1	SUPERIOR COURT OF THE STATE OF CALIFORNIA
2	COUNTY OF SAN BERNARDINO
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4	DEPT. R8 HONORABLE J. MICHAEL GUNN, JUDGE
5	
6	CHINO BASIN MUNICIPAL) WATER DISTRICT,)
7	PLAINTIFF,) RCV 51010
8	vs.
9	CITY OF CHINO,
10	DEFENDANT.
11	REPORTER'S TRANSCRIPT OF ORAL PROCEEDINGS
12	THURSDAY, NOVEMBER 29, 2007
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25	REPORTED BY: GAIL GREENLEE, C-8647

OFFICIAL REPORTER

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3		JOE SCALMANINI LUHDORFF & SCALMANINI CONSULTING ENGINEERING			
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9		ANDYREW MALONE, JOE LeCLAIRE BILL LEEVER and THOMAS McCARTHY			
10	CUCAMONGA VALLEY	MARK E. ZVIRBULIS, KATHY TIEGS,			
11					
12	SAN ANTONIO WATER:	CHARLES MOOREES			
13	CHINO BASIN WATER CONSERVATION DISTRICT	EUNICE ULLOA and KATI PARKER			
14 15	WATERMASTER, BOARD OF AGRICULTURE and	PAUL HOFER and GEOFFREY VANDEN HEUVEL			
16	CHINO BASIN WATER CONSERVATION DISTRICT:				
17		RICHARD W. HANSEN, P.E.			
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19	WESTERN MUNICIPAL WATER DIST:	JOHN V. ROSSI, GENERAL MANAGER			
20	MONTE VISTA WATER DISTRICT and	SANDRA ROSE			
21	WATERMASTER BOARD:				
22	ORANGE COUNTY WATER DISTRICT:	GREG WOODSIDE			
23		CHARTEC D ETELT			
24	WESTERN MUNICIPAL WATER DISTRICT:	CHARLES D. FIELD			
25	TODD ENGINEERS:	PHYLLIS STANIN,, PG, CH, CEG			

1	ALSO	PRE	ESENT:			
2	~ ~ m + x	0.5	GII T NI O		TOGE	E ALIRE and DAVID CROSLEY
3						
4						L GARIBAY and HENRY PEPPER
5					JIM	JESKE, BOWMAN, COUNCILMAN
6	CITY	OF	UPLANI):	ANTI	HONY LA, and ROSEMARY HOERNING
7	CITY	OF	CHINO	HILLS:	RON	CRAIG
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RANCHO CUCAMONGA, CALIFORNIA THURSDAY, NOVEMBER 29, 2007
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    DEPT. R8
                          HONORABLE J. MICHAEL GUNN, JUDGE
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             APPEARANCES: SET FORTH ON APPEARANCE PAGES.
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            (GAIL GREENLEE, C-8647, OFFICIAL REPORTER)
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           THE COURT: Okay. Let's go on the record in the
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    case of Chino Basin Municipal Water District vs. City of
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    Chino, RCV 51010. I guess we will start with Mr. Slater
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    and we'll bob and weave our way back, I guess
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                MR. SLATER: Good afternoon, Your Honor.
13
    Scott Slater on behalf of the Chino Basin Watermaster.
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                 MR. FIFE: Michael Fife; Chino Basin
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    Watermaster.
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                 THE COURT: I take everyone.
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                 MR. ERICKSON: Jim Erickson, City of Chino.
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                MR. McCARTHY: Tom McCarthy, Wildermuth
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    Environmental Group representing Chino Basin
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21
    Watermaster.
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                 THE COURT: Okay.
                 MR. HILL: Boyd Hill, Monte Vista Water
23
    District.
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                MR. HENSLEY: Mark Hensley, City of Chino
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Hills.
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                MR. SMITH: Good afternoon, Your Honor.
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    Alfred Smith, City of Ontario.
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                MR. WILDERMUTH: Mark Wildermuth, consultant
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    to Watermaster.
                THE COURT: Okay.
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                MR. SCHATZ: John Schatz on behalf of
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    Western Municipal Water District.
8
                MR. MANNING: Ken Manning, CEO, Chino Basin
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    Watermaster.
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                MR. ORR: Steven Orr, City of Upland.
11
                MR. KENNEDY: Steve Kennedy, Three Valleys
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13
    Municipal Water District.
                MR. McPETERS: Good Afternoon, Your Honor.
14
    Tom McPeters, Fontana Union Water Company and
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16
    San Antonio Community Water Company.
                THE COURT: Standing by your word that over
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    water, they will fight; right?
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                MR. McPETERS: We are here today to do same.
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                MR. MOOREES: Charles Moorees, San Antonio
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    Water Company.
                MS. WILLIS: Good afternoon, Your Honor.
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    Jill Willis on behalf of Cucamonga Valley Water
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    District.
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                MR. ZVIRBULIS: Marty Zvirbulus, Cucamonga
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Valley Water District.
1
                MR. DeLOACH: Robert DeLoach, Cucamonga
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    Valley Water District.
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                MS. TIEGS: Kathy Tiegs, Cucamonga Valley
 4
    Water District.
 5
                MR. CURLEY: William Curley, City of Upland
6
7
    and West End Water Company.
8
                MR. LA: Anthony La, City of Upland.
                MR. JESKE: Ken Jeske, City of Ontario.
9
                MR. LEE: Steven Lee of Reid & Hellyer on
10
    behalf of the Agricultural Pool.
11
                MS. ULLOA: Good afternoon, Your Honor.
12
    Eunice Ulloa with Chino Basin Water Conservation
13
    District.
14
                MR. VANDEN HEUVEL: Geoffrey Vanden Heuvel,
1.5
    Watermaster board member representing the Ag pool, and
    board member of the Chino Basin Water Water Conservation
17
18
    District.
19
                MR. BRUNICK: Bill Brunick, Chino Basin
20
    Water Conservation.
                MS. PARKER: Kati Parker from Chino Basin
21
    Water Conservation District.
                MR. HOFER: Good afternoon, Your Honor.
23
    Paul Hofer, Watermaster, Board of Agriculture and the
24
25
    Chino Basin Water Conservation District Pool.
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MS. ROSE: Sandra Rose, Monte Vista Water
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    District and Watermaster board member.
                MR. WOODSIDE: Greq Woodside, Orange County
3
    Water District.
 4
                MR. LEEVER: Good afternoon, Your Honor.
 5
    Bill Leever, Wildermuth Environmental.
 6
                MR. GARIBAY: Good afternoon, Your Honor.
 7
    Raul Garibay, City of Pomona.
 8
                MR. PEPPER: Henry Pepper, City of Pomona.
 9
                MS. STEINFELD: Amy Steinfeld, Chino Basin
10
11
    Watermaster.
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                MS. HOERNING: Rosemary Hoerning, City of
13
    Upland.
                MR. LeCLAIRE: Good afternoon.
14
    Joe LeClaire, Wildermuth Environmental.
15
                MS. ROJO: Sheri Rojo, Chino Basin
16
    Watermaster.
17
                MR. CROSLEY: Good Afternoon, Your Honor.
18
19
    David Crosley, City of Chino.
                MR. CRAIG: Ron Craig, City of Chino Hills.
20
                THE COURT: Okay. If Wildermuth
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    Environmental were a large firm, they would be the
    largest law firm in attendance; huh?
23
                MR. CIHIGOYENETCHE: I came in late.
24
                                                       Jean
    Cihiqoyenetche on behalf of Inland Empire Utilities
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Agency.

THE COURT: Okay.

MS. SCHURR: Judith Schurr, research attorney for special referee.

MS. SCHNEIDER: Good afternoon, Your Honor.
Anne Schneider, special referee.

MR. SCALMANINI: Good afternoon, Your Honor. Joe Scalmanini with Luhdorff and Scalmanini, Consulting Engineering.

THE COURT: Okay. The way I understand it, with the latest joinders, that everybody is in agreement that the motion should be granted. So I think we can dispense with that aspect of any presentation that you were prepared to make. And in other words, you can start right in with Wildermuth or whoever you wish to do, Mr. Slater.

MR. SLATER: Your Honor, thank you. If I might, we carefully read your order to show cause. And the primary purpose of today's hearing was to address the issue as to whether this motion should be continued into the spring of 2008 or we should appear today prepared to handle Mr. Wildermuth to respond to questions that you had.

In addition, Your Honor anticipated the fact that the special referee would be filing a or may be

filing a report, and that that report might contain things that either engender greater confidence in the Peace II Measures or raise questions and concerns.

So to fully respond to the order to show cause and to provide a proper context, we'd like to prepare or offer some argument this morning followed by testimony by Mr. Manning and then by Mr. Wildermuth.

THE COURT: Okay.

MR. SLATER: To begin with, Your Honor, in preparing for this hearing today and having the opportunity to read Ms. Schneider's reports and recommendations, we prepared a lengthy response, point-by-point rebuttal, if you will, and thought about that as a potential use of our time today. But driving in to the hearing today, I'm struck by a couple ironies.

Maybe about thirty-five years ago, I happened to be digging a ditch over off of Archibald Road. You see, my father was a plumber, and so I had my first introduction to water law as being his ditch digger on side jobs. This was designed to encourage me to go further with my life and career rather than ending up as a ditch digger. So I was struck by the irony of driving by the apartment complex that I happened to have a little part of history with.

About twenty-five years ago, I had another

opportunity, a lot more interesting and entertaining. I had the privilege of serving as Anne Schneider's law clerk while Anne was a lawyer with another firm, but I was in law school. And I was privileged with the opportunity to serve, and found her to be a generous and kind professional. And it was a great experience. But that was 1983. And I had a lot more hair then. And as Your Honor knows, it's not 1983 and it's not 1994. It's not even 1999.

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And I raise that because things have changed, Your Honor. Things have changed remarkably as a result of Your Honor's leadership, and the wisdom in installing the nine-member board. I note an anecdotal story for you.

When Hatch & Parent was hired initially as the general counsel for Watermaster, we were called upon to prepare what was rather an innocuous document, I thought. It was a mere status report. And so, having interviewed then the chief of Watermaster services, Tracy Stewart -- you may remember her -- we quickly penned out a status report and filed it with the Court, only to find that within ten minutes, there were threats to fire us because we had improperly, unbeknownst to us, stated a theory and cause of action in a way that seemed to cut against some of the interests in the basin.

Maybe we were insane, but at that time, Anne Schneider had proposed to the group that they ought to read a book called Getting to Yes. And the parties took that to heart, along with Your Honor's admonition about getting men to the moon. And they took to heart and actually began to believe that agreements, living by agreements, and caring for their activity by agreement was the best way to go about doing things rather than fighting them out in front of Your Honor. Not that they don't enjoy Your Honor and your leadership. But the theory of water people is is that they would like to be able to balance and weigh the risks before engaging in significant undertakings which have dramatic impact for the rate payers and their constituents over the long term.

And so consistent with that philosophy, since 2000, we have not had, not one, not a single contested motion before Your Honor. Not one. And we have had pleadings filed from time to time. But Your Honor has always been very careful to admonish us to get busy and solve the problems. And we have done that in every single instance in which there has been a decision that was required to be made since 2000.

So, we find ourselves since 2000, having made hundreds of millions of dollars of investments in furtherance of the interests of the Inland Empire, the

Chino Basin, and the State of California. We have hundreds of millions of dollars in commitments, in construction of desalters, and purchasing the water made available, in recharge facilities, in recycled water. All of these things have happened in an environment of peace where parties are not bringing their disputes to Your Honor to have them aired. And the process that has been created, the public interest oversight by the nine-member board and the Watermaster process, has allowed these projects to move forward without interference internally or externally. Your Honor doesn't see lawyers from Orange County or the Metropolitan Water District or the State Attorney General's office down here complaining of how we're going about our business.

I lay that foundation as a backdrop for the Peace II Measures. I'd like to talk a little bit about the present context under which we bring you these Peace II Measures. Your Honor will recall that in the original Peace Agreement, the parties were pushed, cajoled, encouraged to embrace desalting. And there were significant questions about how to pay for it, the capital investments, who would buy the water, how would it be distributed. And there were some vagaries left in the 2000 Agreement that needed to be responded to by the

parties.

But Your Honor approved the 2000 Agreement and away we went, coming back with further additional implementing agreements presented to the Court and clearing out contingencies as we went along our way. But there was a reserved question that Your Honor put to the parties. And that was we're fine with 20,000 acre feet of desalting today recognizing your carrying capacity as a community, and given the substantial expense. But we want to leave open the question of future desalting. And so the Court ordered that Watermaster would report back on a time certain about progress related to this subject of future desalting.

Being prudent, being thoughtful and knowing how difficult things are, in an effort to build a consensus, Watermaster initiated discussions regarding what we are doing now back in 2004. It's now almost 2008. A lot of things happen between 2004 and the present time. The parties began discussing what might be required, and there were technical questions. So after convening about six months of negotiations, the parties quit. Not permanently. They just said what's the point. We need more technical data.

So, Mr. Wildermuth who works for Watermaster was assigned the task of beginning to investigate ways

in which we might go about desalting more water and what corresponding adjustments would need to be made with regard to our Basin management strategies. That began in 2005.

Ultimately, Mr. Wildermuth produced a report, series of technical analysis. And the Watermaster parties proceeded to negotiate, and then release a draft term sheet, not the ultimate nonbinding one that we agreed to, but a draft term sheet that was designed to gain public input. We ran through a lengthy process, held public workshops.

And one of the key features of that original version was the thought that there might be effectively unbounded overdraft for a period of years while we pursued hydraulic control. That was one of the initial elements in the discussion that was had among the parties about whether to go forward or not.

But it was by intervention of some of our board members and the public who thought about not what was just an engineering nicety or something that might be feasible and interesting to do, or might have great economic benefit. There was a public policy daylighting deliberation. And that initial term sheet was dramatically changed. And one of the key changes in that original nonbinding term sheet was to insist,

insist and require without equivocation that no more than 400,000 acre feet of controlled overdraft would be allowed. So that nonbinding term sheet was ultimately changed, again redistributed among the parties. And on May 23 of 2006, it was agreed to as a good working document.

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Still, there were concerns that the number 400,000 was a big number, novel concept. And we had a series of runs, model runs and analysis that had been undertaken by Mark Wildermuth. But yet the feeling was there needed to be some outside peer review. So the Watermaster process voluntarily suggested that Joe Scalmanini perform a peer review of the 2006 iteration. As a precondition to doing what? As a precondition to us getting back to the bargaining table and then converting that into a contract. Because all we have is a nonbinding term sheet. And the parties wanted to understand what the technical relationship was and they wanted to know whether the earlier, then earlier or now earlier iteration of the model was effective. Was it a good tool to use for planning purposes? So, through a process of exchange and give and take, nine months effectively was used in peer reviewing the earlier iteration of the Wildermuth model.

In March of 2007, Watermaster received a

communication which said, which offered many good suggestions about how to improve further iterations, further work, but largely said and quoted in our motion, that for planning purposes, the model worked.

runs, the outside peer review, Watermaster then had some other boxes to check before it was ever interested in approving a legal set of binding agreements. It retained the services of Dr. David Sunding to take a look at macro socioeconomic impacts and then ultimately further refined that down into micro socioeconomic impacts. Those things were all required by the Board, by the parties before they would agree to a binding set of agreements. Watermaster didn't stand still.

Otherwise we'd be here now with no agreements having waited for the completion of these other studies. So we parallel path. We worked on agreements and did what prudent lawyers would want.

And that -- and I can assure you, the ideas that are represented in this Agreement are not my own. They are the concept, the ideas, the words come from the people in this room. We are the mere scriveners for these concepts, but these concepts were believed to allow the enterprise, the analogy of launching the man to the moon to occur. The broad suite of agreements,

the broad set of assurances -- actually beyond the people in this room. We have discussed with bond counsel about the bond ability of the language that we included in the contracts. These words were heavily negotiated, and they are now agreeable to all of the parties to this process.

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So we moved forward, articulated some rules, agreements which were predominantly used for what? For risk-sharing, for risk allocation. Because Mark Wildermuth is a fabulous engineer, but Mark Wildermuth does not take orders from Scott Slater or any other lawyer, as near as I can tell, but certainly not me. It was his duty to perform an evaluation of what hydraulic control would look like; and then secondly, in the context of the term sheet, A, whether 400,000 acre feet would indeed be required to answer the public policy questions expressed by our board. Do we really need 400, the board said. Do we really need 400 to secure hydraulic control? And secondly, point two, would there be material physical harm in pursuing this option?

So, while Wildermuth was out investigating those questions, the lawyers and the principals drafted a set of agreements which would accommodate whatever result was spit out in the form of risk allocation, both

on costs and duties. If the report -- it is my understanding, and I hope Your Honor will take it on faith, that if the report had come back and said 300,000 acre feet is the absolute number for hydraulic control, we would have had to go back to the drawing board and redraft provisions of the agreement. We would have had to have done that for the reason that from a public policy standpoint, the stakeholders were not willing to support dewatering at a significant level above what would be required to ensure hydraulic control. wanted to know that the water they were using, because of a generational concern, they wanted to be sure that the water they were using was necessary. There was less concern that we would need more. We didn't want to spend any unless we wanted -- unless we could be reasonably sure we needed to spend it.

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And so within that context, Mr. Wildermuth began presenting early returns and largely assuring the stakeholders that indeed 400 would be required, and that there would be no material physical harm. We concluded the documents and waited for the outcome. We received final report, draft, and then a final report which have, unfortunately although well-done, created some confusion related to some of the mechanics. And I am going to come back to that in detail. But before I do that, I

thought that I would spend a minute or two talking about the structure of the agreements.

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Your Honor, we have never really had a chance to go through why we organized the documents in the way we did, and the interrelationship between the parties and Watermaster and the Court. It is our approach here, in the same way that we chose in 2000 to approach the Court with a resolution which operates much in the same way as an escrow agreement. Because of our rigorous adherence to the notion of consensus and where we can get, like today, unanimity, we want that. Ιf the concern has always been no issue left behind. the parties believe that the issue is material to launching the enterprise, we have to solve that. If the parties believe that it's a trailing issue that can be resolved downstream, we approach it that way.

So, in the context of what we did, the parties sat down and drafted what they thought all the material pieces were to allow the enterprise to be launched, and name them in the resolution, and said we need to check this box, this box, this box, and so on. So that was the operative document that was essentially thought of early on. And then we had to wait for the various pieces to come in. And so the pieces include an amendment to the original Peace Agreement. So there

were provisions. There were issues that were part of the launching exercise that the parties want addressed in the original Peace Agreement. So we had to amend And then there were new sets of issues that that. needed to be addressed in the context of the expanded desalting capacity. How did we distribute benefits and and burdens from pursuing hydraulic control? needed to be addressed with finality in a new agreement, new subject matter. We didn't want to go back and redo the whole Peace Agreement. We just trimmed it a bit, tuned it up. And then we started with a new Agreement which has a series of robust commitments among the parties to allow the enterprise to move forward. we supplemented the original OBMP implementation plan. We came up with a project description for the purposes of answering our board's concern about whether 400 was enough, and whether there would be material physical harm. So we generally described the actions.

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So we have the Resolution, the two

Agreements, the Project Description, and the change to
the supplement -- or the Supplement which is a change to
the OBMP. So all of those documents came forward
together. And when once completed, they became part of
the Resolution, and ultimately led to the transmittal to
the Court. All of these documents have been vetted

through public. We, as Your Honor points, out there's no opposition. We have three municipal water districts with popularly-elected boards, several cities, special districts. The Ag pool, the non-Ag pool and various other parties who filed joinders and are in the process now of trying to obtain the approval to execute the documents subject to the Court's approval and whatever conditions that the Court may recommend.

So, we are here in somewhat of a unique position in the sense that we have obtained unanimity, and are somewhat responding in a sort of an adversarial process to the extent that we have to address the issues and the referee's report. And I'm not trying to suggest the referee is a party. It's kind of odd to be arguing for something when there's no opposition. I can go to a couple of specific issues. We would like to, I might add, take up the referee with Your Honor's indulgence, the opportunity to provide a full written response to the report.

THE COURT: Before we go on, there's a bunch of people came in late. Well, they came in after you began talking. Let's put it that way. So, they want to give us their names.

MR. MALONE: Andy Malone with Wildermuth Environmental.

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MR. BOWMAN: Jim Bowman, City of Ontario,
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    councilman, member of the Chino Basin Water Board.
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                 MR. LOVE: Tom Love with Inland Empire
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    Utilities Agency.
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                 MR. FIELD: Charlie Field, retired judge.
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    am on the Board of Western Municipal Water District.
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                 MR. ROSSI: John Rossi, general manager of
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    Western Municipal Water District.
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                 MR. HANSEN: Rick Hansen, Three Valleys.
                 MS. NOVAK: Jennifer Novak, Deputy Attorney
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    General representing the State of California.
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                 MR. ALIRE: Jose Alire.
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                 MR. GUTIERREZ: Jim Guiterrez, City attorney,
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    City of Chino.
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                 MR. BUNN: Thomas Bunn, attorney on behalf of
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    the City of Pomona.
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                 MS. HEDLUND: Stefanie Hedlund, attorney,
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    Cucamonga Valley Water District.
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                 THE COURT: We may need some cards from
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    people to make sure that the court reporter has your
    correct spelling too. At the conclusion of the day's
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    proceedings, you might want to drop a card off with the
    court attendant.
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                 It's kind of interesting, Mr. Slater, when
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    you started off, you stated that you were working for
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your dad doing plumbing, and you dug a hole, and you were contemplating as you were driving out here. I was thinking the next thing he was going to tell me is what kind of hole have I have dug myself into now.

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MR. SLATER: I hope I am getting out, Your Honor.

THE COURT: You definitely have that opportunity. On adversaries, it's not a question whether you do have an adversary, that you have the California Constitution. You have the Judgment, the plenary power of the Court over judgments. And so as a background, I'm not necessarily in a position adverse to that of your own. I want to make sure that we put up the Constitution. We pull the Judgment up and see if this will withstand the test of time too. I noticed that, and speaking of that, I noticed that there have been surprises. So, one of the things that I am going to want you to address is if we extrapolate the demand and the supply looks like the safe yield is going to go down to between 120, 127,000 acre feet, and yet the demand continues to go up. And you mentioned that it was important to the parties involved that you would never go beyond the 400,000 acre feet and you would only use that which you required. Yet, I didn't see any limitation on the amount of time that the overdraft

situation would continue. I didn't see that in the paperwork. So you might want to address that. And one of the things that I've been thinking about is -- you weren't here. I think it might have been Mr. Lemieux at that time. But early on, I think Mr. Cihigoyenetche may remember. There was a footnote 1 or 2, that comment had been made that we want to prevent a Tragedy of the Commons situation.

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Do you remember that, Mr. Cihigoyenetche? I put Footnote 1 or 2 in there. And when everybody starts getting in agreement, then my antenna goes up. But there's -- let me give you a couple of things as you go. Because you're going to go into, and I have anticipated which way you'll go. You can see how dog-eared Ms. Schneider's report here is. And I think that is a good procedure to go, as a backdrop, to go through the special referee's preliminary report. emphasize "preliminary report". But with the thought that the fundamental question that we have here today is not as much consensus which I -- Mr. Cihigoyenetche will remember; Mr. Guiterrez was here early on; a lot of you were here early on -- I encouraged you to build consensus in this matter. I thought that was the only way to settle this. And I applaud your efforts. And I actually remember that first hearing when you were here.

I had researched your background, as you'll recall. I pulled out your bio when I think it was Mr. Markman or somebody questioned you coming into to the case.

MR. SLATER: Uh-huh.

THE COURT: And my comment was looks pretty good to me. You've done an excellent job. Doesn't mean that you're capable of perfection every time or not that you aren't this time. I just want to make sure that what we do now, when people look back at it 80 years from now and say they did what they were supposed to do and they looked out in the best interest of the public. So that's the fundamental question. Is it in the public's best interest that we approve your motion or do we tweak it?

And you're right. When we did a lot of the preliminary things to today, the Optimum Basin Management Program, for example, I did: I said let's go forth. And so we are in a situation where a lot of money and a lot of effort has been expended. So I definitely don't want to say go back to square one and start all over again. That's not my thought. I'm not going to submarine things. But then again, I'm not going to blithely go forth if I have certain concerns.

And one of the biggest concerns that I have to begin with is in my own mind, I actually, I showed

this to Mr. Scalmanini -- is draw like you had your economist Mr. Sunding and I had a demand line going up one way and a supply line going the other, and then intersected. How many years out there? I don't know. Twenty, thirty. I don't know. But at some point, if the demand keeps going up and the safe yield is going to decrease, then we might have a problem. I'm concerned about that. I will be interested.

MR. SLATER: I'm prepared to address that, Your Honor.

THE COURT: Okay. Also you have a situation, if we historically go back to 1978 -- and I wasn't here in 1978.

MR. SLATER: I was around the corner, Your Honor. I had the shovel.

THE COURT: That's when you were in the trench anticipating today. But we had a certain safe yield and we had a judgment. Howard Weiner, then later Justice Weiner, signing off on that agreement. You had a certain safe yield. And all of a sudden, it was quite frankly, it was a surprise to me that the safe yield is going down rather than up. As we all know, the population in this area has exploded since 1978. So again, you can address that.

I already mentioned where I think incumbent

in this process is some assurance that once hydraulic control is obtained, that the mining in the Basin beyond that would stop.

Let me go back to some of the other concerns
I had. Did you really model? You started off your
argument that you applied the model that Mr. Scalmanini
as amended as a result of -- Well, Mr. Wildermuth as
amended by Mr. Scalmanini's comment, they come up with a
model, and you applied that. Did you really apply that
new model to what you intend to do now? And it seems -I haven't had a whole lot of time to read the special
referee's report either.

MR. SLATER: Right.

THE COURT: But it seems that may not have been the case. And there's some suggestion that the 262,815 acre feet is only really 72,000 acre feet. So I don't know about that. I want some further explanation there.

And you have a Judgment Amendment. And so it's not just a simple question of if the advisory committee is in agreement and the Watermaster is in agreement, then what's the problem, Judge. If this involves amending a Judgment, then the Court always has plenary power over Judgments, as I started out and also the Constitution, as I mentioned before.

The concern is that this will all be done by the end of the year. And let me attempt to allay your fears on that. I'm willing to extend any deadlines should we not arrive at complete satisfaction as to enough information to either grant or deny the motion. But I am wondering is there any other reason other than the deadline that's added such an air of urgency to the current motion?

MR. SLATER: Your Honor, you've listed I think five items. And I think we can respond to a couple in argument and a couple through testimony, but including the last one.

THE COURT: There's a number of different pages that caught my attention, you can see them dog-eared here as I am reading through.

MR. SLATER: You should see mine, Your Honor.

THE COURT: Okay. So maybe as a backdrop, that might be a good place to start, is go through the report. And that way everybody can be, not page and line, but at least have some outline of what's going to happen.

MR. SLATER: Your Honor, if I might, I think that I would like to approach two related issues that will respond to our, two of the five on your list. Take

those as examples, and then suggest that there are a lot of people out here who probably had 24, 48 hours maybe to review the referee's recommendations. But that we be given seven days. And I know I am taking this out of order. But if we were allowed seven days, I think we could capably respond in writing to the referee's report with whatever supplemental declarations or authentication that the Court might require. And our hope was for the reasons that you'll hear, that we can get a soon or an expedited approval, and we can begin subject to a leash, a leash and a collar, or a couple of leashes if you will. And we believe we have introduced those mechanisms into the documents as was one of the things I want to do is show you where they are and how you can pull us back if we're not making progress.

And to the extent that the Court wants and desires information, I think I am going to show you where it's coming to you already. And if you want more, the place where you can ask for more.

THE COURT: One of your greatest allies,

Mr. Scalmanini, whether you believe it or not, he has

great respect for Mr. Wildermuth. And I'm going to lose

him for a period of time here in another week. So,

that's a concern for me. Because I do rely on

Mr. Scalmanini's expertise, that --

MR. SLATER: Understood, Your Honor. I think I would say that that could support the theory of the leash. And that is that to the extent that there were further deliverables, that we would have approvals and be required to come back and show the Court to its satisfaction that we had provided, whether supplemental information the Court would like to see rather than wait for the approvals.

THE COURT: Well, let's proceed and let's see where we get.

MR. SLATER: Okay.

THE COURT: We've got a lot to cover. And so, I can tell you right now too that tomorrow I'm unavailable if we don't finish today. I'm going to have a 64-slice CT scan tomorrow so, of my heart. So I will be preoccupied tomorrow. So, let's see what we can get done today.

MR. SLATER: Okay. Your Honor, I'm sorry to hear that. I wish you the best.

THE COURT: Thank you.

MR. SLATER: Prayers will be with you.

I think what I'd like to do is to summarize, and I will call the Court and the parties' attention to Page 12 of the Technical Report where the special referee notes that: The Proposed Amendment to the

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Judgment Exhibit I is not supported by the Technical
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    Report.
                             I had that on Page 11 of mine.
                THE COURT:
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    I had it earmarked.
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                              It was Page 11.
                MR. SLATER:
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                THE COURT: I found it very easily. Yeah, I
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    printed mine out on the computer, so maybe it's
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    different than the formal one that was filed.
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                MR. SLATER: So, the Court's obviously read
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                               The proposed amendment to the
         The language reads:
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    Judgment Exhibit I is not supported by the Technical
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    Report. The Technical Report states that 198 to 212
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    acre feet more than the additional 400,000 acre feet
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    will be the actual cumulative overdraft by 2030.
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                THE COURT: Your pagination is different
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                I've got the official one, Page 11, and the
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    than ours.
    one you printed out, Page 11 also.
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                MR. SLATER:
                              Okay. You were correct.
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    Arabic 3, Line 8 on Page 11 which is the beginning of
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    the section.
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                THE COURT:
                             Okay.
                              Well with my glasses, I can
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                MR. SLATER:
    probably do that.
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                THE COURT: Okay.
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                MR. SLATER: Okay. I want to start with what
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is the project description. And the project description is actually an attachment. It's clear it was attachment A to our motion. And I want to call the Court's attention to the second sentence in the ultimate paragraph which reads: The two items of interest to this project description are: The expansion of the desalter program and basin Re-operation. So, that is what we were up to.

Next page, 4.

You need to know what Re-operation means; right? So, it is defined in the agreement itself which is slightly more polished than what was in the project description. And there's the basically the first reference to the limitation of what the quantity was. So Re-operation means the increase in controlled overdraft as defined in the Judgment from 200,000 acre feet to 600,000 acre feet. So basically we are talking about a new net, 400. And that definition, although again was polished and is contained throughout the agreement. So that's a pretty consistent definition of what the parties intended. Nowhere in any documentation whatsoever is there any suggestion that we can go 1 acre foot above 400. It's an absolute foundation.

If you'll also look down a little bit to the next paragraph down which says: The proposed project

has two main features, the expansion of the desalter program such as the ground water pumping for the desalters will reach about 40,000 acre feet, and that pumping will occur in amounts and at locations that contribute to the achievement of hydraulic control and the strategic reduction of ground water storage, Re-operation. That, there's that term again, that along with the expanded desalter program significantly achieves hydraulic control.

So that's what the program is, Your Honor, or the project. That's what Mr. Wildermuth was asked to look at. Right. The issue arises because the proposed Exhibit I, Attachment J, Exhibit I. Again this is the Proposed Judgment Amendment which places limitations on what might be done with regard to the Re-operation.

There are, there are conditions and requirements that relate to hydraulic controls, the quantity is defined on the earlier page. It describes where it's going to happen, the apportionment, that it's going to be dedicated to the desalters. And in no where in this document is there any suggestion that any party can take more than 400.

So, the question arises, well, how did Wildermuth get to a number greater than 400 when running his analysis. And what may not have been apparent to

the referee is that the initial schedule that Wildermuth used was not controlled by the -- sorry. It was not required by the Judgment Amendment. The initial schedule was a concept that actually comes initially from the Peace Agreement itself.

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And if you can go to, Michael, 7.2.

And while Michael is finding that, I am going to explain to Your Honor a little bit about the initial schedule and the Board's rationale and the public policy rationale in doing what we did. Remember, we were negotiating these agreements and trying to put these agreements in place with the expectation that there needs to be further things happening down road. We are not going to have all of the pieces together when we come to Your Honor. And if we did, we'd never get done. There are certain things that the parties want to do in order to launch the transaction, and certain things they want to accomplish down stream.

Well, the Board's interest remember was we didn't want to spend more than 400,000 acre feet to achieve hydraulic control if we didn't have to. We didn't want to spend anymore effectively than was required. So there was a -- they didn't want to spend any more of the 400 than was absolutely necessary. So they put handcuffs on the overall cap, but then

recognized that we had this massive little undertaking called the Western, or the Desalter Three. And there was a public policy decision that was made by the Board that the capital costs associated with the project were going to be significant. The ranges have been estimated depending on configuration, location anywhere between 400 or 40- and \$100 million. It's a lot of money. And there was a public policy intervention, if you will, to say that the wells for those facilities had to be located in a specific place in order to not only desalt the Basin, but help achieve hydraulic control. So the Board wanted to create a linkage to that 400,000 acre feet of controlled overdraft and make sure that it was spent for the proper purpose. So there was a linkage drawn on geography, related to where the wells were located to properly secure hydraulic control, and there were rules that were established that would allow a first priority, if you will, for that controlled overdraft to be dedicated to the party who was strong enough to step up and assume the capital burden and responsibility for constructing the desalters. And that party thus far is the Western Municipal Water District who's prepared to go. They have already secured state funding, \$5 million as referenced in John Rossi, their general manager's declaration. There's a matching

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obligation on that. But it's got to be spent this year. So, they are prepared to go. But the Board says there's a lot of variability still left in the negotiations. We want to hold your feet to the fire to make sure you locate the wells in the proper location so that we achieve our objectives. So that 400, how it's used is subject to a further negotiation, subject to a further negotiation as the details of that project become known. Negotiation between who? The other members of the appropriative pool who by the way have some responsibility. I know there's a bunch of people going to jump over the railing here and strangle me because I am not going to go to whose obligation it is. I am just going to say that there is an obligation for replenishment associated with those desalters that is maybe contestable before the Peace Two arrangements. And this Agreement resolves that. But the parties recognized that there would need to be a negotiation over the use of that 400. And the agreement calls for the preparation today so the Court could see what was called an initial schedule, and that it would be filed with the Resolution.

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And indeed we did that. Now I goofed. Tell you right now, I didn't catch in the final transmittal to the Court that we had an earlier iteration of the

initial schedule. So the Court got two. The rapid depletion is the appropriate schedule. The other can be discarded. It has no relevance. And I was instructed to file the proper document. And I just missed it. In the 6,000 pages you got, I missed one, so I apologize to the Court.

Mr. Wildermuth had to work from for purposes of trying to model impacts. Because he cannot make an assumption about how that negotiation is going to conclude. So he took what was considered to be the rapid depletion which reserved to Western, assuming -- or Western and Ontario and Jurupa. I am sorry. To the extent that they get to an agreement, it would be Western, Ontario and Jurupa as opposed to just Western. It would reserve to them this priority right to the controlled overdraft. So Wildermuth took the rapid depletion schedule which was the best guess we have today on what that apportionment might look like. But the parties have a year to resolve that. They have a year to sit down and figure out how to spend that water.

And if you can look down at E, this is in the Peace II Agreement: We were told to file the initial schedule. So what Mr. Wildermuth did is basically use the initial schedule and assumed it. And

then ran runs off the initial schedule and the other schedule which I inappropriately sent along to the Court.

But you'll also note Paragraph E which was an incorrect statement in the referee's report that there is no agreement as to how to handle the schedule other than the initial schedule. That's not true. There is. Paragraph E provides Watermaster with the discretion to, having heard the arguments from the negotiating parties, to balance their arguments, and then ultimately make a recommendation.

But then guess what they have to do? Look at E 2: The E 2 requires us to come back and ask the Court for every revision to the schedule. And guess what else we have to do? We have to support it by a technical report which demonstrates our continued need to access, and subject to the limitations in Exhibit I, which means every time we wish to file a change to the schedule -- and the Court will get one in '08 -- we have to come in with a technical justification for the change in the schedule.

Now the assumption that is made by those who read the Wildermuth report is that somehow the initial schedule converted the project into something else. It couldn't. There is a Judgment Amendment which says no

more than 400. The Peace Agreement itself says no more than 400. The supplement to the OBMP implementation plan says no more than 400. And the initial schedule cannot violate that provision.

So when the agreements were executed, no one had any idea that the initial schedule would bump up to the cap. But now that it has, under the runs, the initial schedule obviously cannot be followed. But we met our requirements to the Court and to the parties to present an initial schedule. But it is an iterative document which may be changed and modified as better information is made available.

I think I said this so many times over the last couple of weeks. But I find it to be so true. Trend is not destiny, Your Honor. The model is a predictive tool. It predicts what the world will look like based upon assumptions if nothing changes. It is a planning tool. It is not reality. It may become a reality. But Watermaster wishes to make decisions in advance using the best planning tools that it can, as that course correct based upon real factual data.

THE COURT: Let me interrupt.

MR. SLATER: Yeah.

THE COURT: When you're doing all this planning, are you thinking in terms of recharge also?

MR. SLATER: Yes.

THE COURT: Because it seems to me that it might be a little bit light on recharge planning. So, what do you have to say about that?

MR. SLATER: It's my next item.

THE COURT: Okay.

MR. SLATER: Okay. I would say I'll just move to it. I have more on that, Your Honor. But I'll hit it in the brief.

THE COURT: Okay.

MR. SLATER: In light of the hour.

with regard to the issue of recharge, well maybe I'll hit this. I do need to hit this before I move to the special referee's report suggesting that new yield has been significantly understated and there was, there's a shortfall, and what do we do about it.

Well there is a shortfall. We measure what it is. We can't take more than the 400. And we better manage our affairs a little bit better in the future, try to modify what we do to increase the new yield. But it doesn't create a shortfall. There is no such thing. There's a zero sum. There's only 400. There is no more. So it is whatever we get out of new yield, we get. But if we don't achieve new yield, what's the next thing in line? Our bank account, our 400. So whatever

we don't achieve in the form of enough yield, it doesn't go missing. It's not a shortfall. These people suffer. If the new yield doesn't show up, they have to hit the bank account. Or if there's no water in the bank account, what do they have to do? Replenish.

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subsequent iterations do not ultimately match what shows up, the bank account is called, until there's nothing left in the bank; and at which point if there's nothing left in the bank, we either have to come back to Your Honor, or your son or daughter, and make the argument that we should be able to go further. But we have no basis or evidence to suggest that we are going to be required to do that. And more importantly, there is no public policy. Sorry. There is no will on the part of our stakeholders to do that. They want, with all due respect to the model, they want facts. They want real operation, and then we'll come back and look.

THE COURT: Well doesn't Mr. Wildermuth's model have to flatten out for that to be the case, and wouldn't it be better to plan now for recharge? That's, looks like it 's going to be be necessary in the future. Maybe it's 2029 or whenever. But it looks like it's out there, looming large. And land is cheaper now than it's going to be in the future, plus they are building

houses on all the vacant land -- well,

overexaggeration -- on much of the vacant land. And so

planning would be enhanced by preparing at the present

time as opposed to later reacting.

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MR. SLATER: You are so correct, Your Honor. And so let me see if I can explain how the parties have properly balanced that issue. I think from a structural standpoint, what the parties did was -- can we? have enough in the way of assurances to launch the transaction and can we handle, can we handle the issue of recharge as a downstream event? That's one of the leashes. And so the whole structure of the proposal is baby, this is a big elephant. And you don't eat the elephant all at once. And we've got enough here. point is we got enough and we are going to get, after we all take a big break and everybody relaxes for about three or four days, then the next thing that we have to pick up is the issue of recharge and how to get at the fundamental issues that Your Honor is raising in the contexts that have been raised in the Wildermuth report with regard to the yield itself and the independent apparent trend or decline projected in safe yield. by the way, which has some relationship to the program that the parties are presently seeking approval on. is the base case that is actually the worst with regard

to the future of recharge.

But, Your Honor raises a great point with regard to the commitments towards recharge. So, I think what I'd like to do is to start with the Peace Agreement, Article 8, Section 8.1.

Even before we get to the Peace II

Agreement, Your Honor, we did have an agreement in 2000.

And there is an implementation plan. And there's an expectation that Watermaster would update its recharge master plan every five years. 2010 is not that far away. Really isn't, when you consider how long, right, Your Honor gave us? We started in 2004. That's why 2010 is really right upon us.

But if that weren't enough, what we tried to do with regard to a commitment is to further buttress our mandatory duty. It's not a may. This is a mandate. Right.

Section 8.1 says update to the Re-charge

Master Plan. Watermaster will, will update and obtain

court approval. We will update and obtain court

approval of its Recharge Master Plan to address how the

Basin will be contemporaneously managed to secure and

maintain hydraulic control and subsequently operate at a

new equilibrium at the conclusion of period of

Re-operation.

THE COURT: Let me stop you right there.

MR. SLATER: Yes.

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THE COURT: If you were drafting a contract and we were going to be holding the other side accountable and you wanted some teeth into the contract, would you use that same phraseology?

MR. SLATER: Perhaps I'm missing the question, Your Honor. It's a mandatory obligation.

THE COURT: It's a trust me, what I call a trust me phrase. Trust me. I am going to do right by this. But as far as --

MR. SLATER: Well, Your Honor, I mean there is, obviously there is a question of judgment. But we have to do something if there is a mandatory duty. And I did see a comment about what new equilibrium meant. I looked it up in the dictionary. I heard what Wildermuth thought it meant. And Webster's Dictionary says state of balance. And I tried to check the Todd Textbook. Has been probably since '80 since I read it in college. But I think the theory there of new equilibrium is the common meaning, the plain meaning and clear meaning, and meaning state of balance. So if we are moving from a scenario of overdraft, we are returning to a scenario of safe yield or state of balance.

THE COURT: Or redefining what safe yield

and what is the permissible overdraft allowed under the Judgment.

MR. SLATER: Well, there is no permissible overdraft if we take the 400, Your Honor.

THE COURT: But you're going to seek Court approval and update things, what's to prevent you from later on saying oh, by the way, we need to go back and redefine what safe yield is. We need to redefine what overdraft is. The Court had given us 400,000 additional acre feet. Add that to the 200,000 acre feet we had before, turns out the 600,000 acre feet. By the way, we need 792,00 acre feet. What's to prevent --

MR. SLATER: Two things, Your Honor. First of all, you; and secondly, Judgment Amendment; and three, the Agreement from all the parties who have agreed to this language.

So if we can, under the hypothetical that everybody in the Inland Empire comes to an agreement, wants to propose a technical basis for revisiting the issue, and comes to you for another Judgment Amendment, I assume that's not precluded. But I can assure you that the present direction of my client is no. That doesn't mean that there isn't a continuing obligation under the Judgment to revisit safe yield. Safe annual yield may need to be revisited. And if the trends

predicted in the Wildermuth Report become reality, there will be difficult issues.

Now that is probably the greatest incentive to cause people to go about their business and try to find a way to do things differently and enhance recharge. The parties have every incentive to try to find ways to stretch their water supply and make it more reliable. Indeed all of the investments they have made in desalting, in recycled water are at the almost leading edge of improvements. I know Your Honor will be hearing more about max benefit and the efforts to try to stretch resources further and put recycled water to use. Under the new regional board permits, you know that's an express effort to try to make substantial investments and stretch the resources further.

The second item here, Your Honor, was to anticipate that this would need to be a collaborative effort between IUA and Watermaster. Now remember, this is not a contract that Watermaster signs. We're going to take an order from you, hopefully, to tell us to proceed in accordance with this. Our pledge is to try to work with IUA, and iron out the details of recharge projections, water supply availability, and then move forward on a consensus basis to give the detail that you want.

Now again, we have a scheduled update in 2010. And there is detail required here. It says specifically, the plan will reflect an appropriate schedule for A, planning; B, design and physical improvements that may be required to provide reasonable assurance and so on. And if at any party at any time feels that we're sleeping at the switch, I'm sure we'll see you. And we will do our very best to make sure that we carry this forward.

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But what also is interesting here, Your

Honor, is as a byproduct of macro and micro

socioeconomic work that was undertaken by Dr. Sunding.

Many of the parties got together, said we want to

revisit some of the basic economic assumptions that were
going forward. And an outgrowth of that was how are we
going to pay for this activity; right?

THE COURT: Well, according to Sunding, it is \$902 million benefit to the area.

MR. SLATER: Which the people of the Inland Empire should be pretty thankful; right? So, but that benefit comes with a cost. And not the, not all the costs were contained in the Sunding analysis because Sunding was only looking at a piece, a fraction of the total cost that went into the big picture.

But the parties began talking about that.

And sections 8.1 A and B, reflect a cost allocation methodology for how this new recharge activity is to be paid for. Having addressed that issue, we put that in the books. And I for one having spent several years with this stakeholder group has found that money is important. Money matters. So, we addressed the money, and we feel good about that. Okay.

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The referee also reports, and there were other provisions related to recharge. But I think that's the meat, Your Honor. But at the same time, you know, there's this old Dr. Suess book that I read to my daughter. And I can't remember the name of it. But it's about the watcher is watching the watchers. And our group here has this interesting phenomena where we like belts, we like suspenders, and then we also include a parachute. Right. So we make sure that regardless of the condition, that we doubly and sometimes triply covered it.

And the question was okay, we are off to, on this recharge, and this recharge is important. And from a policy standpoint, there was a concern that we link --going back to the 400. And I am going to link this to the subject of the availability of recharge and a hammer, not just a leash, but a hammer that this Court has. So if we have that mandatory duty and somehow we

are not behaving properly, what's the hammer? Well, the hammer goes something like this:

We have this Judgment Amendment; right?

Michael, can you put up the Judgment Amendment again.

Okay. So I got to play with -- I will start with, I got to play with bond counsel a little bit.

Pull up Item 6, because we did this back in 2000, and now I had a refresher -- in 2000, or 2000, I got a refresher in the summer of this year. And the issue really is okay, from the policy of the stakeholders, remember we don't want to spend more water out of the 400 than we actually absolutely have to use. Hence the Wildermuth Report goes out. Let's investigate, find out whether we really need the 400. Right?

Well, the referee is focused on 2B6 with regard to the linkage between the subject of recharge and remedy. At one point, she asked whether the critical question is effectively what's the remedy to enforce the recharge obligation, which is the right question. But this is an incomplete, if we are focusing on 6, that's an incomplete response. And the reason is 6, was largely drafted for the benefit of the people over at Western who wanted this following assurance.

Okay. We're going to launch the enterprise. Yeah we

are going to have a negotiation over here about how we spend the 400,000. We're going to get that schedule, away we go.

But what happens if we get hydraulic control at 325 or 327, and guess what? I floated \$100 million in bonds. Are you going to stop? They said no way. Can't live with it. Right. So, through the compromise process, Section 6 is drafted to do two things: It provides assurance. It has the hard cap of 400. And it also says hey, if we get in before 400, no worry. We keep going so long as two conditions are met. So we get there at 325. Wildermuth comes in and says you know what, the model, the 17th iteration of the super duper --

THE COURT: It's going to be Wildermuth's son or daughter.

MR. SLATER: Son or daughter. It's going to be the daughter of Wildermuth is going to Notre Dame next year. Away we go. We have reached our objective. Western, you're cut off. No. So long as you're doing two things, we are in compliance with the recharge master plan, and two, so long as we have got a contingency plan in place to cover the future eventuality of a whoops, there will be no suspension. And that language, the bond counsel will live with.

Okay. That's what that, that's what that paragraph does. That is not the hammer.

Look up at Item 4. Now we, I am, as everybody here knows, it's a laughable matter. I am very-well managed in this process and we get a lot of input on language and how things should be articulated. And there was the view expressed that we ought not to clutter the Judgment Amendment up with a lot of detail that was more properly in rules and regulations. So the first concept was let's create a book, but don't put it in the Judgment Amendment. Make it, it's not context, not text but near next. It's a deliverable. It's something that is coming to you. Right? So like we did the last time, we did a Peace Agreement; right? And then we came back with rules and regulations.

Item 4 says we are going to develop rules and regulations. But this is not, that is not in the Judgment; right?

But this is not a "trust me", Your Honor.

Because you're going to find it also in two other

places. Okay.

Can we pull up 7, I think it's 7.2, the supplement to the OBP. Okay.

THE COURT: At 3:00, we will take a break.

MR. SLATER: Hopefully, I'll be done by

then. Start on Page 6, Your Honor, and then flops over to Page 7, hoping my pagination is correct. If Your Honor wants to know what would be the new rules and regulations, again these guys aren't going to let us just figure it out later. They are going to want some criteria what's going to be in those rules and regulations. So if you look at the last sentence on Page 6, it's going through hydraulic control -- sorry -- Re-operation. And then the last bit, it says however, however, the use of -- and then the next page. Okay. This is in the supplement. And this would be our guide for our rules and regulations:

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Water pump pursuant to Re-operation is subject to the following limitations. Here we go. And these were important items to the board and the process and the stakeholders for leverage purposes, and the discussions with the appropriators and Western to make sure that the public interest was protected.

So A, southerly end of the basin. That's where the well has got to be. The material physical injury requirement. And there is that schedule again; right? Okay. We have got to have a schedule, and requires Court approval. That was the initial schedule which led to this misunderstanding about our authorizing more than 400. Not going to happen.

D, annual accounting. We've got to tell you exactly what we are doing.

And then E, Watermaster must be in substantial compliance with its then existing recharge and replenishment plans and obligation and will make an annual finding whether or not it is in compliance.

So that's in the supplement to the OBMP.

And then if you'll take a look at 8.3 of the Peace

Agreement. So now it's the belt; right? We already

have -- maybe that's the parachute. I don't know. We

have done the original obligation and the Judgment.

Then we have that, and then we have what's called the

continuing covenant 8.3. And 8.3 says that this is

independent vitality -- this binds all the parties to

ameliorate any long-term risk attributable to reliance

upon --

THE COURT REPORTER: I'm sorry, counsel. You're going way too fast.

MR. SLATER: I'm sorry -- to ameliorate any long term risk attributable to reliance upon unreplenished ground water production by the desalters, the annual -- that's yearly -- the annual availability of any, any portion of the 400,000 acre feet set aside as controlled overdraft as a component of the physical solution is expressly subject to Watermaster making an

annual finding about whether it is in substantial compliance with revisited Watermaster recharge master plans.

So we have to make an annual finding. The referee might say well, it's the Watermaster finding. But Your Honor, everything we do, if we are making a finding, any party at any time has the right to bring that matter before the Court on the basis that we didn't do the correct thing. And moreover, remember that Your Honor, the Court, is approving the original master plan. We are coming to you with the original plan and we are reporting; right? We are reporting on our initial schedule. So every time we are redoing that, we are telling you what we are doing. We are telling you how things are going, and we are looking at our own recharge master plan. And every year, we make a finding. And if we can't make the finding, we can't have access to the 400. Anybody doesn't like it, we are back here.

So that, in our view, is you have the Judgment Amendment saying there needs to be rules and regulations. So that's text and near text. Then we have the supplement to the OBMP placing the conditions on the water and the express limitations.

And then lastly we have this. You can't have the 400 if you don't stay in compliance. So, in

summary, on the front end, we have a mandatory commitment to do the recharge master plan. Then that is buttressed by a penalty of depriving us of the 400 if we don't stay in your good graces.

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And I will say this. You know, Your Honor has expressed the concern related to the declining yield in the Basin. Reading the Wildermuth report with regard to those downward trends and predictions is alarming. The parties have to be willing to move forward, expend every effort to stop that from happening, and to make the appropriate, timely investments in recharge and other supply-reliable measures to offset that. But it's difficult to hold us accountable today having worked on a process for four years to pursue something which has been, is consistent with Your Honor's earlier direction, and then say stop while we wait to solve that problem. We already have responsibility to solve that problem. It would be irresponsible if we don't. We have to be back to you in any event by 2010 with regard to our recharge master plan and we look forward to the opportunity to solve this problem as well.

I think the view of the parties frankly is we have done a lot, we are ready to take up that next challenge, but we'd like to check this box and move to the next phase. So, I had more, but I'll hold because

we are almost at 3:00, and we do have a couple of witnesses. And I will reserve maybe a few minutes at the end to close.

THE COURT: Okay. We will be in recess until 9 minutes after 3 then, and we will resume at that time.

(Recess.)

THE COURT: Okay. In the interest of time, unless anybody objects, I am going to assume that everybody that was here before is still here. And anybody opposed to that procedure? If not, hearing no objection, let us proceed.

MR. FIFE: Your Honor, we are going to proceed with the examination of our witnesses. We have two witnesses. We are going to start out with Mr. Manning and then go to Mr. Wildermuth. How would you like -- would you like me to address the witness from counsel table?

THE COURT: That's fine. Everybody is a gentleman in here. I've had no problem with you guys. You have license to do that, whatever you feel is appropriate.

THE WITNESS: Sit up here, Judge?

THE COURT: Sure. Come on up.

MR. FIFE: In the interest of time, since it

is getting late in the day, the referee's report did 1 indicate that it was the hope that Watermaster would 2 address some of the questions that are raised in her 3 report today. Both Mr. Manning and Mr. Wildermuth are 4 going to do that. The technical issues are very meaty. 5 We anticipate Mr. Wildermuth may need quite a bit of 6 time for his testimony so we are going to move through 7 Mr. Manning's testimony very quickly. But the intention 8 again is to address some of the major issues that were 9 raised in the referee's report. 1.0 THE COURT: Okay. Can you swear him in? 11 THE CLERK: Yes, I can. 12 KENNETH MANNING, 13 Having been called as a witness and having been duly 14 15

sworn, was examined and testified as follows:

THE CLERK: You do solemnly state that the evidence you shall give in the matter now pending before this court shall be the truth, the whole truth, and nothing but the truth, so help you God.

THE WITNESS: Yes, I will.

State your THE CLERK: Please be seated.

name.

THE WITNESS: My name is Kenneth R. Manning.

THE CLERK: And spell the last name, please.

THE WITNESS: M-A-N-N-I-N-G.

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THE CLERK: Thank you. 1 DIRECT EXAMINATION 2 BY MR. FIFE: 3 Mr. Manning, what is your position with 4 Watermaster? 5 Chief executive officer. 6 Α. How long have you held that position? 7 Q. Since September 2004. 8 Α. 9 Q. Did you participate in the negotiation of the 10 Peace II Measures? Yes, since September of 2004. 11 And do the Watermaster's technical consultant and 12 Q. legal counsel work under your direction? 13 Yes, they do. Α. 14 Were you present at the September meetings where 15 Resolution 0705 was approved by Watermaster? 16 Α. Yes, I was. 17 And did all three pools recommend approval of 18 Q. Resolution 0705 to the advisory committee and board? 19 Yes, they did. 20 Α. And did the advisory committee recommend board 21 approval of Resolution 0705? 22 23 Α. Yes, they did. And what was the vote at advisory committee? 24 Ο. 25 Α. One party voted no.

- Q. And who was that party?
- A. That party was Monte Vista.
- Q. And are you aware of whether Monte Vista has now filed a joinder supporting Watermaster's motion?
 - A. Yes, they have.
 - Q. Did the board approve resolution 0705?
- A. Yes, they did.

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- Q. What was the vote by the board?
- A. Eight yes, one no.
- 10 Q. Who was that no vote?
 - A. The no vote was the representative from the Monte
 Vista Water Company.
- Q. And again they've filed a joinder to Watermaster's motion?
- 15 A. Yes, they have.
- Q. As Watermaster's CEO, how do you view
 Watermaster's role with regard to management of Chino
 Basin?
- A. Well firstly, from a broad perspective,

 Watermaster is the arm of the Court and oversees the

 Judgment and the implementation of the Optimum Basin

 Management Program, and in doing so, acts as a neutral

 party to work with all of the agencies within the Basin

 and to protect the interests of the public as we go

 through this process. From a more narrow scope, the

Watermaster does a number of other things. We provide an assessment package that assesses the water districts and the purveyors within the Basin in order to make sure that we can replenish the water that's over pumped. We also provide reports and technical expertise to the parties as they need them, and for the Court.

- Q. And how is this role manifested through the Peace II process?
- A. Well, Watermaster remember is a neutral party. And we take that very seriously. And Watermaster, through the process, has made sure that the meetings were open, transparent; that we were able to bring all of the parties' information to the table to make sure they had a forum with which to voice any opinions they had about any subject. We also made sure through work with our counsel and through our consultant that they had an opportunity to submit evidence into their record and provide information that was pertinent to other parties. We also through the process made sure that the process kept moving and it didn't stall, and that we were moving the process forward on a timely manner as was prescribed by the Court.
- Q. As Watermaster CEO and acting as an arm of the Court and as a neutral party in this process, what is your opinion of the Peace II measures as presented to

the Court?

A. Well collectively, all of the measures together are a giant leap forward from a management perspective. When we look at hydraulic control and Re-operation as a specific element within the Peace II documents, in my --it's my opinion that they are a monumental move forward for the Chino Basin to be able to maximize the asset of this basin for the public. And at the same time, I feel -- and I think everyone else in this room feels --that it protects the interests of the future generations. It does through the creation of hydraulic control and the use of recycled water.

- Q. Are there risks associated with this approach?
- A. Well, it is my opinion that the only risk is not doing anything. And let me say why. If we did nothing, and this basin were to not create hydraulic control, we would lose the benefit that the regional board has conveyed upon us, the use of max benefit. If we lose max benefit, we lose the option of using recycled water to the degree that we want to use recycled water.

Keep in mind that the State of California in its
State Water Project and the Colorado River Project are
going to be stressed. We need to insulate the Chino
Basin for future generations to make sure that we are
using the only reliable water source that we have for us

in the Chino Basin. That's recycled water. If we lose hydraulic control, we put that in tremendous jeopardy. So doing nothing is the risk.

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- Q. And what measures will Watermaster be implementing to ensure that the various interests in the Basin are protected as Basin Re-operation moves forward?
- Well in my mind, the key is monitoring. Α. now, the Chino Basin Watermaster spends around \$3 million a year in monitoring within the Basin to make sure that those things that we have said that we are going to do actually do occur. Now I have used the phrase in the past that compared to other basins in Southern California that I'm familiar with -- Orange County might be the only other exception -- that the Chino basin is in high definition compared to those That is we were doing the kind of monitoring in basins. this Basin necessary for us to see immediate changes that are occurring throughout the basin water level, water quality, etc. So the key is in the monitoring to make sure that we can react to those things that might occur.

If we do see some changes to what we would predict, there are a number of things that we can do.

In the short term, we can look at pumping patterns. We can look at conservation. We can look at recharge

strategies in terms of where we recharge water. Those are all things that we can do. In the long run, if we had to, worse case scenario, you could just do additional replenishment.

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- Q. And as you move forward, will Watermaster direct Wildermuth to continue to refine his model and reevaluate the assumptions and results of the model?
- Yes. As I said, Mr. Slater had adequately Α. mentioned that we were, we have responsibility to the Court to come back every five years. That periodic review of the model and upgrade will take place at the direction of Watermaster. There's also what I would classify as episodic kinds of model changes that will be made that I think are important to recognize. And that is that we know more today than we knew yesterday. And as we gather that information and we put it into the model, those changes are going to affect those model runs that we are going to use to make those decisions. Those are all improvements to the model, and they will be directed by Watermaster for Wildermuth to do on behalf of the parties.
- Q. As Watermaster CEO, are you concerned with moving forward with Basin Re-operation if there are further refinements that need to be performed to the model?
 - A. Actually, no. I had a colleague who served on a

board with me one time who said that you know, Ken, you're never going to know as much as that will be known. We've got to make decisions and move on. In this particular case, I think that applies. We have a tremendous amount of information here within the Chino Basin. And to not move forward knowing what we know today would be a mistake. We have a chance to make monumental changes here in the Chino Basin that will allow us to be able to preserve this resource for the future, enhance our yield, enhance this Basin with the use of recycled water and insulate ourselves from problems on the Colorado River and on the State Water Project.

Q. As you move forward with basin Re-operation, how will Watermaster address the issue of recharge capacity?

A. This is an interesting issue. And I think you need to look at where we are today. We have finished Phase I improvements to our Recharge Master Plan. That was an expenditure of \$50 million paid for by the parties in this Basin. We are in the process of working on our Phase II improvements which are an additional \$10 million in this Basin. With those improvements completed which will be within this next year, we will have a capacity for recharging this Basin today of about 75- to 80,000 acre feet of water depending upon how we

operationalize those facilities. That today if you were to take all of the pumping that would be necessary if we were to use -- we were not to use the 400,000 against desalter pumping plus our production numbers this year, we're still a decade ahead of recharge capacity in this Basin. At least ten years.

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- Q. Now you indicated your number of ten years ahead is based on there being 75,000 to 80,000 acre feet replenishment capacity. What is the current replenishment obligation that Watermaster must meet?
- A. This year our obligation is going to be about 3,000 acre feet. Because -- that's making the assumption that we can use the 400,000 towards the 17,000 acre feet of desalter production this year. Collectively, that would be approximately 20,000 acre feet if we were not capable of using the 400,000. We have far more capacity today than we need to replenish that amount.
- Q. The special referee report raises the question of deadlines regarding the update to the recharge master plan. How do you respond to that?
- A. Well, I guess I would have to ask the question in terms of what the deadline would be for. If the deadlines are for a recharge master plan, that is just a report. I think that's a very reasonable kind of thing

to do.

What I find is that when we make deadlines for the improvements themselves, quite often, we focus on the dates and not on the options. I don't think that's what we want to do here. I think the Chino Basin needs to look at all of the options necessary for us to be able to recharge. That's not just recharge in the traditional sense that we have been doing, that is putting holes in the ground and allowing water to sift down into the ground, ground water.

I think -- and I have discussed this with the parties many times. I think we need to do a surgical way of getting a surgical way of getting water into the basin. That is using ASR injection wells into the Basin and finding and getting water where we need it to go along with the additional recharges that areas that are necessary. That does a couple of things. One, you don't have these large tracts of land that you need to purchase in order to be able the get water into the ground; and secondly, you've provided an asset to the party that one, they can use for injection; and two, they can also use for extraction at some point in time in the future. So you're getting a dual-use facility out of it. You're also I think what I call surgically putting water into the ground water basin to have, to

solve problems that we have such as MZ-1 and MZ-3.

THE COURT: Is injection expensive?

THE WITNESS: Actually, it is very cheap compared to buying tracts of land and digging holes, and doing all the grading and putting the conveyance system necessary to get them there.

THE COURT: One other question.

THE WITNESS: Certainly.

THE COURT: Is the replenishment water, the cost -- presumably, the Colorado River water diminishing and State Water Project water is anticipated to diminish, and the costs will go up presumably.

THE WITNESS: Yes.

THE COURT: You're taking that into consideration if number one of your relief valves in the future is we can always buy water, you understand that's going to be more expensive.

THE WITNESS: Yeah, you're making the case for use of recycled water, Your Honor. That's exactly the strategy that the people in this audience and the Watermaster are using. And that is that we need to insulate ourselves from problems that they have. Does that mean that we will never use State Water Project water to replenish the Basin? No. I think we will probably always have some level of demand from imported

water. But the more that we can reduce that demand, the better off we are going to be and the better off future generations are going to be in this Basin.

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- Q. BY MR. FIFE: So as Watermaster's CEO then, are you concerned with moving forward with basin Re-operation before you've completed revisions to the recharge master plan?
- A. No. As a matter of fact, I think we'd be foolish if we didn't move forward.
- Q. Now will Watermaster and the Court enforce the requirement that the recharge master plan be updated in order to continue with basin Re-operation as what will happen if the parties do not carry out the recharge planning process or implement the plan?
- A. Let me restate one of the comments that

 Mr. Slater mentioned in his comments. And that is that

 Watermaster's obligation is to the Court, Your Honor.

 And we have an obligation to perform that duty. And

 it's true that we would like to work with the parties as

 much as we can. We have a tremendous I think record of

 working with the parties, i.e., as a partner in this

 process. But if for some unbeknownst reason -- and I

 can't imagine it -- that Watermaster and IEUA would not

 get together on this issue, Watermaster would work with

 the parties without IEUA unilaterally moving forward on

replenishment.

- Q. Now that than gets to the next question. The special referee questioned whether the requirement that capital improvements to recharge basins that can receive recycled water, whether that will hamstring Watermaster if IEUA does not give its approval?
- A. No. First of all, I can't see that happening.

 Watermaster and IEUA and the other municipal water

 districts such as Three Valleys and Western have a

 tremendous record of working together. It's hard for me

 to imagine that would take place. But if it did,

 Watermaster would move forward.
- Q. Now you mentioned earlier in your response to Judge Gunn about aquifer storage and recovery or ASR and injection. The special referee report raises a recharge question concerning whether Watermaster intends to do either ASR or injection. Can you speak to that?
- A. Yeah. Actually it's both. And I think she pointed out something that's important to make note. Watermaster would do the injection side of the part, of the process. That is we would work with the parties to construct wells that would be operated together. That we would do the injection side and they would do the recovery side. And that recovery would take place not necessarily at that well, but could take place anywhere

else within their system. So it would be a combination of both. But Watermaster would only be doing injection.

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Q. Now we have been talking a lot about the recharge master plan. The special referee questions what it means, that the Judgment Amendment says that Watermaster will prepare a contingency plan to address potential material physical injury resulting from basin Re-operation. What's the difference between contingency plan and recharge master plan?

Well, the recharge master plan, as I envision it, would encompass all the strategies necessary to get water into the ground. That would include the recharge facilities as we traditionally think of them, and injection wells or ASR wells as they would be constructed. A contingency plan would include other things, strategies that would be used if we were to have That might a problem with being able to get water. include additional conservation measures, working with IEUA as we are right now on the initiation of ordinances, to work with cities on demand side of the equation. Also looking at recharge strategies and possibly pumping scenarios that would shift and/or purchasing of water that might shift demand from one location where there may be additional sources of water to other places where there may not. So there's a lot

of strategies that could be used within that kind of a plan that wouldn't necessarily be addressed within the recharge master plan.

Q. What does it mean that the cost of the contingency plan will be equitably distributed?

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- The Judgment calls out for in most cases the costs to be borne based upon operating safe yield. the parties over the last three years that I have been involved, little over three years, they have demonstrated that in certain cases, there's times where they want to get together and change that formula in order to create a more equitable approach for paying for In this particular case, one of the formulas that they have used as cited in the Judgment or in the -- excuse me -- Peace II documents, is the use of pumping as one of the elements within that particular formula. I think this would be, for my own point of view, will be one of those areas where pumping would put into the formula and somehow then agreed to by the parties, it would make some sense to me.
- Q. Now moving off the subject of recharge, the referee report notes that no declarations have been provided to support the assertion in Watermaster 's motion that there's a problem with non agriculture pool, water accumulating in storage. As Watermaster CEO, can

you confirm that this is in fact a problem?

A. In my opinion, it is a very serious problem. I think water that is stranded in the Basin presents a real problem to the future generation of this valley. Water just sitting and not being used for beneficial use in this basin, it should not occur.

- Q. And how do you reconcile the problem of nonagricultural pool water accumulating in storage with the other proposal in the Peace II documents to raise the cap on local storage of supplemental water?
- A. Actually they are two different things. Using raising the cap on local storage allows the parties a strategy to be able to knock the peaks off of the demand curve that they are dealing with and/or supply curves. The water that's going into storage and being stranded in the non-Ag pool is water that will never be used, completely a different subject.
- Q. What is your understanding of the benefits associated with increasing the cap on local storage?
- A. Well I don't think that there is a -- I think it's a natural strategy to look to based upon the kind of demand that we are seeing from or the kinds of stresses on the system that we are seeing on the State Water Project. I think those are a natural thing that we would want to encourage will be the increase in

storage allowing then additional flexibility on how they use their water.

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- Q. Are you familiar with the quantities of water involved in the nonagricultural pool transfers, both the one time transfer and the ongoing yearly transfer?
- A. As of July, 2007, there's a little over 52,000 acre feet of water stranded in the Basin in the non-Ag pool right now. On a yearly basis, the number will vary. In terms of what would be made available depending upon what their pool would use, but that is would range somewhere between 3- and 4,000 acre feet a year would be made available under the formulas or under as anticipated in the Peace II documents.
- Q. Now attached to Resolution 0705 is attachment E are two schedules for the use of the 400,000 acre feet of controlled overdraft. This was discussed by Mr. Slater in his opening remarks. They are the most rapid depletion schedule in the proportional depletion schedule.

To your knowledge, have the parties made a decision regarding which schedules they would like to use?

A. Yes. Mr. Slater was correct when he said the most rapid is the one that was selected. I know he's glad to hear that.

- Q. And does Watermaster intend to revise this table as it receives new information?
 - A. Yes, it does.

- Q. And will Watermaster be revising this table to reflect Mr. Wildermuth's new estimates of new yield?
 - A. Yes, they will.
- Q. Can you tell us generally what will be the consequences as you understand them if Peace II is not approved?
- A. Well, the most obvious and the most urgent consequence would be that we would have to replenish for the 17,000 acre feet of desalted water that was utilized this year. That would be an estimate of just a little over \$5 million that would be added to the assessment this year.
- Q. Now even if this deadline were extended as the Court suggested earlier, are there still time constraints that suggest that we need to get Watermaster's motion approved as quickly as possible?
- A. Well, there is one in particular. And that is that in working on this desalter issue, Western

 Municipal Water District has available to it today a \$5 million grant that they secured in anticipation of moving forward with Watermaster and the parties. That \$5 million grant has a date of September of '08 that it

must be utilized or it will be lost. That's the most immediate that I know of.

- Q. And moving forward with that project, as you understand it, is contingent upon approval of the Peace II process?
 - A. To my knowledge, it would be, yes.

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- Q. In general, as Watermaster CEO, what is your impression of the Peace II process?
- A. Understand that I came into this process after it had already begun. In September of 2004, I came to the Chino Basin from another basin that has adjudicated water adjudicated basin with its own Watermaster. So I have a working knowledge of how Watermaster works, and have been working with parties as one in the other basin.

What I have been impressed with in this basin, as we have moved through the process, is that the parties who have been involved in, although they are interested in protecting the interest of their own agencies as they move through the process, that is absolutely understandable, and should be commended. They have worked tirelessly, spend, spent millions of dollars, millions of dollars to protect this basin for future generations.

I can't tell you how many conversations I've had

with the parties in this basin about the fact that this is not about the deal. It's not about the deal. It's about what to do right in this basin for future generations. And I think that needs to be made a part of the record; that the parties in this basin have worked and spent millions of dollars to make sure that they are doing the right thing. And I think we get lost because we see numbers that come out of Dr. Sunding's report that look large. But we forget about the bonding capacities that they have committed, the million's of dollars that they have expended in advance of any of this activity.

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The fact that we're a decade ahead in recharge capacity, the fact that we have spent millions, tens of millions of dollars on recycled water and facilities to put that water, and studies to make sure that we can blend with a higher percentage of lower percentage of imported water, those are all the things that need to be recognized as we move through this process.

The parties in this case are committed to this basin, not just to make a deal, but to make sure that future generations have a resource available to them and to their grand kids. And I can't say that enough.

These people are really working at, working on behalf of the future, not for the deal today.

MR. FIFE: Thank you. 1 That's it for Mr. Manning, unless you have 2 3 any questions. THE COURT: Anybody else have any questions 4 they wish to ask, anybody with standing, that is, 5 meaning attorneys. 6 Okay. You can step down, Mr. Manning. 7 THE WITNESS: Thank you, Your Honor. 8 MR. SLATER: Your Honor, yes, we'd like to 9 call Mr. Wildermuth. 10 MARK WILDERMUTH, 11 Having been called as a witness and having been duly 12 sworn, was examined and testified as follows: 13 THE CLERK: You do solemnly state that the 14 evidence you shall give in the matter now pending before 15 this court shall be the truth, the whole truth, and 16 nothing but the truth, so help you God. 17 THE WITNESS: I do. 18 THE CLERK: Please be seated. State your 19 20 name. 21 THE WITNESS: My name is Mark Wildermuth. THE CLERK: Spell the last name. 22 THE WITNESS: W-I-L-D-E-R-M-U-T-H. 23 THE CLERK: 24 Thank you. /// 25

DIRECT EXAMINATION

BY MR. SLATER:

- Q. Okay if I call you Mark?
- A. Absolutely.
- Q. Can you tell us your present position?
- A. Yeah. I am the president of Wildermuth Environmental.
- Q. Can you summarize your experience in water resource management generally?
- A. Sure. In the early '80's through the '80's I've worked on two basin plan updates for the entire Santa Ana Water Shed which involved the construction, calibration and application of numerical model for in this case 400,000 acre area including the Santa Ana River to determine if there was assimilative capacity and what the impacts of various waste discharge permits might have in the water shed.

In the late '80's, we had made an observation that it was going to cost billions to comply with these permits. So stepping out of the box as a person working for their regulators, we went to the regional board and said you know, these water quality objectives, what is their scientific basis? What do we have to do to know before we spend all these billions of dollars?

So we conducted an investigation and which led to

the fact that there wasn't much of a basis for it. subsequently, we went on a journey where we developed a process, developed a science to estimate a water quality objective for the basin, and what is the ambient quality and define ambient quality. And we redefined the water quality regulatory framework for the entire Santa Ana Water Shed. That is from Beaumont to the ocean and from Cucamonga to somewhere south of San Jacinto. In that same period of time, we came up with a maximum benefit concept and took it into the water shed -- we will hear about that in a little bit -- and packaged that with a basin plan update, and the only basin plan update in the history of this water shed where there was no opposition. And in fact there was praise at the board level at both the State board and the regional board. So I went through various, more locally in the Chino basin.

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I began work in Chino Basin again in early, in the early '80's and developing a running model to simulate the MWD's DWR ground water storage program. That was a million and a half acre foot program. And later in that decade, I was a project manager for the engineering work and the program EIR for that. That was for the Metropolitan project.

I also worked on the Chino Basin Water Resources

Management Study where I just started my company and I was pulled in to help to complete that modelling effort and get that project going.

One thing Ken related to was the ability that the Watermaster in Inland Empire have to go beyond what conventional regulations for recycled water recharge. Again we looked at what the regulations were and asked why. Went to DPH and Department of Public Health, and Inland Empire and proposed a whole new regulatory protocol paradigm, and met with considerable resistance. But by doing experimentation and doing good science, we got that passed. They now have incorporated that into their de facto regulations and made available to anybody in the State of California.

- Q. With any other Watermasters?
- A. Pardon.

- Q. Do you work with any other Watermaster?
- A. I'll speed up, Scott. Yes. I am the engineer for the Beaumont Basin and sort of responsible for the actual adjudication. And we have the great fortune of really being the watermaster to all the watermaster services and the monitoring and all their planning.
- Q. And Mark, can you tell us what your general responsibilities are with Watermaster?
 - A. Changed over time. Prior to the OBMP, Wildermuth

did sort of ad hoc, by-task order engineering and scientific investigation for the Watermaster. When this Court ordered the development of the OBMP, we developed the work plan and constructed process to develop the OBMP. And we have, actually we prepared the OBMP document, participated in the implementation plan and assisted Watermaster legal counsel in development of the Peace Agreement.

- Q. And how long have you performed the function of being engineer with Watermaster?
- A. Pretty much about the late '90's to the date. But I've been working either with Watermaster or in parallel with them in this Basin since early 1980's.
- Q. For the Court and the parties, can you identify the location of the Chino Basin?
- A. Yes, I can. But may I get up and walk around?

 THE COURT: Sure. There's a pointer on the ledge there.

MR. SLATER: Your Honor, we have marked copies of this if you'd like them to be marked for identification.

THE COURT: It would be nice actually. But there is a -- we have a pointer.

THE WITNESS: I've got a light.

THE COURT: A laser pointer, actually

better.

THE WITNESS: Okay. What you have up here is a map of the Chino Basin area. The red line here shows the legal boundary of the Chino Basin. San Gabriel Mountains are up here in the top. Puente and Chino Hills down here. The Santa Ana River as it comes up here through Prado Basin, comes out on the southern end of the Basin. We're right here, approximately. The Basin which is the 10 Freeway here. This is the 60 and the 15. And right about here in the center of the Basin is the City of Ontario.

Okay. This is adding onto this here. We have added on. We highlighted the drainage features in the Basin and the recharge basin or recharge assets that we currently have. Those are shown in blue. Over here on San Antonio Creek, we have a pretty rich cluster from the College Heights, Upland, Montclair and the Brooks Basin. This is the West Cucamonga Creek and a couple facilities there. One directly on Cucamonga and Deer Creek. Up here we have a quite a big complex up here in the Etiwanda, San Servaine area. And down over here, we have a couple new basins too that were not quite ready for supplemental water, but will be soon. That is a very important area to actually put supplemental water in.

MR. SLATER: Your Honor, if I can briefly interrupt for a second. For identification purposes, can we mark this as Exhibit, Watermaster Exhibit A or 1.

THE CLERK: 1.

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MR. SLATER: 1. Sorry, Mark.

THE WITNESS: No problem.

Q. BY MR. SLATER: And Mark, just for the record, would you, to the extent you're using the pointer, try to describe the physical condition that you're pointing to?

A. Okay. We are looking at a map now which shows the desalter facilities as they currently exist in the Basin. These bright green circles here correspond to the location of the treatment plans themselves. This cluster of wells here which is these white symbols correspond to the wells for Desalter one, and these little square symbols here are the wells for Desalter two.

Okay. Okay. Go back. What did I miss here? I want to go -- Did I get desalters, new wells?

Down here, we show the location of again more desalter facilities. These are proposed well fields here. We show dots here to mean wells, but it's really a well field area; not exactly sure where those wells will be. This is also the area, this ground water flows

through the basin. I'll show you in a moment where we currently have some leakage out of the basin. Okay.

Imported water facilities, it's a almost complete map. This would have been really good until the WRDA came out when congress passed WRDA and it got to the president's veto, and there, through here is difficult, we don't have access to.

We are going to put turnouts. That will be the Azusa-San Gabriel line here. This is the Foothill Caesar, excuse me, the Rialto Reach to the Foothill Caesar where State Project Water Project comes down and can also come down through this little pipeline here. This is the Colorado aqueduct which we currently don't take any water out of because of salt management purposes. So we take up here is where our turnouts are. Here. And we have to distribute that water to the drainage system and pipelines to get to these recharge assets. Down here this RP3 and Declez Basin. We are going to bring water down to a basin here and run through a pump station which is sort of unprecedented for trying to get water to recharge basins.

Again in our recycled water system that's in the Basin, this isn't the entire as it exists to date. This is the proposed system, and system which built and proposed system. You can see it's quite extensive. You

can see it has been extended up into areas where we have our recharge assets. So we can actually move straits through these basins for what we call indirect potable reuse. Put in the ground, and through the magic of infiltration, it becomes drinkable. Okay.

In the far west end of the Basin, we have an anomaly out here we call a subsidence, subsidence area. This is the area of active subsidence concern where we have had ground fissures and recent subsidence in the past thirty years. Okay.

And this is a little tougher map to interpret, so I will do my best. This is a map that shows the ground water levels, we would call the upper layer of the Chino Basin in 2006. And along this line here, we will pick this one here is 700. This is a contour of equal elevation. So if you were to measure the water table at any point along that line will be 700 feet and so on for 725. The way you interpret that map, as if ground water flows everywhere perpendicular to those contours, or normal to the contours. So if you're a particle of water and you're here and nobody pumps you out, you're gonna flow like this, and you're gonna get pulled right into here. This happens to be a pumping depression, a small pumping depression, around wells owned by Jurupa Community Services District. Similar analysis up here.

You see these recharge assets. These are the Upland, College Heights, Montclair Basin is here and Brooks basin. Any water that comes out of here is going to head through these pump depressions where these closed contours are. In the case of -- this is

Management Zone 1. You'll often read about dedicating making sure the first recharge we do is there, is to help mitigate these pumping depressions that occur there.

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Down lower in the Basin, do you remember, this is We have Desalter Number 1. Starting to see this capture zone forming up in the east side of this well field, but oddly you don't see it in the west. You don't see it in the west because those are deep wells, aqua fluid, almost no circulation. There's no water. produces beautiful quality water all above it and all through here. And the layer above it is where we get leakage. So when these wells went in, they went in for the purposes of running that desalter and having a blending supply to help manage the cost of that. But they don't do anything for hydraulic control. So we had those original wells here. They come across here. Those are perforated shallow. And by perforated shallow, and doing all the things we're proposing, we can cut off this discharge.

Lastly, just so you can see who's who in the Basin -- I mean you know who the parties are. But I thought I'd show you the sketch that shows locations of the various parties. Here's Fontana Water Company covers this area here. City of Ontario here. This is the Cucamonga Valley Water District, Upland, Monte Vista, Chino, all three. Chino is this here, here and here. So Chino Hills is sort of on the fringe of the Basin. See Norco is sort of the same thing. Legal basin is here but Norco is down on the other side of the river.

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- Q. If you could, Mark, could you briefly describe what you mentioned as max benefit in your earlier remarks and embellish a little bit on what Ken described?
- A. Sure. This map or picture slide, I'll describe it to you, is a plot of the projected time history of total dissolved solids, or TDS, is salt. And the Chino Basin, it's an area of wide ambient volume weighted estimate. What all that means is it's you look at the values of TDS all around the basin, and look at the volume of water associated with those. And we come up with a volume weighted estimate.

And what this shows again is a project over time for various water-use scenarios. And we prepared this

back when we were doing the Basin Plan Amendment. I talked about that in the beginning of my talk. We were faced with some pretty draconian objectives in Chino Basin. So we decided well let's take a look at where this basin might go if those concentrations stay less than what we call a use of impairment threshold, in other words good enough quality to use, maybe we should ask for a higher objective. And the regional board said fine, but do this analysis. So we did these four cases.

Case one -- I won't go into it -- was something that was done out of academic interest, but made it into the record. So I wanted to put it in there.

Case two, is if we look at OBMP's water supply plan and we did no recycling, everything was done with state project water. And if you follow this over time, it's telling us that quality around 2000, the basin is around 319 to 320. And over time, it's going to rise. And say a hundred years from now, it's going to be about 430. So it's going to go up over time. Use protection threshold is a couple values for that. One is 430, and one of them is 500. 430 is behavioral based one; 500 is secondary maximum contaminant level. That's in the Water Code.

So, we had this out here, and we said gee, no matter what we do, if we use the best water quality

available to us, TDS is going to go up anyway. It goes up because of consumptive use. People irrigate their lawns. And just a time history of everything making it down over time.

Case three was what happens if we use recycled water for the planned direct uses that we talked about in the OBMP. And you can see that it's very little, almost no change. It's about what, 20 milligrams per year, maybe a little bit less over a hundred years.

And then we said, Case 4, we said what happens if we do 50 percent of our replenishment with recycled water which is what the law provides right now. And we saw how it ends up in 470-ish range. So basically, by using only state project water, we get a 40 milligrams per liter bottle. And we're still below what we consider you know any kind of use restrictions with the water. It's still pretty good water. A lot of places in the world would love to have that quality of water.

So, let's go to the next slide. What you see here is a map of the Chino Basin broken down into various sections, corresponds with what we call OBMP speak of Management Zone One, Two, Three, Four, and Five.

These are numbers you see here are the antidegradation objectives -- and I will explain that in

a minute -- for TDS and nitrate. What antidegradation means is that is policy of the State of California Executive Order 6816 is that when they developed the management, these base plan water quality control plan, they had to be written to protect the best quality in these basins at the time they were first developed, '73 in this case. And so, what this represents here is 293 represents the TDS and Management Zone One in 1973, and so on for all these values.

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Well, our recycled water, we have permits for 550, runs around 500. Ambient water today is closer to 300 across all these basins. So ambient water is greater than the objective. What that means is because of another state board order called Rancho Caballero, rancho Caballero says they have to write permits to enforce the basin plan. Can't write -- all permits have to enforce the base plan. For us to use recycled water in this Basin, we would have to have these concentrations. We're already you know right around, 500, 550. We're in the home park.

So we went back to the regional board. We said look, we got this problem. You know you want to put in these desalters. We know we are going to try to do all we can to make sure there's no outflow from the Basin. If we do all these things, can we raise the objective?

You know, we made a lot of other demonstrations. We showed that it was in the economic interest. We used Water code section 13241 which is a whole bunch of criteria that you must examine. We looked at all those criteria, and impressed upon the regional board that we have a management plan. Let us execute the management plan. Can you give us a higher objective? And they said yeah. We agree. In fact, they wanted to help us with the management plan. That was something they really got vested in.

The other curious thing about going beyond re recycled water is state project water. Now this is kind of a complicated looking graph. What it does is it shows the frequency or the amount of time state water project exceed some TDS, TDS exceeds in value. And I have also plotted on here the antidegredation objectives. You can see it about half the time. The TDS exceeds basin plan objectives.

When we put this plan together, regional board was of the mind and is still of the mind that they will not allow replenishment when this occurs in a basin that doesn't have assimilative capacity. I mean it's a balancing argument. What about this? What about that? It doesn't work out. You can't. You cannot backfill these excursions with this.

So, let's go to the next slide, Tom. We made a proposal to lump these management zones together up here from a regulatory perspective with these, with this objective. Actually that was their, that's what they gave us.

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What this does in current numbers, our ambient quality is in the very low 300s. This was 420. creates what we call assimilative capacity. assimilative capacity means, if the objective is here and ambient quality is much lower, regional board will consider allowing you to degrade the basin. So you can encroach into that capacity. And you remember you saw all those curves. It was going to go up anyway, and he made it go up a little bit more. They said fine, we will grant that to you until it hits 420. And there's a whole bunch of conditions with this. One of them is hydraulic control. One of them is that you try to do as much state project water recharge as possible, specifically with the high-quality water, high-quality state project water.

When we come close to these numbers, we have to plan to do more desalting. We are already doing desalting. We are going to be doing 40,000 acre feet of ground water pumping. This will be in addition to that at some time in the future. So when we get within ten

milligrams per liter of that, we have to start a process to do that.

So, what's the benefit of this maximum benefit?

Well, if we didn't do it, or we failed, we would have to demineralize the waste water is which is to use it.

That's just a cost. We'd have periods where we would have difficulty replenishing state project water.

Another interesting aspect of it is that we would probably over time, because of the outflow in the bottom, the model work that was done at this time supported the fact that we would have to start demineralizing our waste water and dumping it into the river to mitigate the outflow from the Basin, that the outflow from the Basin would be enough to trip the objectives. And well, actually be in Orange County. So, that effect, that economic argument alone avoiding that sort of devastating thing where we have to, mandated to throw away water to mitigate the outflow from the Basin, to do the desalting to get a lower cost replenishment supply made the OBMP cost effective back in -- I mean it's expensive, but it made it work back in 2000.

- Q. Mark, you mentioned in your summary that the regional board was supportive of this effort?
 - A. Very supportive.

MR. SLATER: Your Honor, may I approach the witness?

THE COURT: Yes. You don't have to ask.

- Q. BY MR. SLATER: Mr. Wildermuth, do you recognize what's in front of you?
 - A. I do.

- Q. Can you tell us what it is?
- A. Yes. This is a presentation that was made by Gerard Thibeault T-H-I-B-E-A-U-T, or -- he's the executive officer of the Santa Ana Regional Quality Control Board. This is a presentation that he gave to the Association of Ground Water Agencies. It was a conference done with the American Ground Water Trust in Ontario last year. He's also given this presentation to the State Board, and others that I know of.
- Q. And in your opinion, is this consistent with the general view of the Regional Board with regard to max benefit?
- A. Yes. The Regional Board is actually telling other water agencies to bring max benefit proposals to them so that they can legitimize their imported water recharge.
- Q. And Mr. Wildermuth, can you look at Page 6 and tell us what you see with regard to the last line, for identification purposes?

That all documents are posted on the Correct. website. Ο. Of? The water boards in the Santa Ana Excuse me. Α. Regional Water Quality Control Board website. Thank you. Ο, Α. Okay. MR. SLATER: Your Honor, I'd like to move this into evidence, please. THE COURT: Any objection from anyone? Okay. It will be received into evidence. MR. SLATER: Thank you. THE COURT: Be marked as Exhibit 2. MR. SLATER: Thank you. Q. BY MR. SLATER: Mr. Wildermuth, there has been a lot of -- sorry. There has been some discussion of hydraulic control and basin Re-operation this afternoon. Can you tell us what your understanding is of those terms? Hydraulic control means the reduction of Α. discharge from the Chino Ground Water Basin to the Santa Ana River to complete reduction or a reduction to di minimus levels. Q. And basin Re-operation?

Basin Re-operation is sort of a strategic

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lowering of water levels in the Basin to reduce the gradient towards the river thereby facilitating hydraulic control.

Q. How does that relate to max benefit?

- A. Max benefit objectives require demonstration of hydraulic control. Time certain.
 - Q. So, hydraulic control is important because why?
- A. Because if we don't have hydraulic control, we will not have access to the assimilative capacity created by the max benefit objectives. We will be treating or demineralizing our -- and if you remember the plot I have there, it doesn't do much if it was demineralized to the quality of state project water, doesn't do much for the water quality in the Basin.

So we basically be paying, well constructing large facilities, paying for the capital treatment costs with very little benefit.

- Q. Mark, you've talked about the Peace II Process. What has your responsibility been with regard to the Peace II process?
- A. My responsibilities were the preparation of the technical part of the project description and the evaluation of its potential impacts.
- Q. And can you briefly summarize the project description, what its chief components are?

- A. Right. Well the two main features from the technical perspective are the expansion of the desalting program, and about 28,000 acre feet of capacity of ground water pumping to almost 40,000, and the description of how to attempt Re-operation up to 400,000 acre feet.
- Q. Okay. And what did you understand what your duties to be with regard to evaluating the proposed project description?
- A. To evaluate material physical impacts that could occur from the operation described in the project description, and to determine if the 400,000 acre feet was the appropriate value for that.
- Q. And are you the principal author of the draft and final reports that have been filed along with Watermaster's motion for approval of the Peace II Measure?
 - A. I am.

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- Q. And have you authored two declarations which are also on file with this Court regarding the Peace II documents measures?
 - A. I am.
- Q. And in your opinion, does or do the draft and final reports discharge your responsibilities to Watermaster with regard to evaluating the impacts

associated with the project description?

A. Yes.

- Q. And is the project description you described and evaluated in your draft and final report the same project description that was attached to the Watermaster motion for approval?
 - A. The technical portions, correct, are. Yes
- Q. Did you perform the technical analysis regarding the assessment of potential material physical impact, or as we say in the basin, material physical harm?
 - A. Yes.
- Q. And what function does your updated, supercharged Watermaster model play in predicting potential impacts, and how does that also affect your opinion regarding impacts.
- A. Well, model is a predictive tool that we use in addition to, you know, our experience and our professional judgment. So it is part of what we use to determine the impact.
- Q. And we have heard a lot about the Watermaster model and its iterations over time until we have landed on the supercharged version today. Can you describe that process a little bit, Mark?
 - A. The evolution over time?
- O. Yes.

A. Back in very early 2000's, we developed -- I am hesitating because I have done models since 1980. I can't even count them now. But probably the latest and greatest model prior to this one we called the 2003 model. And it was developed and calibrated in a project to evaluate dry year yield impacts, proposed right of yield program with Inland Empire, Chino Basin Watermaster, and Metropolitan.

- Q. Mark, for the Court, can you briefly describe the elements of the dry year yield program?
- A. The dry yield program is a way to, for Metropolitan to store some water in the Chino Basin during years of plenty, and then in dry years, at their call, ask us to use that water in lieu of them delivering water to us. And that program I think there is about \$27 million plus or minus in facilities, which include new wells, treatment facilities; and enable the producers in the Basin to reduce their demand about 33,000 acre feet a year when a dry year call is made. And on the other side of that, when there's surplus water, makes it available sort of at our discretion as to how we want to put it in the ground. We either put it in the ground through in lieu means or through wet water recharge.
 - Q. Sorry to interrupt you. With regard to

description of your process, can you return to your evaluation?

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- A. Can you go back and restate the question again?
- Q. Yeah. You described the process you went through to evaluate the impact associated with the project description?
- A. Okay. But you are referring to the evolution model.
 - Q. Correct, and its role in that process.
- A. We started out in the Peace II process beginning to discuss this Re-operation concept. And I'll make it really clear. This is probably not the right place. This whole Re-operation concept had a different name back then. But it is something that we noticed in our firm. We noticed it. We could play with the operation of the Basin to induce more yield and also, you know, secure hydraulic control. Those two things go hand in hand. You can't do one without the other.

And so, we made some studies on that, and brought it to the parties in the basin and started to get traction, and began to look at all various alternatives with it. And up and through I would say the middle of '06, we have been using as planning tools to evaluate various tradeoffs between hydraulic control, magnitude of hydraulic control and how much read-out water or

water we should have in this program.

Sometime I guess it was Spring of '06, there was that sort of a peer review process that begin with Mr. Scalmanini. During that time, we first met with Joe, I remember telling Joe that remember we are moving onto a new model. You've got to review this one. We will outline what we are going to do.

He did his review, concurred with what we were doing and had some of his own ideas. They were all put into a new model which we've been developing for almost two years. That model is complete. That is the model we use to evaluate the current project description.

- Q. And have you reached any conclusions regarding whether the proposed project description will result in any impacts?
 - A. Yes. May I step away again?

 THE COURT: Okay.
- A. What I am going to do right now, I am going to talk about the conclusions related to the ground water changes. And to get everybody focused on how we think about impact, we have a baseline alternative, is what we would do without Re-operation but with the desalter. So we have expanded desalters 2013. We are running desalters flat out that we proposed. That would be these wells you see here and the extension here, and

producing almost 40,000 acre feet.

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What this chart shows is a change in water level across the Chino Basin going from beginning of this period which is 2004, fall of 2005 through roughly fall, 2023. And so why 2023? Is ten years after the start -a couple reasons here. Ten years after the start of the full-flowing desalters production and also because there's cycles of dry periods and wet periods where we were assuming we don't have water for replenishment. We are trying not to end up with different places in the cycle. This was a good place to be. What it shows is on this basis, this is a contour. Zero contour means there was no change in elevation and everything west of here went up. Everything east of here went down. bit to why. So what's going on here? It's just redistribution of recharge, the biasing Management There was also the control overdraft in here Zone 1. pursuant to the Judgment. There's a 200,000 acre foot allocation that's still going on. And what we have done, tried to be faithful to the product description or the what's going on in Peace II which we're going to program this here to keep this level up. Some of that at the expense of this area. So this area out in here is taking a bit of a hit volumetrically.

O. BY MR. SLATER: Mark, would you explain, while

you are keeping the area that you have identified up, can you describe the area that you were pointing to and then explain why you would keep it up?

A. Sure. This area up in here, if you remember that 2006 is an area where we have a great deal of pumping depressions. This is sort of repairing those pumping depressions. And we also, it's an area of subsidence is we were trying to supercharge the four bay area to help that area out. Does that cover that?

Q. Thank you.

A. Okay. Let's go to the next line, Tom. This is a 2053 slide for the same area. This was the upper most layer in the model, model that got multiple layers representing multiple systems in the Basin. And you see this is moved a little bit. Looks kind of the same. Sometime after, this was about 2023, 2030, things don't change much. I will demonstrate that again through another slide.

Let's look at the difference between alternative 1-A which is the raid depletion scenario. Let me go one more slide, and we will look at that difference between that and the baseline.

So basically, what happens when you try to pull 400 out, in this case it's going to be 6. But we will come back to that in a minute. This is the rapid

depletion scenario. And as was pointed out in Scott's earlier discussions, this here represents a commitment of water from the Re-operation account to this Western or we call Desalter Three. This represents a depression of that Re-operation account for the rest of the desalting system. Over here, it's a new yield. assumed in this schedule the river is about 30 percent, maybe a little bit less than what the desalter produced. Over here on the far left is the actual desalter production. We assumed its schedule. The far right, this is a residual replenishment of the operation. What this means, with this assumed inflow, these associations of Re-operation water to the desalter pumping, we will have a, begin to have, about 2018, begin to have a replenishment system for this desalting system. add these number here, the 213, 225, 175, 262, that equals that. So we got it covered. Okay.

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Let's look at 2023. It's a little different color scheme than we usually use. Usually we show areas going down as a brown or a red. But what this shows, a difference in ground water elevation between the baseline and Alternative 1-A. Mostly negative contours meaning that overall, the basin has dropped and this upper layer, in this case 30 to 40 feet. Next one.

And again this one looks, it's kind of the same

one, only you have a larger change of storage in here, or change in water level, has to do again with how we allocate this water for recharge. Just been some change in there. So now we are looking 40, 50 feet here, down 20, 30 feet in this area in here.

So, there's a lot of maps in our technical report. And it's meant to try to be, you know, I won't say exhaustive, but have enough information to draw conclusions. One thing I think we weren't strong enough on is letting you know on a map scale what the Re-operation does. These are all very survivable changes in storage. Changes in water levels. Excuse me.

Okay, Tom. Let's look at it from a cross-section perspective. So we are going to go from the northeast over here to the Rialto area, going to come southwest across the basin, come through this Chino desalter well field and into the Chino Hills. Then we will go through these quick. This is spring, 2005. This is the water level, spring, 2005. And the next line should show water level for the baseline now. This is just the desalters. No readout watermaster moving replenishment water around to take care of Management Zone 1 and a little bit of control overdraft.

So let me go over the cross-section. This shows

sort of the geology of the basin here. These are the rock types, interior faults. And layer three looks like this. Layer two is a smaller area over here. Layer one is you know probably the, functionally, the largest function of the aquifer system in the Basin. These things here are wells. We got a little carried away, tried to put some geology on there. These little pieces out here are the well screens. So again, you can see that these levels changes, 30 feet, 40 feet above the well screen still. That's 2023. 2053. That green line is still there, just written over by the plan for 2053. So essentially no significant change.

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Let's look at the baseline versus Alternative 1. In 2005, it's the beginning. I am sorry. This is just Alternative 1, a little more draw down than we had before. And 2053, again the same. Why? Because reop occurred early. Doesn't occur after 2030. So at that point, we are in balance or what I would call a quasi equilibrium. The Basin is balanced and maybe the values are moving around a little bit, basically some kind of quasi equilibrium.

And the next set shows a comparison of the baseline to alternative 1-A which is really a more faithful way to look at the impact of the Alternative. So, this is 2023. Again remember we are looking up

there in the eastern part of the Basin, it was like 30, 40 feet.

Next one. Gets a little bit more here, there's just a little bit more. So, again, the impact related to the hydraulic in this case to Re-operation water levels across the basin kind of uniform when you get most of the desalters generally and probably in the order of 30, 40 feet, with a few areas lower, a few areas higher.

Okay. Let's go to the next slide. Let's go to -- we are going to talk about, you know, changes of flow in the river. Let me back up. Don't you back up. These water level changes are survivable. You know, there's a slight energy increase some people will face with these. You know part of the Peace II Agreement and the economic benefit is such that the increase in energy is spent from pumping at a slightly lower level are more than offset by the economic benefits.

The definition of material physical injury as it has been used in the OBMP says that change in water levels is a material physical injury. Well, I think that can't be a bright line. Anybody who puts a new well anyplace causes a permanent change in water level. When they put that well in, that is part of the material physical injury. Yet, what we have done here as you

said as a group, we want to lower the levels, pay the costs, and for the financial gain and the uncertainties created by that. So our findings with respect to that is there really wasn't material physical injury with the water levels.

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Now doing all these simulations, we assumed for 45 years that we know what you're doing. Every once in a while, a well model will tell us a well's having trouble pumping water, can't pump water. There's only a few wells, happens under certain conditions, certain simulations. Might be interpreted as material physical injury. I would argue that those are mitigatable. If we have the time -- and it's a model projection based on assumptions of 55 years of operation. So, if we have feed back with everybody, you could probably sit down and work that issue out. So, as to the ground water levels, you know, we don't see any particular material physical injury or potential for it.

I want to show you a couple slides that relate to river influence safe yield change because those are really the same. I am talking about safe yield change for the alternative with Re-operation relative to the baseline, at least initially. What we do in the model is we set a portion on the stream at the outset of the model. We just say okay, what was the stream flow, not

What is the stream flow in the alternative? baseline. We compare the baseline to alternative and decrease in the stream flow is the induced recharge in the basin. Turns out if you do detailed water budget work by looking at scale-to-scale stuff, you get the same answer. This is just a shorthand way to get this. What they show over time -- this is the planning year. is the change of discharge from Prado. They are negative numbers, means the flow is going down. this is alternative 1-A, the rapid depletion; 1-B for proportional stretching it out a little further. And from a planning perspective, essentially the same. saying that there's a fairly steep drop off or increase in recharge out here for a while and this sort of flattens out. You're seeing the dry and wet cycling going on with respect to Watermaster replenishment and availability of water. And these out years were sort of some of the average numbers, saying 8600 to 9000, we would expect.

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Let's got the next line. This is the slide we added to the final report that wasn't in the draft report. What it does is it purports to show the safe yield in the Chino basin over time for a hundred years. Went back to the calibration period. And using the same formula that Bud Carrol used to calculate safe yield, we

estimated safe yield in the calibration period. This is This is the time and this is the calibration period. the safe yield here going from 100,000 to 170. Starts out here around 140-ish. Pops up. These are some hydrologic issues. You're '78 to '83. This period right here is the very wet. You see the basin yield responding later is that water that got into the unsaturated zone, began to dump into the what we will call the saturated zone. Up here is the break between the calibration period and the planning period. can see that well into the calibration period coming through here, we are starting to see something change. This change in safe yield, you know, were talking is So it may approach 120 in the future if it's 20,000 acre foot drop in time. This is a baseline. What you are really thinking about, here we have a 400,000 acre feet water demand and supply situation. So this 20,000 out of 400,000, to give it some context is big in terms of yield perhaps, but in terms of the overall water management picture, it's not that big.

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The green and the blue lines here, they represent what happens when we do Re-operation. And took a while for that inflow to build change in discharge. And you can see it build up here and getting larger and larger. And sort of stabilizing as it does in the baseline sort

of flattening out. The reason why the yield changes is because of the hydrology of the basin. It's lagged in This development that occurred in the late '70's, the big boom in the '80's, that changed the water supply to the basin. Then we have another boom in the '90's through, you know, about a year ago. And those changes are recharge on the surface. And depending where you were in the basin, that could be a ten to thirty-year lag time when that recharge changes and you see the change at water table. So that is why you see this thing changing. I would say to think about this as an average trend line through here, probably up around here and dropping out here. This is probably like that. These spikes here are anomalies. The reason you don't see the spikes out here, this is the real deal. is, we start out our study back in 1930-ish and run The recharge on the surface from then to the them. Then when we go forward in time. We don't know what the rainfall is. We have to come up with a different concept of hydrology. So that hydrology doesn't have the bumps in it like this. So what you really expect to see is this around that line or these. So we have an oscillation around there. So is there, with respect to this change, we said it didn't -- sort of laughable to talk about a material physical injury.

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We are actually making it better. We have the right to make this diversion from the stream because '69 Judgment allows us to conserve all the water up above Prado. So there's no material physical injury associated with this.

All right. Subsidence. Okay. Let's go one more. Earlier, I showed you a map of the Chino Basin, had a little green area which was our area of subsidence focus. And you can offer two conclusions really to subsidence. Specific to that long term plan that has been through the court discusses using what we call the PA-7 piezometer.

THE COURT REPORTER: I'm sorry.

THE WITNESS: PA-7.

THE COURT REPORTER: And the term after that.

THE WITNESS: Piezometer. I couldn't spell it either. This is kind of complicated. So let me break it down. This is again time, planning area top to bottom. This is water level. This is elevation. The is a long term plan that talks about keeping the water level in the piezometer above 240 feet depth of water. If you make it the elevation, you have to keep ground water elevation above 400 feet, past that red line there. So see, these blue lines here, you see, they are

all the baseline. And the two alternatives started out the same point. Now you can't see, see Alternatives 1-A or 1-B for a number of years as that piezometer looks the same. There's not enough going on to separate them yet. This up and down, you see, is high frequency. This is the annual rise in water level in the spring and the pump out in the fall. So it's going up and down on annual basis, oscillating through time.

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The other trends you see on there is we assume that there will be a take from the dry year yield account. We are taking some water out of storage for them. And then after that period of putting it back in, so you see it jump up. And then you see it kind of go into a holding pattern. Part of the way we do recharge in dry year yield is we assume it's all done by in lieu. It can't be put in by wet water recharge. Strategically in the past, we'd be doing it by asking them not to pump their yield. That's how that water gets in. So you'll see a put period. You see a hold period. So we put the water in the Metropolitan. Then we're just doing our replenishment, normal replenishment Watermaster does. And then we have a put and we have a hold and a take. And that's this long period. So the blue represents the baseline. And 1-A is the green. And 1-B which is almost identical at least by the time you get down to

this part of the basin. And all these cycles you see that were well above what we call subsidence threshold. So we don't expect any subsidence by doing Re-operation. Remember, this is one that really ended up with 600,000 acre foot.

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By the way, that alternative worked out, not by design. It just did. So this is actually a lot more significant hit to the basin. And we're still well above this line down here. So, we expect material physical injury here due to that. With respect to the draw down, we saw in the other parts of the basin where things are much more granular, we don't have the same conditions. If we have a permanent change in storage there, we probably will get some large scale, broad scale but very small subsidence. And every ground water basin that has ever been developed has that issue. It's not unique to Chino. It's not unique to what we are doing here. So it's not a problem for infrastructure. It's not a problem for above-ground structures. Just like the weather. Just the way it is.

THE COURT: Were you with us when we went down to the prison and saw the site?

THE WITNESS: I was with you, yeah.

THE COURT: That's the area, that was the area in Exhibit 1 that you were pointing to before?

THE WITNESS: Right. Since that time, 1 especially in the earlier time developing the interim 2 plan, all that has been arrested because we have been 3 operating at these levels except for when we did the 4 controlled experiments to actually cause subsidence. 5 THE COURT: Let me interrupt one more time 6 since we're running out of time here. 7 THE WITNESS: I'm almost done, sir. 8 THE COURT: In your revised model after you 9 worked with Mr. Scalmanini, did you run the figures 10 through assuming the additional 400,00 acre feet of 11 overdraft? 12 THE WITNESS: Talking just the 400 then? 13 14 Yes. THE COURT: You did. 15 THE WITNESS: Yeah. We can probably get to 16 I think we are done with this; right? that. 17 MR. SLATER: Why don't we go there, Your 18 Honor. 19 THE COURT: All right. 20 THE WITNESS: Just keep going. Let's go to 21 the -- you have a few more to go. Okay. This is the 22 question. And to be clear, when we did the project 23 description, we assumed that inflow from the river. 24 That didn't That did not happen. You saw that chart. 25

materialize. So that created an unintentional extra pull down of storage of about 200,000. So we redesigned that schedule.

Next line, please. And this is what that schedule looks like. Again, the desalter pumping didn't change. The new yield did. And this is sort of a first approximation. We just put in the recharge from, came in from the river from Alternative 1-A. We kept that the same and we reduced by a few years water available for the rest of the desalting system. And so replenishment instead of happening down here, starting up here. You add these numbers across the bottom and you get that number back. So the way we program the model, all we do is put in production plans, replenishment plan, turn it loose. So, we have run this recently. We have not fully exhausted or mined the information, but we did mine the information out of the model to get hydraulic control answer to the question.

This report has maps like this. This is a very complicated map. It shows these ground water contours, again we keep talking about. But also has these little, the little red lines with arrows on them. These are the directional vectors or unit vectors.

Normally, vectors show velocity and direction; make them long for faster velocity and small for short. But we

can't do that here because there's just too much This is a new information that needs to be shown. desalter well field, the Chino Creek Well Field. And in comparison to the case that we see before Alternative 1-A, they were very close. And in 1-A and 1-B, when we looked across here which is the weakest part of the field in 2023, we had you know 15, 17 foot gradient, or going downhill backwards if you look this way. And the baseline, it was like 5 feet, 5 to 7 feet. At 2053, the baseline was still about the same, a little bit, maybe 7 feet. But Alternative 1-A at 600, 1-B went down 22, 23, 24 feet. It's a big, much bigger hole. The hole grew. In this case when we go to 2025, instead of 2053, the hole grows again just like it did in the case with 600,000. And it's almost identical.

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What we want to do, we want to have this -I am calling this a robust hole. You don't want a
shallow hole. You want a deep hole. Reason is things
change. You know, God forbid, the City of Chino -- I am
going to pick on you guys. 'Cause if your well field
got contaminated with perchlorate, you had to shut down
and you needed a couple years off to get that together.
You had to go in there and supply. You've got to have
some strength to this well field, to this depression.
You also have to be able to monitor and measure it.

Difficult to monitor if it's shallow. But a more pronounced depression is easier to measure.

The answer to your question, Your Honor, is that we did recently do this. And we haven't mined it out for the water level information. But you know my basic conjecture is if there's no material physical injury at 600,000, there's no material physical injury at 400,000.

- Q. BY MR. SLATER: Very good. Mark, in your opinion, does the model results as well as your draft and final report, and the testimony here today reconfirm your earlier opinion that 400,000 acre feet needs to be withdrawn from the basin in order to secure hydraulic control?
 - A. Yes.

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- Q. Are there any specific risks associated with implementing the Basin Re-op strategy and hydraulic control that you discovered in the process of preparing your report?
- A. Well, in the process of preparing the report, we didn't identify any risk per se. I would say concerns. But we need to optimize the operation of the basin.

 That's it.
- Q. And in your view, would it be possible for there to be an immediate course correction if the Court were

to preclude Watermaster from having access to controlled overdraft in the event that we had material physical harm pop up? Α. Yes. Okay. In your opinion, as an expert, and given Ο. all your experience with Watermaster, would it be prudent and reasonable for Watermaster to pursue and for this Court to approve the Peace II measures? Α. Yes. Do you have anything else you wish to add? Ο. I'm kind of going blank, Scott. Okay. That's fine. Can I ask you whether the Q. slides were prepared under your direction? Yes. Α. And this is a true and correct copy in front of Ο. you that I have marked as Exhibit 1? I don't have 1 in front of me. Α. I'm sorry. Actually, I have 1. In other words, this matches your slides? Α. Yes. MR. SLATER: Okay. With that, Your Honor, I move Exhibit 1 into evidence. THE COURT: Any objection? Without objection, they will be received into evidence. MR. SLATER: Your Honor, it is now 4:45.

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It's 4:35. I can, at the convenience of Your Honor, we 1 can give the court reporter a break, and I can summarize 2 in two or three minutes, or I can summarize now. I am 3 not sure whether any of the parties have anything 4 additional to say. 5 There might be some additional THE COURT: 6 7 questions --MR. SLATER: Okay. 8 THE COURT: -- by different people. I have 9 one too. 10 What could you add to your report to make it 11 more user friendly based on the data that you now have 12 after applying the revised model? 13 THE WITNESS: User friendly. I need a 14 threshold to compare that to. 15 THE COURT: Has it struck you that there was 16 something that you should have put in there that you 17 didn't, or wasn't requested of you that maybe you should 18 19 have put in there? I think the change in water level maps between 20 the baseline or/and the alternatives as separate maps 21 would probably be useful. Because I think the other 22 maps are misinterpreted based on my conversations with 23 people. 24

THE COURT: You have a question too?

MS. SCHNEIDER: I have several questions. 1 THE COURT: Okay. 2 CROSS-EXAMINATION 3 BY MS. SCHNEIDER: 4 Thank you, Mr. Wildermuth. This has been Q. 5 extremely helpful. Following up with Judge Gunn's last 6 question, would it be possible to prepare a technical 7 memorandum that includes the last slides on the state of 8 hydraulic control with what you're calling Alternative 1-A Prime or 1-A star? 10 That, upon direction, sure. 11 Well, I would recommend that that will be Q. 12 helpful. 13 I am just hesitating in committing my client's 14 funds, so. 15 THE COURT: How long, assuming that was 16 ordered, how long would it take you to prepare that 17 report? 18 THE WITNESS: For that alternative, it would 19 not take long, probably couple of weeks. 20 THE COURT: Any additional questions? 21 MS SCHNEIDER: Yes. 22 BY MS. SCHNEIDER: When you were defining 23 hydraulic control, I believe you stated that it was 24 related to all flow from the Chino Basin into the Prado 25

and Santa Ana River. Is that correct, or is it trying to keep flow from the Northern Chino Basin from getting to the Santa Ana River?

- A. This was negotiated very carefully with the Regional Board. And what we have to do is make sure that everything that we call Chino North does not make it into the Santa Ana River. Chino North is, butts up against the 566 elevation line of Prado Reservoir. So we have to stop. That's the line of demarkation. We stop there.
- Q. If you were to look at your state of hydraulic control, Alternative 1-A Prime, it's the same as other similar figures. Some of those directional arrows come past and go south to the Prado area?
- A. Well, but this doesn't show you Chino North, so it's maybe a little confusing.
 - Q. Could you explain the --
 - A. Sure.

- 19 O. -- Chino North?
 - A. Chino North, we don't have the management zones of the Chino North or Chino South broken up. But certainly water, there's another piece of management zone called Management Zone or Chino South Management Zone through here. And water comes out of that Management Zone and flows into the Prado Basin

Management Zone. Any water that's originating here flowing below the well field coming back into the Basin is we are exempt from that.

- Q. You're pointing to the Santa Ana River?
- A. Correct.

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- Q. On the ground water level contour maps that you have, I don't know which maps to look at in particular. But you have a series of maps that go to 2023, and then to 2053. Are you suggesting that a new equilibrium is created as those curves flatten out after 2023? Is that part of your definition of the new equilibrium?
- A. This is such a huge basin. We really have to be careful with our terms. In this case, the Basin, the way Watermaster operates today, they operate the Basin as a gross balance. Because we put water in; we take water out. We take out too much, we put back in. We don't always put it back in exactly how it comes out. So sometimes a plumbing hole is created or in case of in lieu recharge event, lulls are moving around operationally. But they are operating in balance, broadly. And it's I think when we use the word equilibrium, what we are referring to is we are operating in balance. No places are crashing. The levels aren't crashing anywhere. And they aren't rising anywhere.

And when we stop the Re-operation scheme at end of 2030 we're going back to replenishment, we may have some issues locally in balance because we can't get exactly you know, recharge in the areas where levels might be going down. But over enough time, we would be. Volumetrically, in the broad sense, we are in balance. There may be, from time to time, some local places where we are out of balance a little bit. But equilibrium in my mind is we are operating pursuant to the Judgment. We recognize what the yield is. There is no overdraft, over some period of time. By period of time, it's just we have periods of time where we don't have enough replenishment water. We use the storage in the basin storage a while, and then we backfill it when it's available, and we catch up.

- Q. I have questions about what could be included in the Recharge Master Plan update in the future?
 - A. Sure.

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- Q. You sort of said I think that river inflow and safe yield changes are really the same. I didn't understand that. Could you expand on that? Does it, is it addressed in the Recharge Master Plan process when you try to deal with safe yield declines over time?
- A. Well, the first part of your question, if given all of the other hydrologic inputs to the basin, the

only thing that is changing is the river. It makes sense that the river, the new river inflow is equal to the new yield created by Re-operation. I mean there's no place for the water to come from except for the river. So it's not an accident. It is the source of the increased yield. As to how that plays into the Recharge Master Plan, they have to have some knowledge of the yield or an estimate of the yield to do the master plan. And I don't know that you know we have to fingerprint it with their name, Santa Ana River. But they do have to have target yield that they can work at so they can make sure that when they compare their projected production to it that they know how to make up the difference.

- Q. So you will take calculated new yield into account in figuring out safe yield?
 - A. Yes.

- Q. And you can do that every year; isn't that correct?
 - A. It can be done every year.
- Q. And if the safe yield is projected to decline, if you don't do it every year, are you going to be recharging in accordance with the declining safe yield?
- A. You know, this is a legal question. I will take a crack at it. And that is yes. We have to operate

pursuant to the Judgment. So if the water is available, we have to take it.

- Q. I didn't mean to ask a legal question. In order to calculate how much replenishment obligation there is, do you have to take into account the declining safe yield every year?
- A. To the extent if you know it, and I am sure you do.
 - Q. And you can calculate it every year?
- A. It could be calculated every year. It would be onerous, but it can be done.
- 12 Q. When you redid Table 76-A?
- 13 A. Okay.

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- Q. The column on new yield, did you take into
 account just the 72, or 3000 of new yield that you're
 now calculating to be available over the period 2030
 when you figured out, when you went and figured out the
 hydraulic control picture? Is that -- Did you take the
 400, and that's all?
 - A. That's it.
 - Q. So --
- 22 A. I mean it's almost exact.
- Q. So the column with new yield in it, that's now in accordance with your figure 7-7?
- 25 A. Yes. And I would call that a first

approximation. Because we, you do the -- once we logged it 400, that curve might shift a little bit too. So it needs a bit of iteration.

- Q. So when you took an initial look at whether you achieved hydraulic control stopping at 400, did you take into account that looking backwards now before this year, there has been credit taken for new yield where there wasn't any new yield?
- A. No, we didn't. It is not done. There's a little bit of a debit that needs to be created.
 - Q. That's shown on your table 7-3?

- A. I'd have to go back and look. I am pretty sure it is.
- Q. So is that, is number, is the volume of water that you credited for new yield previously, does that have to be deducted now from the 400?
- A. I would say so, yes. That's sort of an administrative legal decision to do that.
- Q. But that leaves less than the 400 available now; correct?
 - A. It's a small quantity of water.
- Q. Would you expect that to affect the outcome in terms of the retaining hydraulic --
 - A. No, it's really small.
 - Q. You were asked by Mr. Slater here at the end

whether you had identified any risks of going forward with hydraulic control Re-operation. Can you identify the tradeoffs that Watermaster may be making by going forward with hydraulic control Re-operation?

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I struggle with the question. I'll take a crack at it. When we first began to look at this, we were also looking at issues related to storage in the basin for had to do with the question, you know, the safe storage issue we identified back during the OBMP. one of the questions that came up was how much storage do we need to have in the basin to assure ourselves that we can have a safe yield, whatever it is, 140,000. we started looking at the modeling components, recharge components and doing some stochastic analysis of those, and came to conclusion we had way more water in storage than was necessary to maintain the yield. I don't have that information in front of me. It has been years since I looked at it, probable five. And so our conclusion was while we were also trying to, we're figuring out that we can get more yield if we lowered storage, was that maybe that was even a stranded asset. You could probably imagine a 100 year drought, you might have wished you had that 400,000 way out in the future. I would imagine something like that might be in consideration, similar to trading off. It's not a trade

- off. It's a policy issue, not science or engineering issue.
- Q. Are you studying now future storage and recovery programs?
- A. We haven't signed a contract to do it yet. We're trying to figure out how we actually participate in it. But it is anticipated that we will be doing a modelling and assisting in the EIR for an expansion of the existing 100,000 acre foot dry year program to 150,000.
- Q. And in your opinion now, would you expect hydraulic control Re-operation to interfere with being able to expand the dry year yield program?
- A. That's a really great question. Ultimately depends how long this water is held. Every time somebody asks me this question, that is how I answer it. If you put it in, forgot about it, may be an issue. If you were going to put it in and exercise it, I don't expect it to be a problem. And for larger program, you're going to have to have hydraulic control because you'd never be able to store the water without pretty horrendous environmental issue on the river. So hydraulic control actually doesn't preclude storage programs. It's a requirement of them.
- Q. One last question. Mr. Slater asked about the possibility that you could make course corrections if

necessary. And you said you could. What would be a course correction?

- A. I would have to, I would almost need a hypothetical posed as to what the problem was to be able to respond. My general sense is that if we have replenishment facilities to go, if we have that capacity and we have to stop, then we will just replenish. If we blow out the bottom of the river for some reason, then we're going to have this horrendous cost we will have to pay. So those are --
- Q. One last question. When you calculated hydraulic control effects of basin Re-operation, did you calculate change in storage in the basin overall?
 - A. Yes.
- Q. Can you tell me what the change in the storage would be if you went ahead on the baseline, and what the change in storage would be if you go ahead on 1-A prime?
- A. Yes.

- 19 Q. Would you tell me what those are?
 - A. Well, let me back up. I can't tell you what the change will be in the basin off the top of my head.

 That information is in the report. It can be mined out of the report, probably Appendix F, I guess from the budget tables.
 - Q. Could you do that mining and provide an answer as

to what the delta storage, the change in storage would be with the baseline, and then with 1-A prime? Sure. Α. Q. Okay. In theory, the difference of those two is the That's why I can answer 400,000. Should be very close. and I said yes. That was 400,000. Q. Do you think that would help complete the picture of what is being proposed if you were to provide those data? If it's needed, absolutely. Α. Thank you. MS. SCHNEIDER: THE COURT: Anything else from anybody? Due to the hour, I think I am going to have to ask you to do a written argument. MR. SLATER: Your Honor, if I have 30 seconds to just close, I see the hour. I just wanted to point out that we would be completely supportive of providing the information that the referee has requested. To the extent that we need to talk about

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To the extent that we need to talk about schedule, we were going to propose that we would prepare written comments within a week, and to provide them to Your Honor along with any points and authorities that were relevant.

Because of the urgency suggesting to moving 1 forward, the regional board permit compliance, the 2 Western issue with regard to desalters and the financial 3 questions associated with the assessments, we really would like to, if possible, seek approval subject to 5 however many leashes the Court feels is appropriate in 6 the order itself in addition to what limitations we have 7 already placed on ourselves. 8 With that, Your Honor, we thank you for your 9 endurance, the referee, and Mr. Scalmanini and 10 Ms. Schurr as well. Thank you. 1.1 THE COURT: Regarding notice of any Court's 12 ruling, can we notify you by a fax since time is of the 13 essence? 14 MR. SLATER: Yes, Your Honor. 15 THE COURT: And you can disseminate any 16 Court's orders to the other parties involved. 17 MR. SLATER: Yes, Your Honor. 18 THE COURT: Is there anything else from 19 20 anyone? We will be in recess. 2.1 MR. SLATER: Thank you, Your Honor. 22 (Proceedings adjourned. 23 24 25

SUPERIOR COURT OF THE STATE OF CALIFORNIA. 1 FOR THE COUNTY OF SAN BERNARDINO 2 REPORTER'S CERTIFICATE 3 4 RV 51010 5 STATE OF CALIFORNIA COUNTY OF SAN BERNARDINO) 6 I, Gail Greenlee, CSR, Official Reporter of the 7 Superior Court of the State of California, County of 8 San Bernardino, do hereby certify that the foregoing, 9 Pages 1 through 129, inclusive, constitute to the best 10 of my knowledge and belief a true and correct transcript 11 from my shorthand notes so taken for the oral 12 proceedings reported by me in this matter on 13 November 29, 2007. 14 15 Dated this 11th day of December, 2007. 16 17 18 Official Reporter 19 20 21 22 23 24

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