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2 **BRADLEY J. HERREMA (State Bar No. 228976)**
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5 Attorneys for
6 **CHINO BASIN WATERMASTER**

7
8 SUPERIOR COURT OF THE STATE OF CALIFORNIA
9 FOR THE COUNTY OF SAN BERNARDINO

10
11 CHINO BASIN MUNICIPAL WATER
DISTRICT,

12 Plaintiff,

13 v.

14 CITY OF CHINO, et al.,

15 Defendant.
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Case No. RCV 51010

[Assigned for All Purposes to the Honorable
STANFORD E. REICHERT]

**NOTICE OF MOTION AND MOTION
FOR APPROVAL OF AMENDMENTS TO
CYCLIC STORAGE AGREEMENT AND
TO RECEIVE AND FILE OBMP SEMI-
ANNUAL REPORTS; MEMORANDUM OF
POINTS AND AUTHORITIES;
DECLARATION OF BRADLEY J.
HERREMA**

Date: July 12, 2013
Time: 1:30 p.m.
Dept. R-6

21 TO ALL PARTIES AND THEIR ATTORNEYS OF RECORD:

22 PLEASE TAKE NOTICE THAT the Chino Basin Watermaster ("Watermaster") hereby
23 moves this Court, pursuant to Paragraph 15 of the Judgment in this action, for an Order
24 Approving the Eighth and Ninth Amendments to the Cyclic Storage Agreement and Receiving
25 and Filing the Semi-Annual Optimum Basin Management Program ("OBMP") Status Reports for
26 the Period from July of 2011 to December of 2012. This request is made pursuant to the Court's
27 continuing jurisdiction and authority to enforce and carry out the Judgment in this action with
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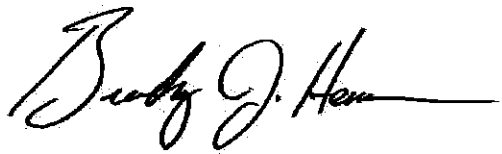
1 respect to the rights established thereunder.

2 The Motion will be based upon this Notice of Motion and Motion, the attached
3 Memorandum of Points and Authorities, the attached declaration of Bradley J. Herrema in
4 support thereof, as well as the pleadings, records and files in this action, and upon such oral
5 argument and other evidence as may be presented at the hearing on the Motion.

6 As described in the Declaration of Bradley J. Herrema, the Watermaster Pool Committees,
7 Advisory Committee and Board unanimously approved the Eighth and Ninth Amendments to the
8 Cyclic Storage Agreement that are the subjects of this Motion, and Watermaster does not believe
9 that any party will oppose this Motion.

10 Dated: June 11, 2013

BROWNSTEIN HYATT FARBER
SCHRECK, LLP

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15 By: 
16 SCOTT S. SLATER
17 BRADLEY J. HERREMA
18 Attorneys for
19 CHINO BASIN WATERMASTER
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MEMORANDUM OF POINTS AND AUTHORITIES

I. REQUEST FOR COURT APPROVAL OF NINTH AND EIGHTH AMENDMENTS TO CYCLIC STORAGE AGREEMENT

On December 4, 1978 the Chino Basin Watermaster, Chino Basin Municipal Water District (now known as Inland Empire Utilities Agency ("IEUA")), and the Metropolitan Water District of Southern California ("Metropolitan") executed a Cyclic Storage Agreement creating a Cyclic Storage Account in the Chino Basin. This Cyclic Storage Agreement was filed with the Court on December 13, 1978, and was approved by the Court on January 5, 1979. A true and correct copy of the Order approving the Agreement, as well as a copy of the original Agreement, is attached hereto as Exhibit "A."

The Cyclic Storage Agreement was executed soon after the Judgment was entered, and has been in use since its execution. Fundamentally, the Cyclic Storage Agreement defines the right of Metropolitan to store up to 100,000 acre-feet of water in Chino Basin—either directly or in lieu—with the written consent of Watermaster and IEUA, so Watermaster replenishment requirements can be satisfied. The water can be purchased at a later date by IEUA, as the Metropolitan member agency, as directed by Watermaster to satisfy replenishment obligations. It offers valuable flexibility to fulfill Watermaster's duty to procure replenishment water for the Basin, because it provides the opportunity for Metropolitan to pre-deliver replenishment water. Prior amendments have extended the term, as well as modified various provisions of, the agreement.

Watermaster has submitted amendments One through Seven to the Court in prior years, and the Court approved these prior amendments each time Watermaster submitted them to the Court. The most recent amendment, the Eighth Amendment, was agreed to in 2007. True and correct copies of Amendments One through Eight are attached hereto as Exhibit "B." Due to an oversight, the Eighth Amendment was not submitted to the Court for approval. The effect of the Eighth Amendment was to extend the term of the Agreement through December 31, 2012. Watermaster believes it is appropriate to receive approval from the Court of the Eighth Amendment, even though it expired on December 31, 2012.

1 The primary change made to the Cyclic Storage Agreement as a result of the Ninth
2 Amendment is to extend the term of the Agreement five years, until December 31, 2017. The
3 Ninth Amendment also reaffirms two existing provisions: (i) that written consent of Watermaster
4 and IEUA is required for water to be placed in storage by Metropolitan, and (ii) that if the Cyclic
5 Storage Agreement is not extended beyond December 31, 2017, Watermaster and IEUA will
6 purchase any water in storage at that time. A true and correct copy of the Ninth Amendment to
7 the Cyclic Storage Agreement is attached hereto as Exhibit "C."

8 The Ninth Amendment is consistent with the Judgment in this matter. The Cyclic Storage
9 Agreement, as extended, would provide water for use in the Chino Basin, and not for export. The
10 Ninth Amendment would not deprive any producer of access to Chino Basin's waters. Finally,
11 Watermaster control provides assurance that recapture of stored water would not result in
12 Material Physical Injury to the Basin.

13 The Ninth Amendment came before the Overlying (Agricultural) Pool, the Overlying
14 (Non-Agricultural) Pool and the Appropriative Pool Committees on February 14, 2013, and was
15 approved unanimously by all three Pool Committees. On February 21, 2013, the Advisory
16 Committee moved to refer the item back to the Pools for discussion during the March Pool
17 meetings to review all the issues raised at the Advisory Committee meeting. On March 14, 2013,
18 the Appropriative Pool moved unanimously to approve Watermaster staff's recommendation that
19 the Pool approve the Ninth Amendment with the understanding that it is Watermaster's opinion
20 that losses identified in the Peace II Agreement, currently at 6%, or as amended in the future, will
21 apply to the water introduced into this Cyclic Storage account; and, that Watermaster and the
22 IEUA will determine who will pay for the water in case of agreement termination by
23 Metropolitan before water is placed in the account, so that no individual party would be
24 compelled to pay against its will. On March 14, 2013, the Non-Agricultural Pool and the
25 Agricultural Pool both moved unanimously to take the same action as the Appropriative Pool.
26 Subsequently, on March 21, 2013, the Advisory Committee approved the Ninth Amendment, and
27 the Watermaster Board unanimously approved the Ninth Amendment at its March 28, 2013
28 meeting, with the clarifications requested by the Appropriative Pool. A copy of the Staff Report

1 from the March 28, 2013 meetings is attached hereto as Exhibit "D."

2 As indicated in the Declaration of Bradley J. Herrema, filed concurrently with this
3 Motion, Watermaster knows of no objections by any party to the current motion. Based on all of
4 the foregoing, Watermaster respectfully requests the Court to approve the Eighth and Ninth
5 Amendments to the Cyclic Storage Agreement under Paragraph 31 of the Judgment.

6 **II. REQUEST FOR THE COURT TO RECEIVE AND FILE THE OBMP SEMI-ANNUAL STATUS REPORT**
7

8 Watermaster also hereby requests that the Court receive and file Watermaster's most
9 recent Semi-Annual Optimum Basin Management Program (OBMP) Status Reports for the period
10 from July of 2011 to December of 2012. Each Status Report describes work conducted, and the
11 status of the nine Program Elements of the OBMP during the six-month period to which it
12 pertains. The reports submitted include Status Report 2011-02 for July through December 2011,
13 Status Report 2012-01 for January through June 2012, and Status Report 2012-02 for July
14 through December 2012. Copies of these Status Reports are attached hereto as Exhibit "E."

15 On April 26, 2012 the Watermaster Board reviewed Status Report 2011-02. The Board
16 reviewed Status Report 2012-01 at its September 27, 2012 meeting. On March 21, 2013, the
17 Advisory Committee unanimously approved staff's recommendation that Watermaster receive
18 and file the most recent OBMP Status Report with the Court. At its March 28, 2013 meeting, the
19 Board recommended that Watermaster file a courtesy copy of the 2012-02 Status Report with the
20 Court, as Watermaster has done in the past. (Declaration of Bradley J. Herrema, at ¶ 7.)

21 Dated: June 11, 2013

BROWNSTEIN HYATT FARBER
SCHRECK, LLP

23
24 By: 

25 SCOTT S. SLATER
26 BRADLEY J. HERREMA
27 Attorneys for
28 CHINO BASIN WATERMASTER

DECLARATION OF BRADLEY J. HERREMA

1. I am a shareholder with the law firm of Brownstein Hyatt Farber Schreck LLP, counsel of record for Chino Basin Watermaster ("Watermaster"). I personally have knowledge of the facts stated herein and, if called as a witness, could and would testify competently thereto.

2. In my capacity as General Counsel for Watermaster I have participated in the drafting and approval process for the Ninth Amendment to the Cyclic Storage Agreement. Based on my role as General Counsel for Watermaster, I am also aware of the history of the approval process for the Eighth Amendment to the Cyclic Storage Agreement.

3. On March 28, 2013, Watermaster staff requested that the Watermaster Board approve the Ninth Amendment to the Chino Basin Cyclic Storage Agreement. The Board unanimously approved this request and authorized the General Manager to execute the Cyclic Storage Agreement extension.

4. I know of no opposition to Court approval of the Ninth Amendment to the Chino Basin Cyclic Storage Agreement, and the Pool Committees, Advisory Committee, and Board all unanimously supported the Ninth Amendment.

5. I have personally notified the parties at regularly scheduled Watermaster meetings of Watermaster's intent to submit a Motion for Approval of the Ninth Amendment to the Cyclic Storage Agreement, and I know of no objection to such approval.

6. On November 22, 2007, Watermaster staff requested that the Watermaster Board approve the Eighth Amendment to the Cyclic Storage Agreement. The Board unanimously approved this request and authorized the General Manager to execute the Cyclic Storage Agreement extension.

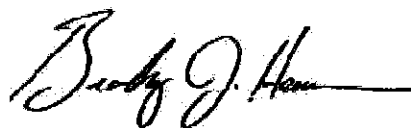
7. On March 28, 2013, the Watermaster Board received and filed the Semi-Annual Optimum Basin Management Program (OBMP) Status Report for the period from July to December of 2012, and recommended that Watermaster file the Status Report with the Court as a courtesy.

8. The 2011-02 and 2012-01 OBMP Status Reports have yet to be submitted to the

1 Court for receipt and filing. On April 26, 2012 the Watermaster Board reviewed Status Report
2 2011-02. The Board reviewed Status Report 2012-01 at its September 27, 2012 meeting.

3 I declare under penalty of perjury under the laws of the State of California that the
4 foregoing is true and correct to the best of my knowledge.

5 Executed this 11th day of June 2013 at Santa Barbara, California.
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11 Bradley J. Herrema
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Exhibit A

1 DONALD D. STARK
2 A Professional Corporation
3 Suite 201 Airport Plaza
4 2061 Business Center Drive
5 Irvine, California 92715
6 Telephone: (714) 752-8971

7 CLAYSON, ROTHROCK & MANN
8 601 South Main Street
9 Corona, California 91720
10 Telephone: (714) 737-1910

11 Attorneys for Plaintiff

FILED
JAN 5 1979

M. FRANK MARBLE
COUNTY CLERK
BY DEPUTY *Mary K. Hensley*

12 SUPERIOR COURT OF THE STATE OF CALIFORNIA

13 FOR THE COUNTY OF SAN BERNARDINO

14 CHINO BASIN MUNICIPAL WATER)
15 DISTRICT,)

16 Plaintiff,)

No. 164327

17 v.)

18 CITY OF CHINO, et al.)

19 Defendants.)

ORDER APPROVING THE UNIFORM
LOCAL STORAGE AGREEMENT;
AMPLIFYING AND CLARIFYING
PROCEDURES UNDER PARAGRAPH 28
OF THE JUDGMENT; APPROVING A
CYCLIC STORAGE AGREEMENT

20 Good cause appearing therefore, IT IS HEREBY ORDERED that:

21 1. The standard form of Local Storage Agreement, as submitted
22 to this Court, is hereby approved as the uniform agreement to be
23 used without further Court approval in connection with the local
24 storage of groundwater by the parties to the Judgment.

25 2. That each groundwater storage agreement for cyclic and/or
26 conjunctive use must be approved individually by order of this
27 Court before it shall become effective.

28 3. That the Cyclic Storage Agreement executed December 4,

A PROFESSIONAL CORPORATION
2061 BUSINESS CENTER DRIVE
IRVINE, CALIFORNIA 92715
(714) 752-8971

1 1978 by Chino Basin Municipal Water District, the Metropolitan
2 Water District of Southern California, and the Chino Basin Water-
3 master is hereby approved.

4 DATED: January 5, 1979.

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6 DON A TURNER
7 Judge of the Superior Court
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A PROFESSIONAL CORPORATION
2061 BUS CENTER DRIVE
IRVINE, CALIFORNIA 92718
(714) 752-8971

CHINO BASIN
CYCLIC STORAGE AGREEMENT

THIS AGREEMENT made and entered into this 24th day of December, 1978, by and between CHINO BASIN MUNICIPAL WATER DISTRICT, herein referred to as "Chino," a public corporation of the State of California, acting on its own behalf and as Chino Basin Watermaster, herein referred to as "Watermaster," and THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA, herein referred to as "Metropolitan," a metropolitan water district organized under the Metropolitan Water District Act of the State of California.

RECITALS

A. Pursuant to the final Judgment in the Chino Basin Case, water rights have been adjudicated in Chino Basin, and the Court has appointed the Chino Basin Municipal Water District as Watermaster to administer and enforce the Judgment pursuant to the Court's continuing jurisdiction.

B. The Judgment defines and declares the existence of groundwater storage capacity in Chino Basin, establishes priorities for use of such storage capacity, and authorizes

the Watermaster to enter into storage agreements for the regulation and administration of the use of such storage capacity.

C. Metropolitan provides imported supplemental water for sale to its member agencies throughout the Coastal Plain of Southern California. Metropolitan has two major sources of water, to wit, (1) rights to water from the Colorado River, and (2) rights to water from the State Project. Metropolitan is empowered to enter into agreements to utilize groundwater storage capacity on a cyclic basis for the storage and regulation of its imported water supplies, to provide operational flexibility to Metropolitan for the benefit of all of its member public agencies.

D. It is the purpose of this Agreement to provide for and define cyclic storage rights for Metropolitan in Chino Basin, and to set forth the procedures and criteria for protection, administration, and coordination of said cyclic storage rights.

E. At times, Metropolitan may have quantities of State Project water available for cyclic storage in Chino

Basin, while on other occasions Metropolitan may have no replenishment water to deliver for spreading in the Chino Basin. Furthermore, Watermaster's projected need for replenishment water is subject to significant change annually, depending on demands in excess of operating safe yield, while Metropolitan's annual State project water delivery schedule cannot normally be modified without incurring adverse financial consequences.

F. The Watermaster and San Bernardino County Flood Control District have entered into an agreement whereby said District will undertake the responsibilities associated with the actual spreading operations in Chino Basin.

DEFINITIONS

As used in this Agreement, the following terms shall have the meanings herein set forth:

(a) "Chino Basin"--The underground water basin as defined in the final Judgment entered in the Chino Basin Case.

(b) "Chino Basin Case"--CBMWD v. City of Chino, et al., San Bernardino Superior Court No. 164327.

(c) "Conjunctive Use Water"--Imported water caused to be stored in the Chino Basin by nonparties to the Judgment who may thereafter extract said stored water minus losses to meet water service requirements.

(d) "Court"--The State Court having continuing jurisdiction over the Chino Basin Case.

(e) "Cyclic Water"--Imported water caused to be spread and stored for Metropolitan in Chino Basin to meet future replenishment requirements pursuant to this Agreement as determined by the parties hereto.

(f) "Imported Water"--Shall mean water obtained by Metropolitan from facilities of the California State Water Project.

(g) "Judgment"--The final Judgment entered in the Chino Basin Case.

(h) "Spreading"--The acts of transporting to and placement of water in the water percolation basins of Chino Basin as authorized herein.

(i) "Spreading Agency"--The San Bernardino County Flood Control District.

(j) "State Project"--The State Water Resources Development System, as defined in the Burns-Porter Act. (Water Code 12930, et seq.)

(k) "Storage Right"--The right to store imported water in Chino Basin as defined and set forth in Paragraph 1 of this Agreement.

(l) "Watermaster"--Chino Basin Municipal Water District, acting as Watermaster in the Chino Basin Case.

COVENANTS

1. Storage Right. Metropolitan is hereby granted by Watermaster the right to store water from the State Project in the Chino Basin for utilization in accordance with the provisions of this Agreement. Metropolitan is authorized to store in the Chino Basin up to 100,000 acre-feet of such water at any one time. Said right constitutes

a firm commitment of storage capacity in Chino Basin. Storage rights granted under this Agreement shall have equivalent spreading priority with storage rights granted to other parties under other Chino Basin cyclic storage agreements.

2. Watermaster Control of Storage Procedure. Water from the State Project may be placed in storage pursuant to Watermaster's right to cause water to be spread in the spreading grounds of San Bernardino County Flood Control District and Chino Basin Water Conservation District. All requests to store water in the Chino Basin shall be subject to the approval of the Watermaster. To the extent that Metropolitan desires to deliver water for spreading, it shall request a spreading schedule from Watermaster. Upon Watermaster's approval of Metropolitan's request for a spreading schedule, Watermaster shall provide an appropriate spreading schedule to Metropolitan in writing. Thereafter, Watermaster will cause such water to be spread in the basin in accordance with confirmed spreading schedule. Metropolitan reserves the right to suspend delivery of water or reduce the delivery rate for cyclic storage pursuant to said spreading schedules if it determines it necessary to meet its other water service obligations. Watermaster reserves the right

to order the cessation or reduction in delivery rate of water being spread for cyclic storage if, in its judgment, it determines that: a) continuance of spreading of Cyclic Water or the delivery rate thereof would be in violation of any of the conditions or restrictions in Watermaster's spreading agreement referred to in paragraph F of this Agreement; or b) quantities of water being spread are causing or have caused significant adverse water quality or water spreading problems in the Basin.

3. Delivery Facilities. The use and construction of service connections and of facilities for temporary service connections shall be handled by separate agreement between the appropriate parties. The point of delivery of the service connections shall be the point of discharge from Metropolitan's control valves into the conveyance channel or works owned and controlled by other entities.

4. Procedures and Accounting for Water in Storage. Watermaster shall maintain a continuing account of Metropolitan's Cyclic Water. For that purpose, Metropolitan shall, on or before the 15th of each month following that month in which any water is placed in storage, provide Watermaster with a

notice of the actual amount of water it has delivered pursuant to this Agreement on a report form prescribed by Watermaster.

5. Loss of Stored Water. Any loss of Cyclic Water stored in Metropolitan's account under this Agreement shall be deducted from that account pursuant to the following rules:

(a) Evaporation and transpiration losses which may occur during spreading operations shall not be charged to Metropolitan as they are the type of losses normally incurred in the delivery of replenishment water.

(b) Watermaster shall determine other losses of water stored in Chino Basin and assign them on the basis that Metropolitan's Cyclic Water floats on top of native groundwater and water stored by Parties to the Judgment. The amount of losses assigned to Metropolitan shall be limited to the extent that they are caused by Metropolitan's cyclic water being in storage in Chino Basin. Such loss determination shall take into account the following:

i) Any increase in loss of natural water from Chino Basin which would have replenished said basin had water not been stored for nonparties to the Judgment; and

ii) Any increase in loss of groundwater supplies wasting from the Chino Basin which would not have been lost if water had not been in storage in Chino Basin for nonparties to the Judgment.

Any losses chargeable to Metropolitan under the provisions of subparagraphs i) or ii) above shall be based on criteria developed and agreed to jointly by Watermaster and Metropolitan and supported by specific findings.

6. Utilization of Cyclic Water. Except as provided in Article 11 of this Agreement, the ultimate disposition of Metropolitan's Cyclic Water shall be a sale to Chino to satisfy replenishment water requirements established by Watermaster. Upon Chino's request to Metropolitan for replenishment water, Metropolitan, in its discretion, may

furnish either cyclic water stored for its account in the basin or surface water that may be available in Metropolitan's distribution system for groundwater replenishment pursuant to Metropolitan's Administrative Code, Chapters 312 and 322. Watermaster may review Metropolitan's decision of which water to utilize and may meet and confer with Metropolitan in regard to any of Watermaster's concerns related to said decision. Cyclic Water shall be sold at the Metropolitan rate for such replenishment water prevailing at the time of the sale. This Agreement shall not obligate Metropolitan to deliver water for replenishment purposes other than as provided for in its Administrative Code, or to take any action that is inconsistent with the Metropolitan Water District Act.

7. Charges and Credits. There shall be no charge, rent, assessment, or expense assessed against Metropolitan for storing Cyclic Water in the Chino Basin. No charge shall be levied against any party hereto by any of the other

Exhibit B

AMENDMENT TO
CHINO BASIN CYCLIC STORAGE AGREEMENT

This AMENDATORY AGREEMENT is made this 30th day of May 1984, by and between CHINO BASIN MUNICIPAL WATER DISTRICT, herein referred to as "Chino," a public corporation of the State of California, acting on its own behalf and as Chino Basin Watermaster, herein referred to as "Watermaster," and THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA, herein referred to as "Metropolitan" a metropolitan water district organized under the Metropolitan Water District Act of the State of California.

RECITALS

- A. The parties to this Amendatory Agreement entered into an agreement titled Chino Basin Cyclic Storage Agreement ("Agreement"), dated December 4, 1978, for the purpose of giving Metropolitan the right to store up to 100,000 acre-feet of State project water in the Chino Basin.
- B. Water stored under this Amendatory Agreement will be used to meet Chino's groundwater replenishment demands pursuant to specific criteria set forth in Article 6 of the Cyclic Storage Agreement.

- C. Under its terms the Agreement expires on January 4, 1984, five years after its effective date of January 5, 1979. The Agreement further provides that it may be extended for additional terms, not to exceed five years each, by mutual agreement of the parties thereto.
- D. The parties to this Amendatory Agreement desire to extend the term of the Cyclic Storage Agreement because there is presently an abundance of State Project water available for storage under the Cyclic Storage Agreement and in order to continue the benefits that the Cyclic Storage Agreement provides.

COVENANTS

1. Extension of Term. Article 9(a) is amended by extending the term of the Agreement an additional five years to January 5, 1989.
2. Remaining Provisions. Except as hereby amended, the Agreement shall remain in full force and effect.
3. This Amendatory Agreement shall become effective upon the date shown hereon and Chino shall petition the Court for ratification of such approval as a portion of the Seventh Annual Watermaster Report.

IT WITNESS WHEREOF, the parties hereto have caused
this Amendatory Agreement to be duly executed by its authorized
officers.

ATTEST:

CHINO BASIN MUNICIPAL WATER DISTRICT
Acting as CHINO BASIN WATERMASTER

John L. Anderson
Secretary

By John G. Gilley
President

APPROVED AS TO FORM
AND EXECUTION:

(SEAL)

Guido R. Smith
Attorney for Watermaster

ATTEST:

THE METROPOLITAN WATER DISTRICT
OF SOUTHERN CALIFORNIA

Doreen E. Deff
Executive Secretary

By Carl Brown
General Manager

APPROVED AS TO FORM:

Vick E. Deane, Esq.
for General Counsel

(SEAL)

ATTEST:

CHINO BASIN MUNICIPAL WATER DISTRICT

John L. Anderson
Secretary

By John A. Gilday
President

APPROVED AS TO FORM
AND EXECUTION

Eugene A. Hays
Attorney for District

(SEAL)

SECOND AMENDMENT TO
CHINO BASIN CYCLIC STORAGE AGREEMENT

This AMENDATORY AGREEMENT is made as of January 5, 1989, by and between CHINO BASIN MUNICIPAL WATER DISTRICT, herein referred to as "Chino," a public corporation of the State of California, acting on its own behalf and as Chino Basin Watermaster, herein referred to as "Watermaster," and THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA, herein referred to as "Metropolitan" a metropolitan water district organized under the Metropolitan Water District Act of the State of California.

RECITALS

A. The parties to this Second Amendatory Agreement entered into an agreement titled Chino Basin Cyclic Storage Agreement ("Agreement"), dated December 4, 1978, for the purpose of giving Metropolitan the right to store up to 100,000 acre-feet of State Project water in the Chino Basin. The "Agreement" was extended for a second term of five years by Amendment dated May 30, 1984 to January 5, 1989.

B. Water stored under this Second Amendatory Agreement will be used to meet Chino's groundwater

replenishment demands pursuant to specific criteria set forth in Article 6 of the "Agreement".

C. Under its terms, the "Agreement" allows Metropolitan to deliver State Project water to Chino Basin for spreading and percolation into the Basin. Such quantities of water, less losses, are to be credited by the Watermaster to Metropolitan's Cyclic Storage Account.

D. Metropolitan, at times, would like to have the option to accrue water into its Cyclic Storage Account indirectly by an exchange of surface deliveries of supplemental water with any party to the Judgment in the Chino Basin Case, to the extent that such party assigns an equal amount of its operating safe-yield groundwater to Metropolitan.

E. The Agreement further provides that it may be extended for additional terms, not to exceed five years each, by mutual agreement of the parties thereto.

F. The parties to this Second Amendatory Agreement desire to extend the term of the Cyclic Storage Agreement

because there should be State Project Water available for storage under the Cyclic Storage Agreement and in order to continue the benefits that the Cyclic Storage Agreement provides.

COVENANTS

1. Expansion of Storage Rights. The "Agreement" is hereby amended by the addition of the following as Article 2.1:

"Metropolitan may acquire stored water in its Chino Basin Cyclic Storage Account by assignment from its Trust Storage Account or by exchanging deliveries from Metropolitan's distribution system with a party to the Judgment for an equal amount of the party's share of operating safe-yield groundwater. The Watermaster shall credit Metropolitan's Cyclic Storage Account with that exchange water upon filing by Metropolitan or by such parties of an assignment, lease, or license pursuant to applicable Watermaster Rules and Regulations, as amended, including Rule 3.14 thereof."

2. Extension of Term. Article 9(a) is amended by extending the term of the Agreement an additional five years to January 5, 1994.
3. Remaining Provisions. Except as hereby amended, the Agreement shall remain in full force and effect.
4. Effective Date and Ratification. This Amendatory Agreement shall be effective from January 5, 1989 and Watermaster shall petition the Court for ratification of such approval as a portion of its next Annual Watermaster Report.

IN WITNESS WHEREOF, the parties hereto have caused this Amendatory Agreement to be duly executed by its authorized officers.

ATTEST:

CHINO BASIN MUNICIPAL WATER DISTRICT
Acting as CHINO BASIN WATERMASTER

John L. Anderson
Secretary

By [Signature]
President

APPROVED AS TO FORM
AND EXECUTION:

(SEAL)

Quido R. Smith
Attorney for Watermaster

ATTEST:

THE METROPOLITAN WATER DISTRICT
OF SOUTHERN CALIFORNIA

Carl Boronkay
General Manager

Dorothy E. Jeffers
Executive Secretary

By [Signature]
Duane Georgeson
Assistant General Manager

APPROVED AS TO FORM

(SEAL)

Victor Gleason
for General Counsel

ATTEST:

CHINO BASIN MUNICIPAL WATER DISTRICT

John L. Anderson
Secretary

By [Signature]

APPROVED AS TO FORM
AND EXECUTION

(SEAL)

Lois E. Jeffers
Attorney for District

THIRD AMENDMENT TO THE
CHINO BASIN CYCLIC STORAGE AGREEMENT

This Amendatory Agreement (hereinafter "Amendment") is made as of January 5, 1994 by and between the Metropolitan Water District of Southern California (hereinafter "Metropolitan"), the Chino Basin Municipal Water District (hereinafter "Chino") and the Chino Basin Watermaster (hereinafter "Watermaster").

RECITALS

WHEREAS, The parties to this Amendment entered into an agreement titled Chino Basin Cyclic Storage Agreement (hereinafter, "Agreement"), dated December 4, 1978, for the purpose of giving Metropolitan the right to store up to 100,000 acre-feet of State Project water in the Chino Basin;

WHEREAS, the Agreement has been extended by previous amendments to January 5, 1994;

WHEREAS, the second amendment, in addition to extending the term of the Agreement, added a section 2.1 to allow storage by in-lieu exchanges of imported water as well as transfer of operating safe yield from the Trust Storage account to the Cyclic Storage account;

WHEREAS, water stored under this Amendment will be used

to meet Chino's groundwater replenishment demands pursuant to specific criteria set forth in Article 6 of the Agreement;

WHEREAS, under its terms, the Agreement allows Metropolitan to deliver State Project Water to the Chino Basin for spreading and percolation into the Chino Basin, and such quantities of water, less losses, are to be credited by the Watermaster to Metropolitan's Cyclic Storage Account;

WHEREAS, Metropolitan, at times, would like to have the option to accrue water into its Cyclic Storage Account through the use of injection wells that place water into the Chino Basin;

WHEREAS, Metropolitan's water supplies from the Colorado River are available at times for cyclic storage in Chino Basin, while on other occasions Metropolitan may have no replenishment water to deliver for replenishment of the Chino Basin;

WHEREAS, replenishment of the Chino Basin with Colorado River water is not normally considered to be preferred due to the amounts of Total Dissolved Solids contained in such water;

WHEREAS, the parties to this Amendment desire to extend the term of the Agreement in order to continue the benefits that the Agreement provides;

NOW, THEREFORE, the parties hereby enter into this

Amendment to the Agreement as follows:

COVENANTS

1. Sub-paragraphs (f), (h) and (i) of the Definitions in the Agreement are hereby amended to read:

" (f) 'Imported Water'--Shall mean water obtained by Metropolitan from facilities of the California State Water Project or Metropolitan's Colorado River Aqueduct.

" (h) 'Spreading'--The acts of transporting to and placement of water in the water percolation basins of Chino Basin as authorized herein. Spreading shall also mean the injection of Imported Water into the groundwater basin using injection wells.

" (i) 'Spreading Agency'--The San Bernardino County Flood Control District, the Chino Basin Water Conservation District, or any other agency approved by Watermaster to perform spreading activities."

2. The first sentence of Article 1 of the Agreement is hereby amended to read:

"Metropolitan is hereby granted by Watermaster the right to store water from the State Project and Colorado River in the

Chino Basin for utilization in accordance with the provisions of this Agreement."

3. The first sentence of Article 2 of the Agreement is hereby amended to read:

"Imported water may be placed in storage pursuant to Watermaster's right to cause water to be spread in the spreading grounds of Spreading Agencies."

4. Article 9(a) of the Agreement is hereby amended by extending the term of the Agreement an additional two years to January 5, 1996.

5. Article 9(d) of the Agreement is hereby amended to read:

" (d) Upon mutual agreement of the parties hereto, this Agreement may be extended for additional terms, not to exceed five years each."

6. This Amendment shall be effective as of the date first above written, and Watermaster shall petition the Court for ratification of such approval as a portion of its next Annual Watermaster Report.

IN WITNESS WHEREOF, the parties hereto have caused this

Amendment to be duly executed by its authorized officers.

ATTEST:

THE CHINO BASIN MUNICIPAL WATER
DISTRICT ACTING AS CHINO
BASIN WATERMASTER

John L. Anderson
Secretary

By: Bill Hill
President

APPROVED AS TO FORM:

Quinn R. Smith
Attorney for Watermaster

(SEAL)

ATTEST:

THE METROPOLITAN WATER DISTRICT
OF SOUTHERN CALIFORNIA

Baren E. Duff
Executive Secretary

By: D. H. Ferguson
Assistant General Manager

APPROVED AS TO FORM:
Gregory Taylor
General Counsel

SR John H. Oley
Deputy General Counsel

(SEAL)

ATTEST:

THE CHINO BASIN MUNICIPAL WATER
DISTRICT

John L. Anderson
Secretary

By: Bill Hill

APPROVED AS TO FORM
AND EXECUTION:

Alan R. Watts
Attorney for District

(SEAL)

FOURTH AMENDMENT TO THE
CHINO BASIN CYCLIC STORAGE AGREEMENT

This Amendatory Agreement (hereinafter "Amendment") is made as of January 5, 1996, by and between the Metropolitan Water District of Southern California (hereinafter "Metropolitan"), the Chino Basin Municipal Water District (hereinafter "Chino") and the Chino Basin Watermaster (hereinafter "Watermaster").

RECITALS

WHEREAS, The parties to this Amendment entered into an agreement titled Chino Basin Cyclic Storage Agreement (hereinafter, "Agreement"), dated December 4, 1978, for the purpose of giving Metropolitan the right to store up to 100,000 acre-feet of State Project water in the Chino Basin;

WHEREAS, the Agreement has been extended by previous amendments to January 5, 1996;

WHEREAS, water stored under the Agreement is used to meet Chino's groundwater replenishment demands pursuant to specific criteria set forth in Article 6 of the Agreement;

WHEREAS, under its terms, the Agreement allows Metropolitan to deliver State Project Water to the Chino Basin for spreading and percolation into the Chino Basin, and such quantities of water, less losses, are to be credited by the Watermaster to Metropolitan's Cyclic Storage Account;

WHEREAS, the parties to the Agreement are reviewing a number of policies and procedures that may affect the terms of storage and delivery of water under future amendments to the Agreement;

WHEREAS, the parties to the agreement desire to extend the term of the Agreement one year in order to continue the benefits that the Agreement provides while the aforementioned review is taking place;

NOW, THEREFORE, the parties hereby enter into this Amendment to the Agreement as follows:

COVENANTS

1. Article 9 (a) of the Agreement is hereby amended by extending the term of the Agreement an additional one year to January 5, 1997.

2.. This Amendment shall be effective as of the date first above written, and Watermaster shall petition the Court for ratification of such approval as a portion of its next Watermaster Annual Report.

IN WITNESS WHEREOF, the parties hereto have caused this Amendment to be duly executed by its authorized officers.

ATTEST:

John L. Anderson
Secretary

THE CHINO BASIN WATERMASTER

By: Brian Hill

APPROVED AS TO FORM:

Attorney for Watermaster

ATTEST:

Karen E. Deff
Executive Secretary

THE METROPOLITAN WATER
DISTRICT OF SOUTHERN CALIFORNIA

By: Walter Brown
Assistant General Manager
DEPUTY

APPROVED AS TO FORM:

Gregory Taylor
General Counsel

Gregory Taylor
DEPUTY GENERAL COUNSEL

(SEAL)

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02/01/98 11:38:15 AM

Deputy General Counsel

ATTEST:

John L. Anderson
Secretary

APPROVED AS TO FORM
AND EXECUTION:

Attorney for District

THE CHINO BASIN MUNICIPAL WATER
DISTRICT

By: Bill Hies

(SEAL)

**FIFTH AMENDMENT TO THE
CHINO BASIN CYCLIC STORAGE AGREEMENT**

This Amendatory Agreement (hereinafter "Amendment") is made as of January 5, 1997, by and between the Metropolitan Water District of Southern California (hereinafter "Metropolitan"), the Chino Basin Municipal Water District (hereinafter "Chino") and the Chino Basin Watermaster (hereinafter "Watermaster").

RECITALS

WHEREAS, The parties to this Amendment entered into an agreement titled Chino Basin Cyclic Storage Agreement, (hereinafter, "Agreement"), dated December 4, 1978, for the purpose of giving Metropolitan the right to store up to 100,000 acre-feet of State Project water in the Chino Basin;

WHEREAS, the Agreement has been extended by previous amendments to January 5, 1997;

WHEREAS, water stored under the Agreement is used to meet Chino's groundwater replenishment demands pursuant to specific criteria set forth in Article 6 of the Agreement;

WHEREAS, under its terms, the Agreement allows Metropolitan to deliver State Project Water to the Chino Basin for spreading and percolation into the Chino Basin, and such quantities of water, less losses, are to be credited by the Watermaster to Metropolitan's Cyclic Storage Account;

WHEREAS, the parties to the Agreement are reviewing a number of policies and procedures that may affect the terms of storage and delivery of water under future amendments to the Agreement;

WHEREAS, the parties to the agreement desire to extend the term of the Agreement one year in order to continue the benefits that the Agreement provides while the aforementioned review is taking place;

NOW, THEREFORE, the parties hereby enter into this Amendment to the Agreement as follows:

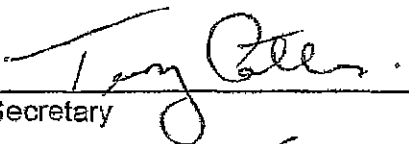
COVENANTS

1. Article 9 (a) of the Agreement is hereby amended by extending the term of the Agreement to December 31, 1997.

2. This Amendment shall be effective as of the date first above written, and Watermaster shall petition the Court for ratification of such approval as a portion of its next Watermaster Annual Report.

IN WITNESS WHEREOF, the parties hereto have caused this Amendment to be duly executed by its authorized officers.

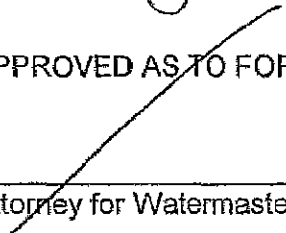
ATTEST:


Secretary

THE CHINO BASIN WATERMASTER

By: 
John L. Anderson

APPROVED AS TO FORM:


Attorney for Watermaster

ATTEST:

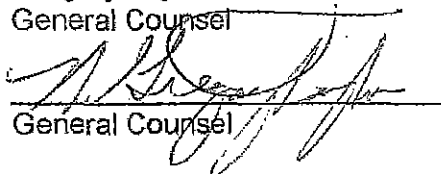
Executive Secretary

THE METROPOLITAN WATER
DISTRICT OF SOUTHERN CALIFORNIA

By:  9/30/97
Deputy General Manager

APPROVED AS TO FORM:

Gregory Taylor
General Counsel


General Counsel

(SEAL)

ATTEST:

Tony Cater
Secretary

THE CHINO BASIN MUNICIPAL WATER
DISTRICT

By: John L. Anderson

APPROVED AS TO FORM
AND EXECUTION:

Joe Chipperfield
Attorney for District

(SEAL)

(0:\0\SEXEC\CONTRAD\AGREEMTS\CHINO-CY.DOC)

SIXTH AMENDMENT TO THE
CHINO BASIN CYCLIC STORAGE AGREEMENT

This Amendatory Agreement (hereinafter "Amendment") is made as of Jan. 1 1998, by and between the Metropolitan Water District of Southern California (hereinafter "Metropolitan"), the Inland Empire Utilities Agency, a municipal water district (hereinafter "Inland") and the Chino Basin Watermaster (hereinafter "Watermaster"). Chino Basin Municipal Water District was renamed Inland Empire Utilities Agency, a municipal water district, as of July 1, 1998, and is referred to as "Inland" in this Amendment.

RECITALS

WHEREAS, the parties to this Amendment entered into an agreement titled Chino Basin Cyclic Storage Agreement, (hereinafter, "Agreement"), dated December 4, 1978, for the purpose of giving Metropolitan the right to store up to 100,000 acre-feet of State Project water in the Chino Basin;

WHEREAS, the Agreement has been extended by previous amendments to December 31, 1997;

WHEREAS, water stored under the Agreement is used to meet Inland's groundwater replenishment demands pursuant to specific criteria set forth in Article 6 of the Agreement;

WHEREAS, under its terms, the Agreement allows Metropolitan to deliver State Project Water to the Chino Basin for spreading and percolation into the Chino Basin, and such quantities of water, less losses, are to be credited by the Watermaster to Metropolitan's Cyclic Storage Account;

WHEREAS, the parties to the Agreement are reviewing a number of policies and procedures that may affect the terms of storage and delivery of water under future amendments to the Agreement;

WHEREAS, the parties to the agreement desire to extend the term of the Agreement one year in order to continue the benefits that the Agreement provides while the aforementioned review is taking place;

NOW, THEREFORE, the parties hereby enter into this Amendment to the Agreement as follows:

COVENANTS

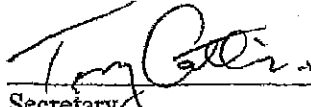
1. Article 9 (a) of the Agreement is hereby amended by extending the term of the Agreement to December 31, 1998.

2. This Amendment shall be effective as of January 1, 1998, and Watermaster shall petition the Court for ratification of such approval as a portion of its next Watermaster Annual Report.

IN WITNESS WHEREOF, the parties hereto have caused this Amendment to be duly executed by its authorized officers.

ATTEST:


THE INLAND EMPIRE UTILITIES AGENCY


Secretary

By: 

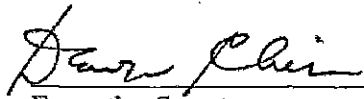
APPROVED AS TO FORM:

(SEAL)


Attorney for Inland Empire Utilities
Agency

ATTEST:

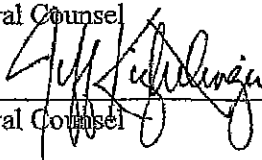
THE METROPOLITAN WATER
DISTRICT OF SOUTHERN CALIFORNIA


Executive Secretary

By: 
Deputy General Manager

APPROVED AS TO FORM:

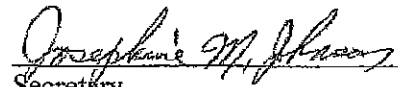
Gregory Taylor
General Counsel

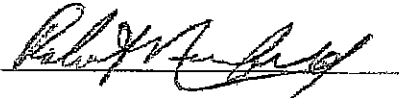

General Counsel

(SEAL)

ATTEST:

THE CHINO BASIN WATERMASTER


Secretary

By: 

APPROVED AS TO FORM
AND EXECUTION:

(SEAL)


Attorney for Watermaster

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**SEVENTH AMENDMENT TO THE
CHINO BASIN CYCLIC STORAGE AGREEMENT**

THIS AMENDATORY AGREEMENT (hereinafter, "Amendment") is made as of June 19, 2003, by and between The Metropolitan Water District of Southern California (hereinafter "Metropolitan"), the Inland Empire Utilities Agency (hereinafter, "IEUA") and the Chino Basin Watermaster (hereinafter, "Watermaster"). Chino Basin Municipal Water District was renamed IEUA as of July 1, 1998.

RECITALS

WHEREAS, the parties to this Amendment entered into an agreement titled Chino Basin Cyclic Storage Agreement (hereinafter, as amended "Agreement"), dated December 4, 1978, for the purpose of giving Metropolitan the right to store up to 100,000 acre-feet of water in the Chino Basin.

WHEREAS, the Agreement has been extended by previous amendments.

WHEREAS, Metropolitan has, as of May 5, 2003, 35,546 acre-feet of water stored in its Cyclic Account.

WHEREAS, the parties and Three Valleys Municipal Water District have negotiated a Groundwater Storage Program Funding Agreement and therefore wish to execute a further Amendment in order to ensure the coordinated administration of the two storage accounts.

WHEREAS, water stored under the Agreement is used to meet IEUA's groundwater replenishment demands pursuant to specific criteria set forth in Article 6 of the Agreement.

WHEREAS, it is not the intent of the parties that additional water should be added to Metropolitan's Cyclic Storage account except upon further agreement with Watermaster.

NOW, THEREFORE, the parties hereby enter into this Amendment to the Agreement as follows:

COVENANTS

1. Article 9(a) of the Agreement is hereby amended by extending the term of the Agreement from January 1, 1999 to December 31, 2007.
2. Additional water shall not be placed into the cyclic storage account except with the written consent of Watermaster, IEUA and Metropolitan.

3. If the parties do not further renew this Agreement by December 31, 2007, then on that date IEUA and Watermaster will purchase any amount of water remaining in the Cyclic Storage Account at the replenishment rate at the time of the sale.

**THE METROPOLITAN WATER DISTRICT
OF SOUTHERN CALIFORNIA**

By: _____

Ronald R. Gastelum
Chief Executive Officer

Date: _____

APPROVED AS TO FORM:

Jeffrey Kightlinger
General Counsel

By: _____

Sydney Benjamin
Assistant General Counsel

Date: 6/16/03

INLAND EMPIRE UTILITIES AGENCY

By: _____

Richard Atwater
General Manager

Date: JUNE 19, 2003

APPROVED AS TO FORM:

By: _____

Jean Chigoyenetskie
General Counsel

Date: 5-21-03

CHINO BASIN WATERMASTER

By: _____

John V. Rossi
Chief Executive Officer

Date: 6/19/03

APPROVED AS TO FORM:

By: _____

Michael Fife
General Counsel

Date: 6-5-03

KMK/mog

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**EIGHTH AMENDMENT TO THE
CHINO BASIN CYCLIC STORAGE AGREEMENT**

THIS AMENDATORY AGREEMENT (hereinafter, "Amendment") is made as of 11-21-07 2007, by and between The Metropolitan Water District of Southern California (hereinafter "Metropolitan"), the Inland Empire Utilities Agency (hereinafter, "IEUA") and the Chino Basin Watermaster (hereinafter, "Watermaster"). Chino Basin Municipal Water District was renamed IEUA as of July 1, 1998.

RECITALS

WHEREAS, the parties to this Amendment entered into an agreement titled Chino Basin Cyclic Storage Agreement (hereinafter, as amended "Agreement"), dated December 4, 1978, for the purpose of giving Metropolitan the right to store up to 100,000 acre-feet of water in the Chino Basin.

WHEREAS, the Agreement has been extended by previous amendments.

WHEREAS, Metropolitan has, as of April 9, 2007, no water stored in its Cyclic Account with IEUA.

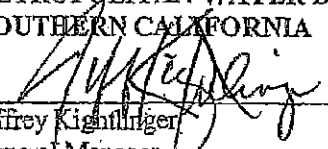
WHEREAS, water stored under the Agreement is used to meet IEUA's groundwater replenishment demands pursuant to specific criteria set forth in Article 6 of the Agreement.

NOW, THEREFORE, the parties hereby enter into this Amendment to the Agreement as follows:

COVENANTS

1. Article 9(a) of the Agreement is hereby amended by extending the term of the Agreement from December 31, 2007 to December 31, 2012.
2. Additional water shall not be placed into the cyclic storage account except with the written consent of Watermaster, IEUA and Metropolitan.
3. Certifications to reclassify water previously certified into the Cyclic Storage Account to another class of service will not be accepted except when needed to correct errors as determined by Metropolitan. Certifications to reclassify water previously certified as another class of service, other than Full Service, to the Cyclic Storage Account will not be accepted except when needed to correct errors as determined by Metropolitan.
4. If the parties do not further renew this Agreement by December 31, 2012, then on that date IEUA and Watermaster will purchase any amount of water remaining in the Cyclic Storage Account at the replenishment rate at the time of the sale.

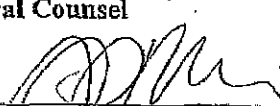
THE METROPOLITAN WATER DISTRICT
OF SOUTHERN CALIFORNIA

By: 
Jeffrey Kightlinger
General Manager

Date: 12/10/07

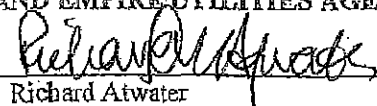
APPROVED AS TO FORM:

Karen Tachiki
General Counsel

By: 
Sydney Bennion
Assistant General Counsel

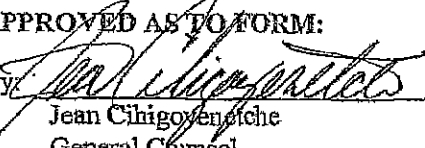
Date: 12/18/07

INLAND EMPIRE UTILITIES AGENCY

By: 
Richard Atwater
General Manager

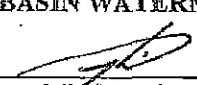
Date: NOVEMBER 21, 2007

APPROVED AS TO FORM:

By: 
Jean Chigoyenatche
General Counsel

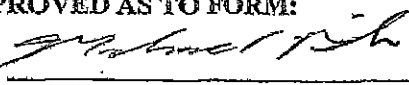
Date: 11/21-07

CHINO BASIN WATERMASTER

By: 
Kenneth R. Manning
Chief Executive Officer

Date: 11/30/07

APPROVED AS TO FORM:

By: 
Michael Fife
General Counsel

Date: 12/3/07

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Exhibit C

**NINTH AMENDMENT TO THE
CHINO BASIN CYCLIC STORAGE AGREEMENT**

THIS AMENDATORY AGREEMENT (hereinafter, "Amendment") is made as of _____ 2012, by and between The Metropolitan Water District of Southern California (hereinafter "Metropolitan"), the Inland Empire Utilities Agency (hereinafter, "IEUA") and the Chino Basin Watermaster (hereinafter, "Watermaster"). Chino Basin Municipal Water District was renamed IEUA as of July 1, 1998.

RECITALS

WHEREAS, the parties to this Amendment entered into an agreement titled Chino Basin Cyclic Storage Agreement (hereinafter, as amended "Agreement"), dated December 4, 1978, for the purpose of giving Metropolitan the right to store up to 100,000 acre-feet of water in the Chino Basin.

WHEREAS, the Agreement has been extended by previous amendments.

WHEREAS, Metropolitan has, as of November 1, 2012, no water stored in its Cyclic Account with IEUA.

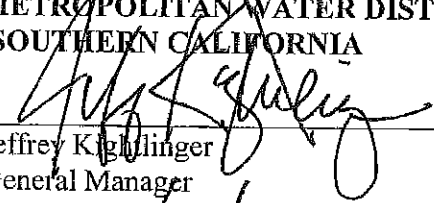
WHEREAS, water stored under the Agreement is used to meet IEUA's groundwater replenishment demands pursuant to specific criteria set forth in Article 6 of the Agreement.

NOW, THEREFORE, the parties hereby enter into this Amendment to the Agreement as follows:

COVENANTS

1. Article 9(a) of the Agreement is hereby amended by extending the term of the Agreement from December 31, 2012 to December 31, 2017.
2. Additional water shall not be placed into the cyclic storage account except with the written consent of Watermaster, IEUA and Metropolitan.
3. If the parties do not further renew this Agreement by December 31, 2017, then on that date IEUA in coordination with Watermaster, will purchase any amount of water remaining in the Cyclic Storage Account at the applicable Metropolitan Rate.

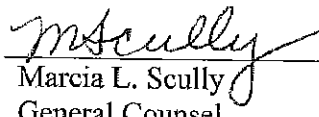
**THE METROPOLITAN WATER DISTRICT
OF SOUTHERN CALIFORNIA**

By: 
Jeffrey K. Klingler
General Manager

Date: 11/19/12


APPROVED AS TO FORM:

Marcia Scully
General Counsel

By: 
Marcia L. Scully
General Counsel

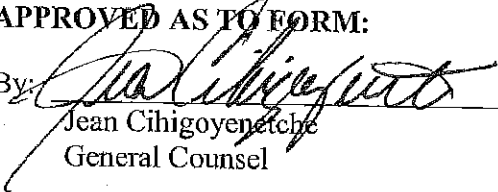
Date: 11/19/12

INLAND EMPIRE UTILITIES AGENCY

By: 
Tom Love
General Manager


Date: 11/28/12

APPROVED AS TO FORM:

By: 
Jean Cihigoyenatche
General Counsel

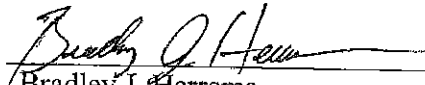
Date: 11-19-12

CHINO BASIN WATERMASTER

By: 
Peter Kavounas
General Manager

Date: 4-3-13

APPROVED AS TO FORM:

By: 
Bradley J. Herrema
Attorney for Chino Basin
Watermaster

Date: 4-3-13

CL:dp

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Exhibit D



CHINO BASIN WATERMASTER

9641 San Bernardino Road, Rancho Cucamonga, Ca 91730
Tel: 909.484.3888 Fax: 909.484.3890 www.cbwm.org

PETER KAVOUNAS, P.E.
General Manager

STAFF REPORT

DATE: March 28, 2013
TO: Watermaster Board Members
SUBJECT: Ninth Amendment to the Chino Basin Cyclic Storage Agreement

SUMMARY

Issue: The Cyclic Storage Agreement (CSA) among Metropolitan Water District (MWD), Inland Empire Water Agency (IEUA), and Chino Basin Watermaster (CBWM) expired on December 31, 2012. MWD and IEUA have signed a five-year extension to continue the CSA, and CBWM approval is also required. This would be the ninth extension of the CSA originally signed in 1978.

Recommendation: Staff respectfully requests that the CBWM Board authorize the General Manager to sign the CSA extension.

Financial Impact: The proposed action has no fiscal impact on CBWM.

Future Consideration
Watermaster Board: March 28, 2013

ACTIONS:

February 14, 2013 – Appropriative Pool – Moved by majority vote
February 14, 2013 – Non-Agricultural Pool – Approved unanimously
February 14, 2013 – Agricultural Pool – Approved unanimously
February 21, 2013 – Advisory Committee – Moved to bring the item back to the Pools for discussion during the March Pool meetings to review all the issues raised at the Advisory Committee meeting
March 14, 2013 – Appropriative Pool – Moved unanimously to approve staff recommendation with the understanding that it is Watermaster's opinion that losses identified in the Peace II Agreement, currently at 6%, or as amended in the future, will apply to the water introduced into this Cyclic Storage account; and Watermaster and the Inland Empire Utilities Agency will determine who will pay for the water in case of agreement termination by MWD before water is placed in the account, so that no individual party would be compelled to pay against their will.
March 14, 2013 – Non-Agricultural Pool – Moved unanimously to take the same action as the Appropriative Pool
March 14, 2013 – Agricultural Pool – Moved unanimously to take the same action as the Appropriative Pool and Non-Agricultural Pool
March 21, 2013 – Advisory Committee – Moved unanimously to take the same action as the Appropriative Pool
March 28, 2013 – Watermaster Board –

BACKGROUND

The CSA was originally executed on December 4, 1978 by IEUA (at that time Chino Basin Municipal Water District), MWD, and CBWM, and subsequently approved by the Court on January 5, 1979. The CSA has been amended a total of eight times since then; the last amendment was signed in 2007 extending the CSA to December 31, 2012.

Prior amendments have extended the term as well as modified various provisions of the agreement. Fundamentally the CSA defines the right of MWD to store up to 100,000 acre-feet of water in Chino Basin, either directly or in lieu, with the written consent of CBWM and IEUA so CBWM replenishment requirements can be satisfied. The water can be purchased at a later date by IEUA, as the MWD-member agency, as directed by CBWM to satisfy replenishment obligations.

DISCUSSION

The Ninth Amendment to the CSA as proposed by MWD extends the term to December 31, 2017, and reaffirms two existing provisions: [i] that written consent of CBWM and IEUA is required for water to be placed in storage by MWD, and [ii] that if the CSA is not extended beyond December 31, 2017, CBWM and IEUA will purchase any water in storage at that time.

Staff recommends that the Board authorize the General Manager to sign the extension to the CSA. The recommendation is based on the belief that even though the CSA is unlikely to be utilized as a vehicle for storing water in Chino Basin, the CSA is a cost-free option that at some point may prove desirable. Further, any use of the CSA is predicated on express approval by Watermaster, thus keeping the CSA in effect does not relinquish control of basin storage.

The CSA is unfavorable for MWD when compared the Dry Year Yield agreement. In the unlikely event MWD has an abundance of surplus water for storage and MWD would be willing to use the CSA account, CBWM has ultimate control over storage in the Basin; if such action would cause Material Physical Injury (MPI) or deprive parties of access to their water then storage by MWD would not be allowed. If storage were deemed desirable, then CBWM would engage in discussions with MWD to define terms that cannot be defined at the present time, such as the rate at which water would be purchased, and losses.

A number of questions were visited in considering whether to extend the agreement. These are summarized below.

Is extension of the Agreement consistent with the Judgment, Peace, and Peace II Agreements?

CBWM has control and can regulate water that is placed in storage under the CSA. The original form of the CSA was approved by CBWM and subsequently reviewed and approved by the San Bernardino County Superior Court. Amendments, including the proposed Ninth Amendment have not changed the form or substance of the CSA. The CSA, as extended, would provide water for use in the Chino Basin, and not for export. The CSA, as extended, would not deprive any producer of access to Chino Basin's waters. Water stored under the CSA will be subject to losses. Finally, CBWM control provides assurance that recapture of stored water would not result in MPI.

Based on the above considerations CBWM staff believes the CSA is consistent with the Judgment.

Does extension of the Agreement help or hinder sound basin management?

The CSA provides another means of storing water in Chino Basin, completely under the control of CBWM. The total amount that can be stored is 100,000 acre-feet, and while that does count toward the cumulative storage cap of 500,000 acre-feet, since it is under the control of CBWM, there is assurance that the CSA will not prevent a Chino Basin Party from exercising its right to store water in the Basin.

Having the ability to allow MWD to store water in Chino Basin provides an additional management tool that helps overall resource management.

Is the Agreement extension consistent with the way CBWM has handled other storage programs?

CBWM has placed processing of local storage applications on hold until the overall storage concept can be re-evaluated. The CSA pre-dates all applications currently on hold, and the proposed Ninth Amendment's extension of the CSA would not interfere with the Parties' and CBWM's ability to address any issues related to storage.

Prior to putting water in the Cyclic Storage Agreement, any obligation of the CBWM Parties to purchase that water should be clearly understood by the Parties.

Cyclic Storage was established to define MWD's right to store in the Basin, so CBWM replenishment requirements can be satisfied. Prior to authorizing an amount of water to be placed by MWD in the CSA account in the future, CBWM will have reached the conclusion that replenishment water may be required in the near term; if "put" is authorized, it will be for the benefit of specific Parties that have replenishment obligations. The obligation to purchase water would be according to the need for which water would have been put in the account.

More background on the mechanics of the agreement would be helpful. For example, when/how is the water removed from the account, payment is at the applicable rate when water is removed vs. put; with today's rate structure the rate would be Tier 1 and what would be the impact on Tier 1/Tier 2 if any?

It is envisioned that MWD would first declare there is available water for the program. CBWM would evaluate parties' replenishment obligations, and determine a desired volume; a spreading schedule would be provided to IEUA which in turn would operate recharge basins accordingly.

When a specific Party would want to purchase water from the CSA account to meet its replenishment obligations, the desired volume would be identified and communicated to IEUA. In turn IEUA, as the MWD-member agency, would make the purchase.

According to CSA language, the rate at which water is purchased is the prevailing rate for such replenishment water at the time of "take". At present there is no specific Replenishment Rate and it is unclear if such a rate will be re-established in the future. Consequently with today's rate structure CBWM and IEUA would have to negotiate the applicable rate with MWD; CBWM staff believes that in light of the elimination of MWD's Replenishment Rate any purchase from the CSA account would not be subject to Tier 2 rates or result in increased charges on IEUA. Future rate structures cannot be predicted at this time.

The rate at which water would be purchased will have to be looked at and negotiated at the time of considering a "put" in the CSA account. Funds would be collected and paid for by assessments.

CBWM would have the obligation to track and reported the account balance annually.

What would be the applicable loss factor on the CSA account?

The CSA account would be charged with appropriate losses. At the present time CBWM staff believes those should be 6%. In light of ongoing consideration of appropriate losses, this rate may change in the future. At the time a "put" would be considered, the loss rate would be negotiated with MWD.

There is risk of having to purchase stored water if there balance in the account and MWD chooses not to renew beyond 2017.

This has been a standing condition of the CSA since its inception. The basis for deciding to allow water to be placed in storage would be relatively near-term replenishment needs; as such the purchase of water from the CSA account, even one due to non-renewal of the CSA would be predictable and necessary. It is not envisioned that water would be placed in the account and kept for indefinite periods of time, which may create a sudden and unexpected financial obligation.

This item has been reviewed by the Pool and Advisory committees which concur with staff recommendation that the Watermaster Board authorize the General Manager to sign the extension with the understanding that it is Watermaster's opinion that losses identified in the Peace II agreement, currently at 6%, or as amended in the future, will apply to any water introduced into this Cyclic Storage account; and Watermaster and IEUA will determine who will pay for the water in case of agreement termination by MWD before water is placed in the account, so that no individual party would be compelled to pay against their will.

ATTACHMENTS

1. Cyclic Storage Agreement and Amendments 1 through 8
2. Ninth Amendment to the Cyclic Storage Agreement

Exhibit E

Optimum Basin Management Program

Staff Status Report 2012-2: July to December 2012



CHINO BASIN WATERMASTER

Optimum Basin Management Program

Highlighted Activities

- In 2012, the Basin Plan was amended to reduce the 2004 Surface Water Monitoring Program from bi-weekly water quality measurements at 17 sites and direct discharge measurements at six sites, to quarterly water quality sampling at two sites. A new Hydraulic Control Monitoring Program (HCMP) Work Plan including these changes was adopted by the Regional Water Quality Control Board in March 2012, and approved by the State Office of Administrative Law on December 6, 2012.
- As a requirement of Mitigation Measure 4.4-3 from the Peace II Subsequent Environmental Impact Report (EIR), Watermaster, Inland Empire Utilities Agency (IEUA) and Orange County Water District (OCWD) continued to develop a Prado Basin Habitat Sustainability Program. Included within this program will be the Prado Basin Habitat Sustainability Adaptive Management Plan, the installation of up to 17 monitoring wells at nine separate sites, and vegetative monitoring.
- Progress toward the 2013 Amendment to the 2010 Recharge Master Plan Update continues. The Chino Basin Recharge Master Plan Update Steering Committee continued to meet and to identify additional cost-effective recharge opportunities and projects that could be undertaken in the future. During this reporting period, the Board approved the Amendment schedule, as well as moving forward with the collection and development of cost and yield information for potential recharge projects on the approved list.
- Watermaster and the IEUA continue to work together toward the creation of a fifth retention facility at the Turner Basin. Following completion, anticipated in 2014, the expansion project is projected to recharge an additional 300 acre-feet of storm runoff annually.
- During the fiscal year to date, approximately 3,210 acre-feet of stormwater and 4,170 acre-feet of recycled water were recharged. No imported water was recharged.

Program Element 1: Develop and Implement a Comprehensive Monitoring Program

Groundwater Level Monitoring

Watermaster initiated a comprehensive monitoring program as part of the implementation of the OBMP. The current groundwater-level monitoring program is comprised of about 900 wells. At about 700 of these wells, water levels are measured by well owners, which include municipal water agencies, the California Department of Toxic Substance Control (DTSC), the Counties, and various private consulting firms. The measurement frequency is typically about once per month. Watermaster collects these water level data quarterly. At the remaining 200 wells, water levels are measured by Watermaster staff using manual methods once per month or by using pressure transducers that record data in 15-minute increments. These wells are mainly south of the 60 Freeway and are used to assess the state of hydraulic control, land subsidence, impacts from the desalter wells, and are monitored in support of the triennial re-computation of ambient water quality in the Chino-North Management Zone. Watermaster verifies the quality of the data, and stores them in a centralized database. The data are used to develop groundwater level contour maps, to calculate storage, and validate implementation assumptions.

Important Court Hearings and Orders

- JULY 20, 2012 -
RULING (REGARDING
CSI'S MOTION TO
CONFIRM POST-
JUDGMENT ORDERS
AND ENFORCE AND
CARRY OUT THE
CHINO BASIN
JUDGMENT)
- SEPTEMBER 27, 2012 -
ORDER ADOPTING
RESTATED JUDGMENT,
APPROVING
INTERVENTION OF TAD
NAKASE (TDN LAND
COMPANY) INTO THE
CHINO BASIN
JUDGMENT
- DECEMBER 21, 2012 -
ORDER FOR
APPROVAL OF
TEMPORARY
SUBSTITUTE RATE

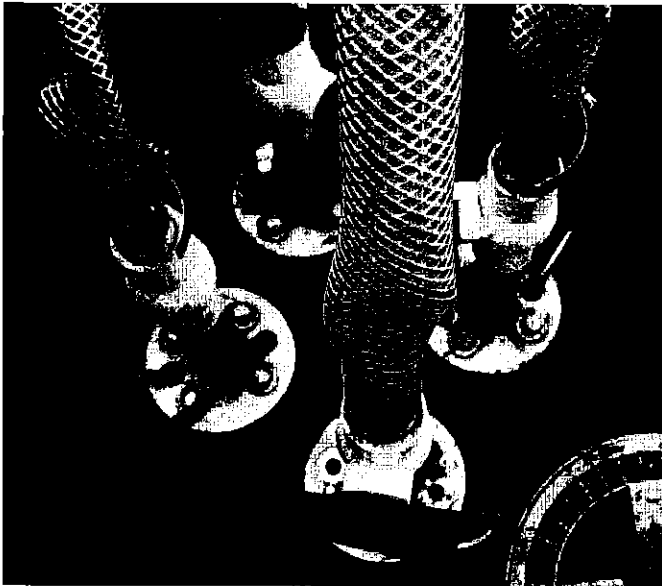
Optimum Basin Management Program

Program Element 1: Develop and Implement a Comprehensive Monitoring Program (Continued)

Groundwater Quality Monitoring

Watermaster initiated a comprehensive monitoring program as part of the implementation of the OBMP. The groundwater quality monitoring program consists of the following four components:

1. An Annual Key Well Water Quality Monitoring Program consisting of 120 wells which are mostly privately-owned agricultural wells in the southern portion of Chino Basin that are otherwise not included in an established sampling program. Twenty of these wells are sampled every year, and the remaining wells are sampled every three years. The wells sampled annually are for the continuous monitoring of areas of concern associated with the southern edge of the Archibald South (formerly OIA) volatile organic compound (VOC) plume, the southern region of the Chino Airport Plume, and the Kaiser Steel Plume which includes two multi-port MZ-3 monitoring wells. Data obtained for the Key Well Quality Monitoring Program are used for the triennial ambient water quality analysis, hydraulic control assessment, the biennial State of the Basin Report, and to assess the overall health of the Basin.



Monitoring wells

2. Annual sampling at nine HCMP multi-port monitoring wells strategically placed between the Chino Basin Desalter well fields and the Santa Ana River. Results of the annual sampling are used to analyze the effect of desalter pumping over time by comparing water quality of the native groundwater and the Santa Ana River.

3. Quarterly sampling at four near-river wells to characterize the interaction between the Santa Ana River and nearby groundwater. These shallow monitoring wells along the Santa Ana River consist of two former United States Geologic Survey (USGS) National Water Quality Assessment Program (NAWQA) wells (Archibald 1 and Archibald 2), and two wells (Well 9 and Well 11) owned by the Santa Ana River Water Company (SARWC).

4. A cooperative basin-wide data collection effort known as the Chino Basin Data Collection (CBDC) program which relies on municipal producers and other government agencies to supply groundwater quality data on a cooperative basis. These sources include the Appropriators, Department of Toxic Substance Control (DTSC), Regional Water Quality Control Board (RWQCB), US Geological Survey (USGS), the Counties, and other cooperators. All water quality data are routinely collected, checked verified for quality, and stored into Watermaster's centralized database.

Groundwater quality data collected by Watermaster are used to access the overall state basin water quality, the triennial ambient water quality update mandated by the Water Quality Control Plan for the Santa Ana River Basin (Region 8) (Basin Plan), the demonstration of hydraulic control, a maximum benefit commitment in the Basin Plan, and for monitoring nonpoint source groundwater contamination and plumes associated with point source discharges and to assess the overall health of the groundwater basin.

Groundwater Production Monitoring

All active wells (except for minimum user wells) are now metered. Watermaster reads the agricultural production data from the meters on a quarterly basis and enters these data into Watermaster's relational database.

Surface Water Monitoring

Water Quality and Quantity in Recharge Basins. Cooperatively with IEUA, Watermaster measures the quantity 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 data for State Water Project water are obtained from the Metropolitan Water District of Southern California (MWDSC) and recycled water quality data for the RP-1 and RP-4 treatment plant effluents are obtained from IEUA. Combining the measured flow data with the respective water qualities enables

Optimum Basin Management Program

Program Element 1: Develop and Implement a Comprehensive Monitoring Program (Continued)

the 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 the 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 the 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 stream gauges and discharge data from publicly owned treatment works (POTWs). These data are used along with groundwater modeling to assess the extent of hydraulic control.

Hydraulic Control

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-North and Cucamonga groundwater management zones. The application of the "maximum benefit" objectives relies on Watermaster and 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-North and Cucamonga Basins.

Pursuant to the 2004 Basin Plan Amendment, and the Watermaster/IEUA permit to recharge recycled water, Watermaster and IEUA have conducted groundwater and surface water monitoring programs since 2004. During this reporting period, Watermaster measured 455 manual water levels at private wells throughout the Chino Basin, conducted two quarterly downloads at the 107 wells containing pressure transducers, collected 29 groundwater quality samples, 181 surface water quality samples, and 61 direct discharge stream measurements. Quarterly Surface Water Monitoring Program Reports that summarize data collection efforts were submitted to the RWQCB in July and October of 2012.

In 2012, the Basin Plan was amended to reduce the 2004 Surface Water Monitoring Program from bi-weekly water quality measurements at 17 sites and direct discharge measurements at six sites, to quarterly water quality sampling at two sites. A new HCMP Work Plan including these changes was adopted by the RWQCB in March 2012, and approved by the State Office of Administrative Law on December 6, 2012.

During this reporting period, as a requirement of Mitigation Measure 4.4-3 from the Peace II Subsequent EIR, Watermaster, IEUA and OCWD continued to develop a Prado Basin Habitat Sustainability Program (PBHSP). Included within this program will be the Prado Basin Habitat Sustainability Adaptive Management Plan, the installation of up to 17 monitoring wells at nine separate sites, and vegetative monitoring. The initial PBHSP Committee meeting to develop the Adaptive Management Plan was held on November 27, 2012.

Chino Basin Groundwater Recharge Program

Watermaster, IEUA, the Chino Basin Water Conservation District (CBWCD), and the San Bernardino County Flood Control District (SBCFCD) jointly sponsor the Chino Basin 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 Basin by increasing the recharge of storm water, imported water, and recycled water. The recharge program is regulated under RWQCB Order No. R8-2007-0039 and Monitoring and Reporting Program No. R8-2007-0039.

Recharge Activities. On-going recycled water recharge occurred in the Brooks, 7th Street, 8th Street, Turner, Victoria, San Sevaine, Ely, Hickory, RP-3, and Banana Basins this reporting period. Stormwater was recharged at 19 recharge basins across all management zones of the Chino Basin during this reporting period. No imported water was recharged this reporting period.

Monitoring Activities. Watermaster and IEUA collect weekly water quality samples from recharge basins that are actively recharging recycled water and from lysimeters installed within those recharge basins. During this reporting period, approximately 187 recharge basin and lysimeter samples were collected and 27 recycled water samples were collected for alternative monitoring plans that include the application of a correction factor for soil-aquifer treatment determined from each recharge basin's start-up period. Monitoring wells located down-gradient of the recharge basins were sampled quarterly at a minimum; however, some monitoring wells were sampled more frequently during the reporting period for a total of 88 samples.

Optimum Basin Management Program

Program Element 1: Develop and Implement a Comprehensive Monitoring Program (Continued)

Reporting. Watermaster and IEUA completed the following required reports concerning the recharge program during the reporting period:

- 2Q-2012 Quarterly Report, submitted to the RWQCB – August 2012
- 3Q-2012 Quarterly Report, submitted to the RWQCB – November 2012

Land Surface Monitoring

In response to the occurrence of land subsidence in the City of Chino, the Watermaster prepared and submitted the MZ-1 Subsidence Management (MZ-1 Plan) to the Court for approval and, in November 2007, the Court ordered its implementation (see Program Element 4: Develop and Implement a Comprehensive Groundwater Management Plan for Management Zone 1). The MZ-1 Plan calls for several monitoring and mitigation measures to minimize or abate the future occurrence of land subsidence and ground fissuring in the western Chino Basin. These measures and activities include:

- Continuing the scope and frequency of monitoring within the so-called Managed Area (southwest MZ-1) that was conducted during the period when the MZ-1 Plan was being developed.
- Expanding the monitoring of the aquifer system and land subsidence into other areas of MZ-1 and Chino Basin where the data indicate concern for future subsidence and ground fissuring.
- Monitoring of horizontal strain across the historical zone of ground fissuring.
- Evaluating the potential contribution of groundwater production in northern MZ-1 on conditions in southern MZ-1.
- Conducting additional testing and monitoring to refine the MZ-1 Guidance Criteria.
- Developing alternative pumping plans for the MZ-1 producers that are impacted by the MZ-1 Plan.
- Constructing and testing a lower-cost cable extensometer facility at Ayala Park.
- Evaluating and comparing ground-level surveying and Interferometric Synthetic Aperture Radar (InSAR), and recommending future monitoring protocols for both techniques.
- Conducting an ASR (aquifer storage recovery) feasibility study at a City of Chino Hills production well within the MZ-1 Managed Area (Well 16).
- Providing for recovery of groundwater levels in the MZ-1 Managed Area.

During the reporting period, Watermaster undertook the following activities called for in the MZ-1 Plan:

- The continuation of detailed water-level monitoring at wells within the Managed Area and across much of the western portion of Chino Basin. All monitoring equipment is inspected at least quarterly and is repaired and/or replaced as necessary. The data collected were checked and analyzed to assess the functionality of the monitoring equipment and for compliance with MZ-1 Plan.
- The continuation of monitoring and maintenance at the extensometer facilities including: Ayala Park, Chino Creek, and Daniels sites.
- The collection of InSAR data from radar satellites during all six months of the reporting period, which will be analyzed for ground motion in early 2013.
- The conducting of a ground-level survey at established benchmarks in the area surrounding the Chino Creek Well Field. This was the second survey in this area. These initial surveys are establishing a ground-level “baseline” prior to the start-up of the Chino Creek Well Field.
- Assisted the City of Chino Hills in required quarterly reporting for its DWR grant to support the ASR pilot test.

Optimum Basin Management Program

Program Element 2: Develop and Implement a Comprehensive Recharge Program

The theoretical average stormwater recharge capacity of the Chino Basin Facilities Improvement Program (CBFIP) facilities is approximately 14,000 acre-feet/yr (AFY) and the theoretical supplemental water recharge capacity is 99,000 AFY. Stormwater recharge during this period was approximately 3,210 acre-feet. Recycled water recharge during this period was approximately 4,170 acre-feet. The IEUA and Watermaster recharge permit was amended in fiscal year 2009/10 to allow for underflow dilution and extended the dilution period from a running 60 months to a running 120 months. The significance of this permit amendment was to reduce the amount of imported and storm waters required for dilution. IEUA projects that dilution requirements will likely be met through 2019/20, even if no imported water were available for dilution.

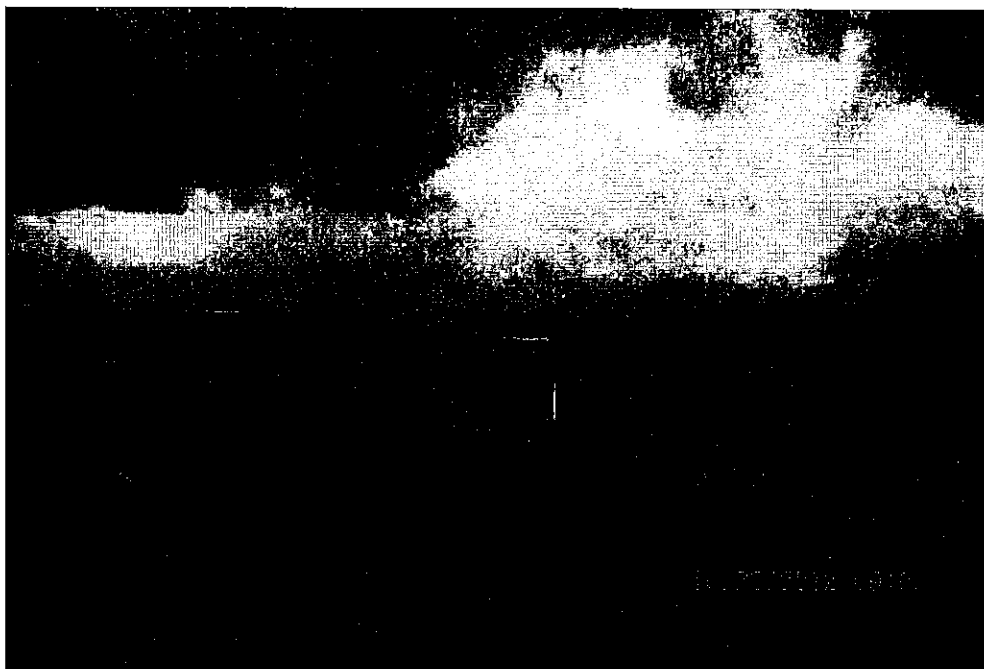
The total amount of supplemental water recharged in MZ-1 since the Peace II Agreement through December 31, 2012 is approximately 38,988 acre-feet, which is on-target for the 39,000 acre-feet required by June 30, 2013 (average annual requirement of 6,500 acre-feet).

In December 2011 Watermaster committed to IEUA up to \$162,236 towards the projected \$664,712 Turner Basins/Guasti Park Recharge Expansion Project in MZ-2. In a commendable example of inter-agency cooperation, this supplemental project became feasible through coordinated materials extraction for the Milliken Avenue Grade Separation project, supported by the City of Ontario, SanBAG, and San Bernardino County. Following completion, anticipated in 2014, the expansion project is projected to recharge an addition 300 acre-feet of storm runoff annually.

Watermaster staff convened a Recharge Master Plan Update Steering Committee (Steering Committee) in 2011 to develop the 2013 Amendment to the 2010 Recharge Master Plan (RMP) Update. The Steering Committee was reformed in January 2012 to include all stakeholders and met eight times during this period. The Steering Committee developed and approved a scope of work and report outline and commenced with the execution of the work. The scope of work was responsive to the October 2010 and December 2011 Court Orders and the December 2011 Board direction. The final report will include nine sections with technical appendices.

Using updated estimates of stakeholders' groundwater production and projections of replenishment obligations, Watermaster and the parties have evaluated changed circumstances (legislative, regulatory, etc.) that were not addressed in the 2010 RMP Update and how these changes affect the RMP. Based on this evaluation, the Committee has selected agreed upon bookend projected future scenarios for recharge planning.

Modeling analyses were performed, predicated on the updated pumping and replenishment projections, estimates of the locations and amounts of recharge required for sustainability, and potential production forbearance. The Committee also conducted an inventory of existing recharge facilities, which included the characterization of recharge basins, recharge capacities and the factors controlling recharge performance. These components comprise the Final Draft of Sections One through Four of the Report, which was completed and approved by the Watermaster Board on May 24, 2012. These four sections fulfill the requirements for the June Status Report deadline to the Court, which was filed on May 31, 2012.

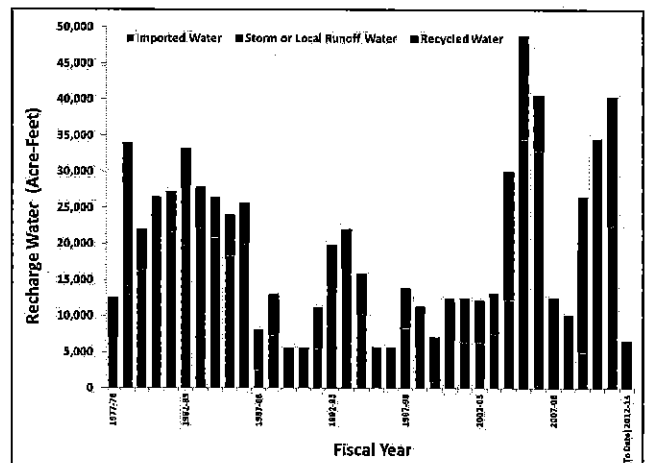
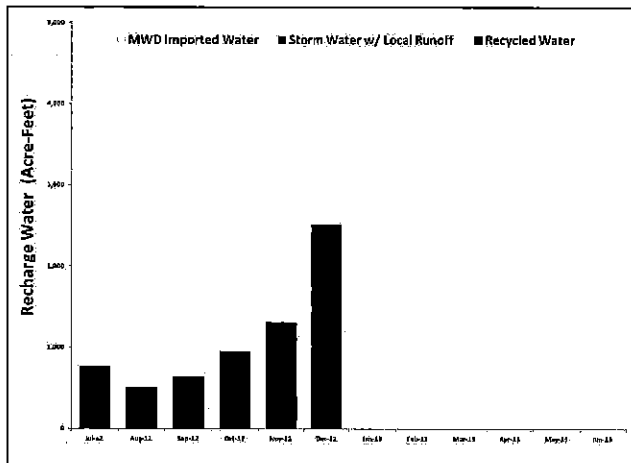


Recharging the Chino Basin at San Sevaine Recharge Basin

Optimum Basin Management Program

Program Element 2: Develop and Implement a Comprehensive Recharge Program (Continued)

During this reporting period, the Board approved the Amendment schedule, as well as moving forward with the collection and development of cost and yield information for potential recharge projects on the approved list. The Amendment is proceeding on schedule with completion by October 2013, as anticipated by the Court. In order to finalize the RMP Update Amendment, the parties will next identify the possible recharge mechanisms available to meet current and projected recharge and replenishment needs. This will include the analysis of potential recharge associated with Municipal Separate Storm Sewer Systems (MS4) permits, the identification of areas within the Basin with the potential for production sustainability challenges (including imbalance in Management Zone 3) and other water management challenges that can be addressed by recharge or production management, and the identification of options ensuring production sustainability through the term of Peace Agreements, including increased recharge at existing facilities, new recharge facilities, new recharge sources, adjustment in production patterns, etc. After the identification of the potential recharge options, the Parties will agree upon the methods and criteria that will be used to evaluate each of them. Using these agreed upon methods and criteria, Watermaster's consultants and IEUA will conduct engineering and economic analyses of each. Based on these analyses, the Parties will review and recommend implementation of the selected options, and develop recommended financing and implementation plans for these options.



Program Element 3: Develop and Implement Water Supply Plan for the Impaired Areas of the Basin; and

Program Element 5: Develop and Implement Regional Supplemental Water Program

Construction of the Chino I Desalter Expansion and the Chino II Desalter facilities was completed in February 2006. As currently configured, the Chino I Desalter provides 2.6 million gallons per day (MGD) of treated (air stripping for VOC removal) water from Well Nos. 1-4, 4.9 MGD of treated (ion exchange for nitrate removal) water from Well Nos. 5-15, and 6.7 MGD of treated (reverse osmosis for nitrate and TDS removal) water from Well Nos. 5-15 for a total of 14.2 MGD (15,900 AFY). The Chino II Desalter provides 4.0 MGD of ion exchange treated water and 6.0 MGD of reverse osmosis treated water from eight additional wells for a total of 10.0 MGD (11,200 AFY).

Planning continued between the Chino Desalter Authority (CDA) and Western Municipal Water District (WMWD) to expand the Chino II Desalter by 10.5 MGD (11,800 AFY). Raw water will be drawn from existing CDA II wells, and possible additional new wells, if needed. In addition, a new Chino Creek Desalter Well Field, required for the hydraulic control commitment associated with Maximum Benefit, will provide additional raw water to the Chino I Desalter, enabling some existing wells to direct production to the expanded Chino II Desalter facility. Watermaster and the CDA demonstrated continued progress on the project schedule RWQCB approved by the RWQCB in June 2010, which calls for completion of the expansion in 2015. Existing design contracts for pipeline, well and pump facilities continue to lead toward task and eventual project completion.

In June 2012, the WMWD was awarded a \$51 million state grant from the California Department of Health for the desalter expansion project. To date, more than \$70 million in grant funds have been secured toward this expansion project.

Optimum Basin Management Program

Program Element 4: Develop and Implement a Comprehensive Groundwater Management Plan for Management Zone 1

MZ-1 Management Plan

Because of the historical occurrence of pumping-induced land subsidence and ground fissuring in southwestern Chino Basin (southern MZ-1), the OBMP called for the development and implementation of an Interim Management Plan (IMP) for MZ-1 that would:

- Minimize subsidence and fissuring in the short-term,
- Collect information necessary to understand the extent, rate, and mechanisms of subsidence and fissuring, and
- Formulate a management plan to reduce to tolerable levels or abate future subsidence and fissuring.

From 2001-2005, Watermaster developed, coordinated, and conducted an Interim Monitoring Program (IMP) under the guidance of the MZ-1 Technical Committee. The investigation provided enough information for Watermaster to develop Guidance Criteria for the MZ-1 producers in the investigation area that, if followed, would minimize the potential for subsidence and fissuring during the completion of the MZ-1 Plan. The Guidance Criteria included a listing of Managed Wells and their owners subject to the criteria, a map of the so-called Managed Area, and an initial threshold water level (Guidance Level) of 245 feet below the top of the PA-7 well casing. The MZ-1 Summary Report and the Guidance Criteria were adopted by the Watermaster Board in May 2006. The Guidance Criteria formed the basis for the MZ-1 Plan, which was approved by Watermaster in October 2007. The Court approved the MZ-1 Plan in November 2007 and ordered its implementation.

During this reporting period, Watermaster continued implementation of the MZ-1 Plan. Drawdown at the PA-7 piezometer stayed above the Guidance Level during the reporting period, and very little, if any, permanent compaction was recorded at the Ayala Park Extensometer. The ongoing monitoring program called for by the MZ-1 Plan continues to be implemented.

The MZ-1 Technical Committee has been renamed the Land Subsidence Committee (LSC) and now includes all Watermaster Parties. The LSC met in October 2012. Watermaster staff and consultants provided an update on the ongoing monitoring and testing program in the MZ-1 Managed Area, on the ASR pilot test at Chino Hills Well 16, and on the recent data collected from the newly-installed extensometer at the Chino Creek Well Field.

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; and Program Element 7: Develop and Implement a Salt Management Program

Archibald South Plume

In July 2005, the RWQCB prepared draft Cleanup and Abatement Orders (CAOs) for six Ontario International Airport (OIA) parties with regard to the Archibald South (trichloroethene [TCE]) Plume. The draft CAOs required the parties to "submit a work plan and time schedule to further define the lateral and vertical extent of the TCE and related VOCs that are discharging, have been discharged, or threaten to be discharged from the site" and to "submit a detailed remedial action plan, including an implementation schedule, to cleanup or abate the effects of the TCE and related VOCs." Four of the parties (Aerojet, Boeing, General Electric [GE], and Lockheed Martin) formed a group (known as ABGL) to work jointly on a remedial investigation. Northrop Grumman declined to participate in the group, while the US Air Force, in cooperation with the US Army Corps of Engineers, funded the installation of one of the four clusters of monitoring wells installed by the ABGL.

In 2012, the RWQCB issued a draft CAO to the City of Ontario, the City of Upland, and IEUA concerning the former Ontario-Upland Sewage Treatment Plant (Regional Recycling Plant No. 1), located in the City of Ontario. The draft CAO states that these parties are "responsible parties subject to this Order because, as the former and current owners and operators of the WWTP and disposal areas, they are responsible for discharge of wastes that resulted in the presence of trichloroethylene (TCE) in groundwater downgradient of the WWTP and disposal areas." In part, the draft CAO requires the parties to "supply uninterrupted replacement water service...to all residences south of Riverside Drive that are served by private domestic wells at which TCE has been detected at concentrations at or exceeding 5 µg/L..." and to report this information to the RWQCB. In addition, the parties are to "prepare and submit [a] ... feasibility study" and "prepare, submit and implement the Remedial Action Plan" to mitigate the "effects of the TCE groundwater plume."

Optimum Basin Management 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; and

Program Element 7: Develop and Implement a Salt Management Program (Continued)

Chino Airport

The County of San Bernardino, Department of Airports is working under RWQCB CAO No. R8-2008-0064. Beginning in 2007, Tetra Tech, the consultant to the County, conducted several off-site plume characterization studies to delineate the areal and vertical extent of the plume. Tetra Tech submitted the *Semiannual Groundwater Monitoring Report, Summer and Fall 2012, Chino Airport Groundwater Assessment, San Bernardino County, California*. Watermaster has collected samples from dedicated monitoring wells and private wells in and around the Chino Airport plume area. The County and Watermaster have been sharing these investigation data so that both parties can utilize a robust data set for plume characterization. Watermaster has also used its calibrated groundwater model to estimate cleanup times and contaminant concentrations in the Chino Creek Well Field. This work will be updated, given new information about the extent of contamination, subsurface hydrogeology, well performance, and the need for habitat sustainability in the Prado Basin.

Other Water Quality Issues

Watermaster continues to track monitoring programs and mitigation measures associated other point sources in the Chino Basin, including: Alumax Aluminum Recycling, the California Institute for Men, Crown Coach, GE Test Cell and Flatiron, Kaiser Steel, Milliken Landfill, Upland Landfill, and the Stringfellow National Priorities List sites.

**Program Element 8: Develop and Implement a Groundwater Storage Management Program; and
Program Element 9: Develop and Implement a Storage and Recovery Program**

Recent events demonstrate the importance of groundwater storage to the Chino Basin. Watermaster has committed to investigate the technical and management implications of Local Storage Agreements, improve related policies and procedures, and then revisit all existing applications of Local Storage Agreements.

The existing Watermaster/IEUA/MWDSC/Three Valley Municipal Water District (TVMWD) Dry-Year Yield (DYY) program continued during the reporting period. By April 30, 2011, all DYY program construction projects and a full "put" and "take" cycle had been completed, leaving the storage account with a zero balance. Watermaster, IEUA, TVMWD, and MWDSC are negotiating potential amendments to the current contract.

Optimum Basin Management Program

Staff Status Report 2012-1: January to June 2012.



CHINO BASIN WATERMASTER

Optimum Basin Management Program (OBMP)

Highlighted Activities

- As a requirement of Mitigation Measure 4.4-3 from the Peace II Subsequent Environmental Impact Report (EIR), Watermaster, Inland Empire Utilities Agency (IEUA) and Orange County Water District (OCWD) began to develop a Prado Basin Habitat Sustainability Program. Included within this program will be the Prado Basin Habitat Sustainability Adaptive Management Plan, the installation of up to 17 monitoring wells at nine separate sites, and vegetative monitoring.
- Calibration was completed at the Daniels Street horizontal extensometer, which is located across the City of Chino observed zone of surface ground fissuring.
- A location was identified in February 2012, and construction began in April 2012 on the Chino Creek Well Field (CCWF) vertical cable extensometer (located South of Chino Airport).
- The Chino Basin Recharge Master Plan Update Steering Committee continued to meet and to identify additional cost-effective recharge opportunities and projects that could be undertaken in the future. The Steering Committee developed and approved a scope of work and report outline and commenced with the execution of the work. The scope of work was responsive to the October 2010 and December 2011 Court Orders and the December 2011 Board direction. The Steering Committee's final report will include nine sections with technical appendices. The Final Draft of Sections One through Four of the Report was completed and approved by the Watermaster Board on May 24, 2012. These four sections fulfilled the requirements of the June Status Report deadline to the Court, which was filed on May 31, 2012. Work on the remainder of the Recharge Master Plan Update continues expeditiously.
- Watermaster and the IEUA continue to work together toward the creation of a fifth retention facility at the Turner Basin. Following completion in 2014, the expansion project is projected to recharge an addition 300 acre-feet of storm runoff annually.
- In June 2012, the Western Municipal Water District (WMWD) was awarded a \$51 million state grant from the California Department of Public Health for the desalter expansion project under Proposition 50 Chapter 4b.
- During the fiscal year, approximately 9,271 acre-feet of stormwater, 8,634 acre-feet of recycled water, and 23,449 acre-feet of imported water were recharged.

Program Element 1: Develop and Implement a Comprehensive Monitoring Program

Groundwater Level Monitoring

Watermaster initiated a comprehensive monitoring program as part of the implementation of the OBMP. The current groundwater level monitoring program is comprised of about 700 wells. At about 500 of these wells, water levels are measured by well owners, which include municipal water agencies, the California Department of Toxic Substance Control (DTSC), the County of San Bernardino, and various private consulting firms. The measurement frequency is typically about once per month. Watermaster collects these water level data quarterly. The remaining 200 wells are mainly south of the 60 Freeway and assess hydraulic control, land subsidence, impacts from the desalter wells, and are monitored in support of the triennial re-computation of ambient water quality

Important Court Hearings and Orders

- APRIL 10 - COURT OF APPEAL OPINION (REGARDING PARAGRAPH 31)
- JUNE 13 - COURT OF APPEAL REMITTITUR (REGARDING PARAGRAPH 31)
- JUNE 15 - SUPPLEMENTAL ORDER AFTER HEARING ON MOTION FOR APPROVAL OF WATERMASTER RESOLUTION 2010-04
- JUNE 29 - ORDER POST APPEAL (REGARDING PARAGRAPH 31)

Optimum Basin Management Program

Program Element 1: Develop and Implement a Comprehensive Monitoring Program (Continued)

in the Chino-North Management Zone. Watermaster manually measures water levels at these wells monthly or by using pressure transducers that record data in 15-minute increments. These data are quality control checked, loaded into a relational database, and used to develop groundwater level contour maps and implementation assumptions.

Groundwater Quality Monitoring

Watermaster initiated a comprehensive monitoring program as part of the implementation of the OBMP. The groundwater quality monitoring program consists of the following four components:

1. An Annual Key Well Water Quality Monitoring Program consisting of 120 wells which are mostly privately owned agricultural wells in the southern portion of Chino Basin that are otherwise not included in an established sampling program. Twenty of these wells are sampled every year; the remaining wells are sampled every three years. The wells sampled annually are for the continuous monitoring of areas of concern associated with the southern edge of the Archibald South (formerly OIA) volatile organic compound (VOC) plume, the southern region of the Chino Airport Plume, and the Kaiser Steel Plume which includes the two multi-port MZ-3 monitoring wells. Data obtained for the Key Well Quality Monitoring Program are used for the triennial ambient water quality analysis, hydraulic control assessment, the Biennial State of the Basin Report, and to assess the overall health of the Basin.
2. Annual sampling at nine HCMP multi-port monitoring wells strategically placed between the Chino Basin Desalter well fields and the Santa Ana River. Results of the annual sampling are used to analyze the effect of desalter pumping over time by comparing water quality of the native groundwater and the Santa Ana River.
3. Monthly sampling at four near-river wells to characterize the Santa Ana River's influence to nearby groundwater. These shallow monitoring wells along the Santa Ana River consist of two former United States Geologic Survey (USGS) National Water Quality Assessment Program (NAWQA) wells (Archibald 1 and Archibald 2), and two wells (Well 9 and Well 11) owned by the Santa Ana River Water Company (SARWC).
4. A cooperative basin-wide data collection effort known as the Chino Basin Data Collection (CBDC) program which relies on municipal producers and other government agencies to supply groundwater quality data on a cooperative basis. These sources include the Appropriators, Department of Toxic Substance Control (DTSC), Regional Water Quality Control Board (RWQCB), US Geological Survey (USGS), the Counties, and other cooperators. All water quality data are routinely collected, QA/QC'd, and loaded into Watermaster's relational database. Watermaster's database is used to create detailed maps and for modeling purposes.

Groundwater Production Monitoring

All active wells (except for minimum user wells) are now metered. Watermaster reads the agricultural production data from the meters on a quarterly basis and enters these data into Watermaster's relational database.

Surface Water Monitoring

Water Quality and Quantity in Recharge Basins. Watermaster measures the quantity 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 data for State Water Project water are obtained from the Metropolitan Water District of Southern California (MWDSC) and recycled water quality data for the RP-1 and RP-4 treatment plant effluents are obtained from IEUA. Combining the measured flow data with the respective water qualities enables the 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 the 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 the 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 stream gauges and discharge data from publicly owned treatment works (POTWs). These data are used along with groundwater modeling to assess the extent of hydraulic control.

Optimum Basin Management Program

Program Element 1: Develop and Implement a Comprehensive Monitoring Program (Continued)

Hydraulic Control

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 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.

Pursuant to the Basin Plan and the Watermaster/IEUA permit to recharge recycled water, Watermaster and IEUA have conducted groundwater and surface water monitoring programs since 2004. During this reporting period, Watermaster measured 445 manual water levels at private wells throughout the Chino Basin, conducted two quarterly downloads at the 112 wells containing pressure transducers, collected 24 groundwater quality samples, 169 surface water quality samples, and 39 direct discharge stream measurements. Quarterly Surface Water Monitoring Program Reports that summarize data collection efforts were submitted to the RWQCB in January and April of 2012. The Chino Basin Maximum Benefit Monitoring Program 2011 Annual Report was submitted to the RWQCB on April 16, 2012.

During this reporting period, as a requirement of Mitigation Measure 4.4-3 from the Peace II Subsequent EIR, Watermaster, IEUA and OCWD began to develop a Prado Basin Habitat Sustainability Program. Included within this program will be the Prado Basin Habitat Sustainability Adaptive Management Plan, the installation of up to 17 monitoring wells at nine separate sites, and vegetative monitoring.

Chino Basin Groundwater Recharge Program

Watermaster, IEUA, the Chino Basin Water Conservation District (CBWCD), and the San Bernardino County Flood Control District (SBCFCD) jointly sponsor the Chino Basin 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 Basin by increasing the recharge of storm water, imported water, and recycled water. The recharge program is regulated under RWQCB Order No. R8-2007-0039 and Monitoring and Reporting Program No. R8-2007-0039.

Recharge Activities. On-going recycled water recharge occurred in the Brooks, 7th Street, 8th Street, Turner, Victoria, San Sevaine, Ely, Hickory, DeClez, RP-3, and Banana Basins this reporting period. Stormwater was recharged at 19 recharge basins across all management zones of the Chino Basin during this reporting period. No imported water was recharged this reporting period.

Monitoring Activities. Watermaster and IEUA collect weekly water quality samples from recharge basins that are actively recharging recycled water and from lysimeters installed within those recharge basins. During this reporting period, approximately 261 recharge basin and lysimeter samples were collected and 27 recycled water samples were collected for alternative monitoring plans that include the application of a correction factor for soil-aquifer treatment determined from each recharge basin's start-up period. Monitoring wells located down-gradient of the recharge basins were sampled quarterly at a minimum, however, some monitoring wells were sampled more frequently during the reporting period for a total of 87 samples.

Reporting. Watermaster and IEUA completed the following required reports concerning the recharge program during the reporting period:

- 4Q-2011 Quarterly Report, submitted to the RWQCB – February 2012
- 1Q-2012 Quarterly Report, submitted to the RWQCB – May 2012
- 2011 Annual Report, submitted to the RWQCB – May 2012



Recharging the Chino Basin at Upland Basin

Optimum Basin Management Program

Program Element 1: Develop and Implement a Comprehensive Monitoring Program (Continued)

Land Surface Monitoring

In response to land subsidence in the City of Chino, Watermaster submitted the MZ-1 Subsidence Management (MZ-1) Plan to the Court for approval and, in November 2007, the Court ordered its implementation (see Program Element 4: Develop and Implement a Comprehensive Groundwater Management Plan for Management Zone 1). The MZ-1 Plan proposed several monitoring and mitigation measures to minimize or abate land subsidence and ground fissuring in the western Chino Basin. These measures and activities include:

- Continue water level monitoring, within the Managed Area, comparable to that which occurred during development of the MZ-1 Plan.
- Expand aquifer and land subsidence monitoring into other areas of MZ-1, and the Chino Basin, where data indicate a potential concern for subsidence and ground fissuring.
- Construct a horizontal strain monitor (extensometer) across the observed fissure zone.
- Evaluate the potential contribution of groundwater production, in northern MZ-1, on conditions in southern MZ-1.
- Provide for recovery of MZ-1 groundwater levels, while conducting additional testing and monitoring to refine the PA-7 Guidance Criteria.
- Develop an alternative pumping plan for producers impacted by the MZ-1 Plan and post the PA-7 groundwater levels on the Watermaster website to guide its use.
- Construct, and comparison test, vertical and cable extensometers at Ayala Park.
- Evaluate and compare ground-level surveying with Interferometric Synthetic Aperture Radar (InSAR), and recommend future monitoring protocols for both techniques.
- Conduct an ASR (aquifer storage recovery) feasibility study at a City of Chino Hills MZ-1 production well (Well 16).

Watermaster undertook the following monitoring and testing activities called for in the MZ-1 Plan:

- The Watermaster Land Subsidence Committee (LSC) met twice during the period, to assess future monitoring priorities and identify funding support for those activities.
- Compared vertical and cable extensometers at Ayala Park, to validate use of the more cost-effective cable system for application in other parts of the Basin, as necessary.
- Evaluated InSAR data from alternate satellite system, which may be further analyzed to detect potential land surface displacement (subsidence) in early 2012.
- Continued implementation of the MZ-1 Managed Area Monitoring Program with the goals of: (1) refining the Guidance Criteria; (2) confirming existence of the Riley Barrier; (3) testing ASR feasibility in the Managed Area; and (4) evaluating the effect of groundwater production and injection on subsidence and recovery in the fissure zone.
- Completed calibration of the Daniels Street horizontal extensometer across the City of Chino observed zone of surface ground fissuring.
- Identified a location in February 2012 and began to construct the Chino Creek Well Field (CCWF) vertical cable extensometer (located South of Chino Airport) in April 2012. Construction is expected to be completed in July 2012.

Program Element 2: Develop and Implement a Comprehensive Recharge Program

The theoretical average stormwater recharge capacity of the Chino Basin Facilities Improvement Program (CBFIP) facilities is approximately 14,000 acre-feet/yr (AFY) and the theoretical supplemental water recharge capacity is 99,000 AFY. Stormwater recharge during this period was about 6,162 acre-feet. Recycled water recharge during this period was about 4,361 acre-feet. The IEUA and Watermaster recharge permit was amended in fiscal year 2009/10 to allow for underflow dilution and extended the

Optimum Basin Management Program

Program Element 2: Develop and Implement a Comprehensive Recharge Program (Continued)

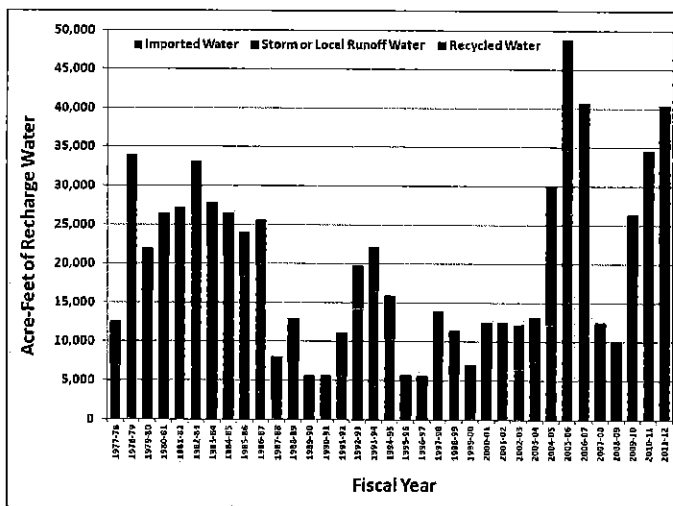
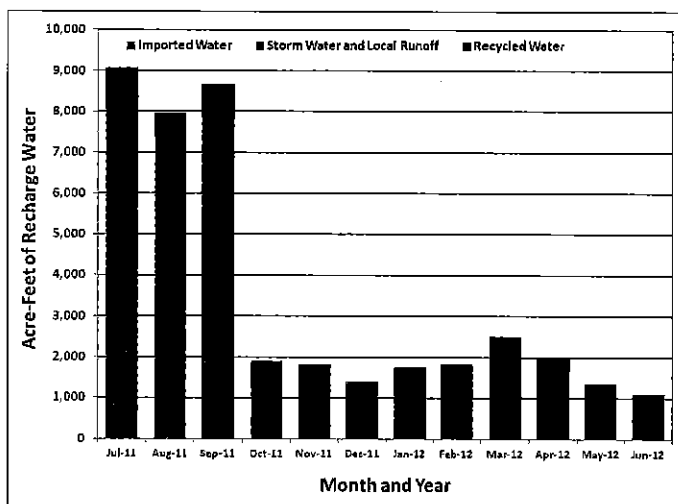
dilution period from a running 60 months to a running 120 months. The significance of this permit amendment was to reduce the amount of imported and storm waters required for dilution. IEUA projects that dilution requirements will likely be met through 2019/20, even if no imported water were available for dilution.

The total amount of supplemental water recharged in MZ-1 since the Peace II Agreement is approximately 37,945 acre-feet, which is 5,445 acre-feet (cumulative) greater than the average annual requirement of 6,500 acre-feet.

Watermaster staff convened a Recharge Master Plan Update Steering Committee (Steering Committee) last fall. The Steering Committee was reformed in January 2012 to include all stakeholders and met seven times during this period. The Steering Committee developed and approved a scope of work and report outline and commenced with the execution of the work. The scope of work was responsive to the October 2010 and December 2011 Court Orders and the December 2011 Board direction. The Steering Committee's final report will include nine sections with technical appendices.

Using updated estimates of stakeholders' groundwater production and projections of replenishment obligations, Watermaster and the parties have evaluated changed circumstances (legislative, regulatory, etc.) that were not addressed in the 2010 RMP Update and how these changes affect the RMP. Based on this evaluation, the Committee has selected agreed upon bookend projected future scenarios for recharge planning. Modeling analyses were performed, predicated on the updated pumping and replenishment projections, estimates of the locations and amounts of recharge required for sustainability, and potential production forbearance. The Committee also conducted an inventory of existing recharge facilities, which included the characterization of recharge basins, recharge capacities and the factors controlling recharge performance. These components comprise the Final Draft of Sections One through Four of the Report, which was completed and approved by the Watermaster Board on May 24, 2012. These four sections fulfill the requirements for the June Status Report deadline to the Court, which was filed on May 31, 2012.

In order to finalize the RMP Update, the parties will next identify the possible recharge mechanisms available to meet current and projected recharge and replenishment needs. This will include the analysis of potential recharge associated with Municipal Separate Storm Sewer Systems (MS4) permits, the identification of areas within the Basin with the potential for production sustainability challenges and other water management challenges that can be addressed by recharge or production management, and the identification of options ensuring production sustainability through the term of Peace Agreements, including increased recharge at existing facilities, new recharge facilities, new recharge sources, adjustment in production patterns, etc. The Committee will also develop the monitoring, reporting, and accounting practices that will be required to estimate local project stormwater recharge and new yield. After the identification of the potential recharge options, the parties will agree upon the methods and criteria that will be used to evaluate each of them. Using these agreed upon methods and criteria, Watermaster's consultants will conduct engineering and economic analyses of each. Based on these analyses, the parties will review and recommend implementation of the selected options, and develop recommended financing and implementation plans for these options.



Optimum Basin Management Program

Program Element 3: Develop and Implement Water Supply Plan for the Impaired Areas of the Basin; and

Program Element 5: Develop and Implement Regional Supplemental Water Program

Construction of the Chino I Desalter Expansion and the Chino II Desalter facilities was completed in February 2006. As currently configured, the Chino I Desalter provides 2.6 million gallons per day (MGD) of treated (air stripping for VOC removal) water from Well Nos. 1-4, 4.9 MGD of treated (ion exchange for nitrate removal) water from Well Nos. 5-15, and 6.7 MGD of treated (reverse osmosis for nitrate and TDS removal) water from Well Nos. 5-15 for a total of 14.2 MGD (15,900 AFY). The Chino II Desalter provides 4.0 MGD of ion exchange treated water and 6.0 MGD of reverse osmosis treated water from eight additional wells for a total of 10.0 MGD (11,200 AFY).

Planning continued between the Chino Desalter Authority (CDA) and the WMWD to expand the Chino II Desalter by 10.5 MGD (11,800 AFY). Raw water will be drawn from existing CDA II wells, and possible additional new wells, if needed. In addition, a new Chino Creek Desalter Well Field, required for the hydraulic control commitment associated with Maximum Benefit, will provide additional raw water to the Chino I Desalter, enabling some existing wells to direct production to the expanded Chino II Desalter facility. Watermaster and the CDA demonstrated continued progress on the RWQCB approved project schedule of June 2010, which should be completed sometime in 2015. Existing design contracts for pipeline, well and pump facilities continue to lead toward task and eventual project completion.

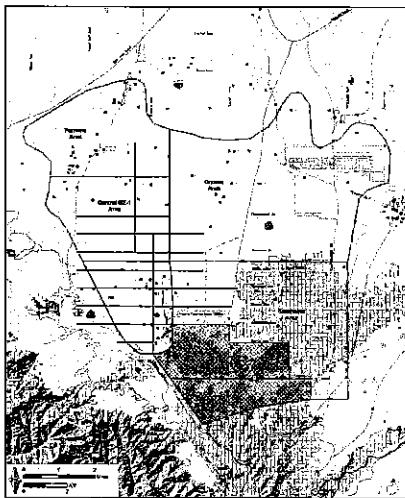
In June 2012, the WMWD was awarded a \$51 million state grant from the California Department of Health for the desalter expansion project.

Program Element 4: Develop and Implement a Comprehensive Groundwater Management Plan for Management Zone 1

MZ-1 Management Plan

Because of the historical occurrence of pumping-induced land subsidence and ground fissuring in southwestern Chino Basin (southern MZ-1), the OBMP called for the development and implementation of an Interim Management Plan (IMP) for MZ-1 that would:

- Minimize subsidence and fissuring in the short-term,
- Collect information necessary to understand the extent, rate, and mechanisms of subsidence and fissuring, and
- Formulate a management plan to reduce to tolerable levels or abate future subsidence and fissuring.



Chino Basin Subsidence Monitoring Program
in Management Zone 1

From 2001-2005, Watermaster developed, coordinated, and conducted an Interim Monitoring Program (IMP) under the guidance of the MZ-1 Technical Committee. The investigation provided enough information for Watermaster to develop Guidance Criteria for the MZ-1 producers in the investigation area that, if followed, would minimize the potential for subsidence and fissuring during the completion of the MZ-1 Plan. The Guidance Criteria included a listing of Managed Wells and their owners subject to the criteria, a map of the so-called Managed Area, and an initial threshold water level (Guidance Level) of 245 feet below the top of the PA-7 well casing. The MZ-1 Summary Report and the Guidance Criteria were adopted by the Watermaster Board in May 2006. The Guidance Criteria formed the basis for the MZ-1 Plan, which was approved by Watermaster in October 2007. The Court approved the MZ-1 Plan in November 2007 and ordered its implementation.

During this reporting period, Watermaster continued implementation of the MZ-1 Plan. Drawdown at the PA-7 piezometer did not fall below the Guidance Level during the reporting period, and very little, if any, permanent compaction was recorded at the Ayala Park Extensometer. The ongoing monitoring program called for by the MZ-1 Plan continues to be implemented.

The MZ-1 Technical Committee has since been expanded to LSC. The LSC met on February 16 and March 22, and continues to implement elements of the MZ-1 Plan including InSAR monitoring and construction of the Chino Creek Well Field Cable Extensometer.

Optimum Basin Management 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; and

Program Element 7: Develop and Implement a Salt Management Program

Archibald South Plume

In July 2005, The Regional Water Quality Control Board (Regional Board) prepared draft Cleanup and Abatement Orders (CAOs) for six Ontario International Airport (OIA) parties with regard to the Archibald South (trichloroethene [TCE]) Plume. Four of those parties (Aerojet, Boeing, General Electric [GE], and Lockheed Martin, also known as ABGL) formed a group to work jointly on a remedial investigation. Northrop Grumman declined to participate in the group, while the US Air Force, in cooperation with the US Army Corps of Engineers, funded the installation of one of the four clusters of monitoring wells installed by the ABGL.

On October 13, 2011, Erler & Kalinowski, Inc. (EKI) published a Remedial Investigation (RI) Report on behalf of the ABGL concerning the Archibald South Plume. On November 4, 2011, Geoscience Support Services, Inc. issued its technical report on the Archibald South Plume on behalf of the City of Ontario. Both technical reports were submitted to the Regional Board.

Chino Airport

The County of San Bernardino, Department of Airports is working under Regional Board CAO No. R8-2008-0064. Beginning in 2007, Tetra Tech, the consultant to the County, conducted several off-site plume characterization studies to delineate the areal and vertical extent of the plume. Tetra Tech will be publishing two reports in the next period describing the progress of this work to date: The *Semiannual Groundwater Monitoring Report, Winter and Spring 2012*, and the *Phase I Monitoring Well Installation Report*. Watermaster has collected samples from dedicated monitoring wells and private wells in and around the Chino Airport plume area. The County and Watermaster have been sharing these investigation data so that both parties can utilize a robust data set for plume characterization. Watermaster has also used its calibrated groundwater model to estimate cleanup times and contaminant concentrations in the Chino Creek Well Field. This work will be updated, given new information about the extent of contamination, subsurface hydrogeology, well performance, and the need for habitat sustainability in the Prado Basin.

Other Water Quality Issues

Watermaster continues to track monitoring programs and mitigation measures associated other point sources in the Chino Basin, including: Alumax Aluminum Recycling, the California Institute for Men, Crown Coach, GE Test Cell and Flatiron, Kaiser Steel, Milliken Landfill, Upland Landfill, and the Stringfellow National Priorities List sites.

Program Element 8: Develop and Implement a Groundwater Storage Management Program; and
Program Element 9: Develop and Implement a Storage and Recovery Program

Recent events demonstrate the importance of groundwater storage to the Chino Basin. Watermaster has committed to investigate the technical and management implications of Local Storage Agreements, improve related policies and procedures, and then revisit all existing applications of Local Storage Agreements.

The existing Watermaster/IEUA/MWDSC/Three Valley Municipal Water District (TVMWD) Dry-Year Yield (DYY) program continued during the reporting period. By April 30, 2011, all DYY program construction projects and a full "put" and "take" cycle had been completed, leaving the storage account with a zero balance. Watermaster, IEUA, and MWDSC are negotiating potential amendments to the current contract.

Optimum Basin Management Program

Staff Status Report 2011-2: July to December 2011



CHINO BASIN WATERMASTER

Highlighted Activities

- While the basin recharge appetite was whetted by an unusually strong early October storm, the Fall of 2011 was dry in contrast to the wet Fall of 2010. Fortunately, the Summer of 2011 was mild, many conservation efforts remained in place, and state water reservoirs are nearly full.
- About 4,273 acre-feet of recycled water and 3,103 acre-feet of storm/local runoff were recharged within Chino Basin facilities during the July to December 2011 reporting period.
- Metropolitan Water District of Southern California (MWD) ended replenishment water deliveries on September 30, 2011, nearly three months earlier than anticipated. Over 23,634 acre-feet of imported water was recharged during July, August and September, resulting in a total 2011 replenishment water delivery of nearly 33,100 acre-feet, valued at over \$14 million.
- During October 2011, the Chino Basin Desalter Authority (CDA) issued a contract to Best Drilling for construction of Chino Creek Well Field (CCWF or CDA Phase III) Wells I-19, I-20, and I-21. When operational, these wells should allow Watermaster to functionally achieve hydraulic control and demonstrate compliance with Optimum Basin Management Plan (OBMP) objectives.
- In September 2011, initial excavation of soils for the Milliken Avenue Grade Separation also coincided with ground breaking for the Turner Basins Recharge Expansion Project. The City of Ontario, County of San Bernardino, and San Bernardino Association of Governments (SANBAG) jumpstarted the Turner Project, with \$4.5 million in savings, resulting from their project's need for 200,000 cubic yards of soil.
- In December 2011, Watermaster committed \$166,236, the Bureau of Reclamation granted \$406,712, and Inland Empire Utilities Agency (IEUA) committed \$1 million, to design and construct 300 acre-feet per year of additional storm, imported and recycled water recharge capacity at Turner Basins and Guasti Park.
- Construction and initial calibration of the Daniels Street Horizontal Extensometer was completed.
- Several potential sites for the Chino Creek Well Field Vertical (Cable) Extensometer were identified, with the preferred site being on County owned land just south of the Chino Airport. Installation and calibration of this facility is a prerequisite for timely activation of the CCWF.
- Reduced groundwater production projections, reported in 2010 Urban Water Management Plans, suggest a reduced aggregate need for supplemental recharge water in the greater Chino Basin; however, as observed during the summer 2011 MWD replenishment water recharge effort, not all of the Chino Basin Management Zones have comparable recharge capabilities and capacities.
- The 2010 Recharge Master Plan Update Steering Committee was initiated and convened, as directed by the Court Order of October 8, 2010 order. The Committee will continue to meet in 2012 and, based on developing studies, recommend how to implement the Recharge Master Plan.
- Revised HCMP monitoring requirements were negotiated with the Santa Ana Regional Water Quality Control Board and are expected to be implemented through a Basin Plan Amendment.



Turner Basins Recharge Expansion Project Excavation
Milliken Grade Separation Stockpiles in Background

Important Court Hearings and Orders

- OCTOBER 28—CHINO BASIN WATERMASTER COURT HEARING ON MANAGEMENT AND IMPLEMENTATION STATUS
- NOVEMBER 1 - ORDER APPROVING CDA RESOLUTION 10-04, PLACING GENERAL ELECTRIC IN OVERLYING (NON-AGRICULTURE) POOL, REQUESTING RESUBMITTAL OF RESTATED JUDGMENT
- DECEMBER 8—ORDER GRANTING EXTENSION TO FILE RECHARGE MASTER PLAN STATUS REPORT THROUGH JUNE 14, 2012

Optimum Basin Management Program

Program Element 1: Develop and Implement a Comprehensive Monitoring Program

Groundwater Level Monitoring

The current Watermaster groundwater level monitoring program is comprised of about 700 wells. For about 500 of these wells, the well-owner records water levels monthly and forwards the data to Watermaster quarterly. The remaining 200 wells are mainly south of the 60 Freeway and assess hydraulic control, land subsidence, and impacts from the desalter wells. Watermaster manually measure water levels at these wells monthly or by using pressure transducers that record data in 15 minute increments. These data are quality control checked, loaded into a relational database, and used to develop groundwater level contour maps and implementation assumptions.

Groundwater Quality Monitoring

The groundwater quality monitoring program assembles results from various regional remediation efforts, then integrates the data to provide a comprehensive assessment of groundwater quality:

1. Groundwater quality data developed by Appropriators, Department of Toxic Substance Control (DTSC), Regional Water Quality Control Board (RWQCB), US Geological Survey (USGS), and the Counties for their own requirements are cooperatively provided to the Chino Basin Data Collection (CBDC) program. Watermaster routinely collects, assesses, and loads this data into a centralized relational database management system for subsequent analyses.
2. The Watermaster Key Well Program tests an additional 120 private wells in the southern Chino Basin, that would not otherwise require monitoring. Twenty wells, associated with the southern edge of the Archibald South (formerly OIA), Chino Airport, and Kaiser Steel plumes, are sampled annually, while the remainder are sampled triennially. The Key Well Program also contributes data for triennial ambient water assessment, hydraulic control assessment, Biennial State of the Basin Report, and other Chino Basin groundwater studies.

Groundwater Production Monitoring

Most active wells (except Agricultural Pool minimal producers of less than 10 acre-feet annually) are metered, production read quarterly, and the data entered into Watermaster's database.

Surface Water Monitoring

Water Quality and Quantity in Recharge Basins. Watermaster and IEUA estimate the volume of storm and supplemental water recharged, using pressure transducers and staff gauges. MWD provides State Water Project and IEUA provides RP-1 and RP-4 recycled water quality data. Using a mass balance calculation and the volume and quality of each water type, the blended recycled dilution water quality can be projected and, in the near future, a "new yield" estimated.

Surface Water Monitoring in the Santa Ana River (SAR). Watermaster regularly measures flow and select water quality parameters to assess whether Chino Basin might impact SAR water quality. These data, combined with groundwater modeling, assess the extent and integrity of hydraulic control from the southern Chino Basin to the greater Santa Ana River Watershed.

HCMP Annual Report

In January 2004, the RWQCB amended the Santa Ana River Basin, Water Quality Control Plan (Basin Plan) to incorporate "maximum benefit" and antidegradation objectives for Total Dissolved Solids (TDS) and Nitrate-Nitrogen (N) for the Chino Basin and Cucamonga Management Zones. Access to the "maximum benefit" objectives relies on Watermaster and IEUA's implementation of specific OBMP projects and monitoring requirements. Annual reports are due each April 15, while this periods quarterly Surface Water Monitoring Program Reports were submitted to the RWQCB on October 15, 2011 and January 16, 2012. During this reporting period, Watermaster manually measured water levels at 427 private wells, downloaded two quarterly data sets from 112 wells containing pressure transducers, collected 90 groundwater, 188 surface and 72 recycled water (direct treatment facility effluent discharge) water quality samples respectively.

ON JANUARY 1,
2012, DEPTH TO
GROUNDWATER
LEVELS AT PA-7
(AYALA PARK
PIEZOMETER)
WERE 104 FEET
BELOW GROUND
SURFACE, OVER
140' ABOVE THE
MZ-1 GUIDANCE
CRITERIA LEVEL
OF 245 FEET.

Optimum Basin Management Program

Program Element 1: Develop and Implement a Comprehensive Monitoring Program (Continued)

Land Surface Monitoring

In response to land subsidence in the City of Chino, Watermaster submitted the MZ-1 Subsidence Management (MZ-1) Plan to the court for approval and, in November 2007, Watermaster Court ordered its implementation (see Program Element 4: Develop and Implement a Comprehensive Groundwater Management Plan for Management Zone 1). The MZ-1 Plan proposed several monitoring and mitigation measures to minimize or abate land subsidence and ground fissuring in the western Chino Basin. These measures and activities include:

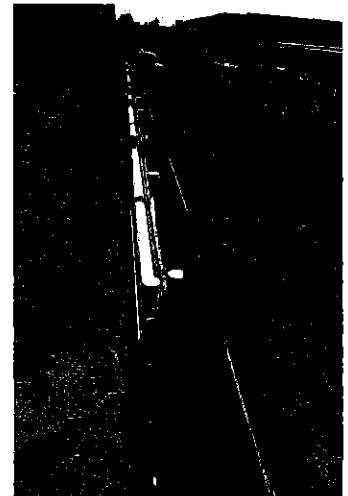
- Continued water level monitoring, within the Managed Area, comparable to that which occurred during development of the MZ-1 Plan.
- Expand the aquifer and land subsidence monitoring into other areas of MZ-1, and the Chino Basin, where data indicate a potential concern for subsidence and ground fissuring.
- Construct a horizontal strain monitor (extensometer) across the observed fissure zone.
- Evaluate the potential contribution of groundwater production, in northern MZ-1, on conditions in southern MZ-1.
- Provide for recovery of MZ-1 groundwater levels, while conducting additional testing and monitoring to refine the PA-7 Guidance Criteria.
- Develop an alternative pumping plan for producers impacted by the MZ-1 Plan and post the PA-7 groundwater levels on the Watermaster website to guide its use.
- Construct, and comparison test, vertical and cable extensometers at Ayala Park.
- Evaluate and compare ground-level surveying with Interferometric Synthetic Aperture Radar (InSAR), and recommend future monitoring protocols for both techniques.
- Conduct an ASR (aquifer storage recovery) feasibility study at a City of Chino Hills MZ-1 production well (tentatively well 16).

Watermaster undertook the following monitoring and testing activities called for in the MZ-1 Plan:

- The Watermaster Land Subsidence Committee met twice during the period, to assess future monitoring priorities and identify funding support for those activities.
- Compared vertical and cable extensometers at Ayala Park, to validate use of the more cost-effective cable system for application in other parts of the basin, as necessary.
- Evaluated InSAR data from alternate satellite system, which may be further analyzed to detect potential land surface displacement (subsidence) in early 2012.
- Continued implementation of the MZ-1 Managed Area Monitoring Program with the goals of: (1) refining the Guidance Criteria; (2) confirming existence of the Riley Barrier; (3) testing ASR feasibility in the Managed Area; and (4) evaluating the effect of groundwater production and injection on subsidence and recovery in the fissure zone.
- Completed installation and began calibration of the Daniels Street horizontal extensometer across the City of Chino observed zone of surface ground fissuring.
- Identified a location and began negotiating agreements to construct the Chino Creek Well Field (CCWF) cable extensometer (located South of Chino Airport).

Well Construction, Abandonment and Destruction Monitoring

During the reporting period, the County of San Bernardino provided Watermaster with copies of six well construction permits and five well destruction permits. Watermaster continues to request geologic and post-construction operational characteristics for new wells, as the data can be made available. Following the December 17, 2009 Determination of No Further Action (NFA) by the RWQCB, Watermaster requested continued access for water level and groundwater quality monitoring at sixteen wells owned by the State of California at the Chino Institute for Men through a February 23, 2011 letter. Watermaster will continue to assess whether other wells, planned for destruction can be cost effectively incorporated into our monitoring network, as occurred previously for several Alcoa Wells.

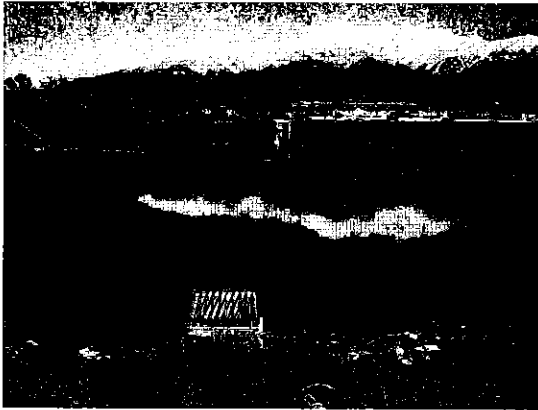


Horizontal Extensometer Construction

Optimum Basin Management Program

Program Element 2: Develop and Implement a Comprehensive Recharge Program

Watermaster, IEUA, Chino Basin Water Conservation District (CBWCD), and San Bernardino County Flood Control District (SBCFCD) jointly sponsor the Chino Basin Groundwater Recharge Program; a comprehensive water supply and reliability program to improve basin water quality, by increasing the recharge of storm, imported, and recycled water. The mean stormwater runoff and theoretical maximum supplemental water recharge capacity, of the Chino Basin Facilities Improvement Program (CBFIP) recharge basins, is about 14,000 and 99,000 acre-feet/yr (AFY) respectively. From July 1 to December 31, 2011, an estimated 30,828 acre-feet of water was recharged throughout the Chino Basin. Imported water made up 23,452 acre-feet of the total,



Recharging the Chino Basin Groundwater at Victoria Basin

with 16,610 recharging in Monitoring Zone (MZ)-1, 5,118 acre-feet in MZ-2, and 1,724 acre-feet in MZ-3. About 3,103 acre-feet of storm and local runoff infiltrated, with 704 recharging in MZ-1, 1,464 acre-feet in MZ-2, and 935 acre-feet in MZ-3. Since imported and runoff water are preferentially recharged and were relatively available during this reporting period, the volume of recycled water was constrained to about 4,273 acre-feet with 350 acre-feet recharging in MZ-1, 1,842 acre-feet in MZ-2, and 2,081 acre-feet in MZ-3.

During this period, the 2010 Recharge Master Plan Steering Committee met and began to identify additional cost effective recharge opportunities and projects that could be undertaken in the future. This includes the identification of accounting measures that might recognize and even encourage potential contributions to water harvesting through the requirements of the recently adopted Municipal Separate Storm Sewer System (MS4) Permit, which identifies the need for Water Quality Management Plans (WQMP) with Low Impact Development (LID) characteristics. This Program Element will become increasing important in preserving the Operational Safe Yield of the basin, flushing TDS and TIN out of the South Chino Basin and for blending with recycled water.

In December 2011 Watermaster committed to IEUA, up to \$162,236 towards the projected \$664,712 Turner Basins/Guasti Park Recharge Expansion Project in MZ-2. In a commendable example of inter-agency cooperation, this supplemental project became feasible through coordinated materials extraction for the Milliken Avenue Grade Separation project, supported by the City of Ontario, SanBAG, and San Bernardino County. Following completion in 2014, the expansion project is projected to recharge an addition 300 acre feet of storm runoff annually.

Reporting. Watermaster and IEUA submitted to the RWQCB the Second and Third Quarter Groundwater Recharge Program Reports on August 15 and November 15, 2011, respectively.

Program Element 3: Develop and Implement Water Supply Plan for the Impaired Areas of the Basin

The Chino Basin Desalter Authority (CDA) reported 2010-11 production of 29,319 acre-feet of TDS and TIN impaired groundwater. This raw water was variously treated with air stripping, ion exchange, and reverse osmosis to remove contaminants and, now purified, supplied to the Authority Member Agencies to meet the need for high quality water supply needs in expanding urban areas of the southern Chino Basin. Without expansion of the CDA, the potential for adverse downstream impacts on Orange County Water District recharge facilities would likely have grown as a result of agricultural land conversion and reduced use of the impaired groundwater. Furthermore, increased groundwater losses from the basin might have led to a future reduction in safe yield. The continued operation of the CDA facilities, and eventual expansion to a planned annual capacity of over 40,000 acre-feet, is a prerequisite of the OBMP and will be necessary to achieve effective hydraulic control of the Chino Basin. Towards this production objective, Watermaster and CDA demonstrated continued progress on the RWQCB approved project schedule of June 2010, which should be completed sometime in 2015. The Desalter II expansion has been completed, wells I-16 and I-18 drilled, while wells I-20 and I-21 began construction. Existing design contracts for pipeline, well and pump facilities continue to lead toward task and eventual project completion.

Optimum Basin Management Program

Program Element 4: Develop and Implement a Comprehensive Groundwater Management Plan for Management Zone 1

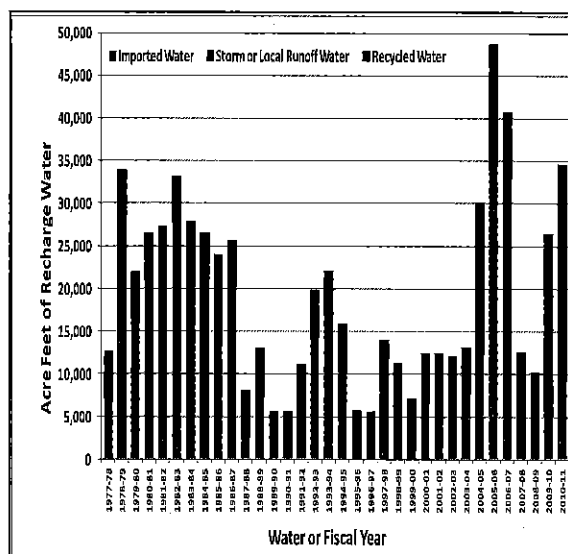
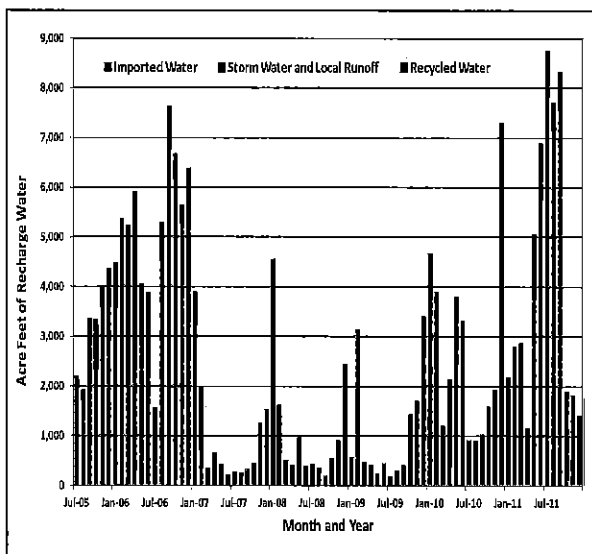
The OBMP called for the development and implementation of an MZ-1 Interim Management Plan (IMP) to mitigate historical, pumping-induced, land subsidence and ground fissuring in southwestern Chino Basin (southern MZ-1). Watermaster prepared the MZ-1 Plan, with Guidance Criteria, which was approved in November 2007 and its implementation ordered by the Court. With this year's expedited recharge of replenishment water, the cumulative Peace II Agreement MZ-1 supplemental water obligation of 32,500 acre-feet, has been satisfied with about 37,063 acre-feet of supplemental water, leaving an obligation excess (credit) of 4,563 acre-feet. The Guidance Criteria also designated a "Managed Area" and contained a list of Managed Wells, from which production is subject to maintaining an initial threshold water level (Guidance Level) above 245 feet below the top of the PA-7 well casing. With sustained replenishment water recharge during this period, groundwater levels at the PA-7 piezometer continued to rise and on January 1, 2012 the level was over 140 feet above the Guidance Level. Correspondingly, the Ayala Park Extensometer has recorded little, if any, permanent compaction.

The Land Subsidence Committee met on July 21, November 16, and December 15, 2011 and continues to implement elements of the MZ-1 Plan including InSAR monitoring using Envisat and other satellite data, construction of the Chino Creek Well Field Cable Extensometer, and necessary budget transfers to support the proposed tasks.

Program Element 5: Develop and Implement Regional Supplemental Water Program

In the Chino Basin, supplemental water is defined as imported and recycled water. A review of the 2010 Urban Water Management Plans (UWMPs) suggest that local appropriators plan to become increasingly dependent on imported water to relieve stress resulting from historic basin groundwater production. During the reporting period about 23,452 acre-feet of imported replenishment water was recharged and another 889 acre-feet injected via Monte Vista Water District ASR wells. Despite the success of the replenishment water program, MWD has purposed to change the imported water program and may eventually decide to discontinue the replenishment water program and substantially change their fee schedules for all imported waters. Watermaster continues to investigate opportunities to increase supplemental water supplies along with IEUA, Three Valleys Municipal Water District, Western Municipal Water District, and the Water Facilities Authority.

Recycled Water Recharge Monitoring Activities. The recycled water recharge program is partially regulated under RWQCB Orders R8-2007-0039 and R8-2009-0057. Watermaster and IEUA collect weekly water quality samples at basins actively recharging recycled water. During this reporting period, 27 recycled product and 261 lysimeter water samples were collected from 7 of the 13 basins that may receive recycled water. Monitoring wells, down-gradient of recharge basin that receive recycled water, were sampled at least quarterly, but more frequently during basin start up or soil aquifer treatment (SAT) evaluation, for a total of 87 samples.



Optimum Basin Management Program

Program Element 6: Develop and Implement Cooperative Programs with the Regional Water Board and Other Agencies to Improve Basin Management

The Potentially Responsible Parties (PRPs), identified by the RWQCB as responsible for the Ontario International Airport (OIA) or Archibald South Plume, are also known as the ABGL (Aerojet, Boeing, GE, and Lockheed) group. Watermaster participates in meetings with ABGL, their consultants and counsel, the Regional Board, and CDA in order to identify remedies to continued plume mitigation. The ABGL group consultant prepared and submitted a Remedial Investigation Report, proposing that remediation by natural attenuation and containment would be adequate, for consideration by the RWQCB on October 13, 2011.

County of San Bernardino, Department of Airports and agency consultants continue to investigate plume migration and its impact on the Chino Creek Well Field (CCWF) and CDA operations. The Watermaster groundwater model was used to estimate the hydraulic control that would be achieved after the CCWF is completed, prepare maps, charts and concentration data regarding the fate of the Chino Airport plume.

Watermaster continues to monitor water samples, model transport and concentration, and other technical analyses related to several other pollutant plumes in the Chino Basin, with the ultimate objective of having their negative impact on basin water quality substantially reduced. This includes plumes believed to be associated with Alumax Aluminum Recycling, the California Institute for Men, Crown Coach, GE Test Cell and Flatiron, Kaiser Steel, Milliken Landfill, Upland Landfill and the Stringfellow National Priorities List sites.

Program Element 7: Develop and Implement a Salt Management Program

The Chino Basin Salt Management Program overlaps with three other Program elements. The most proactive element is operation of the CDA desalters facilities and wells which, during Fiscal Year 2010-11, reported production of 29,319 acre-feet of high salt (up to 1,700 mg/L TDS) containing groundwater, that might otherwise impair downstream receiving waters. The brine resulting from membrane treatment is removed from the Basin via the Santa Ana Regional Interceptor (SARI). Pilot studies of brine minimization, to conserve SARI line capacity, continue and are expected to lead to a 2012 facility design contract. By 2015, CDA capacity is expected to increase to over 40,000 acre feet through completion of the Chino Creek Well Field and expansion of the existing desalters. A second active element of salt management is the groundwater recharge program. During recharge, preference is given to storm runoff, then imported water, then recycled water, in recognition of their respective qualities and costs. The concentration of salts and nitrate in the blended recharge water are managed through monitoring at basin lysimeters and at downstream wells. The third element is passively tracking the conversion of agriculture, which tends to concentrate salts through evapotranspiration of water, to urban land uses. The effectiveness of these programs is assessed through modeling of groundwater flows and verified by monitoring salt concentrations at nine HCMP multi-port wells, strategically placed between the desalter well fields, and several wells along the Santa Ana River.

Program Element 8: Develop and Implement a Groundwater Storage Management Program

Recent events demonstrate the importance of groundwater storage to the Chino Basin. Watermaster has committed to investigate the technical and management implications of Local Storage Agreements, improve related policies and procedures, and then revisit all existing applications of Local Storage Agreements.

Program Element 9: Develop and Implement a Storage and Recovery Program

The existing Watermaster/IEUA/MWDSC/Three Valley Municipal Water District (TVMWD) Dry-Year Yield (DYY) program continued during the reporting period. By April 30, 2011, all DYY program construction projects and a full "put" and "take" cycle had been completed, leaving the storage account with a zero balance. Watermaster, IEUA, and MWDSC are negotiating amendments to the current contract and, once amended, preparing to initiate a new "put" cycle.

AMBIENT SANTA ANA RIVER HCMP MONITORING APPEARS TO BE STATISTICALLY INSENSITIVE FOR ASSESSING THE IMPACT OF TDS IN CHINO BASIN GROUNDWATER ON THE SANTA ANA RIVER.

WATERMASTER HAS PROPOSED A DRAFT RWQCB BASIN PLAN AMENDMENT THAT WOULD REDISTRIBUTE THE COST OF THIS UNINFORMATIVE MONITORING TO OTHER EFFORTS.

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 51010

[Assigned for All Purposes to the Honorable
STANFORD E. REICHERT]

**[PROPOSED] ORDER GRANTING
MOTION FOR APPROVAL OF CYCLIC
STORAGE AGREEMENT AMENDMENTS
AND TO RECEIVE AND FILE OBMP
SEMI-ANNUAL REPORTS**

On January 5, 1979, this Court approved the Cyclic Storage Agreement (hereinafter "Agreement") made by and between Chino Basin Municipal Water District, which is now known as Inland Empire Utilities Agency (hereinafter "IEUA"), Metropolitan Water District of Southern California (hereinafter "MWD"), and Chino Basin Watermaster ("Watermaster"). The Agreement has served to facilitate the purchase of replenishment water by Watermaster to comply with the Physical Solution adopted in the Judgment herein. It has been amended from time to time, primarily to extend the initial five-year term of the Agreement. Watermaster seeks court approval of the most recent amendments to the Agreement, the Eighth and Ninth Amendments.

The Eighth Amendment extended the term of the Agreement to December 31, 2012. The current Ninth Amendment extends the term of the Agreement to December 31, 2017. If a further Amendment is not executed at that time, then Watermaster agrees to purchase any water

[PROPOSED] ORDER RE EIGHTH AND NINTH AMENDMENTS TO CYCLIC STORAGE AGREEMENT

1 remaining in the account. The Ninth Amendment also reaffirms two existing provisions: (i) that
2 written consent of Watermaster and IEUA is required for water to be placed in storage by MWD,
3 and (ii) that if the Cyclic Storage Agreement is not extended beyond December 31, 2017,
4 Watermaster and IEUA will purchase any water in storage at that time. Watermaster reports that
5 the three Pools, the Advisory Committee, and the Board of Directors unanimously approved the
6 Eighth and Ninth Amendments.

7 Additionally, Watermaster requested that the Court receive and file the most recent Semi-
8 Annual Optimum Basin Management Program ("OBMP") Status Reports for the period from July
9 of 2011 through December of 2012, including the 2011-02, 2012-01 and 2012-02 Status Reports.
10 The Court notes that no opposition has been filed to Watermaster's motion for approval of the
11 Eighth and Ninth Amendments and the Court's receipt and filing of the Status Reports.

12 Good cause appearing therefore, Watermaster's Motion for Approval of Cyclic Storage
13 Agreement Amendments and to Receive and File the OBMP Semi-Annual Reports is hereby
14 GRANTED; the Eighth and Ninth Amendments to the Cyclic Storage Agreement are hereby
15 APPROVED.

16
17
18 Dated: _____

Hon. Stanford E. Reichert
Judge of the Superior Court

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 June 11, 2013 I served the following:

1. **NOTICE OF MOTION AND MOTION FOR APPROVAL OF AMENDMENTS TO CYCLIC STORAGE AGREEMENT AND TO RECEIVE AND FILE OBMP SEMI-ANNUAL REPORTS; MEMORANDUM OF POINTS AND AUTHORITIES; DECLARATION OF BRADLEY J. HERREMA**
2. **[PROPOSED] ORDER GRANTING MOTION FOR APPROVAL OF CYCLIC STORAGE AGREEMENT AMENDMENTS AND TO RECEIVE AND FILE OBMP SEMI-ANNUAL REPORTS**

/ 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

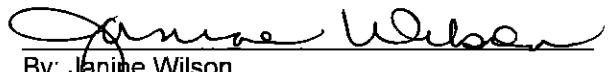
/ / BY PERSONAL SERVICE: I caused such envelope to be delivered by hand to the addressee.

/ / 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 June 11, 2013 in Rancho Cucamonga, California.


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Chino Basin Watermaster

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