or voting rights within or by the members of the Agricultural Pool.

3. **Conversion Claims.** Subparagraph (b)(3)(i) of Exhibit H, ¶ 10 of the Judgment is amended to read as follows:

(i) For the term of the Peace Agreement *and any extension thereof*, in any year in which sufficient unallocated Safe Yield from the Overlying (Agricultural) Pool is available for such conversion claims, Watermaster shall allocate to each appropriator with a conversion claim 2.0 acre-feet of unallocated Safe Yield water for each converted acre for which conversion has been approved and recorded by the Watermaster.

4. **Controlled Overdraft.** Pursuant to section 7.2(e)(ii) of the Peace II Agreement, 175,000 acre-feet of controlled overdraft (Re-Operation water) will be allocated to Desalter replenishment over a 17-year period, beginning in 2013-14 and ending in 2029-30, according to the schedule attached as Exhibit A.

5. **New Yield.** Section 7.1 of the Peace II Agreement, entitled "New Yield Attributable to Desalters," is deleted. It is replaced by new section 6.2(b)(ii) as set forth in section 6 below.

6. **Desalter Replenishment.** Section 6.2(b) of the Peace II Agreement is amended to read as follows:

(b) To the extent available credits are insufficient to fully offset the quantity of groundwater production attributable to the Desalters, Watermaster will use water or revenue obtained by levying the following assessments among the members of the Overlying (Non-Agricultural) Pool and the Appropriative Pool to meet any remaining replenishment obligation as follows.

(i) A Special OBMP Assessment against the Overlying (Non-Agricultural) Pool as more specifically authorized and described in amendment to Exhibit "G" paragraph ~~8(e)~~ 5(c) to the Judgment will be dedicated by Watermaster to further off-set replenishment of the Desalters. However, to the extent there is no remaining replenishment obligation attributable to the Desalters in any year after applying the off-sets set forth in 6.2(a), the OBMP Special Assessment levied by Watermaster will be distributed as provided in section 9.2 below. The Special OBMP Assessment will be assessed pro-rata on each member's share of Safe Yield, followed by

(ii) *The members of the Appropriative Pool will contribute a total of 10,000 afy toward Desalter replenishment, allocated among Appropriative Pool members as follows:*

- (1) *85% of the total (8,500 afy) will be allocated according to the Operating Safe Yield percentage of each Appropriative Pool member; and*
- (2) *15% of the total (1,500 afy) will be allocated according to each land use conversion agency's percentage of the total land use conversion claims, based on the actual land use conversion allocations of the year.*



*The annual desalter replenishment obligation contribution of each Appropriative Pool member will be calculated using the following formula:*

*Desalter replenishment obligation contribution = (8,500 \* % Appropriator's share of total initial 49,834 afy Operating Safe Yield) + (1,500 \* % Appropriator's proportional share of that year's total conversion claims)*

*A sample calculation of the desalter replenishment obligation contribution for each Appropriative Pool member is shown on Exhibit \_\_ to this Peace II Agreement, as amended.*

- (iii) ~~(ii)~~ *A Replenishment Assessment against the Appropriative Pool for any remaining Desalter replenishment obligation after applying both 6(b)(i) and 6(b)(ii), allocated pro-rata to each Appropriative Pool member according to the combined total of the member's share of Operating Safe Yield and the member's Adjusted Physical Production, as defined below. pro-rata based on each Producer's combined total share of Operating Safe Yield and the previous year's actual production. Desalter Production is excluded from this calculation. A sample calculation of the allocation of the remaining desalter obligation is shown in Exhibit \_\_ to this Peace II Agreement. However, if there is a material reduction in the net cost of Desalter product water to the purchasers of product water, Watermaster may re-evaluate whether to continue the exclusion of Desalter Production but only after giving due regard to the contractual commitment of the parties.*
- (iv) *Adjusted Physical Production is the Appropriative Pool member's total combined physical production (i.e., all groundwater pumped or produced by the Appropriative Pool member's groundwater wells in the Chino Basin, including water transferred from the Non-Agricultural Pool under Exhibit G, ¶9 of the Judgment), with the following adjustments:*
- (1) In the case of assignments among Appropriative Pool members, or between Appropriative Pool members and Non-Agricultural Pool members under Exhibit G, ¶6 of the Judgment, resulting in pumping or production by one party to the Judgment for use by another party to the Judgment, the production for purposes of Adjusted Physical Production shall be assigned to the party making beneficial use of the water, not the actual producer.*
  - (2) Production offset credits pursuant to voluntary agreements under section 5.3(l) of the Peace Agreement are calculated at 50% of the total voluntary agreement credit in the determination of Adjusted Physical Production for an Appropriative Pool member participating in a voluntary agreement for that year. In the determination of Adjusted Physical Production, the voluntary agreement credit is subtracted from physical production. Reduction of the voluntary agreement credit from 100% to 50% is applicable only to the calculation of the Adjusted Physical Production hereunder; but in all other applications, the voluntary agreement credit shall remain unchanged (i.e. remain at 100%).*

(3) *Production associated with approved storage and recovery programs (e.g., Dry Year Yield recovery program with MWD) is not counted in Adjusted Physical Production, except for in-lieu participation in such programs: in-lieu put quantities shall be added to physical production, and in-lieu take quantities shall be subtracted from physical production.*

(4) *Metered pump-to-waste Production that is determined by Watermaster to be subsequently recharged to the groundwater basin is deducted from physical production; unmetered pump-to-waste production that is determined by Watermaster not to be subsequently recharged to the groundwater basin is added to physical production.*

(5) *The Appropriative Pool may approve, by unanimous vote, the inclusion of other items in the determination of Adjusted Physical Production, with the exception of Non-Agricultural Pool water assigned or transferred under Exhibit G, ¶6 or ¶10 of the Judgment.*

(v) *Any member of the Non-Agricultural Pool that is also a member of the Appropriative Pool may elect to transfer (a) some or all of the annual share of Operating Safe Yield of the transferor in and for the year in which the transfer occurs (except that such transfer shall exclude any dedication to the Watermaster required by section 6.2(b)(1)), and (b) any quantity of water held in storage by the transferor (including without limitation carryover and excess carryover) to any member of the Appropriative Pool, in either case at any price that the transferor and transferee may deem appropriate and for the purpose of satisfying the transferee's desalter replenishment obligation. The transferee's desalter replenishment obligation shall be credited by the number of acre-feet so transferred.*

(vi) ~~(iii)~~ *The quantification of any Party's share of Operating Safe Yield does not include either land use conversions or Early Transfers.*

7. **Allocation of Non-Agricultural Pool OBMP Special Assessment.** The introductory sentence of section 9.2(a) of the Peace II Agreement is amended to read as follows:

a. For a period of ten years from the effective date of the Peace II Measures, any water (or financial equivalent) that may be contributed from the Overlying (Non-Agricultural) Pool in accordance with paragraph 8(e)-5(c) of Exhibit G to the Judgment (as amended) will be apportioned among the members of the Appropriative Pool in each year as follows:

**Attachment: Peace Agreement, Section 7.2 ( e )(ii)**

Schedule for Use of Re-Operation Water\*\*, and

Calculation of Remaining Desalter Replenishment Obligation (DRO)

Production from 2017-18 through 2029-30 is estimated

Production Year	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
Peace I Desalter Production	29,227.997	29,541.300	27,008.810	26,275.588	30,000.000	30,000.000	30,000.000	30,000.000	30,000.000
Peace II Desalter Production	14.555	448.690	1,154.052	1,527.215	10,000.000	10,000.000	10,000.000	10,000.000	10,000.000
Appropriative Pool DRO Contribution	(10,000.000)	(10,000.000)	(10,000.000)	(10,000.000)	(10,000.000)	(10,000.000)	(10,000.000)	(10,000.000)	(10,000.000)
<b>Re-Operation Water**</b>	<b>(12,500.000)</b>	<b>(12,500.000)</b>	<b>(12,500.000)</b>	<b>(12,500.000)</b>	<b>(12,500.000)</b>	<b>(12,500.000)</b>	<b>(12,500.000)</b>	<b>(12,500.000)</b>	<b>(12,500.000)</b>
Non-Agricultural Pool Assessment	0.000	0.000	0.000	(735.000)	(735.000)	(735.000)	(735.000)	(735.000)	(735.000)
Remaining DRO	6,742.552	7,489.990	5,662.862	4,567.803	16,765.000	16,765.000	16,765.000	16,765.000	16,765.000

Production Year	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
Peace I Desalter Production	30,000.000	30,000.000	30,000.000	30,000.000	30,000.000	30,000.000	30,000.000	30,000.000
Peace II Desalter Production	10,000.000	10,000.000	10,000.000	10,000.000	10,000.000	10,000.000	10,000.000	10,000.000
Appropriative Pool "DRO Contribution	(10,000.000)	(10,000.000)	(10,000.000)	(10,000.000)	(10,000.000)	(10,000.000)	(10,000.000)	(10,000.000)
<b>Re-Operation Water**</b>	<b>(12,500.000)</b>	<b>(12,500.000)</b>	<b>(12,500.000)</b>	<b>(5,000.000)</b>	<b>(5,000.000)</b>	<b>(5,000.000)</b>	<b>(5,000.000)</b>	<b>(5,000.000)</b>
Non-Agricultural Pool Assessment	(735.000)	(735.000)	(735.000)	(735.000)	(735.000)	(735.000)	(735.000)	(735.000)
Remaining DRO	16,765.000	16,765.000	16,765.000	24,265.000	24,265.000	24,265.000	24,265.000	24,265.000

**Attachment: Peace II Agreement, Section 6.2(b)(ii)**

**Allocation of Appropriative Pool Desalter Replenishment Obligation (DRO) Contributions (by agency)**

**Production Year 2013-14 Desalter Replenishment Obligation (DRO) Contribution:**

**10,000.000 AF**

Appropriative Pool Party	Production Year 2013/14 Common Data (Headings from Approved 2014/2015 Assessment Package)			Methodology for 85/15 split between shares of Operating Safe Yield and % of Land Use Conversions		
	a	b	c = %b	d = (DRO Contrib*.85)*a	e = (DRO Contrib*.15)*c	f = d + e
	Percent of Operating Safe Yield (Column 2A)	Land Use Conversions (Page 12A)*	Percent of Land Use Conversions	85% DRO Contribution Based on Percent of Operating Safe Yield	15% DRO Contribution Based on Percent of Land Use Conversions	Desalter Replenishment Obligation Contribution
Arrowhead Mtn Spring Water Co	0.000%	0.000	0.000%	0.000	0.000	0.000
Chino Hills, City of	3.851%	1,133.906	4.334%	327.335	65.013	392.348
Chino, City of	7.357%	7,623.064	29.138%	625.345	437.074	1,062.419
Cucamonga Valley Water District	6.601%	598.364	2.287%	561.085	34.308	595.393
Fontana Union Water Company	11.657%	0.000	0.000%	990.845	0.000	990.845
Fontana Water Company	0.002%	834.000	3.188%	0.170	47.818	47.988
Fontana, City of	0.000%	0.000	0.000%	0.000	0.000	0.000
Golden State Water Company	0.750%	0.000	0.000%	63.750	0.000	63.750
Jurupa Community Services District	3.759%	13,876.196	53.040%	319.515	795.602	1,115.117
Marygold Mutual Water Company	1.195%	0.000	0.000%	101.575	0.000	101.575
Monte Vista Irrigation Company	1.234%	0.000	0.000%	104.890	0.000	104.890
Monte Vista Water District	8.797%	55.075	0.211%	747.745	3.158	750.903
Niagara Bottling, LLC	0.000%	0.000	0.000%	0.000	0.000	0.000
Nicholson Trust	0.007%	0.000	0.000%	0.595	0.000	0.595
Norco, City of	0.368%	0.000	0.000%	31.280	0.000	31.280
Ontario, City of	20.742%	2,041.095	7.802%	1,763.070	117.028	1,880.098
Pomona, City of	20.454%	0.000	0.000%	1,738.590	0.000	1,738.590
San Antonio Water Company	2.748%	0.000	0.000%	233.580	0.000	233.580
San Bernardino, County of (Shooting Park)	0.000%	0.000	0.000%	0.000	0.000	0.000
Santa Ana River Water Company	2.373%	0.000	0.000%	201.705	0.000	201.705
Upland, City of	5.202%	0.000	0.000%	442.170	0.000	442.170
West End Consolidated Water Co	1.728%	0.000	0.000%	146.880	0.000	146.880
West Valley Water District	1.175%	0.000	0.000%	99.875	0.000	99.875
	100.000%	26,161.700	100.000%	8,500.000	1,500.000	10,000.000

**Attachment: Peace II Agreement, Section 6.2 (b)(iii)**  
**Allocation of Appropriative Pool Remaining Desalter Replenishment Obligation (RDRO)**

<b>Production Year 2013-14:</b>	<b>acre-feet</b>
CDA Production - Peace I Allocation	<b>29,227.997</b>
CDA Production - Peace II Allocation	<b>14.555</b>
<b>Total Desalter Replenishment Obligation (Total DRO):</b>	<b>29,242.552</b>
<b>Desalter Replenishment Obligation Contribution (DROC)</b>	<b>(10,000.000)</b>
<b>Re-Operation Water</b>	<b>(12,500.000)</b>
<b>RDRO</b>	<b>6,742.552</b>

Appropriative Pool Party	Operating Safe Yield	Production Year 2013/14 Common Data (From Approved 2014/2015 Assessment Package - Appendix A)						Methodology for Calculation of Adjusted Physical Production (APP)	Methodology for Calculation of "RDRO"
	a	b	c	d	e	f		APP = [b+(c*50%)+d+e+f]	Individual Party RDRO = ((a+APP)/(Total a + Total APP)) * RDRO
	Assessment Package Page 2A: Column 2D	Physical Production	Voluntary Agreements (w/Ag)	Assignments (w/Non-Ag)	Storage and Recovery Programs	Other Adjustments	*Note: APP for City of Chino does not include "Other Adjustments" for this period		
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Chino Hills, City of	2,111.422	2,150.925	(286.221)	0.000	0.000	5,359.300		7,367.115	397.669
Chino, City of	4,033.857	6,725.430	(6,686.440)	(104.278)	0.000	65.288		3,277.932	306.764
Cucamonga Valley Water District	3,619.454	16,121.550	0.000	0.000	0.000	0.000		16,121.550	828.227
Fontana Union Water Company	6,391.736	0.000	0.000	0.000	0.000	0.000		0.000	268.163
Fontana Water Company	1.000	15,377.579	0.000	0.000	0.000	0.000		15,377.579	645.203
Fontana, City of	0.000	0.000	0.000	0.000	0.000	0.000		0.000	0.000
Golden State Water Company	411.476	736.362	0.000	0.000	0.000	0.000		736.362	48.157
Jurupa Community Services District	2,061.118	18,406.630	0.000	(379.499)	0.000	(8.784)		18,018.347	842.427
Marygold Mutual Water Company	655.317	1,314.734	0.000	0.000	0.000	0.000		1,314.734	82.653
Monte Vista Irrigation Company	676.759	0.000	0.000	0.000	0.000	0.000		0.000	28.393
Monte Vista Water District	4,823.954	12,521.892	(151.480)	0.000	0.000	(5,371.667)		7,074.485	499.195
Niagara Bottling, LLC	0.000	1,342.588	0.000	0.000	0.000	0.000		1,342.588	56.328
Nicholson Trust	4.000	0.000	0.000	0.000	0.000	0.000		0.000	0.168
Norco, City of	201.545	0.000	0.000	0.000	0.000	0.000		0.000	8.456
Ontario, City of	11,373.816	21,980.342	(4,428.101)	(1,855.196)	0.000	0.000		17,911.096	1,228.639
Pomona, City of	11,215.852	12,909.293	0.000	0.000	0.000	0.000		12,909.293	1,012.163
San Antonio Water Company	1,506.888	1,159.242	0.000	0.000	0.000	0.000		1,159.242	111.857
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Santa Ana River Water Company	1,301.374	0.000	0.000	0.000	0.000	48.515		48.515	56.634
Upland, City of	2,852.401	2,822.046	0.000	0.000	0.000	0.000		2,822.046	238.070
West End Consolidated Water Co	947.714	0.000	0.000	0.000	0.000	0.000		0.000	39.761
West Valley Water District	644.317	0.000	0.000	0.000	0.000	0.000		0.000	27.032
	54,834.000	113,964.114	(11,552.242)	(2,338.973)	0.000	92.652		105,876.384	6,742.552

**ATTACHMENT B**  
**[PROPOSED] ORDER**

# EXHIBIT B

## Attachment: Peace Agreement, Section 7.2 ( e )(ii)

Schedule for Use of Re-Operation Water\*\*, and

Calculation of Remaining Desalter Replenishment Obligation (DRO)

Production from 2017-18 through 2029-30 is estimated

Production Year	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
Peace I Desalter Production	29,227.997	29,541.300	27,008.810	26,275.588	30,000.000	30,000.000	30,000.000	30,000.000	30,000.000
Peace II Desalter Production	14.555	448.690	1,154.052	1,527.215	10,000.000	10,000.000	10,000.000	10,000.000	10,000.000
Appropriative Pool DRO Contribution	(10,000.000)	(10,000.000)	(10,000.000)	(10,000.000)	(10,000.000)	(10,000.000)	(10,000.000)	(10,000.000)	(10,000.000)
<b>Re-Operation Water**</b>	<b>(12,500.000)</b>	<b>(12,500.000)</b>	<b>(12,500.000)</b>	<b>(12,500.000)</b>	<b>(12,500.000)</b>	<b>(12,500.000)</b>	<b>(12,500.000)</b>	<b>(12,500.000)</b>	<b>(12,500.000)</b>
Non-Agricultural Pool Assessment	0.000	0.000	0.000	(735.000)	(735.000)	(735.000)	(735.000)	(735.000)	(735.000)
Remaining DRO	6,742.552	7,489.990	5,662.862	4,567.803	16,765.000	16,765.000	16,765.000	16,765.000	16,765.000

Production Year	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
Peace I Desalter Production	30,000.000	30,000.000	30,000.000	30,000.000	30,000.000	30,000.000	30,000.000	30,000.000
Peace II Desalter Production	10,000.000	10,000.000	10,000.000	10,000.000	10,000.000	10,000.000	10,000.000	10,000.000
Appropriative Pool "DRO Contribution	(10,000.000)	(10,000.000)	(10,000.000)	(10,000.000)	(10,000.000)	(10,000.000)	(10,000.000)	(10,000.000)
<b>Re-Operation Water**</b>	<b>(12,500.000)</b>	<b>(12,500.000)</b>	<b>(12,500.000)</b>	<b>(5,000.000)</b>	<b>(5,000.000)</b>	<b>(5,000.000)</b>	<b>(5,000.000)</b>	<b>(5,000.000)</b>
Non-Agricultural Pool Assessment	(735.000)	(735.000)	(735.000)	(735.000)	(735.000)	(735.000)	(735.000)	(735.000)
Remaining DRO	16,765.000	16,765.000	16,765.000	24,265.000	24,265.000	24,265.000	24,265.000	24,265.000

**ATTACHMENT C**  
**[PROPOSED] ORDER**



## EXHIBIT A

### PROPOSED AMENDMENT TO THE NON-AGRICULTURAL POOL POOLING PLAN

1. Section 6 of Exhibit G to the Judgment (the NAP Pooling Plan) is hereby amended and restated as follows:

6. Assignment. Rights herein decreed are appurtenant to that land and are only assignable with the land for overlying use thereon; provided, however (a) that any appropriator who may, directly or indirectly, undertake to provide water service to such overlying lands may, by an appropriate agency agreement on a form approved by Watermaster, exercise said overlying right to the extent, but only to the extent necessary to provide water service to said overlying lands, and (b) the members of the pool shall have the right to Transfer or lease their quantified production rights within the pool or to Watermaster in conformance with the procedures described in the Peace Agreement between the parties therein, dated June 29, 2000 for the term of the Peace Agreement. Any production pursuant to any such agency agreement (1) shall not constitute production in the Appropriative Pool for the purpose of calculating any assessments imposed on members of the Appropriative Pool, including without limitation replenishment assessments; and (2) shall constitute production in the Non-Agricultural Pool by the assignor for the purpose of calculating any assessments imposed on members of the Non-Agricultural Pool, with the continuing dedications by members of the Non-Agricultural Pool of 10% of their annual share of Operating Safe Yield to desalter replenishment pursuant to Section 5(c) being the sole and exclusive method by which such members shall be required to contribute at any time to desalter production or desalter replenishment.

2. Section 9 of Exhibit G to the Judgment (the NAP Pooling Plan) is hereby amended and restated as follows:

9. Physical Solution Transfers. All overlying rights are appurtenant to the land and cannot be assigned or conveyed separate or apart therefrom except that for the term of the Peace Agreement the members of the Overlying (Non-Agricultural) Pool shall have the discretionary right to Transfer or lease their quantified Production rights and carry-over water held in storage accounts in quantities that each member may from time to time individually determine as Transfers in furtherance of the Physical Solution: (i) within the Overlying (Non-Agricultural) Pool; (ii) to Watermaster in conformance with the procedures described in the Peace Agreement between the Parties therein, dated June 29, 2000; (iii) in conformance with the procedures described in Paragraph I of the Purchase and Sale Agreement for the Purchase of Water by Watermaster from Overlying (Non-Agricultural Pool dated June 30, 2007; or (iv) to Watermaster and thence to members of the Appropriative Pool in accordance with the following guidelines and those procedures Watermaster may further provide in Watermaster's Rules and Regulations:

(a) By December 31 of each year, the members of the Overlying (Non-Agricultural) Pool shall notify Watermaster of the amount of water each member

shall make available in their individual discretion for purchase by the Appropriators. The Pool Committee of the Overlying (Non-Agricultural) Pool may, by affirmative action of its members from time to time, establish a price for such water or a method pursuant to which such price will be established. By January 31 of each year, Watermaster shall provide a Notice of Availability of each Appropriator's pro-rata share of such water;

(b) Except as they may be limited by paragraph 9(e) below, each member of the Appropriative Pool will have, in their discretion, a right to purchase its pro-rata share of the supply made available from the Overlying (Non-Agricultural) Pool at the price at which the water is being offered. Each Appropriative Pool member's pro-rata share of the available supply will be based on each Producer's combined total share of Operating Safe Yield and the previous year's actual Production by each party;

(c) If any member of the Appropriative Pool fails to irrevocably commit to their allocated share by March 1 of each year, its share of the Overlying (Non-Agricultural) Pool water will be made available to all other members of the Appropriative Pool according to the same proportions as described in 9(b) above and at the price at which the water is being offered. Each member of the Appropriative Pool shall complete its payment for its share of water made available by June 30 of each year.

(d) Commensurate with the cumulative commitments by members of the Appropriative Pool pursuant to (b) and (c) above, Watermaster will purchase the surplus water made available by the Overlying (Non-Agricultural) Pool water on behalf of the members of the Appropriative Pool on an annual basis at the price at which the water is being offered and each member of the Appropriative Pool shall complete its payment for its determined share of water made available by June 30 of each year.

(e) Any surplus water cumulatively made available by all members of the Overlying (Non-Agricultural) Pool that is not purchased by Watermaster after completion of the process set forth herein will be pro-rated among the members of the Pool in proportion to the total quantity offered for transfer in accordance with this provision and may be retained by the Overlying (Non-Agricultural) Pool member without prejudice to the rights of the members of the Pool to make further beneficial use or transfer of the available surplus.

(f) Each Appropriator shall only be eligible to purchase their pro-rata share under this procedure if the party is: (i) current on all their assessments; and (ii) in compliance with the OBMP.

(g) The right of any member of the Overlying (Non-Agricultural) Pool to transfer water in accordance with this Paragraph 9(a)-(c) in any year is dependent upon Watermaster making a finding that the member of the Overlying (Non-Agricultural) Pool is using recycled water where it is both physically available and appropriate for the designated end use in lieu of pumping groundwater.

(h) Nothing herein shall be construed to affect or limit the rights of any Party to offer or accept an assignment as authorized by the Judgment Exhibit "G" paragraph 6 above, or to affect the rights of any Party under a valid assignment.

3. A new Section 10 of Exhibit G to the Judgment (the NAP Pooling Plan) is inserted as follows:

10. Elective Transfers for Desalter Replenishment. Any member of the Non-Agricultural Pool (including without limitation any member of the Non-Agricultural Pool that is also a member of the Appropriative Pool) may elect to transfer (a) some or all of the annual share of Operating Safe Yield of the transferor in and for the year in which the transfer occurs (except that such transfer shall exclude any dedication to Watermaster required by Section 5(c) hereof), and (b) any quantity of water held in storage by the transferor (including without limitation carryover and excess carryover) to any member of the Appropriative Pool, in either case at any price that the transferor and transferee may deem appropriate and for the purpose of satisfying the transferee's desalter replenishment obligation. Any such transfer shall be effective upon delivery by the transferor or transferee to Watermaster staff of written notice of such transfer in the form attached hereto as Form A. The transferee's desalter replenishment obligation shall be credited by the number of acre feet so transferred.

4. Existing Section 10 of Exhibit G to the Judgment (the NAP Pooling Plan) is renumbered as Section 11 as follows:

11. Rules. The Pool Committee shall adopt rules for administering its program and in amplification of the provisions, but not inconsistent with, this pooling plan.

FORM A

NOTICE OF ELECTIVE TRANSFER FOR DESALTER REPLENISHMENT

QUANTITY:

\_\_\_\_\_ Acre-Feet of Annual Share of Operating Safe Yield for Current Year

\_\_\_\_\_ Acre-Feet of Carryover

\_\_\_\_\_ Acre-Feet of Excess Carryover

Transferor and Transferee hereby provide written notice to Watermaster staff of a transfer by the Transferor, in its capacity as a member of the Non-Agricultural Pool, to Transferee, in its capacity as a member of the Appropriative Pool, of water in the quantity and of the type set forth above pursuant to Section 10 of Exhibit G to the Judgment.

<b>TRANSFEROR NAME:</b> _____  <b>By:</b> _____ <b>Name:</b> _____ <b>Its:</b> _____ <b>Dated:</b> _____	<b>TRANSFeree NAME:</b> _____  <b>By:</b> _____ <b>Name:</b> _____ <b>Its:</b> _____ <b>Dated:</b> _____
--	--

3.15.19

IT IS SO ORDERED

Judge

*Stanford E. Reichert*  
STANFORD E. REICHERT

# 2020 Safe Yield Reset

FILED  
SUPERIOR COURT OF CALIFORNIA  
COUNTY OF SAN BERNARDINO  
SAN BERNARDINO DISTRICT

JUL 31 2020

BY   
ERIN MUELLER, DEPUTY

SCANNED

SUPERIOR COURT FOR THE STATE OF CALIFORNIA  
FOR THE COUNTY OF SAN BERNARDINO

CHINO BASIN MUNICIPAL WATER ) RCV 51010  
DISTRICT,

Plaintiff,

vs.

CITY OF CHINO, et al.,

Defendants

ORDERS RE  
CHINO BASIN WATERMASTER  
MOTION REGARDING 2020 SAFE  
YIELD RESET, AMENDMENT OF  
RESTATED JUDGMENT,  
PARAGRAPH 6

Date: July 10, 2020

Time: 1:30 PM

Department: 35/S1

PLEADINGS, ANALYSIS, and RULINGS<sup>1</sup>

1) Chino Basin Watermaster Motion Regarding 2020 Safe Yield Reset, Amendment  
of Restated Judgment, Paragraph 6

a) The Watermaster motion requests that the court reset the Safe Yield of the

<sup>1</sup> For this final ruling, the court has adopted 1) all of the [filed July 16, 2020] proposed revisions contained in Chino Basin Watermaster's Notice of Lodging of [Proposed] Orders Re Chino Basin Watermaster Motion Regarding 2020 Safe Yield Reset, Amendments to Restated Judgment, Paragraph 6; and 2) all of the [filed July 24, 2020] proposed revisions contained in Chino Basin Watermaster's Notice of Errata Regarding [Proposed] Orders Re Chino Basin Watermaster Motion Regarding 2020 Safe Yield Reset, Amendment of Restated Judgment, Paragraph 6; and 3) none others.

1 Chino Basin from 135,000 acre-feet per year [AFY] to 131,000 for the period  
2 commencing July 1, 2020 and ending on June 30, 2030. Pursuant to the  
3 court's continuing jurisdiction, the court previously reset the Safe Yield from  
4 its initial 140,000 AFY to 135,000 for the period of 2010 to 2020.

5 b) Additionally, Watermaster has requested the court to direct Watermaster to:

- 6 i) Undertake an interim revaluation of the Safe Yield upon the California  
7 State Water Resource Control Board's adoption of conservation measures  
8 (*i.e.*, reduced Evapotranspiration Adjustment Factors), which may impact  
9 the net recharge of the Chino Basin during the Reset Period; and  
10 ii) Move the court to further reset the Safe Yield if these conservation  
11 measures will result in a change to the Safe Yield of the Chino Basin by  
12 more than 2.5% during the Reset Period.

13 (1) The court notes that AB 1668 and SB 606 collectively known as  
14 "Making Conservation a California Way of Life" [Water Code §10609,  
15 et seq.] require the establishment of new water efficiency standards for  
16 purveyors. The State Board will adopt urban irrigation standards that  
17 could decrease the net recharge to the Basin, and thereby reduce the  
18 Safe Yield of the Basin. However, the Watermaster engineer concluded  
19 it was currently too speculative to analyze the legislation's impact on  
20 Safe Yield.

21 c) The restated judgment, the 2017 order, and the 2019 order control the 2020  
22 Safe Yield reset process.

- 23 i) The April 28, 2017 order [2017 order], pages 15 to 18, and the Reset  
24 Technical Memorandum describe the process and methodology for the  
25 2020 Safe Yield reset process.

26 (1) There was an additional order filed March 15, 2019 [2019 order] which  
27 the court entered as a resolution of the issues after the appeal of the  
28 2017 order.

1        ii) The reduction from 135,000 acre-feet to 131,000 acre-feet is a reduction of  
2        3%. The reduction from the initial 140,000 acre-feet to 131,000 acre-feet is  
3        reduction of 6.4%.

4 2) In support of the motion, Watermaster has submitted its 2020 Safe Yield  
5 Recalculation Final Report [exhibit B to the motion], prepared by Mark  
6 Wildermuth of Wildermuth Environmental [WEI], who has been Watermaster  
7 engineer for previous Safe Yield recalculations.

8 a) The court finds that the analysis complies with the 2017 order, the 2019  
9 orders, and the reset technical memorandum [exhibit A to the motion].

10 b) The court finds that the model was properly calibrated [section 6].

11 c) The court finds that the model has had adequate peer review.

12 d) The court finds that the parties had sufficient opportunity to participate and in  
13 the process for the Safe Yield reset.

14 e) The court finds that the Safe Yield reset to 131,000AFY will not result in an  
15 undesirable result or material physical injury to the Basin.

16 3) Joinders

17 a) Jurupa Community Services District (JCSD) *joinder* to Watermaster reset AND  
18 *motion for continuance*

19 i) Filed June 23, 2020, Overlying (Agricultural Pool) [Ag Pool] OBJECTION  
20 to Jurupa Community Services District [JCSD] *request for continuance* of  
21 Watermaster reset, amendment of restated judgment paragraph 6.

22 (1) The court has granted the request for continuance; the new hearing date  
23 and time is July 10, 2020, 1:30 PM, Department 35.

24 b) City of Pomona (Pomona) JOINDER in Watermaster reset [not a declaration  
25 as indicated in the register of actions (ROA)].

26 c) Inland Empire Utilities Agency [IEUA]

27 d) Cucamonga Valley Water District JOINDER in Watermaster reset [not a  
28 declaration as indicated in the ROA].



- e) Fontana Union Water Company
- f) Jurupa Community Services District (JCSD)
- g) Three Valleys Municipal Water District
- h) Western Municipal Water District (WMWD)
- i) Ag Pool MOTION TO STRIKE JOINDERS of Pomona, IEUA, Cucamonga Valley Water District and Fontana Union Water Company, JCSD, Three Valleys Municipal Water District and WMWD.
- (a) Filed June 24, 2020, Inland Empire Utility Agencies OPPOSITION to Ag Pool *motion to strike joinders* to Watermaster motion (regarding 2020 Safe Yield reset) by Pomona, IEUA, Cucamonga Valley Water District, and Fontana Union Water Company, JCSD, Three Valley's Municipal Water District, and WMWD.
- (i) The court overrules the Ag Pool *motion to strike* all joinders.
- (ii) The court grants all joinders in the Watermaster reset motion.

#### 4) OPPOSITIONS

- a) Filed June 16, 2020, Chino OPPOSITION to Watermaster reset
- b) Filed June 16, 2020, Ag Pool OPPOSITION to Watermaster reset
- i) Filed June 19, 2020, Chino City REPLY to Ag Pool *opposition* to Watermaster Reset
- (1) Ag Pool *motion to strike* Chino City REPLY to Ag Pool *opposition*.
- (a) Chino opposition to Overlying (Agricultural) Pool [Ag Pool] "ex parte" motion to strike Chino REPLY to Ag Pool opposition to Watermaster reset motion.
- ii) Filed June 19, 2020, Appropriative Pool [AP] REPLY to Ag Pool's *opposition* to Watermaster reset motion
- (a) Ag Pool motion to strike Appropriative Pool REPLY to Ag Pool opposition.
- c) Filed June 19, 2020, Watermaster REPLY *to all oppositions* to Watermaster reset

1 motion.

2 DISCUSSION

3 A. Underlying Watermaster's Safe Yield reset is the Chino Valley Model (CVM)  
4 which Mark Wildermuth and his firm have developed. The court finds the results of  
5 this model to be reliable. Wildermuth has worked in the Chino Basin for more than  
6 40 years and has developed and updated sophisticated model of the Basin, including  
7 a 2007 version of the mode which WEI updated in 2013 on which the court relied to  
8 for the court's 2017 order to set the Safe Yield for the 2011-2020 period.

9 1. Furthermore, after completing an administrative draft of the Safe Yield  
10 report, Mr. Wildermuth's firm, WEI, met with consultants from Luhdorff &  
11 Scalmanini Consulting Engineers [LSCE] as well as other technical experts associated  
12 with the Appropriative Pool and the State of California to discuss the Safe Yield  
13 analysis, methodology, modeling, and its application.

14 a) Will Halligan, of LCSE, worked with Joe Scalmanini when Scalmanini  
15 served as the court's special referee's technical expert.

16 b) After completing its evaluation, LSCE concluded that the model  
17 employed to develop the Safe Yield report, which is under the court's  
18 consideration, is consistent with prevailing professional standards.

19 B. Filed June 16, 2020, Chino opposition to Watermaster reset motion

20 1. Chino has argued that Watermaster failed to produce an estimate if the  
21 Basin's net recharge based upon the hydrological data set described in the 2017  
22 order. [Page 2, line 27.]

23 2. However, the court has found that the Safe Yield reset analysis  
24 complies with the court-ordered reset process. Wildermuth has used the Basin data  
25 not only from 1921 to 1949, but also long term precipitation data from 1885 to the  
26 present. As the court has pointed out before, the court and parties are dealing with  
27 geological time frames, and a longer time frame for data should give better long term  
28 results. The court agrees with the Watermaster argument Chino's suppositions about

1 incorporating information into a base period are just suppositions. The court must  
2 rely on the conclusions of credible experts, such as Wildermuth.

3 3. Chino wants a range of usable estimates of net recharge, but provides  
4 no basis upon which the court can make a selection among most reasonable bases.

5 4. Chino also argues that Watermaster refused to perform an uncertainty  
6 analysis, which is a standard engineering practice used to identify the uncertainties  
7 inherent in every model so as to lead to the most accurate estimate of the net  
8 recharge of the Basin. [page 3, line 1.]

9 a) However, section 1.9 of the 2020 Safe Yield Recalculation Final Report  
10 by WEI shows that there has been sufficient stakeholder and technical  
11 reviews of the Safe Yield analysis to satisfy the court.

12 5. Chino also argues that it did not have an opportunity to delve into the  
13 details of the CVM model. Release of the model could lead to parties and individuals  
14 changing inputs into the model that enable advocacy to be injected into the modeling  
15 process. Watermaster's assurances regarding transparency and open access are  
16 buttressed by the court's oversight pursuant to its continuing jurisdiction over Safe  
17 Yield, as well as the stakeholder and technical reviews set forth in the motion and  
18 supporting exhibits and declarations.

19 6. To support its opposition, Chino relies on the declaration of Dave  
20 Crosley, water and environmental manager for the city of Chino, a licensed civil  
21 engineer (involved in 25 years; primary representative for Chino to the Appropriative  
22 Pool) and the declaration of Eric Fordham, president of GeoPentech, Inc. (a  
23 registered geologist with specialty certifications in the state for engineering geology  
24 and hydrogeology, providing Chino with hydrogeology consulting services for 18  
25 years).

26 a) Generally these reports complain that Wildermuth did not take into  
27 account every possible scenario and every possible range of inputs

28 b) The court has considered the information provided by these two

1 consultations, but the court concludes that the extensive and extremely  
2 well documented Wildermuth report is a much must more persuasive,  
3 credible, and reliable basis for which the court to reset Safe Yield at  
4 131,000 acre-feet/year.

5 7. Therefore, the court denies Chino's requests to:

6 a) Direct Watermaster to produce an estimate of the basis projected net  
7 recharge based on the court ordered data.

8 b) Provide Chino the information it has requested including access to the  
9 CVM.

10 c) Instruct Watermaster to engage Chino and the other parties in a  
11 meaningful dialogue about the accuracy of the Basin's net recharge and  
12 the proper Safe Yield.

13 d) Additionally the court finds that:

14 I) Chino's concerns can be addressed in the OBMP planning efforts.

15 II) The restated judgment makes setting Safe Yield an action authorized  
16 under the court's continuing jurisdiction, and the court has expressly  
17 ordered Watermaster to assume responsibility for the necessary  
18 evaluation.

19 III) Watermaster conducted and facilitated the 2020 Safe Yield reset  
20 process with ongoing opportunities for participation by the parties.  
21 Chino and the Ag Pool availed themselves of these opportunities.  
22 Examples are set forth on pages 4-6 of Watermaster's reply.

23 IV) To rise to level of making a change and outcomes sufficiently  
24 certain to be incorporated into a Safe Yield reset the valuation, there  
25 would need to be coordinating agreements and an operating plan,  
26 none of which exist today. [Page 5, lines 9-11.]

27 V) While Chino argues that the language at page 16 of the 2017 order  
28 required Watermaster engineer to set the CVM base period to

1 include an “entire period” [unclear to the court, but apparently from  
2 1921 to 1949], neither the 2017 order of the reset technical  
3 memorandum mandates this. The Wildermuth declaration states his  
4 report uses long-term precipitation data from 1895 to present  
5 inclusive of the period from 1921 to the present. Wildermuth  
6 selected 1950 to 2011 for the planning period.

- 7 e) Chino’s argument would lead to a range of Safe Yields with no particular  
8 basis for the selection of one over another. There is no logical basis on  
9 which the court could make that decision. It would result in a lengthy  
10 trial and analysts experts’ opinions of varying opinions. The weight that  
11 the court gives to Wildermuth evaluation as proven itself and stood the  
12 test of time. Therefore the court selects that one.

13 C. Opposition of Overlying (Agricultural) Pool [Ag Pool]

14 1. The Ag Pool opposition is that during the 2010 to 2020 reset period,  
15 the actual net recharge to the Basin was 125,000 acre-feet per year, 10,000 acre-feet  
16 per year less than the 135,000 AFY Safe Yield projected by Watermaster’s modeling  
17 and set by the court.

- 18 a) So, the Ag Pool claims that the 2020 Safe Yield reset failed to account  
19 for this lower than projected net recharge in the Basin. The Basin’s  
20 actual hydrology was 10,000 acre-feet per year less for the last decade  
21 which adds up to the 100,000 acre-feet of over allocation. The Ag Pool  
22 asserts that this over allocation resulted in increased storage that  
23 threatens Safe Yield.

- 24 b) The Ag Pool claims Watermaster is jumping from a test projected net  
25 recharge to another projection of net recharge without adjusting for  
26 actual conditions in the Basin over the previous Safe Yield reset  
27 planning period [that is 2010 to 2019].

- 28 (a) The Ag Pool asserts that Watermaster’s refusal to remedy that

error in the current Safe Yield reset results in MPI to the Basin. [Page 6, line 19.]

- c) The Ag Pool's primary concern is that "Basin storage" (also called native groundwater and some of the documents) has not been accounted for and the Safe Yield reset for the 2020 storage management plan.
- I) The Ag Pool talks about Watermaster's storage management plan white paper. Nowhere else is this mentioned in any of the paperwork filed with the court. The court gathers that this white paper talks about the operational storage requirement [OSR] is the storage volume in the Chino Basin necessary to maintain Safe Yield.
- II) The Ag Pool complains that depletion in Basin storage shows that the Basin's Safe Yield has not been maintained causing MPI.
- (a) However, the Ag Pool does not identify any specific MPI.
- (b) The Ag Pool complains that Basin storage is noted to have been reduced to less than 4.5 MAF by 2019, and that is a reduction of over 800,000 as below operational storage requirement for 1997 to 2019.
- (i) There is no specific consequence to this complaint.
- (c) The Ag Pool also argues that groundwater in managed storage is subject to production rights and will be extracted at some point in time. The Safe Yield reset in the 2020 storage management plan did not account for this shortfall below operational storage requirements so the extraction of managed storage will result in MPI.
- (i) Again, the court notes that no MPI is not specifically identified.
- (d) The Ag Pool uses an analogy to a bank account, that if you

1 take more money out that your deposit, sooner or later you  
2 run out of money. [Page 8, line 7.]

3 2. Watermaster response is that the reset looks forward, not backwards;  
4 furthermore, the reset tries to take into account all the factors. Although the  
5 Watermaster reply was with respect to both the opposition of the Chino and the Ag  
6 Pool, the court will address it here.

7 a) Watermaster argues that the Ag Pool approach is basically a worst case  
8 scenario approach. It looks to the worst drought we had in the last 50  
9 years and worries that the Basin is going to have another worst drought  
10 in the next 50 years.

11 b) The prospective long range model is the one the court must consider.  
12 Ten years in geological time is nothing more than an instant. Even 100  
13 years is a short time. The court must consider, as the Wildermuth  
14 report does, the longest time period for which relevant data exists.

15 I) Watermaster also argues that the Ag Pool approach only looks at the  
16 last 10 years.

17 (a) The court concludes that the Wildermuth report and all of its  
18 underlying data has the correct broad, not narrow,  
19 interpretation for the OBMP. The OBMP does not require  
20 that the court look only at the previous 10 years to compute  
21 Safe Yield.

22 (b) An implication of the Ag Pool opposition, not sought by the  
23 Ag Pool, is that the court should set the Safe Yield at 125,000  
24 acre-feet/year in an attempt to catch up with the 10,000 acre-  
25 feet per year that were pumped for the last 10 years without  
26 replenishment. The court has previously relied on the  
27 forecast and recommendations of Wildermuth and found  
28 them to be credible. The court will continue to rely on those

1 predictions with the additional reduction of 4000 acre-feet per  
2 year in Safe Yield.

3 (c) The storage management plan and the Safe Yield might be  
4 intimately interlinked and dependent on each other.

5 However, intertwining the two leads to the problem such as  
6 the court encountered the Safe Yield Reset Agreement  
7 (SYTRA) in 2015. There were so many objections to all the  
8 aspects of SYRA that the motion failed. The court had to  
9 focus on the groundwater analysis. The GSI report is  
10 engaging in legal analysis, not groundwater analysis.

11 (d) There is no legal requirement that the next Safe Yield be  
12 based solely upon the 10 year period 2011 to 2020. To do so  
13 would be contrary to all the court's orders and the CAMA  
14 (Court Approved Management Agreements). Also, to make  
15 such a narrow basis for projection would be too narrow a  
16 range for a substantial prediction.

17 c) The court confirms the argument of Watermaster that Safe Yield reset  
18 was never intended to precisely match actual net recharge over a 10 year  
19 period. .

20 d) There is no support in the evidence that allowing production at the  
21 projected net recharge during the reset period would constitute an  
22 undesirable results or material physical injury to the Basin.

23 I) Wildermuth's professional opinion is that allocating the Safe Yield  
24 equivalent to the net recharge during the reset period would not  
25 result in undesirable results or material physical injury.

26 (a) The court notes Watermaster's point that the "operational  
27 storage requirement" quantity cited by the Ag Pool is a  
28 remnant of a prior analysis that was prepared as a precursor



1 to the 2020 storage management plan. Those have been  
2 superseded by the analysis performed using the CVM. The  
3 CVM estimates the total quantity of water in the Basin at least  
4 12,000,000 acre feet. The court methodology does not  
5 require a “true up” related to a prior reset period.

6 (b) Additionally the Ag Pool’s comments regarding the  
7 consistency of the Safe Yield report’s recommendation with  
8 the OBMP implementation plan and Watermaster rules and  
9 regulations, the document cited have been superseded by the  
10 courts 2017 order and 2019 orders. [Page 9].

11 (i) Language in the reset technical memorandum to which  
12 the Ag Pool refers was the process in the OBMP  
13 before the courts 2017 order.

14 (ii) The Ag Pool is a party to a contest proceeding  
15 regarding applications to store and transfer excess carry  
16 over water.

17 (iii) The net recharge is estimated using parties projected  
18 water demands and production. In the case of the  
19 Appropriative Pool parties, these estimates were  
20 provided by the parties themselves.

21 3. Chino reply to Ag Pool opposition filed June 19, 2020

22 a) Ag Pool motion to strike Chino reply

23 I) The Ag Pool motion to strike

24 (a) Chino opposition to Ag Pool motion to strike Chino reply to  
25 Ag Pool opposition to reset motion filed June 26, 2020.

26 a. The Ag Pool motion to strike is denied.

27 b) Chino argues that the Ag Pool is now trying to reset retroactively the  
28 Safe Yield of the Basin to 135,000 AFY for 2010 to 2020.

- 1 c) Further, Chino argues that the Ag Pool has failed to show that there  
2 was an undesirable result of material physical injury from the  
3 “overallocation” of 10,000 AFY for the 10 year period  
4 I) For the reasons stated herein, the court finds that there was no  
5 “overallocation” and nothing for which any appropriator has a duty  
6 to replenish.

7 4. Filed June 19, 2020, Appropriative Pool reply to Overlying  
8 (Agricultural) Pool [Ag Pool] opposition

- 9 a) Motion of the Ag Pool to strike the Appropriative Pool reply.  
10 I) Motion denied.  
11 II) There is no legal basis for the request and it is simply an attempt to  
12 evade the submission of Harder’s report and the agricultural pools  
13 interpretation of that.  
14 b) The court notes that the Ag Pool gave its express written approval to  
15 the 2015 Safe Yield reset/recalculation methodology set forth in the  
16 2017 Safe Yield reset order methodology. That express written  
17 approval by the Ag Pool did not mention or advocate that the court  
18 adjust the methodology to address the claim the Ag Pool is now  
19 making, *i.e.*, that 100,000 acre-feet of water was over allocated during  
20 the 2011-2020 reset period.  
21 c) The Ag Pool’s opposition is rooted in the prior reset period on which it  
22 signed off via its express written approval of the prescribed  
23 methodology for the 2017 SYR (Safe Yield Reset) order, and it is not  
24 based on any revelatory data from the 2020 SYR motion.  
25 d) In reliance on the court’s 2017 SYR order, the Appropriative Pool  
26 members structured their operations and planning processes, and  
27 expended substantial ratepayer money based on the availability and  
28 associated cost to use Chino Basin water.

- 1 e) The Ag Pool is advocating a change in the interpretation of the 2017  
2 SYR order methodology that disregards the long-term hydrology the  
3 Basin in favor of the most recent 10 year period in contravention of the  
4 courts clear methodology directive.
- 5 f) There is no provision in the 2015 Safe Yield reset methodology and  
6 requires adjustments to account for alleged overestimated Safe Yield in  
7 the prior 10 years. Accordance with element 5 of the 2015 Safe Yield  
8 methodology, no adjustments are necessary because no material  
9 physical injury was evident from the forward projection.
- 10 g) Thomas Harder (the Appropriative Pool's technical expert) rejects the  
11 technical assertions made in the Ag Pool's opposition regarding any  
12 alleged undesirable results or material physical injury.
- 13 I) The declaration of Thomas Harder in support of the appropriative  
14 pool's reply.
- 15 (a) He essentially supports the motion.
- 16 (b) Any over allocation of Safe Yield for the period 2010 through  
17 2020 would have been accounted for any estimate of Safe  
18 Yield and the determination of no material physical injury.
- 19 (c) There is no provision in the 2015 Safe Yield reset  
20 methodology that requires adjustments to account for  
21 overestimated Safe Yield of the prior 10 years.
- 22

23 Therefore, the court orders:

24 I. Watermaster has satisfied the requirements of the court's April 28, 2017 orders  
25 for Watermaster's Motion Regarding 2015 Safe Yield Reset Agreement, Amendment  
26 of Restated Judgment, paragraph 6 ("2017 order") as they relate to the resetting of  
27 the Safe Yield of the Basin by June 30, 2020;

28 II. Paragraph 6 of the Restated Judgment is hereby amended to read as follows:

1 “Safe Yield. Safe Yield of the Basin is 131,000 acre-feet per year.”

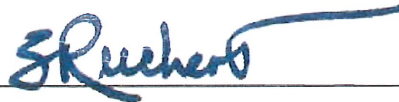
2 III. Effective date of the amendment of Paragraph 6 of the Restated Judgment is July  
3 1, 2020.

4 IV. Watermaster shall commence the next Safe Yield reset process, taking into  
5 account then prevailing best management practices and advances in hydrological  
6 science, no later than July 1, 2028, so the Safe Yield for the period commencing July  
7 1, 2030, and ending June 30, 2040, may be reset by June 30, 2030. Watermaster show  
8 present its evaluation and recommendation regarding Safe Yield for the period of  
9 July 1, 2030, and ending June 30, 2040, to the Parties to the Judgment no later than  
10 January 1 72030.

11 V. If the California State Water Resources Control Board develops water  
12 conservation measures prior to June 30, 2030, that result in a reduction in urban  
13 irrigation in the Chino Basin (*i.e.*, reduced Evapotranspiration Adjustment Factors),  
14 as required by Water Code § 10609, et seq., that is reasonably likely to materially  
15 reduce recharge to the Basin, Watermaster shall conduct a reevaluation of the Safe  
16 Yield in the Chino Basin. If the State’s measures are determined to change the Safe  
17 Yield of the Basin by more than 2.5% during the Reset Term, Watermaster will  
18 promptly move the court to reset the Safe Yield pursuant to the methodology  
19 adopted in the 2017 order.

20 IT IS SO ORDERED.

21  
22 Date: 7.31.20

23  
24 

25 Judge Stanford E. Reichert

26 San Bernardino County Superior Court  
27  
28

# 2022 Safe Yield Reset Methodology Order

FEE EXEMPT

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Attorneys for  
CHINO BASIN WATERMASTER

SUPERIOR COURT OF THE STATE OF CALIFORNIA

FOR THE COUNTY OF SAN BERNARDINO

CHINO BASIN MUNICIPAL WATER  
DISTRICT,

Plaintiff,

v.

CITY OF CHINO, ET AL.,

Defendants.

Case No. RCVRS51010

[Assigned for All Purposes to the  
Honorable Gilbert G. Ochoa]

**NOTICE OF RULING AND ENTRY OF  
ORDERS**


1           **TO ALL PARTIES AND THEIR ATTORNEYS OF RECORD:**

2           **PLEASE TAKE NOTICE** that, on December 16, 2022, in Department S24 of the above-  
3 entitle Court, Chino Basin Watermaster's Motion for Court Approval of Update to Watermaster  
4 Safe Yield Reset Methodology ("Motion") came on for hearing in the above-captioned matter.  
5 The Honorable Gilbert G. Ochoa, having considered the briefing submitted and all supporting  
6 documents filed concurrently therewith, and having heard any oral argument from counsel,  
7 granted Chino Basin Watermaster's Notice of Motion and Motion, adopting the Court's tentative  
8 ruling as a final ruling, a copy of which is attached to this Notice as **Exhibit A**, and entering its  
9 Order Granting Chino Basin Watermaster's Motion Regarding the Update to Watermaster's Safe  
10 Yield Reset Methodology, a copy of which is attached to this Notice as **Exhibit B**.

11           The Court also entered an Order Granting Request for Court to Receive and File  
12 Watermaster Semi-Annual OBMP Status Report 2022-1, a copy of which is attached to this  
13 Notice as **Exhibit C**.

14  
15           Dated: December 19, 2022

16           BROWNSTEIN HYATT FARBER  
17           SCHRECK, LLP

18  
19           By:   
20           SCOTT S. SLATER  
21           BRADLEY J. HERREMA  
22           LAURA K. YRACEBURU  
23           Attorneys for  
24           CHINO BASIN WATERMASTER

25           25022278

# Exhibit A



**TENTATIVE RULINGS FOR December 16, 2022**  
**Department S24 - Judge Gilbert G. Ochoa**

This court follows California Rules of Court, rule 3.1308(a) (1) for tentative rulings. (See San Bernardino Superior Court Local Emergency Rule 8.) Tentative rulings for each law & motion will be posted on the internet (<https://www.sb-court.org>) by 3:00 p.m. on the court day immediately before the hearing.

If you do not have internet access or if you experience difficulty with the posted tentative ruling, you may obtain the tentative ruling by calling the Administrative Assistant. You may appear in person at the hearing but personal appearance is not required and remote appearance by Court Call is preferred during the Pandemic. (See [www.sbcourt.org/general-information/remote-access](http://www.sbcourt.org/general-information/remote-access))

**If you wish to submit on the ruling, call the Court and your appearance is not necessary. If both sides do not appear, the tentative will simply become the ruling. If any party submits on the tentative, the Court will not alter the tentative and it will become the ruling. If one party wants to argue, Court will hear argument but will not change the tentative. If the Court does decide to modify tentative after argument, then a further hearing for oral argument will be reset for both parties to be heard at the same time by the Court.**

**UNLESS OTHERWISE NOTED, THE PREVAILING PARTY IS TO GIVE NOTICE OF THE RULING.**

**RCVRS51010**

**Chino Basin Municipal Water District vs. City of Chino**

**Motion-For Court Approval of Update**

**Movant- Chino Basin Watermaster**


**Respondent- All other parties**

**Ruling- The Motion is granted. No opposition is presented.**

Movant to give Notice and Order.

Dated- **DEC 16 2022**

  
\_\_\_\_\_  
Judge **GILBERT G. OCHOA**

**FILED**  
SUPERIOR COURT  
COUNTY OF SAN BERNARDINO  
SAN BERNARDINO DISTRICT  
**DEC 16 2022**  
BY   
DEPUTY

# Exhibit B

FEE EXEMPT

FILED  
SUPERIOR COURT  
COUNTY OF SAN BERNARDINO  
SAN BERNARDINO DISTRICT

DEC 16 2022

BY Jennifer Wilson  
DEPUTY

SUPERIOR COURT OF THE STATE OF CALIFORNIA  
FOR THE COUNTY OF SAN BERNARDINO

CHINO BASIN MUNICIPAL WATER  
DISTRICT,

Plaintiff,

v.

CITY OF CHINO, ET AL.,

Defendants.

Case No. RCV RS 51010

[Assigned for All Purposes to the  
Honorable Gilbert G. Ochoa]

**~~PROPOSED~~ ORDER GRANTING CHINO  
BASIN WATERMASTER'S MOTION  
REGARDING THE UPDATE TO  
WATERMASTER'S SAFE YIELD RESET  
METHODOLOGY**

Date: December 16, 2022  
Time: 9:00 a.m.  
Dept: S24

*[Filed concurrently with Motion for Court  
Approval of Update to Watermaster Safe Yield  
Reset Methodology; Declarations of Garrett  
Rapp and Peter Kavounas in Support thereof]*

On December 16, 2022, Chino Basin Watermaster's ("Watermaster") Motion regarding the Update to Watermaster Safe Yield Reset Methodology ("2022 SYRMU") came on regularly for hearing in the above-captioned matter. Having read and considered the papers and heard the arguments of counsel, the Motion is **GRANTED**. It is **HEREBY ORDERED** that:

1. Watermaster has complied with the provisions of this Court's April 28, 2017 Orders for Watermaster's Motion Regarding the 2015 Safe Yield Reset Agreement, Watermaster's Rules and Regulations, and the Optimum Basin Management

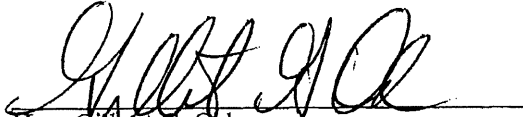
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Program Implementation Plan to revise the Safe Yield reset methodology

2. The 2022 SYRMU, as described in the Technical Memorandum attached hereto as Attachment "A", sets forth an approach to future Safe Yield determinations that is consistent with the Judgment and the Court's prior orders. The 2022 SYRMU incorporates advances in best management practices and hydrologic science since the Court's April 28, 2017 Orders, was developed with the recommendation and advice of the Pools and Advisory Committee, and has not been opposed by any party.
3. Watermaster shall proceed to evaluate the Safe Yield as set forth in the 2022 SYRMU unless and until this Court approves an updated methodology.

**IT IS SO ORDERED.**

Dated: DEC 16 2022, 2022

  
Hon. Gilbert G. Ochoa  
Judge of the Superior Court

24777289.5

# **ATTACHMENT A**



23692 Birtcher Drive  
Lake Forest CA 92630

949.420.3030 phone  
530.756.5991 fax  
westyost.com

## RESET TECHNICAL MEMORANDUM

DATE: October 6, 2022

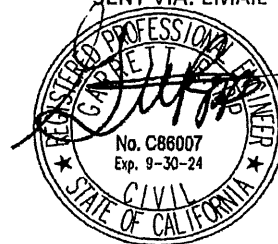
Project No.: 941-80-22-32

SENT VIA: EMAIL

TO: Peter Kavounas, Chino Basin Watermaster

FROM: Garrett Rapp, PE, RCE #86007  
Andy Malone, PG

SUBJECT: 2022 Methodology to Reset the Safe Yield of the Chino Basin



### 2022 UPDATED SAFE YIELD RESET METHODOLOGY

This technical memorandum summarizes the methodology<sup>1</sup> to calculate the Safe Yield of the Chino Basin for the 2025 Safe Yield Reevaluation and subsequent Safe Yield evaluations. The methodology: (i) is consistent with professional custom, standard, and practice; (ii) incorporates current best management practices and hydrologic science; and (iii) is consistent with the definition of Safe Yield in the Judgment and the Physical Solution.

1. Use data collected since the implementation of the OBMP to re-calibrate the Watermaster's groundwater-flow model. The re-calibration period should be long enough to include wet and dry periods relative to the long-term historical precipitation record.
2. Conduct an uncertainty analysis of the re-calibrated groundwater-flow model to identify a plausible range of calibrated models.
3. Describe current and projected future cultural conditions, including but not limited to land use and water-management practices, such as: pumping, managed recharge, managed groundwater storage, impervious land cover, water recycling, and water conservation practices. Identify a possible range of projected future cultural conditions.
4. Using the most current research on future climate and hydrology, identify a possible range of projected future climatic conditions in the Santa Ana River watershed.
5. Using the results of [3.] and [4.] above, prepare an ensemble of multiple projection scenarios of combinations of future climate/hydrology and cultural conditions (herein called the "Projection Ensemble"). Assign likelihoods to each scenario in the Projection Ensemble.
6. Simulate the range for the potential future water budget and groundwater conditions in the Chino Basin over no less than a 50-year future period. This is accomplished by using:
  - i. The range of calibrated models developed in [2.], and
  - ii. The Projection Ensemble developed in [5.] as model input data.

<sup>1</sup> A detailed description of the methodology summarized here can be found in the technical memorandum titled "2022 Update of the Chino Basin Safe Yield Reset Methodology," dated October 6, 2022.

7. Using the results of [6.] above, characterize the range in the model results for:
  - i. Groundwater conditions, including: groundwater elevations, groundwater in storage, and groundwater flow directions, and
  - ii. The water budget, including: basin inflows, outflows, change in storage, and net recharge.
8. Using the set of net recharge results from [7.ii], determine a tentative Safe Yield as the likelihood-weighted average net recharge over the 10-year prospective period for which the Safe Yield is being redetermined (Tentative Safe Yield).
9. Evaluate whether the groundwater production at the Tentative Safe Yield estimated in [8] above will cause or threaten to cause "undesirable results" or "Material Physical Injury." If groundwater production at Tentative Safe Yield will cause or threaten to cause "undesirable results" or "Material Physical Injury," then Watermaster will identify and implement prudent measures necessary to mitigate "undesirable results" or "Material Physical Injury," set the value of Safe Yield to ensure there is no "undesirable results" or "Material Physical Injury," or implement a combination of mitigation measures and a changed Safe Yield.

# Exhibit C



ORIGINAL

FEE EXEMPT

FILED  
SUPERIOR COURT  
COUNTY OF SAN BERNARDINO  
SAN BERNARDINO DISTRICT

DEC 10 2022

B *Jennifer Medina*

DEPUTY

FAXED

SUPERIOR COURT OF THE STATE OF CALIFORNIA  
FOR THE COUNTY OF SAN BERNARDINO

CHINO BASIN MUNICIPAL WATER  
DISTRICT,

Plaintiff,

v.

CITY OF CHINO, et al.,

Defendant.

Case No. RCV RS 51010

[Assigned for All Purposes to the Honorable  
Gilbert G. Ochoa]

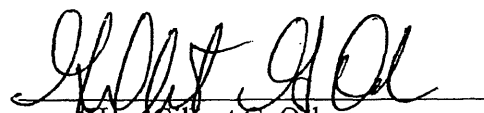
**[PROPOSED] ORDER GRANTING  
REQUEST FOR COURT TO RECEIVE  
AND FILE WATERMASTER SEMI-  
ANNUAL OBMP STATUS REPORT 2022-1**

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~~PROPOSED~~ ORDER

On December 16, 2022, in Department S24 of the above-entitled Court, the Chino Basin Watermaster's ("Watermaster") Request for Court to Receive and File Watermaster Semi-Annual OBMP Status Report 2022-1 came on regularly for hearing in the above-captioned matter. Having read and considered the papers and heard the arguments of counsel, if any, the Request is **GRANTED**. The Court hereby receives and files the Semi-Annual OBMP Status Report 2022-1.

Dated: DEC 16 2022

  
Hon. Gilbert G. Ochoa  
Judge of the Superior Court

CHINO BASIN WATERMASTER  
Case No. RCVRS 51010  
Chino Basin Municipal Water District v. City of Chino, et al.

PROOF OF SERVICE

I declare that:

I am employed in the County of San Bernardino, California. I am over the age of 18 years and not a party to the within action. My business address is Chino Basin Watermaster, 9641 San Bernardino Road, Rancho Cucamonga, California 91730; telephone (909) 484-3888.

On November 15, 2022, I served the following:

1. [PROPOSED] ORDER GRANTING REQUEST FOR COURT TO RECEIVE AND FILE WATERMASTER SEMI-ANNUAL OBMP STATUS REPORT 2022-1

☒ BY MAIL: in said cause, by placing a true copy thereof enclosed with postage thereon fully prepaid, for delivery by the United States Postal Service mail at Rancho Cucamonga, California, addresses as follows:

**See attached service list:** Mailing List 1

☐ BY PERSONAL SERVICE: I caused such envelope to be delivered by hand to the addressee.


☐ BY FACSIMILE: I transmitted said document by fax transmission from (909) 484-3890 to the fax number(s) indicated. The transmission was reported as complete on the transmission report, which was properly issued by the transmitting fax machine.

☒ BY ELECTRONIC MAIL: I transmitted notice of availability of electronic documents by electronic transmission to the email address indicated. The transmission was reported as complete on the transmission report, which was properly issued by the transmitting electronic mail device.

**See attached service list:** Master Email Distribution List

I declare under penalty of perjury under the laws of the State of California that the above is true and correct.

Executed on November 15, 2022 in Rancho Cucamonga, California.

  
\_\_\_\_\_  
By: Ruby Favela Quintero  
Chino Basin Watermaster

PAUL HOFER  
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ONTARIO, CA 91761

JEFF PIERSON  
2 HEXAM  
IRVINE, CA 92603

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 Chino Hills City Council  
 Chris Berch  
 Chris Diggs  
 Christiana Daisy  
 Christofer Coppinger  
 Christopher M. Sanders  
 Christopher Quach  
 Christopher R. Guillen  
 Cindy Cisneros  
 Cindy Li  
 Courtney Jones  
 Craig Miller  
 Craig Stewart  
 Cris Fealy  
 Dan Arrighi  
 Dan McKinney  
 Daniel Bobadilla  
 Danny Kim  
 Dave Argo  
 Dave Crosley  
 David Aladjem  
 David De Jesus  
 David Huynh  
 Dawn Forgeur  
 Dawn Martin  
 Denise Garzaro  
 Dennis Mejia  
 Dennis Williams  
 Diana Frederick  
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 Eduardo Espinoza  
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CHINO BASIN WATERMASTER

Case No. RCVRS 51010

Chino Basin Municipal Water District v. City of Chino, et al.

PROOF OF SERVICE

I declare that:

I am employed in the County of San Bernardino, California. I am over the age of 18 years and not a party to the action within. My business address is Chino Basin Watermaster, 9641 San Bernardino Road, Rancho Cucamonga, California 91730; telephone (909) 484-3888.

On December 19, 2022, I served the following:

1. NOTICE OF RULING AND ENTRY OF ORDERS

/ X / BY MAIL: in said cause, by placing a true copy thereof enclosed with postage thereon fully prepaid, for delivery by the United States Postal Service mail at Rancho Cucamonga, California, addresses as follows:

**See attached service list:** Mailing List 1

/ \_\_\_ / BY PERSONAL SERVICE: I caused such envelope to be delivered by hand to the addressee.

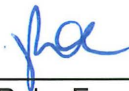
/ \_\_\_ / BY FACSIMILE: I transmitted said document by fax transmission from (909) 484-3890 to the fax number(s) indicated. The transmission was reported as complete on the transmission report, which was properly issued by the transmitting fax machine.

/ X / BY ELECTRONIC MAIL: I transmitted notice of availability of electronic documents by electronic transmission to the email address indicated. The transmission was reported as complete on the transmission report, which was properly issued by the transmitting electronic mail device.

**See attached service list:** Master Email Distribution List

I declare under penalty of perjury under the laws of the State of California that the above is true and correct.

Executed on December 19, 2022, in Rancho Cucamonga, California.



---

By: Ruby Favela Quintero  
Chino Basin Watermaster

PAUL HOFER  
11248 S TURNER AVE  
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JEFF PIERSON  
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