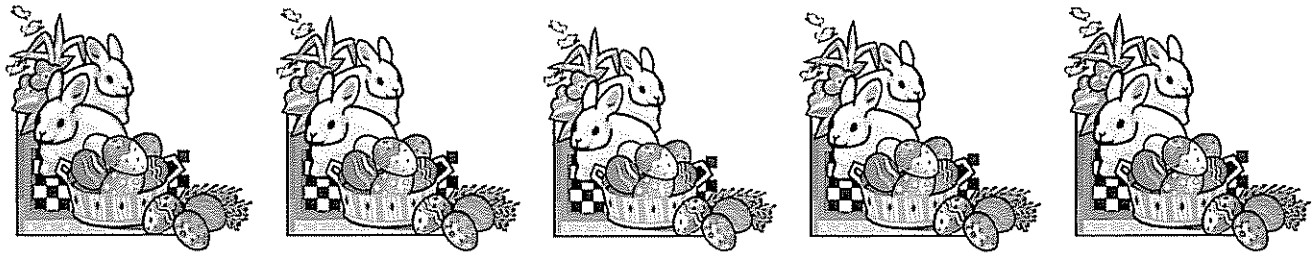


CHINO BASIN WATERMASTER

NOTICE OF MEETINGS

Thursday, March 10, 2005

9:00 a.m. – Joint Appropriative & Non-Agricultural Pool Meeting
And
11:00 a.m. – Agricultural Pool Meeting @ CBWM Offices

(Lunch will be served)

AT THE CHINO BASIN WATERMASTER OFFICES
9641 San Bernardino Road
Rancho Cucamonga, CA 91730
(909) 484-3888

CHINO BASIN WATERMASTER

March 10, 2005

9:00 a.m. – Joint Appropriative and Non-Agricultural Pool Meeting

11:00 a.m. – Agricultural Pool Meeting @ CBWM

(Lunch will be served)

AGENDA PACKAGE

CHINO BASIN WATERMASTER
JOINT MEETING APPROPRIATIVE & NON-AGRICULTURAL POOLS

9:00 a.m. – March 10, 2005
At The Offices Of
Chino Basin Watermaster
9641 San Bernardino Road
Rancho Cucamonga, CA 91730

AGENDA

CALL TO ORDER

AGENDA - ADDITIONS/REORDER

I. CONSENT CALENDAR

Note: All matters listed under the Consent Calendar are considered to be routine and non-controversial and will be acted upon by one motion in the form listed below. There will be no separate discussion on these items prior to voting unless any members, staff, or the public requests specific items be discussed and/or removed from the Consent Calendar for separate action.

A. MINUTES

1. Minutes of the Joint Appropriative and Non-Agricultural Pool Meeting held February 10, 2005 *(Page 1)*

B. FINANCIAL REPORTS

1. Cash Disbursements for the month of February 2005 *(Page 13)*
2. Combining Schedule of Revenue, Expenses and Changes in Working Capital for the Period July 1, 2004 through January 31, 2005 *(Page 17)*
3. Treasurer's Report of Financial Affairs for the Period January 1, 2005 through January 31, 2005 *(Page 19)*
4. Profit & Loss Budget vs. Actual July 2004 through January 2005 *(Page 21)*

C. STATUS REPORT #12

Consider Authorization to File Status Report 12 with Court and Authorize Staff and Counsel to Make Minor Edits as Necessary *(Page 23)*

II. BUSINESS ITEMS

A. MITIGATION OF TEMPORARY LOSS OF HYDRAULIC CONTROL

Consider Recommendation for Mitigation of Temporary Loss of Hydraulic Control *(Page 47)*

III. REPORTS/UPDATES

A. WATERMASTER GENERAL LEGAL COUNSEL REPORT

1. Attorney-Manager Meetings
2. Santa Ana River Application Process
3. Senator Kuehl's Water Bill *(Page 55)*

B. CEO/STAFF REPORT

1. AGWA Update
2. Budget Schedule
3. DOGS/CWES Update
4. Future Recharge Facility Improvements

IV. INFORMATION

1. Newspaper Articles *(Page 89)*

V. POOL MEMBER COMMENTS

VI. OTHER BUSINESS

VII. FUTURE MEETINGS

March 10, 2005	9:00 a.m.	Appropriative & Non-Agricultural Pool Meeting
March 10, 2005	11:00 a.m.	Agricultural Pool Meeting @ CBWM
March 15, 2005	12:00 p.m.	Manager's Meeting @ IEUA
March 21, 2005	1:00 p.m.	AGWA Meeting
March 24, 2005	9:00 a.m.	Advisory Committee Meeting
March 24, 2005	11:00 a.m.	Watermaster Board Meeting
March 28, 2005	8:30 a.m.	Water Quality Meeting
March 30, 2005	9:00 a.m.	MZ1 Technical Meeting

Meeting Adjourn

CHINO BASIN WATERMASTER
AGRICULTURAL POOL

11:00 a.m. – March 10, 2005
At The Offices Of
Chino Basin Watermaster
9641 San Bernardino Road
Rancho Cucamonga, CA 91730

AGENDA

CALL TO ORDER

AGENDA - ADDITIONS/REORDER

I. **CONSENT CALENDAR**

Note: All matters listed under the Consent Calendar are considered to be routine and non-controversial and will be acted upon by one motion in the form listed below. There will be no separate discussion on these items prior to voting unless any members, staff, or the public requests specific items be discussed and/or removed from the Consent Calendar for separate action.

A. MINUTES

1. Minutes of the Agricultural Pool Meeting held February 15, 2005 *(Page 7)*

B. FINANCIAL REPORTS

1. Cash Disbursements for the month of February 2005 *(Page 13)*
2. Combining Schedule of Revenue, Expenses and Changes in Working Capital for the Period July 1, 2004 through January 31, 2005 *(Page 17)*
3. Treasurer's Report of Financial Affairs for the Period January 1, 2005 through January 31, 2005 *(Page 19)*
4. Profit & Loss Budget vs. Actual July 2004 through January 2005 *(Page 21)*

II. **BUSINESS ITEMS**

A. MITIGATION OF TEMPORARY LOSS OF HYDRAULIC CONTROL

Consider Recommendation for Mitigation of Temporary Loss of Hydraulic Control *(Page 23)*

III. **REPORTS/UPDATES**

A. WATERMASTER GENERAL LEGAL COUNSEL REPORT

1. Attorney-Manager Meetings
2. Santa Ana River Application Process
3. Senator Kuehl's Water Bill *(Page 55)*

B. CEO/STAFF REPORT

1. AGWA Update
2. Budget Schedule
3. DOGS/CWES Update
4. Future Recharge Facility Improvements

IV. **INFORMATION**
1. Newspaper Articles *(Page 89)*

V. **POOL MEMBER COMMENTS**

VI. **OTHER BUSINESS**

VII. **FUTURE MEETINGS**

March 10, 2005	9:00 a.m.	Appropriative & Non-Agricultural Pool Meeting
March 10, 2005	11:00 a.m.	Agricultural Pool Meeting @ CBWM
March 15, 2005	12:00 p.m.	Manager's Meeting @ IEUA
March 21, 2005	1:00 p.m.	AGWA Meeting
March 24, 2005	9:00 a.m.	Advisory Committee Meeting
March 24, 2005	11:00 a.m.	Watermaster Board Meeting
March 28, 2005	8:30 a.m.	Water Quality Meeting
March 30, 2005	9:00 a.m.	MZ1 Technical Meeting

Meeting Adjourn

CHINO BASIN WATERMASTER

I. CONSENT CALENDAR

A. MINUTES

1. Joint Appropriative and Non-Agricultural Pool Meeting – February 10, 2005

Draft Minutes
CHINO BASIN WATERMASTER
JOINT APPROPRIATIVE & NON-AGRICULTURAL POOL MEETING
February 10, 2005

The joint Appropriative and Non-Agricultural Pool Meeting was held at the offices of Chino Basin Watermaster, 9641 San Bernardino Road, Rancho Cucamonga, CA, on February 10, 2005 at 9:00 a.m.

APPROPRIATIVE POOL MEMBERS PRESENT

Dave Crosley, Chair	City of Chino
Ray Wellington	San Antonio Water Company
Mike McGraw	Fontana Water Company
Raul Garibay	City of Pomona
Ken Jeske	City of Ontario
Robert DeLoach	Cucamonga Valley Water District
Gerald J. Black	Fontana Union Water Company
James T. Bryson	Fontana Water Company
Mark Kinsey	Monte Vista Water District
Bill Stafford	Marygold Mutual Water Company

NON-AGRICULTURAL POOL MEMBERS PRESENT

Justin Scott-Coe	Vulcan Materials Company (Calmat Division)

Watermaster Staff Present

Kenneth R. Manning	Chief Executive Officer
Sheri Rojo	Finance Manager
Gordon Treweek	Project Engineer
Danielle Maurizio	Senior Engineer
Sherri Lynne Molino	Recording Secretary

Watermaster Consultants Present

Michael Fife	Hatch & Parent
Mark Wildermuth	Wildermuth Environmental Inc.

Others Present

Mohamed El-Amamy	City of Ontario
Josephine Johnson	Monte Vista Water District
Rita Kurth	Cucamonga Valley Water District
Justin Brokaw	Marygold Mutual Water Company

Chair Crosley called the meeting to order at 9:02 a.m.

AGENDA - ADDITIONS/REORDER
There were no additions or reorders made to the agenda.

I. **CONSENT CALENDAR**
   A. **MINUTES**
      1. Minutes of the Annual Appropriative Pool Meeting held January 13, 2005
      2. Minutes of the Annual Non-Agricultural Pool Meeting held January 13, 2005

B. FINANCIAL REPORTS

1. Cash Disbursements for the month of January 2005
2. Combining Schedule of Revenue, Expenses and Changes in Working Capital for the Period July 1, 2004 through December 31, 2004
3. Treasurer's Report of Financial Affairs for the Period December 1, 2004 through December 31, 2004
4. Profit & Loss Budget vs. Actual July 2004 through December 2004

Motion by DeLoach, second by Jeske, and by unanimous vote

Moved to approve Consent Calendar Items A through B, as presented

II. BUSINESS ITEMS

A. CONSULTANT AGREEMENT WITH THE FURMAN GROUP

Mr. Manning stated this item has been under discussion for a couple weeks. A number of our agencies have a consultant in Washington DC and what Watermaster has found is that there is a need to try and coordinate those activities and messages with the Watermaster. This is not a lobbyist contract, this contract is strictly for the Furman Group to monitor and coordinate activities in Washington DC; this will keep Watermaster better informed. Mr. Manning stated a good example for this type of work that the Furman Group will be performing, is there is a delegation from Fontana, Colton, and Rialto in Washington today and the lobbyist from Three Valleys and other agencies are working with those parties and the Furman Group was asked to be involved with that endeavor in coordinating their message to make sure that the message they are presenting does not conflict with the message Watermaster will be delivering when in Washington next week. This will ensure a group effort feeling while presenting issues, also in that we are working together for the same goal and with the same mind set. This is a good example of where things are going in the future and that Watermaster needs to have a presence in Washington. The contract is $2,500 dollars a month; which is a very low dollar amount for this type of work. Staff recommends at this time that this agreement be approved for the benefits it will provide Watermaster and the Chino Basin. A discussion ensued with regard to this contract. Mr. Manning stated what Watermaster needs is a consultant to keep track of what is happening in Washington so that Watermaster can work on behalf of member agencies to help them coordinate and craft a message that is not in conflict with others. Mr. Kinsey noted that the presented contract seemed to be missing a proof of insurance and a liability clause which should be considered when entering into any contract of this type. Mr. Manning stated this contract was asked to be kept simple and that those items being added back into the contract should not be a problem and that he will look into it immediately with the Furman Group as well as with our legal department. There was a question regarding the date of the contract because the Committee does not know when the agreement will be approved. The date on the contract will be updated to reflect the date the CEO executes the contract.

Motion by DeLoach, second by Black, and by unanimous vote

Moved to approve consultant agreement with the Furman Group for $2,500 dollars a month with the notation that the agreement will have insurance liability added to the agreement, as presented

B. APPROVAL OF STIPULATION

Mr. Manning asked Counsel Fife to take this item since counsel is more familiar with this article noting this item is the approval of stipulation with East Valley Water District in dealing with the Watermaster application filed in 2002 with the State Resource Control Board. Counsel Fife stated this is part of the ongoing Santa Ana River issue; Watermaster has filed its Santa Ana River Water Rights Application and has received four protests against it. One protest from East Valley, one from the Department of Fish and Game, one from the Forest Service, and one from Cucamonga Valley Water District. Legal counsel has a meeting with the State Board staff on March 7, 2005 and it is anticipated that at least three of the four protests will be resolved prior to

that meeting. This is the agreement with East Valley who has agreed to withdraw their protest if Watermaster will affirm that none of the points of diversion are in the Santa Ana River, which is true, and that with the application Watermaster has no intention of infringing on East Valley's water rights, which is also true. Counsel Fife stated in his opinion there is no problem with signing this presented stipulation; it does not require Watermaster to do anything that Watermaster is not already doing.

Motion by Jeske, second by DeLoach, and by unanimous vote

Moved to approve stipulation between East Valley Water District and Watermaster concerning Watermaster's Santa Ana River water rights application Group, as presented

III. REPORTS/UPDATES

A. WATERMASTER GENERAL LEGAL COUNSEL REPORT

1. Attorney-Manager Meetings

   Counsel Fife stated the next meeting is set for March 15, 2005 right after the Agricultural Pool meeting at Inland Empire Utilities Agency; we are anticipating some technical work from Wildermuth prior to that meeting and counsel will also be putting out a summary of where the Attorney Manager process is so far and where the real 2005 milestone issues are. An agenda for that meeting will be sent out prior to the March 15th meeting.

2. Santa Ana River Application Process

   Counsel Fife stated that legal counsel met with Mr. Manning, Scott Slater, John Rossi, and representative from Orange County Water District (OCWD) on February 9, 2005 to try to bring all the parties together into a more coordinated approach to the whole Santa Ana process. Meetings will continue and the next meeting has been scheduled for February 23, 2005. There is another meeting set for Mr. Manning, Mark Wildermuth, and myself with State Board staff on March 7, 2005; we are now officially moving on Watermaster's application and are in the process of resolving the protests. Staff is speaking to the State Board in regards to what additional information they need.

Added Item:

Counsel Fife noted that Mr. DeLoach had asked that staff address this item at this meeting. Counsel Fife stated there is a handout on the back table titled "Background On Senator Kuehl's Water Bill". Senator Sheila Kuehl is proposing to do a follow up on her great success on senate bill 221. There is no text that has been put out yet; this is only the senator's office indicating things that the senator wants to put into a bill to introduce this year. The senator's office is looking at putting out bill that is going to address what they see as three large areas, the first is water conservation policy, the second is the use and abundance of water recourses, and thirdly is planning and management. There are a lot of interesting things in this bill, one of the big things is a real emphasis on mandating conservation and putting penalties in place for not conserving water which raises questions about how do you define conservation and how you define those penalties. Some of the other interesting high points are the topic of imposing Agricultural water management plans which would be the flip side to urban water management plans for Ag users and the reporting of groundwater use. It basically looks like this bill will undo what AB 2733 did last year and mandate everybody state wide has to report to the State Board including those people in San Bernardino, Riverside, and Los Angeles counties who last year were told that they no longer had to report the State Board that they would report to their local agencies instead. There is no draft bill out yet there are only these indications from the senator's office that something is coming. Mr. DeLoach noted that he would be addressing this at the ACWA's Legislative Committee meeting this week. Counsel Fife noted this has gone to the ACWA's Legal Affairs Committee and the senator's office has had a briefing on this that our lobbyist was at.

B. CEO/STAFF REPORT

1. Storm Report

Mr. Manning stated that at the last meeting a copy of the storm report was provided and some additional information needs to be added to that report. Mr. Treweek is going to give that update. Mr. Treweek noted that Watermaster has been capturing storm water in ten basins (available in October 2004) to fourteen basins (available in January 2005). By the end of January 2005 there were six major storm events, through these six storm events the basins have received about 32 inches of rain this year and we have captured approximately 7,000 acre-feet in the basins that are on line. Over the next month or two, Watermaster anticipates additional basins being brought on line as their construction is completed. The deadline for completion of all basins is March 31, 2005; at that point Watermaster should have all 20 basins on line and ready for storm or supplemental water. The question of how to track or measure ongoing nuisance flows which are redirected into the basins was presented. Mr. Treweek stated Watermaster is directing all nuisance flow that we can into the basins either through drop inlets or by inflating rubber dams. Presently the SCADA system is not up and running; SCADA is one of the items that is to be completed by March 31, 2005. We will also have flow meters that will measure the flow of nuisance water. In lieu of SCADA/flow meters, Watermaster is calculating the percolation in the basin. After nuisance water enters into basin storage, we measure the dropping water level of the basin and the "wetted" area of the basin. The product of the percolation rate (ft/day), the "wetted" area (acres), and the number of recharged days gives the amount of water recharge during a storm event. Mr. Manning stated Watermaster is currently performing this via site visits. Once the SCADA system is fully operational this will be done electronically and will be available on a real time basis.

2. State of the Basin

Mr. Manning stated the draft State of the Basin report in its entirety is available on the Chino Basin Watermaster web site and is also available on Wildermuth's web site. A copy of the Executive Summary was the only part of the report put into the packet because of the size of the document. Staff is requesting comments be into Wildermuth by the end of this week or next week so that report can be finalized for distribution.

IV. INFORMATION

1. Newspaper Articles

Mr. Manning noted that on the back table was a recent article which was published in the San Gabriel Valley Tribune regarding his resignation from his seat on the Upper District Water Board.

V. POOL MEMBER COMMENTS

Ms. Johnson made the suggestion for Watermaster to purchase wireless headsets for the hearing impaired due to the difficulty in hearing what parties are saying from the back of the room. Mr. Manning noted this situation will be looked into and if it is feasible a wireless headset will be made available for all who need it.

VI. OTHER BUSINESS

No comment was made regarding this item.

VII. **FUTURE MEETINGS**

February 10, 2005	9:00 a.m.	Appropriative & Non-Agricultural Pool Meeting
February 15, 2005	9:00 a.m.	Agricultural Pool Meeting @ IEUA
February 24, 2005	9:00 a.m.	Advisory Committee Meeting
February 24, 2005	11:00 a.m.	Watermaster Board Meeting
March 10, 2005	9:00 a.m.	Appropriative & Non-Agricultural Pool Meeting
March 15, 2005	9:00 a.m.	Agricultural Pool Meeting @ IEUA
March 21, 2005	1:00 p.m.	AGWA Meeting
March 24, 2005	9:00 a.m.	Advisory Committee Meeting
March 24, 2005	11:00 a.m.	Watermaster Board Meeting

The Joint Appropriative & Non-Agricultural Pool Meeting Adjourned at 9:35 a.m.

Secretary: _____

Minutes Approved: _____

THIS PAGE

HAS

INTENTIONALLY

BEEN LEFT

BLANK

FOR PAGINATION

CHINO BASIN WATERMASTER

I. CONSENT CALENDAR

A. MINUTES

1. Agricultural Pool Meeting – February 15, 2005

Draft Minutes
CHINO BASIN WATERMASTER
AGRICULTURAL POOL MEETING
February 15, 2005

The Agricultural Pool Meeting was held at the offices of the Inland Empire Utilities Agency, 6075 Kimball Avenue, Chino, CA, on February 15, 2005 at 9:00 a.m.

Agricultural Pool Members Present

Nathan deBoom, Chair	Milk Producers Council
Gene Koopman	Milk Producers Council
Bob Feenstra	Milk Producers Council
Glen Durrington	Crops
John Huitsing	Dairy
Ed Gonsman	State of California, California Institute for Men

Watermaster Staff Present

Sheri Rojo	Finance Manager
Gordon Treweek	Project Engineer
Danielle Maurizio	Senior Engineer
Sherri Lynne Molino	Recording Secretary

Watermaster Consultants Present

Michael Fife	Hatch & Parent

Others Present

Steve Lee	Reid & Hellyer
Rick Rees	Geomatrix for CIM

Chair deBoom called the Agricultural Pool meeting to order at 9:10 a.m.

AGENDA - ADDITIONS/REORDER
No additions or reorders were made to the agenda.

I. **CONSENT CALENDAR**

A. **MINUTES**

1. Minutes of the Annual Agricultural Pool Meeting held January 18, 2005

B. **FINANCIAL REPORTS**

1. Cash Disbursements for the month of January 2005
2. Combining Schedule of Revenue, Expenses and Changes in Working Capital for the Period July 1, 2004 through December 31, 2004
3. Treasurer's Report of Financial Affairs for the Period December 1, 2004 through December 31, 2004
4. Profit & Loss Budget vs. Actual July 2004 through December 2004

Motion by Durrington, second by Feenstra, and by unanimous vote
Moved to approve Consent Calendar Items A through B, as presented

II. BUSINESS ITEMS

A. CONSULTANT AGREEMENT WITH THE FURMAN GROUP

Ms. Rojo stated that Watermaster originally had a contract with Cerrell and Associates who was a public consulting firm. The contract with Cerrell was cancelled a few months prior; that contract cost Watermaster approximately $6,700 dollars a month for their services which now leaves money in the budget. Watermaster staff has deduced there is a need to keep up with federal legislative issues in Washington would like to enter into an agreement with the Furman Group. This is a one year contract at $2,500 dollars a month; the Furman Group will keep Watermaster staff abreast of the legislative issues happening in Washington DC. This consulting firm is not a lobbyist group nor will they be lobbying any affairs on behalf of Watermaster. The Appropriative and Non-Agricultural Pool approved this contract unanimously, however the Appropriative Pool commented there was a lack of proof of liability insurance wording in the contract and asked Mr. Manning to see those types of insurances were put back into the contract. Ms. Rojo noted the revised contract was available on the back table. The question of whether Cerrell and Associates performed this type of service was presented. Ms. Rojo noted they were more of a public relations firm. The question of whether or not the new consulting firm is based out of DC was presented. Ms. Rojo noted that they had an office in Washington DC as well as one in San Diego. Mr. Feenstra stated he was pleased the Appropriative Pool caught the lack of liability insurance in the contract due to so many law suites that could take place and noted it was important to keep ourselves well protected in the areas of insurance when it comes to outside contracts. Mr. Rojo noted the Furman Group also does lobbying for parties and at the time the contract was being drawn up Watermaster asked the Furman Group to really simplify their standard contract to not be construed to any lobbying acts. The Furman Group took out several sentences and phrases to accommodate Watermaster's wishes and the particular statements regarding liability insurance was inadvertently removed. The question regarding exactly what the Furman Group will be doing for the Watermaster was presented. Ms. Rojo stated they will be our legislative contact for the happenings in Washington. A discussion ensued with regard to where liability insurance would come into play with the Furman Group. The question of whether $2,500 dollars a month was a fair price for this type of work was presented. Ms. Rojo noted that when Mr. Manning came on board last year he had originally looked at the Cerrell contract and inquired as to what Watermaster was getting for that type of money in the area of legislation consulting and in knowing the Furman Group from prior dealings noted the Furman Group was giving Watermaster a really good deal. It was noted that a normal consultant retainer for people in Washington runs approximately $7,000 to $10,000 a month. The question of whether or not we have any people doing this type of work for Watermaster in Sacramento was presented. Ms. Rojo stated that she knows that Mr. Atwater has contacts in Sacramento, the Watermaster does not. Ms. Rojo stated that Mr. Manning keeps up to date on all the state and legislative issues. Mr. Feenstra stated that he felt this was a very reasonable fee for this type of work and with this type of consulting, Watermaster will benefit tremendously in a vast number of areas. The question of whether or not staff felt if the Furman Group heard of something in Washington that would not necessarily be relevant to Watermaster but to others in the Chino Basin would be shored with others. Ms. Rojo noted that sounded like something they would certainly keep others informed. Counsel Fife stated since Watermaster does not lobby, one of the goals Mr. Manning is doing with this type of agreement is that if Watermaster gets wind of something that really needs a lobbying effort Ken can turn it over to one of the other Watermaster entities. A discussion ensued with regards to the great opportunities this type of contract will open up for the Watermaster and others in the Chino Basin.

Motion by Feenstra, second by Koopman, and by unanimous vote

Moved to approve consultant agreement with the Furman Group, as presented

B. APPROVAL OF STIPULATION

Counsel Fife stated that he will combine this item with part two of the Watermaster General Legal Counsel Reports section for the matter of expediency and noted their relevancy. This

item concerns the Santa Ana River subject. In the year 2000 the Chino Basin decided to participate in the Santa Ana process as an applicant rather than being a protestor. Watermaster filed a water rights application for all of the storm flow which would pass through the Chino Basin. Watermaster's application attracted four protests; one from East Valley Water District, one from Cucamonga Valley Water District, one from the Forest Service, and one from the Department of Fish and Game. East Valley Water District has agreed to withdraw their protest if Watermaster will stipulate first that none of our diversions come out of the main stem of the Santa Ana River, which is true, and secondly with our application Watermaster has no intention of infringing on East Valley's water rights, which is also true. This appears to be a fairly innocuous stipulation to enter into and this will resolve one of the four protests that Watermaster needs to deal with on its application. Counsel Fife reminded the Committee members that Western Municipal Water District has put out their EIR on their application, Orange County Water District also has an EIR out on their application; all of the applications are beginning to move forward. Western and OCWD anticipate they can get a hearing on their applications in 2005. Counsel Fife stated he would like to get approval on this stipulation so that it can go to the Watermaster Board and get authorization to sign it. A brief discussion ensued with regard to the other protestors. Counsel Fife noted that the protest from the Fish US Forest Service was a misunderstanding of our application and in a verbal conversation with their legal department it appears they will be withdrawing their protest. Mr. Feenstra inquired to the word "stock watering" used in the stipulation on page 41 of the packet. Counsel Fife states that these words come out of the State Water Resources Control Board application. The closest statement to cows is stock watering on the application form provided; and noted that he wrote in the word "dairy use" next to stock watering when filling out Watermaster's application. Counsel Fife stated that Watermaster's application is for the diversion of surface flows, which is storm water, into our recharge basins; the beneficial use then is whatever anybody pumps out and uses it for. Counsel Fife stated that staff is meeting with Western and OCWD next week; staff is pushing for a group cumulative impacts analysis. Staff wants all participants to do a group report; Watermaster might volunteer to do that report for everybody.

Motion by Feenstra, second by Koopman, and by unanimous vote

Moved to approve stipulation between East Valley Water District and Watermaster concerning Watermaster's Santa Ana River water rights application, as presented

III. REPORTS/UPDATES

A. WATERMASTER GENERAL LEGAL COUNSEL REPORT

1. Attorney-Manager Meetings

   Counsel Fife stated that 2005 is a big year under the Peace Agreement there are a lot of milestone issues and of most importance in September the term of the nine member board expires; in July or August counsel is going to make a motion to the court to reappoint the Watermaster Board. Staff tried to get a head start of many of these issues which is why the Attorney-Manager meetings started up a last year. The Attorney-Managers process basically came to a halt due to the whole concept of Hydraulic Control, technical work. Counsel Fife noted there is a manager's meeting scheduled for March 15, 2005 at noon and is being held at Inland Empire Utilities Agency. Staff and counsel are anticipating moving directly into the Attorney-Manager meetings after the technical managers meeting takes place on March 15th.

2. Santa Ana River Application Process

   This item was covered in Business Item B – Approval of Stipulation. No other comment was made regarding this item.

Added Item:

Counsel noted there is a handout on the back table titled "Background on Senator Kuehl's Water Bill". Senator Sheila Kuehl is proposing to do a follow up on her great success on senate bill 221. There is no text that has been put out yet; this is only the senator's office indicating things that the senator wants to put into a bill to introduce this year. The senator's office is looking at putting out bill that is going to address as to what they see as three large areas, the first is water conservation policy, the second is the use and abundance of water recourses, and thirdly is planning and management. There are a lot of interesting things in this bill, one of the big things is a real emphasis on mandating conservation and putting penalties in place for not conserving water which raises questions about how do you define conservation and how you define those penalties. Some of the other interesting high points are the topic of imposing Agricultural water management plans which would be the flip side to urban water management plans for Ag users and the reporting of groundwater use. It basically looks like this bill will undo what AB 2733 did last year and mandate everybody state wide has to report to the State Board including those people in San Bernardino, Riverside, and Los Angeles counties who last year were told that they no longer had to report the State Board that they would report to their local agencies instead. There is no draft bill out yet there are only these indications from the senator's office that something is coming. Mr. Feenstra noted his concern over the possibility of this bill being introduced and/or passed. Mr. Feenstra stated this will be a topic of discussion February 16 and 17 during the Agricultural Round Table in Sacramento. Mr. Feenstra commented on how important it is for all water districts/agencies to be very mindful of what this bill could do. It was asked that this item be placed on the March agenda for an update. A discussion ensued with regard to the potential damage this bill could cause the Ag industry in the Chino Basin.

B. CEO/STAFF REPORT

1. Storm Report

Ms. Rojo reported there were handouts on the storm report at the Appropriative and Non-Agricultural Pool meetings and verified with Mr. Treweek that there were no updates from that report to report on. As a recap of that report, Ms. Rojo stated that from the storms which started in October Watermaster has captured approximately 8,000 acre-feet of water in the recharge basins. The operations are a little behind due to the SCADA system not being fully operational in all basins. The question of whether or not there was a lot of damage to the basins from the last two storms was presented. Mr. Treweek noted there was some erosion in some of the basins and a good amount of the basins has damage to the intermediate berms. The question of cost to repair these berms was presented. Mr. Treweek noted it would be approximately a quarter of a million dollars for repairs for the berms and another $50,000 to $100,000 in erosion damage. Chair deBoom inquired where this puts us as far as the 12,000 acre-feet is concerned. Ms. Rojo stated we are now at 8,000 out of the 12,000 and we are in good shape for just being in February. Ms. Rojo discussed how the intense rain storms affect the capture of water versus the slow steady rain fall. It was noted that Arrowhead Lake which was in dire straights is now full. A discussion ensued with regard to the recent Prado Dam situation. Ms. Rojo stated that some of the basins, which are under Flood Control jurisdiction, Watermaster has been attempting to secure basins, one at a time, to do a demonstration project during this storm to try and improve Watermaster's ability to run them. Mr. Rojo stated at a recent storm Watermaster contacted Flood Control and made them aware that Watermaster can start diverting water into all of the basins which will in turn take some of the pressure off the dam; this went very well and turned out to be in bringing online several basins. Statements were received regarding trees and shrubs growing in the basins. Mr. Treweek stated this is a concern and the fact that one can establish a habitat and then the wildlife can set up nesting and then Watermaster can not go in and renovate the basin to use it for what it was originally designed for. Staff has determined there will be an aggressive maintenance program set in place where the sides will be cleared of any vegetation and maintain it that way so that it does not ever become a habitat. Now that these basins are

going to be used 12 months out of the year a continuous effort to keep them clear and operable will be a priority. Watermaster is currently budgeting for this type of basin maintenance.

2. State of the Basin
Ms. Rojo noted the Executive Summary page only was in the package and the full State of the Basin report was available on Watermaster and Wildermuth Environmental's web site for review or downloading. Ms. Rojo stated comments were due today on that report, however since that was such short notice for the Agricultural Pool the time for comment would be extended for another few days. It will be appreciated if comments are directed to Watermaster expediently so this report may be finalized.

IV. INFORMATION

1. Newspaper Articles
No comment was made regarding this item.

V. POOL MEMBER COMMENTS

Ms. Rojo noted that on the back table was a recent article which was published in the San Gabriel Valley Tribune regarding Mr. Manning's resignation from his seat on the Upper District Water Board.

VI. OTHER BUSINESS

Mr. Feenstra complimented Mr. Manning (who was not present for this meeting) and the Watermaster staff for accommodating the Agricultural Pool in maintaining the Ag Pool meetings to be held Inland Empire Utilities Agency and how appreciative he and other pool members are.

VII. FUTURE MEETINGS

February 10, 2005	9:00 a.m.	Appropriative & Non-Agricultural Pool Meeting
February 15, 2005	9:00 a.m.	Agricultural Pool Meeting @ IEUA
February 24, 2005	9:00 a.m.	Advisory Committee Meeting
February 24, 2005	11:00 a.m.	Watermaster Board Meeting
March 10, 2005	9:00 a.m.	Appropriative & Non-Agricultural Pool Meeting
March 15, 2005	9:00 a.m.	Agricultural Pool Meeting @ IEUA
March 21, 2005	1:00 p.m.	AGWA Meeting
March 24, 2005	9:00 a.m.	Advisory Committee Meeting
March 24, 2005	11:00 a.m.	Watermaster Board Meeting

The Agricultural Pool Meeting Adjourned at 10:05 a.m.

Secretary: _____

Minutes Approved: _____

THIS PAGE

HAS

INTENTIONALLY

BEEN LEFT

BLANK

FOR PAGINATION

CHINO BASIN WATERMASTER

I. CONSENT CALENDAR

B. FINANCIAL REPORTS

1. Cash Disbursements February 2005
2. Combining Schedule of Revenue, Expenses and changes in Working Capital for the Period July 1, 2004 through January 31, 2005
3. Treasurer's Report of Financial Affairs for January 1 through January 31, 2005
4. Profit & Loss Budget vs. Actual July 2004 through January 2005

CHINO BASIN WATERMASTER

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

KENNETH R. MANNING
Chief Executive Officer

STAFF REPORT

DATE: **March 10, 2005**
March 24, 2005

TO: **Committee Members**
Watermaster Board Members

SUBJECT: **Cash Disbursement Report – February 2005**

SUMMARY

Issue – Record of cash disbursements for the month of February 2005.

Recommendation – Staff recommends the Cash Disbursements for February 2005 be received and filed as presented.

Fiscal Impact – All funds disbursed were included in the FY 2004-05 Watermaster Budget.

BACKGROUND

A monthly cash disbursement report is provided to keep all members apprised of Watermaster expenditures.

DISCUSSION

Total cash disbursements during the month of February 2005 were $364,730.60. The most significant expenditures during the month were Wildermuth Environmental Inc. in the amount of $168,995.25 and Hatch & Parent in the amount of $60,902.45.

THIS PAGE

HAS

INTENTIONALLY

BEEN LEFT

BLANK

FOR PAGINATION

CHINO BASIN WATERMASTER
Cash Disbursement Detail Report
February 2005

	Type	Date	Num	Name	Amount
Feb 05					
	Bill Pmt -Check	2/2/2005	9321	BLACK & VEATCH CORPORATION	-3,465.00
	Bill Pmt -Check	2/2/2005	9322	ANDERSON, JOHN	-125.00
	Bill Pmt -Check	2/2/2005	9323	AUMA ACTUATORS INC.	-268.00
	Bill Pmt -Check	2/2/2005	9324	BLACK & VEATCH CORPORATION	-5,816.25
	Bill Pmt -Check	2/2/2005	9325	BOWCOCK, ROBERT	-250.00
	Bill Pmt -Check	2/2/2005	9326	DIRECTV	-71.98
	Bill Pmt -Check	2/2/2005	9327	HAMRICK, PAUL	-125.00
	Bill Pmt -Check	2/2/2005	9328	JAMES JOHNSTON	-795.00
	Bill Pmt -Check	2/2/2005	9329	KRUGER, W. C. "BILL"	-125.00
	Bill Pmt -Check	2/2/2005	9330	KUHN, BOB	-375.00
	Bill Pmt -Check	2/2/2005	9331	MWH LABORATORIES	-4,125.00
	Bill Pmt -Check	2/2/2005	9332	NEUFELD, ROBERT	-250.00
	Bill Pmt -Check	2/2/2005	9333	OFFICE DEPOT	-329.20
	Bill Pmt -Check	2/2/2005	9334	PAYCHEX	-244.15
	Bill Pmt -Check	2/2/2005	9335	PETTY CASH	-481.18
	Bill Pmt -Check	2/2/2005	9336	PURCHASE POWER	-2,097.91
	Bill Pmt -Check	2/2/2005	9337	RBM LOCK & KEY	-152.44
	Bill Pmt -Check	2/2/2005	9338	RICOH BUSINESS SYSTEMS-Maintenance	-67.46
	Bill Pmt -Check	2/2/2005	9339	UNION 76	-285.26
	Bill Pmt -Check	2/2/2005	9340	VERIZON	-38.56
	General Journal	2/5/2005	05/02/3	PAYROLL	-5,927.14
	General Journal	2/5/2005	05/02/3	PAYROLL	-16,141.59
	Bill Pmt -Check	2/10/2005	9341	GEOTECHNICAL SERVICES	-8,063.20
	Bill Pmt -Check	2/11/2005	9342	SAVIN CORPORATION dba RICOH BUSINESS	-173.82
	Bill Pmt -Check	2/11/2005	9343	SAVIN CORPORATION dba RICOH BUSINESS	-639.50
	Bill Pmt -Check	2/11/2005	9344	SAVIN CORPORATION dba RICOH BUSINESS	-36.00
	Bill Pmt -Check	2/11/2005	9345	AMERICAN WATER WORKS ASSOCIATION	-150.00
	Bill Pmt -Check	2/11/2005	9346	APPLIED COMPUTER TECHNOLOGIES	-2,473.30
	Bill Pmt -Check	2/11/2005	9347	CITIZENS CONFERENCING	-41.86
	Bill Pmt -Check	2/11/2005	9348	HATCH AND PARENT	-60,902.45
	Bill Pmt -Check	2/11/2005	9349	HSBC BUSINESS SOLUTIONS	-795.63
	Bill Pmt -Check	2/11/2005	9350	INLAND COUNTIES INSURANCE SERVICES, INC.	-216.77
	Bill Pmt -Check	2/11/2005	9351	INLAND EMPIRE UTILITIES AGENCY	-60.00
	Bill Pmt -Check	2/11/2005	9352	LOS ANGELES TIMES	-42.00
	Bill Pmt -Check	2/11/2005	9353	PARK PLACE COMPUTER SOLUTIONS, INC.	-2,695.00
	Bill Pmt -Check	2/11/2005	9354	REID & HELLYER	-2,194.59
	Bill Pmt -Check	2/11/2005	9355	UNITED STATES PLASTIC CORP	-158.12
	Bill Pmt -Check	2/11/2005	9356	VELASQUEZ JANITORIAL	-1,200.00
	Bill Pmt -Check	2/11/2005	9357	VERIZON	-344.48
	Bill Pmt -Check	2/11/2005	9358	VIP AUTO DETAILING	-329.50
	Bill Pmt -Check	2/14/2005	9359	STATE OF CALIFORNIA BOARD OF EQUALIZATION	-865.79
	Bill Pmt -Check	2/14/2005	9360	ACWA	-9,080.00
	Bill Pmt -Check	2/17/2005	9361	JAMES JOHNSTON	-850.00
	General Journal	2/19/2005	05/02/6	PAYROLL	-5,053.63
	General Journal	2/19/2005	05/02/6	PAYROLL	-16,025.22
	Bill Pmt -Check	2/22/2005	9362	COSTCO BUSINESS DELIVERY	-170.00
	Bill Pmt -Check	2/22/2005	9363	ACWA SERVICES CORPORATION	-288.93
	Bill Pmt -Check	2/22/2005	9364	BANK OF AMERICA	-291.90
	Bill Pmt -Check	2/22/2005	9365	CERRELL ASSOCIATES INC.	-848.08
	Bill Pmt -Check	2/22/2005	9366	CHEVRON	-98.15
	Bill Pmt -Check	2/22/2005	9367	CITISTREET	-6,750.00
	Bill Pmt -Check	2/22/2005	9368	CITIZENS CONFERENCING	-286.78
	Bill Pmt -Check	2/22/2005	9369	DAN VASILE	-140.00
	Bill Pmt -Check	2/22/2005	9370	ELLISON, SCHNEIDER & HARRIS, LLP	-6,978.44
	Bill Pmt -Check	2/22/2005	9371	FIRST AMERICAN REAL ESTATE SOLUTIONS	-125.00
	Bill Pmt -Check	2/22/2005	9372	GLOBAL PRESENTER.COM	-3,135.49
	Bill Pmt -Check	2/22/2005	9373	IDEAL GRAPHICS	-465.48
	Bill Pmt -Check	2/22/2005	9374	INLAND EMPIRE UTILITIES AGENCY	-206.31
	Bill Pmt -Check	2/22/2005	9375	MCI	-900.15
	Bill Pmt -Check	2/22/2005	9376	PUBLIC EMPLOYEES' RETIREMENT SYSTEM	-3,648.36
	Bill Pmt -Check	2/22/2005	9377	RICOH BUSINESS SYSTEMS-Lease	-3,591.31
	Bill Pmt -Check	2/22/2005	9378	STANDARD INSURANCE CO.	-461.24
	Bill Pmt -Check	2/22/2005	9379	STATE COMPENSATION INSURANCE FUND	-892.77
	Bill Pmt -Check	2/22/2005	9380	STATE OF CALIFORNIA BOARD OF EQUALIZATION	-530.54
	Bill Pmt -Check	2/22/2005	9381	UNITED PARCEL SERVICE	-324.91
	Bill Pmt -Check	2/22/2005	9382	USA-FACT INC	-94.20
	Bill Pmt -Check	2/22/2005	9383	WILDERMUTH ENVIRONMENTAL INC	-168,995.25
	Bill Pmt -Check	2/22/2005	9384	CUCAMONGA VALLEY WATER DISTRICT	-4,900.00

CHINO BASIN WATERMASTER
Cash Disbursement Detail Report
February 2005

Type	Date	Num	Name	Amount
Bill Pmt -Check	2/22/2005	9385	PUBLIC EMPLOYEES' RETIREMENT SYSTEM	-4,031.40
Bill Pmt -Check	2/22/2005	9386	STATE OF CALIFORNIA BOARD OF EQUALIZATION	-2,524.75
Bill Pmt -Check	2/23/2005	9387	ROUTE 66 SUBS	-104.18
Feb 05				-364,730.60

CHINO BASIN WATERMASTER
COMBINING SCHEDULE OF REVENUE, EXPENSES AND CHANGES IN WORKING CAPITAL
FOR THE
PERIOD JULY 1, 2004 THROUGH JANUARY 31, 2005

	WATERMASTER ADMINISTRATION	OPTIMUM BASIN MANAGEMENT	POOL ADMINISTRATION AND SPECIAL PROJECTS APPROPRIATIVE POOL	AGRICULTURAL POOL	NON-AGRIC. POOL	GROUNDWATER OPERATIONS GROUNDWATER REPLENISHMENT	SB222 FUNDS	EDUCATION FUNDS	GRAND TOTALS	BUDGET 2004-05
Administrative Revenues										
Administrative Assessments			4,807,004		74,241				4,881,245	$3,984,888
Interest Revenue			55,353	4,738	2,379			14	62,484	78,330
Mutual Agency Project Revenue		-							-	0
Grant Income									-	0
Miscellaneous Income	-								-	0
Total Revenues	-	-	4,862,357	4,738	76,620	-	-	14	4,943,729	4,063,218
Administrative & Project Expenditures										
Watermaster Administration	469,120								469,120	621,784
Watermaster Board-Advisory Committee	28,289								28,289	37,018
Pool Administration			6,394	40,154	1,750				48,298	91,153
Optimum Basin Mgnt Administration		764,751							764,751	1,019,183
OBMP Project Costs		1,411,921							1,411,921	3,733,694
Education Funds Use								-	-	375
Mutual Agency Project Costs	34,181								34,181	80,004
Total Administrative/OBMP Expenses	531,590	2,176,672	6,394	40,154	1,750			-	2,756,560	5,583,211
Net Administrative/OBMP Income	(531,590)	(2,176,672)								
Allocate Net Admin Income To Pools	531,590		400,240	122,821	8,528				-	0
Allocate Net OBMP Income To Pools		2,176,672	1,638,842	502,910	34,920				-	0
Agricultural Expense Transfer			661,360	(661,360)					-	0
Total Expenses			2,706,837	4,525	45,198	-	-	-	2,756,560	5,583,211
Net Administrative Income			2,155,520	213	31,422			14	2,187,169	(1,519,993)
Other Income/(Expense)										
Replenishment Water Purchases						8,097,107			8,097,107	0
MZ1 Supplemental Water Assessments						1,625,000			1,625,000	2,179,500
Water Purchases									-	0
MZ1 Imported Water Purchase									-	(2,278,500)
Groundwater Replenishment						(1,290,815)			(1,290,815)	0
Net Other Income			-	-	-	8,431,292	-	-	8,431,292	(99,000)
Net Transfers To/(From) Reserves			2,155,520	213	31,422	8,431,292	-	14	10,618,461	(1,618,993)
Working Capital, July 1, 2004			3,471,229	463,055	173,739	4,133,061	158,251	2,195	8,401,530	
Working Capital, End Of Period			5,626,749	463,268	205,161	12,564,353	158,251	2,209	19,019,991	
03/04 Production			136,795.139	41,978.182	2,914.774				181,688.095	
03/04 Production Percentages			75.291%	23.105%	1.604%				100.000%	

Q:\Financial Statements\04-05\04 Dec\[Combining Schedule Dec 04.xls]Sheet1

Prepared by Sheri Rojo, Finance Manager

THIS PAGE

HAS

INTENTIONALLY

BEEN LEFT

BLANK

FOR PAGINATION

CHINO BASIN WATERMASTER
TREASURER'S REPORT OF FINANCIAL AFFAIRS FOR THE PERIOD
JANUARY 1 THROUGH JANUARY 31, 2005

DEPOSITORIES:			
Cash on Hand - Petty Cash			$ 500
Bank of America			
Governmental Checking-Demand Deposits		$ (7,289,077)	
Savings Deposits		9,635	
Zero Balance Account - Payroll		-	(7,279,442)
Vineyard Bank CD - Agricultural Pool			401,440
Local Agency Investment Fund - Sacramento			17,847,479
TOTAL CASH IN BANKS AND ON HAND	1/31/2005		**$ 10,969,977**
TOTAL CASH IN BANKS AND ON HAND	12/31/2004		9,431,994
PERIOD INCREASE (DECREASE)			**$ 1,537,983**

CHANGE IN CASH POSITION DUE TO:		
Decrease/(Increase) in Assets:	Accounts Receivable	$ 30,262
	Assessments Receivable	9,356,027
	Prepaid Expenses, Deposits & Other Current Assets	2,067
(Decrease)/Increase in Liabilities	Accounts Payable	(7,493,734)
	Accrued Payroll, Payroll Taxes & Other Current Liabilities	7,832
	Transfer to/(from) Reserves	(364,471)
	PERIOD INCREASE (DECREASE)	**$ 1,537,983**

SUMMARY OF FINANCIAL TRANSACTIONS:	Petty Cash	Govt'l Checking Demand	Zero Balance Account Payroll	Savings	Vineyard Bank	Local Agency Investment Funds	Totals
Balances as of 12/31/2004	$ 500	$ 153,196	$ -	$ 9,641	$ 401,440	$ 8,867,217	$ 9,431,994
Deposits	-	9,357,012	-	-	-	30,262	9,387,274
Transfers	-	(8,989,840)	39,840	-	-	8,950,000	-
Withdrawals/Checks	-	(7,809,445)	(39,840)	(6)	-	-	(7,849,291)
Balances as of 1/31/2005	$ 500	$ (7,289,077)	$ -	$ 9,635	$ 401,440	$ 17,847,479	$ 10,969,977
PERIOD INCREASE OR (DECREASE)	**$ -**	**$ (7,442,273)**	**$ -**	**$ (6)**	**$ -**	**$ 8,980,262**	**$ 1,537,983**

CHINO BASIN WATERMASTER
TREASURER'S REPORT OF FINANCIAL AFFAIRS FOR THE PERIOD
JANUARY 1 THROUGH JANUARY 31, 2005

INVESTMENT TRANSACTIONS

Effective Date	Transaction	Depository	Activity	Redeemed	Days to Maturity	Interest Rate(*)	Maturity Yield
1/13/2005	Interest	L.A.I.F.	30,262				
1/6/2005	Deposit	L.A.I.F.	8,950,000				
TOTAL INVESTMENT TRANSACTIONS			**$ 8,980,262**	-			

* The earnings rate for L.A.I.F. is a daily variable rate; 2.00% was the effective yield rate at the Quarter ended December 31, 2004

INVESTMENT STATUS
January 31, 2005

Financial Institution	Principal Amount	Number of Days	Interest Rate	Maturity Date
Local Agency Investment Fund	$ 17,847,479			
Time Certificates of Deposit	-			
TOTAL INVESTMENTS	**$ 17,847,479**			

Funds on hand are sufficient to meet all foreseen and planned Administrative and project expenditures during the next six months.

All investment transactions have been executed in accordance with the criteria stated in Chino Basin Watermaster's Investment Policy.

Respectfully submitted,

Sheri M. Rojo, CPA
Finance Manager
Chino Basin Watermaster

CHINO BASIN WATERMASTER
Profit & Loss Budget vs. Actual
July 2004 through January 2005

	Jul '04 - Jan 05	Budget	$ Over Budget	% of Budget
Ordinary Income/Expense				
Income				
4010 · Local Agency Subsidies	0.00	132,000.00	-132,000.00	0.0%
4110 · Admin Asmnts-Approp Pool	4,807,004.41	3,755,236.00	1,051,768.41	128.01%
4120 · Admin Asmnts-Non-Agri Pool	74,240.87	97,652.00	-23,411.13	76.03%
4700 · Non Operating Revenues	62,477.69	78,330.00	-15,852.31	79.76%
Total Income	4,943,722.97	4,063,218.00	880,504.97	121.67%
Gross Profit	4,943,722.97	4,063,218.00	880,504.97	121.67%
Expense				
6010 · Salary Costs	260,152.25	401,704.00	-141,551.75	64.76%
6020 · Office Building Expense	68,846.22	100,800.00	-31,953.78	68.3%
6030 · Office Supplies & Equip.	25,979.94	45,500.00	-19,520.06	57.1%
6040 · Postage & Printing Costs	48,967.99	67,100.00	-18,132.01	72.98%
6050 · Information Services	69,113.69	105,076.00	-35,962.31	65.78%
6060 · Contract Services	121,151.56	106,000.00	15,151.56	114.29%
6080 · Insurance	14,485.94	21,710.00	-7,224.06	66.73%
6110 · Dues and Subscriptions	652.73	16,600.00	-15,947.27	3.93%
6140 · Other WM Admin Expenses	1,331.90	2,500.00	-1,168.10	53.28%
6150 · Field Supplies	506.43	4,250.00	-3,743.57	11.92%
6170 · Travel & Transportation	10,989.52	24,650.00	-13,660.48	44.58%
6190 · Conferences & Seminars	8,006.14	16,000.00	-7,993.86	50.04%
6200 · Advisory Comm - WM Board	6,409.46	13,459.00	-7,049.54	47.62%
6300 · Watermaster Board Expenses	21,879.65	23,559.00	-1,679.35	92.87%
8300 · Appr PI-WM & Pool Admin	6,393.86	13,659.00	-7,265.14	46.81%
8400 · Agri Pool-WM & Pool Admin	9,749.35	16,417.00	-6,667.65	59.39%
8467 · Agri-Pool Legal Services	25,879.77	45,000.00	-19,120.23	57.51%
8470 · Ag Meeting Attend -Special	4,525.00	10,000.00	-5,475.00	45.25%
8500 · Non-Ag PI-WM & Pool Admin	1,749.97	6,077.00	-4,327.03	28.8%
6500 · Education Funds Use Expens	908.00	375.00	533.00	242.13%
9500 · Allocated G&A Expenditures	-161,971.79	-290,106.00	128,134.21	55.83%
Subtotal G&A Expenditures	545,707.58	750,330.00	-204,622.42	72.73%
6900 · Optimum Basin Mgmt Plan	702,281.97	933,566.00	-231,284.03	75.23%
6950 · Mutual Agency Projects	34,181.43	80,004.00	-45,822.57	42.73%
9501 · G&A Expenses Allocated-OBMP	62,468.15	85,617.00	-23,148.85	72.96%
Subtotal OBMP Expenses	798,931.55	1,099,187.00	-300,255.45	72.68%
7101 · Production Monitoring	18,400.47	54,957.00	-36,556.53	33.48%
7102 · In-line Meter Installation	8,342.91	93,969.00	-85,626.09	8.88%
7103 · Grdwtr Quality Monitoring	74,553.89	148,792.00	-74,238.11	50.11%
7104 · Gdwtr Level Monitoring	44,992.90	135,072.00	-90,079.10	33.31%
7105 · Sur Wtr Qual Monitoring	126,606.09	282,220.00	-155,613.91	44.86%
7106 · Wtr Level Sensors Install	0.00	19,114.00	-19,114.00	0.0%
7107 · Ground Level Monitoring	173,711.14	433,720.00	-260,008.86	40.05%

CHINO BASIN WATERMASTER
Profit & Loss Budget vs. Actual
July 2004 through January 2005

	Jul '04 - Jan 05	Budget	$ Over Budget	% of Budget
7108 · Hydraulic Control Monitoring	169,775.93	437,987.00	-268,211.07	38.76%
7200 · PE2- Comp Recharge Pgm	297,644.00	413,177.00	-115,533.00	72.04%
7300 · PE3&5-Water Supply/Desalte	0.00	20,885.00	-20,885.00	0.0%
7400 · PE4- Mgmt Plan	73,493.06	795,099.00	-721,605.94	9.24%
7500 · PE6&7-CoopEfforts/SaltMgmt	15,987.39	251,343.00	-235,355.61	6.36%
7600 · PE8&9-StorageMgmt/Conj Use	34,740.46	140,400.00	-105,659.54	24.74%
7690 · Recharge Improvement Debt Pymt	274,169.00	274,169.00	0.00	100.0%
7700 · Inactive Well Protection Prgm	0.00	28,302.00	-28,302.00	0.0%
9502 · G&A Expenses Allocated-Projects	99,503.62	204,488.00	-104,984.38	48.66%
	1,411,920.86	3,733,694.00	-2,321,773.14	37.82%
Total Expense	2,756,559.99	5,583,211.00	-2,826,651.01	49.37%
Net Ordinary Income	2,187,162.98	-1,519,993.00	3,707,155.98	-143.89%
Other Income/Expense				
Other Income				
4231 · MZ1 Assigned Water Sales	0.00	600,000.00	-600,000.00	0.0%
4210 · Approp Pool-Replenishment	8,094,622.16	0.00	8,094,622.16	100.0%
4220 · Non-Ag Pool-Replenishment	2,485.40	0.00	2,485.40	100.0%
4230 · MZ1 Sup Wtr Assessment	1,625,000.25	1,579,500.00	45,500.25	102.88%
Total Other Income	9,722,107.81	2,179,500.00	7,542,607.81	446.07%
Other Expense				
5010 · Groundwater Replenishment	1,290,815.00	2,278,500.00	-987,685.00	56.65%
9999 · To/(From) Reserves	10,618,455.79	-1,618,993.00	12,237,448.79	-655.87%
Total Other Expense	11,909,270.79	659,507.00	11,249,763.79	1,805.78%
Net Other Income	-2,187,162.98	1,519,993.00	-3,707,155.98	-143.89%
Net Income	0.00	0.00	0.00	0.0%

CHINO BASIN WATERMASTER

I. CONSENT CALENDAR

C. STATUS REPORT NO. 12

CHINO BASIN WATERMASTER

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

KENNETH R. MANNING
Chief Executive Officer

STAFF REPORT

DATE: **January 10, 2005**
January 24, 2005

TO: **Committee Members**
Watermaster Board Members

SUBJECT: **OBMP Implementation - Status Report No. 12**

SUMMARY

Issue – Compliance with Court Order requiring OBMP implementation progress reports.

RECOMMENDATION – STAFF RECOMMENDS:

- APPROVAL OF STATUS REPORT NO. 12,
- AUTHORIZE ITS FILING WITH THE COURT, AND
- AUTHORIZE STAFF AND LEGAL COUNSEL TO MAKE FINAL EDITS AS NECESSARY.

Fiscal Impact – None

BACKGROUND

In accordance with the September 28, 2000 Order, progress reports are due to the Court on the last day of March and September of each year. Watermaster had indicated to the Court its intention to accelerate the reporting schedule from semi-annual to quarterly due to the rapid pace of OBMP implementation. In a subsequent Order on October 17, 2002, the Court requested Watermaster provide periodic reports concerning various issues relating to the Interim Plan by the last day of June and December of each year. These reporting items are included within Watermaster's regular quarterly reports. With approval of the court, Watermaster will revert to reporting semi-annually with summary updates done quarterly, effective January, 2005.

DISCUSSION

The reporting period for Status Report No. 12 is June 1, 2004 to August 31, 2004. It utilizes the same format previously filed as a baseline from which to update the Court. The attached draft report outlines the progress and status of Watermaster programs and projects.

THIS PAGE

HAS

INTENTIONALLY

BEEN LEFT

BLANK

FOR PAGINATION

Chino Basin Watermaster
Status Report No. 12

(Covering June 2004 through August 2004)

September 2004

THIS PAGE

HAS

INTENTIONALLY

BEEN LEFT

BLANK

FOR PAGINATION

OPTIMUM BASIN MANAGEMENT PROGRAM

In its Order of September 28, 2000, extending the term of the nine-member Watermaster Board, the Court ordered Watermaster to provide semiannual reports regarding the progress of OBMP implementation. In Status Report Number 4, filed with the Court on September 30, 2002, Watermaster notified the Court that Watermaster intended to provide quarterly status reports because of the rapid pace of OBMP implementation. By a subsequent Order of October 17, 2002, the Court added additional reporting items to the quarterly status report.

This Status Report Number 12 is filed pursuant to this revised schedule and reports on the period from June 1, 2004 to August 31, 2004.

PROGRAM ELEMENT 1 – DEVELOP AND IMPLEMENT COMPREHENSIVE MONITORING PROGRAM

Groundwater-Level Monitoring

BACK-GROUND

Watermaster has three active groundwater-level monitoring programs operating in the Chino Basin – a semiannual basin-wide program; an intensive key well monitoring program associated with the Chino I / II Desalter well fields and the Hydraulic Control Monitoring Program (HCMP); and an intensive piezometric monitoring program associated with land subsidence and ground fissuring (see Land Surface Monitoring below) in Management Zone 1 (MZ1).

THIS PERIOD

For the semiannual program, Watermaster staff manually measures water levels in approximately 340 agricultural wells twice per year. In conjunction with the semiannual program, Watermaster staff manually measures water levels at about 112 key wells in the southern portion of the Basin and around the Chino I / II Desalter well fields once per month. During this reporting period, Watermaster staff installed pressure transducers/data loggers in 10 of these key wells to automatically record water levels once every 15 minutes. For the MZ-1 program, Watermaster consultants collect groundwater level data at 35 wells in the southern portion of MZ1. Data are collected manually at MZ1 wells once every two months, and automatically once every 15 minutes using a pressure transducer/data logger installed at each well.

These Watermaster programs also rely on municipal producers, other government agencies, and private entities to supply their groundwater level measurements on a cooperative basis. Watermaster digitizes all these measurements and combines them into a relational database maintained at Watermaster's office.

TO COME

During fiscal year 2004/05, Watermaster staff will expand the use of pressure transducers/data loggers. Watermaster staff will purchase and install about 20 additional pressure transducers/data loggers at key wells and at selected wells in the northern portions of Chino Basin where highly-detailed groundwater level data are scarce.

Groundwater-Quality Monitoring

BACK-GROUND

Prioritizing Wells to Serve Multiple Purposes. The private wells chosen for the 2004-05 water quality monitoring program are located primarily between Interstate 60 and the Santa Ana River (SAR).

Water Quality Analyses

- All groundwater samples are analyzed for general mineral and general physical parameters.
- Wells within or near the two volatile organic compound (VOC) plumes south of the Ontario and Chino Airports are being analyzed for VOCs, in addition to the general minerals and general physical parameters.
- All private wells in the key well program are being analyzed for perchlorate because of its widespread occurrence in the 1999-2001 sampling program, and the concerns expressed by appropriators faced with expensive ion exchange treatment costs for perchlorate-contaminated wells.

Sampling Program of Selected Private Wells. Watermaster developed its streamlined, key-well water quality monitoring program in which approximately 114 private "key wells" are sampled bi-annually (i.e. once every two years) in the southern portion of Chino Basin. Therefore, approximately 57 wells will be sampled on an annual basis. The steps taken in determining the key wells were:

- The basin was divided into a grid, with each cell being 2000 square meters (m^2).
- For each grid cell, the average TDS and NO_3 values were calculated (using the last five years of available data).
- The water quality data of each individual well were examined. Wells most closely matching the average constituent concentrations were chosen as representative. One to two wells in each grid square were retained (the wells not chosen in the key well program, but still matching these criteria, are the alternate wells for each grid cell). Preference was given to wells with the following characteristics:
  - Known construction;
  - Choice as a groundwater level key well;
  - Likelihood of surviving the regional land development.
- Basin-wide TDS and NO_3 arithmetic averages were recalculated using just the key wells and compared to the total basin arithmetic averages. New maps were made representing the water quality conditions of the key wells and qualitatively compared to the original basin maps.

Watermaster has developed a comprehensive water quality program whereby water quality data from other sources are routinely collected, quality-control checked and loaded into Watermaster's database. Data sources included:

- Appropriators

- Department of Health Services (DHS) – these data are currently downloaded from DHS annually
- Department of Toxic Substance Control (DTSC) for the Stringfellow Acid Pits
- Regional Water Quality Control Board (RWQCB) for water quality data associated with sites under Cleanup and Abatement Orders (CAO).

THIS PERIOD

Watermaster is working closely with the Appropriative Pool members and their state-certified contract laboratories in order to obtain water quality data as an electronic data deliverable (EDD). These data would be transmitted either directly from the laboratory or from the Appropriators, after their QA/QC check of the laboratory data. The EDDs will enhance the quality and timeliness of the Watermaster's database.

TO COME

With respect to the recharge of recycled water, Watermaster and IEUA are planning to construct a number of monitoring wells at recharge basins to monitor the influence of recharge on groundwater levels in general, and to monitor the water quality resulting from the recharge of supplemental and storm waters. At least one monitoring well will be installed downgradient of each recharge facility that receives recycled water. The construction schedule will be included in subsequent status reports.

Groundwater-Production Monitoring

BACK-GROUND

Monitoring of Agricultural Production Wells. Initially production monitoring involved the installation of meters on wells operated by members of the Agricultural Pool. As of the end June 2004, Watermaster counted about 489 active agricultural wells and equipped 393 of these wells with operating meters. The other 96 wells have or will become inactive within 18-24 months because of urban development in the south Chino area.

ON GOING

All Producing Wells Are Monitored Quarterly. Watermaster staff reads the newly installed and/or rehabilitated meters on the agricultural wells quarterly. A "water duty" method is used to estimate production at agricultural wells that do not have meters.

TO COME

Need For Water Use/Disposal Form To Be Reviewed. The OBMP Implementation Plan includes a provision that requires the agricultural producers to submit a water use/disposal form describing the sources of water used by each producer and how that water is disposed of after each use. Filling out the water use and disposal form and reporting the results have not been implemented. Watermaster will initiate discussions of the need for this form with the Water Quality Committee

Surface-Water Monitoring

BACK-GROUND

Measure Water Quality and Water Levels In Recharge Basins. Watermaster conducts a surface water monitoring program to characterize the water quality of water in recharge basins and the water levels in some of these basins. The purpose of this program is to estimate the volume and quality of recharge. This information will be used in subsequent years to estimate the safe yield of the Basin and for other management purposes.

ON GOING

Currently, Watermaster monitors the water quality in 20 basins: Upland, Declez, Etiwanda Spreading Grounds, Victoria, Hickory, Lower Day Banana, Ely 1, Ely 3, Wineville, San Sevaine 1, San Sevaine 5, Turner 1, Princeton, Montclair 1, Montclair 2, Montclair 3, Montclair 4, Brooks, and Grove. Generally, the water quality samples are taken after storm events, i.e., during the

period from November 1 through March 30; however, monitoring of nuisance flows also occurs. Each basin is usually sampled three to five times each year. In fiscal year 2004-05 the sampling rate will increase substantially for basins that are scheduled to receive recycled water.

THIS PERIOD

Watermaster staff sampled the nuisance water captured in Grove Basin on June 22, July 20, and August 24, 2004.

BACK-GROUND

Surface Water Monitoring for Santa Ana River Began In June 2003. One of the goals of the OBMP is to maximize Chino Basin yield. A key component in maximizing yield is to minimize groundwater discharge into the SAR. Watermaster developed a surface water monitoring program for the SAR that, in conjunction with Watermaster groundwater monitoring programs, is used to characterize those reaches of the SAR that are gaining water from the Basin, and to determine if significant discharge of Chino Basin groundwater to the SAR is occurring. A conceptual monitoring plan involving IEUA, OCWD, the RWQCB, and Watermaster was finalized. These agencies determined that the conceptual monitoring plan was adequate and developed a detailed work plan to implement a surface water and groundwater monitoring program. The work plan was completed in June 2003, and year-round water quality sampling and flow monitoring in the SAR have begun.

ON GOING

Watermaster now measures the SAR flow and selected water quality parameters as key elements of the HCMP. Watermaster collects water quality samples and measures flow at four Santa Ana River stations (Van Buren, Etiwanda, Hamner, and River Road) plus another eight locations on tributaries, year round on a bi-weekly basis. In addition, Watermaster obtains discharge data from permanent USGS and OCWD stream gauge locations on the SAR and its tributaries. Discharge and water quality data from publicly owned treatment works (POTWs) that discharge to the SAR in this reach are obtained from the POTWs.

Land-Surface Monitoring

BACK-GROUND

Multifaceted Approach. Watermaster staff developed a multifaceted land surface monitoring program to develop data for a long-term management plan for land subsidence in Management Zone 1 (MZ1). The monitoring program consists of three main elements:

1. An aquifer system monitoring facility is located in the southern portion of MZ1, an area that has experienced concentrated and differential land subsidence and ground fissuring. A major component of the aquifer system monitoring facility is a cluster of multiple depth piezometers that measure water level and pressure changes at 11 different depths. Another major component is a dual borehole extensometer that measures deformation within the aquifer system at deep and shallow levels. Together, the two components correlate the hydraulic and mechanical responses of the aquifer system to different aquifer stresses, such as pumping at wells.

2. Synthetic aperture radar interferometry (InSAR) measures land surface deformation across the entire Chino Basin using remote sensing techniques.

3. Benchmark surveys along selected profiles of the Chino Basin. The benchmark surveys (1) establish a datum from which to measure future land surface deformation, (2) "ground-truth" the InSAR data, (3) allow determination of historical subsidence at any

historical benchmarks that can be recovered, and (4) evaluate the effectiveness of the long-term management plan.

ON GOING

Depth Specific Data. Permanent transducers and data logging equipment are recording depth specific groundwater level data at the Ayala Park piezometers. Transducers also are recording groundwater level data at wells owned by the cities of Chino and Chino Hills and the California Institution for Men (CIM). These transducers record groundwater levels at all wells once every 15 minutes, and also record "on/off" pumping cycles at the active production wells.

Deep Aquifer-System Stress Test.

BACK-GROUND

Controlled aquifer-system stress (pumping) tests in October 2003 and April 2004 provided piezometric response data that revealed a potential groundwater barrier within the sediments below about 300 ft-bgs, as evidenced by a lack of water level response in CH-18 (east of the fissure zone) due to pumping at CH-19 (west of fissure zone). Image-well analysis of pumping-test responses indicates that this barrier approximately coincides with the location of the historic zone of ground fissuring. This spatial coincidence suggests a cause-and-effect relationship between the barrier, the steep gradient of subsidence across the barrier as indicated by InSAR, ground level surveys and the ground fissuring.

TO COME

Starting on September 1, 2004, Watermaster will begin a controlled deep aquifer-system stress test. In summary, the test calls for constant discharge from three wells owned by the City of Chino Hills (CH-1B, CH-15B, and CH-19), while most other wells in the area remain off. These wells have similar perforated intervals from about 300-1,100 ft-bgs and primarily influence water levels in the deep portions of the aquifer system – deeper than about 300 ft-bgs. The pumping test is planned to end on October 31, 2004 {Note: CH-17 was also planned to pump during the test, but mechanical problems at this well preclude pumping}

The primary objective of this test is to transition the deformation of aquifer-system sediments from elastic compression to inelastic compaction. If accomplished, it will provide "threshold" piezometric heads at the extensometer location that should not be approached in the future if permanent (inelastic) compaction within the aquifer-system is to be avoided. In doing so, it will define a key parameter required for estimating the maximum elastic storage capacity of the confined aquifer system. When inelastic compaction is clearly identified, through analysis of stress-strain diagrams (see discussion below), the pumping test will stop.

Other objectives of the stress test are to (1) constrain estimates of key aquifer-system parameters that could be used in later modeling efforts, (2) confirm and elucidate the existence of a groundwater barrier within the sediments below about 300 ft-bgs, and (3) provide data for a proposed injection test at CH-1B.

During the deep aquifer system stress test of October 2003, drawdown was not great enough to cause clearly-defined inelastic compaction. It is hoped that by pumping CH-19, CH-15B, and CH-1B at full capacity, that piezometric heads in the deep aquifer system will drawdown further than during the pumping test of October 2003 (~150 ft at PA-7), and cause the onset of inelastic compaction.

With regard to CH-1B, groundwater pumped from this well has relatively high concentrations of arsenic that do not permit pumping this well directly into Chino Hills' distribution system. Yet it is imperative that this well participate in the stress test in an attempt to transition the aquifer-system deformation to inelastic compaction. Watermaster and Chino Hills have jointly funded the connection of CH-1B (and CH-15B) to the storm drain system through a "flush line" discharge pipe, which will allow the pumping of CH-1B during the test. However, the pH of water pumped from CH-1B is above 8.5, which is the limit imposed by the Regional Board for discharge to aquatic waters. Watermaster is working on a physical solution to reduce pH of the pumped groundwater and a monitoring plan to satisfy the Regional Board's permitting requirements.

Deep piezometer rehabilitation. During the summer drawdown in the 2003 it became evident that some degree of intercommunication was developing among the piezometers in the deep cluster (PB) at Ayala Park, and that the deepest piezometer, **PB-1,** and perhaps others, were also intermittently communicating with the much higher heads in the shallow aquifer system. The leakage apparently was occurring through faulty joints in the two-inch PVC casings, although actual breaks in the casings may also exist. Evidence suggests that many of the problems may have resulted from defects in the casing of PB-1 that allowed leakage directly into the gravel envelopes around the screened intervals of shallower piezometers. To the extent that this is true, repair of PB-1 could solve most of the problems.

BACK-GROUND

Rehabilitation of the PB piezometers was conducted during June/July 2004, using a "well-in-a-well" construction technique. This involved filling the screened interval (5 to 20 ft) of the piezometer casing with coarse, highly permeable sand, which is then topped with about 10 ft of graded medium to very fine sand and silt to form a filter cap of very low permeability. A 1-inch inner pipe, the well within the well, is jetted through the filter cap in an attempt to communicate with the original gravel envelope and surrounding formation. Before final jetting down into position, the inner pipe, temporarily set about 20 ft above the screen, allows water standing in the 2-inch casing to be displaced to the surface while a sealing bentonite grout was pumped down the annulus between the 2-inch casing and the inner pipe.

THIS PERIOD

This technique was tested and refined by experimenting in PB-6, the shallowest of the deep piezometer cluster. Based on the results at PB-6, Watermaster attempted to rehabilitate PB-1 using similar methodologies.

Preliminary evaluation of piezometric data from all piezometers in PB indicates that the rehabilitation procedures were at least partially successful. In particular, PB-2 and PB-4 appear so far to be producing reasonable and accurate data. However, a comprehensive analysis of the rehabilitation results can not be completed until the end of the current drawdown season (end of October 2004).

TO COME

A comprehensive analysis of the rehabilitation results at PB will commence at the end of the current drawdown season (end of October). Further rehabilitation, if needed, will be recommended at the conclusion of the analysis, along with a detailed description of rehabilitation procedures.

BACK-GROUND

InSAR. The objective of this task is to characterize ground surface deformation in Chino Basin using Synthetic Aperture Radar Interferometry (InSAR). This analysis will be performed for a

historical period (1992-2003) and on an on-going basis thereafter. The advantage of InSAR is that it provides a continuous representation of land surface deformation. These data are planned to be used to: (1) characterize the time history of land surface deformation in greater spatial and temporal detail than can be accomplished from the available historical ground level survey data, (2) calibrate computer simulation models of subsidence and groundwater flow, and (3) assist in the evaluation of the effectiveness of the long term management plan.

THIS PERIOD

Vexcel Corporation of Boulder, Colorado – a company that specializes in remote sensing and radar technologies conducted a "proof of concept" study of historical synthetic aperture radar data that was acquired over the MZ-1 area. The objective of this study was to generate cumulative displacement maps over relatively short time steps (April to November 1993). The MZ-1 Technical Group deemed the study successful, and approved follow-up study by Vexcel to perform a comprehensive analysis of all historical synthetic aperture radar data (1992-2003) to characterize in detail the time history of subsidence in MZ-1.

TO COME

Vexcel has submitted a cost estimate of $200,000 to complete the comprehensive analysis of all historical synthetic aperture radar data (1992-2003) to characterize in detail the time history of subsidence in MZ-1. Watermaster has budgeted the above amount for InSAR analysis in its fiscal year 2004/05 budget. A contract will be executed between Watermaster and Vexcel to complete the work by the first quarter of calendar 2005. Part of the contract will include the presentation of the analysis results by Vexcel staff to the MZ-1 Technical Committee.

Benchmark Surveys. The Interim Monitoring Program (IMP) work plan called for the deep extensometer, which is anchored in sedimentary bedrock at about 1,400 ft bgs, to be used as the "starting benchmark" for all survey loops. To accomplish this, a Class-A benchmark was constructed outside the extensometer building to serve as the practical (*i.e.* actual) starting benchmark. To link this benchmark to the deep extensometer pipe, each survey event is begun by referencing the benchmark to a marked spot on one of the piers that supports the extensometer instrument platform. These piers and the instrument platform represent a stable ground surface datum that is used to measure relative vertical displacement between the ground surface and the deep extensometer pipe (recorded every 15 minutes). The vertical displacement recorded at the deep extensometer between survey events, in addition to any vertical displacement measured between the starting benchmark and the pier, is then used to calculate the elevation at the starting benchmark outside the extensometer building. Then, relative vertical displacement between benchmarks is measured across the entire work to obtain current elevations. These comprehensive surveys are planned to be repeated annually during spring season of highest regional water levels.

A key element of the MZ-1 benchmark network is the array of closely spaced benchmarks that have been established across the historic fissure zone in the immediate vicinity of the Ayala Park extensometers (Ayala Park array). At this array, located along Edison and Eucalyptus Avenues, the IMP work plan calls for the semiannual measuring of both vertical and horizontal displacements. These horizontal and vertical displacements are expected to define two-dimensional profiles of land surface deformation that can be related to the vertical distribution of aquifer system compaction and expansion that is being recorded continuously at the extensometers. These surveys are repeated semi-annually during the late spring and early fall periods of highest and lowest water levels – in an attempt to monitor fissure movement that may be associated with elastic and/or inelastic aquifer deformation.

THIS PERIOD

In late April 2004, AE performed the annual survey event across the entire network of benchmark monuments, including the measurements of horizontal displacements at the Ayala Park Array of monuments. The results of the ground level surveys to date were presented to the MZ-1 Technical Committee at its July 21, 2004 meeting. Also at this meeting, the project manager from AE made a presentation to describe survey methodologies, accuracy, results, and challenges, as well as answered questions.

The vertical displacement at monuments that occurred from April 2003 to April 2004 was presented. Comparing monument elevations over the April to April time period should reveal the inelastic component of compaction, if any, that may be occurring in the region. The assumption here is that in April 2004 water levels in the region have recovered to the April 2003 levels, thus the measured vertical displacement does not include the elastic component of the aquifer system deformation. Water levels measured as part of the IMP (in the vicinity of Ayala Park) support this assumption. The monuments near Ayala Park showed little to no subsidence over this time period. However, the monuments located in the northern portions of the surveyed area consistently showed subsidence of the land surface (on average about 0.04 feet). Maximum subsidence of about 0.08 feet was recorded at monuments located along Philadelphia Street between Pipeline and Ramona Avenues. Water level data have not yet been collected or analyzed as part of the IMP in these northern portions of the survey area that seemingly are experiencing inelastic subsidence.

The subsidence that occurred in the area over the October 1993 to December 1995 period was measured by InSAR. The subsidence indicated by InSAR data has been interpreted as primarily permanent subsidence caused by inelastic aquifer system compaction. If so, the survey data are indicating that the distribution of inelastic compaction in 2003-04 is significantly different compared to that of the early 1990's. In particular, maximum subsidence of about 1 foot in 1993-95 was measured in the vicinity of Ayala Park by InSAR, whereas in 2003-04 the survey data are indicating minimal subsidence, if any, in this same area.

The horizontal displacement at monuments of the Ayala Park Array that occurred from April 2003 to November 2003 and November 2003 to April 2004, respectively was determined through distance measurements between adjacent monuments, and is based on the assumption that the southeastern monument was stable over the period of measurement. The measurements indicate the elastic nature of the land surface displacement over the course of the pumping and recovery seasons, as well as the apparent presence of a groundwater barrier within the deep aquifer system.

Groundwater production and water level data show that pumping of wells perforated within the deep aquifer system (>300 ft-bgs) causes water level drawdowns in the deep aquifer system on the order of 150 feet. However, these large drawdowns do not propagate east of the fissure zone. During the pumping season of 2003 (April to November) vertical displacement of the land surface (*i.e.* subsidence) was generally greater on the west side of the fissure zone where water level drawdown was greatest. During the recovery season of 2003-04 (November to April) vertical displacement of the land surface (*i.e.* rebound) was again greater on the west side of the fissure zone where water level recovery was greatest.

In other words, the groundwater barrier in the deep aquifer system aligned with the fissure zone causes greater water level fluctuations on the west side of the barrier where the pumping is concentrated. These greater water level fluctuations on the west of the barrier, in turn cause

greater deformation of the aquifer-system matrix which, in turn, causes greater vertical land surface deformation on the west side of the barrier. The InSAR data corroborate the existence of the groundwater barrier by showing maximum subsidence west of the barrier (0.2ft) and virtually no subsidence east of the barrier during the course of one pumping season (April-1993 to September 1993).

In addition, the pattern of horizontal displacement of benchmarks over the pumping and recovery seasons, likely reflects, in part, the differential compaction of the aquifer system across the fissure zone. The horizontal movements of benchmarks in the vicinity of the fissure zone merit further monitoring using the same surveying methods for at least one additional year.

TO COME

The next survey of the Ayala Park array of monuments is planned for October 2004. The timing of this survey will coincide with the time just prior to the cessation of the controlled pumping test planned for September/October 2004. As such, this survey will measure both vertical and horizontal displacements between monuments during a time of maximum water level drawdown (stress) within the aquifer system. The October 2004 survey data can then be compared to the April 2004 survey data (maximum water level recovery in the aquifer system), in an effort to monitor fissure movement, if any, that may be associated with elastic and/or inelastic aquifer-system deformation.

Well Construction, Abandonment, and Destruction Monitoring

BACK-GROUND

Watermaster staff monitors the condition of wells on a regular basis. Wells that may be improperly abandoned/destroyed are reported to Riverside and San Bernardino Counties as they are discovered.

Watermaster staff inspected 150 suspect wells during a 2002-03 field inspection and determined that 113 of these wells were properly abandoned and 37 wells will require some modification to meet the standard for a properly abandoned well. A well repair/abandonment program was prepared and approved by Watermaster. Watermaster continues to develop a wellhead protection program and makes recommendations on closure of abandoned wells. Ongoing land development will require continued well abandonment activity by Watermaster.

PROGRAM ELEMENT 2 – DEVELOP AND IMPLEMENT COMPREHENSIVE RECHARGE PROGRAM

A centerpiece of the OBMP is enhancement of the Basin recharge capacity, so that high quality storm water and available recycled water can be retained in the Basin.

Recharge Facilities Improvement Project (Seven Bid Packages)

Bid Package No. 1—Reconfiguration of Banana, College Heights, Lower Day, RP3 and Turner Basins

OMPLETED

Bid Package No. 1, which included major earthwork at Banana, College Heights, Lower Day, RP-3, and Turner Basins, was awarded to LTE Excavating on March 24, 2003. Work was scheduled for completion by November 15, 2003, but was delayed while awaiting delivery of sluice gates and their actuator assemblies. These items were received and installed; and the bid package was accepted on May 12, 2004

Bid Package No. 2 – Basin Improvements (3 ea), Drop Inlets (3 ea), and Rubber Dams (4 ea)

COMPLETED

Bid Package No. 2 consisted of construction of the drop inlet structures for Brooks Street Basin, Turner Basin; and Victoria Basin; rubber dams for College Heights/Upland Basins, Turner No.1 Basin, Lower Day Basin, and RP-3 Basin; and various improvements at Declez Basin, Ely Basins, and 8th Street Basins. This package was awarded to Banshee Construction with work beginning on July 16, 2003. Work on this contract was scheduled to be completed by March 15, 2004; however, rain delays slowed completion of excavation and soil cement berms. All the work on this bid package was accepted on August 18, 2004.

Bid Package No. 3 – Jurupa Basin to RP-3 Force Main

THIS PERIOD

Bid Package No. 3 involves construction of approximately 11,000 linear feet of 36-inch CML&C force main between Jurupa Basin and RP-3 Basin. The force main will be used to convey storm water, imported water, and recycled water between the pump station at Jurupa Basin and the RP-3 Basins. This package was awarded to W. A. Rasic Construction Company with work beginning on August 6, 2003. The Contractor has completed 93% of the force main, and has provided a "substantially complete" estimate of mid September 2004.

Bid Package No. 4 – Jurupa Basin to RP-3 Pump Station

THIS PERIOD

Bid Package No. 4 consists of construction of the Jurupa Pump Station, 100 feet of 48-inch pipeline, and 400 feet of 36 inch, CML&C steel force main. The package was awarded to LT Engineering with work beginning on February 19, 2004. The Contractor anticipates a construction period of 8 months with substantial completion in November 2004.

Bid Package No. 5 – SCADA System

THIS PERIOD

This bid package includes the SCADA system and electrical improvements at all the basins. The 100 % design was submitted, reviewed, and sent out for bid in January 2004. The package was awarded to Denboer Engineering with construction beginning in March 2004. The contractor is now 65% complete, with substantial completion in December 2004.

Bid Package No. 6 – MWD Turnouts

THIS PERIOD

This bid package covers the construction of three new MWD turnouts: CB-11TB and CB-15T on the Rialto Pipeline, and CB-18T on the Etiwanda Intertie near San Sevaine Channel. This package was awarded to Griffith Construction with work beginning on February 4, 2004. The contractor is now 84% completion, with substantial completion in September 2004.

Bid Package No. 7 – Priority, Funding and Scope of Misc. Projects

This bid package will complete miscellaneous projects not included in the previous bid packages. Among the projects included in this bid package are:

THIS PERIOD

- Habitat Mitigation Area at RP-3

- Upland Basin Improvements
- Victoria Basin Improvements
- Hickory Rubber Dam, Pump Station and Force Main
- SCADA module

This package was bid and awarded to Brutoco Engineering & Construction on July 21, 2004. The construction is estimated to take five months, with substantial completion in December 2004.

THIS PERIOD

Groundwater Recharge Coordinating Committee (GRCC)

The GRCC meets monthly to monitor and coordinate the Recharge Facilities Improvement Project, focusing on design issues, construction management, and operations manuals. Watermaster's FY2004-05 budget provides $413,000 for current operation and maintenance activities.

In addition to design review, the GRCC has initiated work on individual operations procedures for all the recharge basins, as well as obtaining regulatory agency approvals and permits.

PROGRAM ELEMENT 3 – DEVELOP AND IMPLEMENT WATER SUPPLY PLAN FOR THE IMPAIRED AREAS OF THE BASIN; AND

PROGRAM ELEMENT 5 – DEVELOP AND IMPLEMENT REGIONAL SUPPLEMENTAL WATER PROGRAM

These program elements focus on the shift of production in the southern end of the Basin away from agricultural uses and toward urban uses. Without the OBMP, this land use conversion would result in a decrease in production in the southern end of the Basin, ultimately leading to rising water levels. If groundwater levels in the southern end of the Basin rise too high, then water may "spill" out of the Basin into the Santa Ana River. Such uncontrolled spillage caps the overall Safe Yield of the Basin. The Basin can be managed to avoid this possibility.

Directly tied to the threat of rising water levels in the southern area is the diminished desire of appropriators in the southern end of the Basin to pump water because of impaired water quality. The ability to compensate for the loss of agricultural production with increased appropriative production is inhibited because of these water quality concerns. Greater appropriative production in this area therefore requires water treatment, an issue addressed through the construction of desalter facilities.

The Chino I/II Desalters

BACK-GROUND

The Chino I Desalter was originally constructed by SAWPA to provide 8.1 million gallons per day (MGD) of product water using reverse osmosis treatment. The project also included extraction wells, raw water pipeline, and product water pipelines and pump stations.

THIS PERIOD

Chino I Expansion/Chino II Desalter. This expansion includes the construction of an additional 4.9 MGD of parallel treatment capacity (nitrate removal via ion exchange) at Chino I and 10 MGD of similar ion exchange at the Chino II Desalter. A construction contract was signed and construction is underway with completion scheduled for March 2005. Watermaster staff reviewed the proposed well construction for the new wells for Desalter II and determined that the location and construction were consistent with the OBMP Implementation Plan

ON GOING

Chino I Desalter Other Improvements. Other facilities either under design or construction include three new extraction wells (construction completed), a raw water pipeline (construction 80% completed), a Chino Hills pump station and product water pipeline (construction 35% completed), and a volatile organic compound (VOC) treatment system (construction 35% completed) ahead of the ion exchange treatment.

ON GOING

Chino II Desalter Other Improvements. Other facilities either under design or construction include nine new extraction wells (seven under construction, two wells completed), four raw water pipelines (two in early construction, two in design), two product water pipelines (one completed construction, one completed design), and site improvements (construction underway).

All the projects underway to expand the Chino I/II Desalters should be completed by March 2005.

PROGRAM ELEMENT 4 – DEVELOP AND IMPLEMENT COMPREHENSIVE GROUNDWATER MANAGEMENT PLAN FOR MANAGEMENT ZONE 1

Program Element 4 details the steps undertaken by Watermaster to reduce or abate subsidence and fissuring in Management Zone 1.

THIS PERIOD

The MZ1 Technical Committee Meetings – July 21, 2004 and August 25, 2004. Committee representatives were informed of the status of the various efforts to implement the monitoring program (see Land Surface Monitoring of Program Element 1). The meetings focused on the rehabilitation of the deep piezometers, the Associated Engineers (AE) semi annual survey of the Ayala Park Array of benchmarks, the Vexcel cost estimate and schedule for the InSAR studies, and the analysis of piezometric and extensometer data.

Voluntary Forbearance. The City of Chino and the City of Chino Hills submitted certifications documenting their respective voluntary participation in forbearance of groundwater production. Through the end of June 2004, the City of Chino submitted documentation of pumping reductions of 1,718 acre-feet toward its forbearance goal of 1,500 acre-feet for 2003/2004. The City of Chino Hills submitted documentation of forbearance of 1417 acre-feet through April 2004, and a credit of 83 acre-feet for May 2004.

Agency	Forbearance through June 2004	Forbearance Goal 2003/2004
City Of Chino	1718 acre-feet	1,500 acre-feet
City Of Chino Hills	1500 acre-feet	1,500 acre-feet

TO COME **Pending Legal Actions Regarding Subsidence.** In its October 17, 2002 Order, the Court ordered Watermaster to keep the Court apprised of any legal actions that could question the Court's jurisdiction over subsidence. Watermaster is not aware at this time of any such actions. The hearing regarding the City of Chino's Paragraph 15 Motion concerning subsidence was continued by the court until September, 2005.

PROGRAM ELEMENT 6 – DEVELOP AND IMPLEMENT COOPERATIVE PROGRAMS WITH THE REGIONAL WATER QUALITY CONTROL BOARD, SANTA ANA REGION (REGIONAL BOARD) AND OTHER AGENCIES TO IMPROVE BASIN MANAGEMENT; AND

PROGRAM ELEMENT 7 – DEVELOP AND IMPLEMENT SALT MANAGEMENT PROGRAM

The "water quality committee" as envisioned in the OBMP Implementation Plan has been formally constituted. Since the development of the OBMP, Watermaster has worked closely with the Regional Water Quality Control Board, the Department of Toxic Substances Control, and others to define water quality challenges and to refine the water quality management criteria in the Chino Basin. Watermaster continues to review water quality conditions in the Basin and to consider future water quality management activities beyond the Chino Basin desalting program.

BACK-GROUND **Water Quality Management.** In response to the results of RWQCB and Watermaster's groundwater quality monitoring programs (Program Element 1) Watermaster has refined its water quality monitoring to focus on the following key areas:

- Watermaster is identifying and characterizing water quality anomalies, such as the VOC anomaly south of the Ontario International Airport (OIA). Status Reports on each of the anomalies were developed by Watermaster and were presented to the Water Quality Committee for their review.
- Watermaster staff receives and reviews all reports that are produced by dischargers that are conducting investigations under order by the RWQCB and the Department of Toxic Substances Control (DTSC).
- Watermaster staff is assisting the RWQCB with research, monitoring, and the crafting of investigative, and cleanup and abatement orders for potential dischargers involved with the OIA.
- Watermaster staff continues to participate in the process of developing TMDLs for Reach 3 of the Santa Ana River and other water bodies in the lower Chino

Basin. No progress has been made during the last quarter because of the State budget crisis and staffing issues at the RWQCB.

Water Quality Committee

BACK-GROUND

Watermaster staff and consultants continue to update our understanding of the contaminants of concern in the various plumes, and the extent of their migration and remediation. In addition, Wildermuth Environmental continued their analysis of the environmental records search performed by EDR. This consisted of a query of state and federal databases of known users and dischargers of potentially hazardous chemicals. Watermaster is analyzing the relationship of potential sources of perchlorate with down gradient impacted production wells. On March 30, 2004, Black & Veatch delivered their "Draft Technical Memorandum –Treatment Technology Review" which analyses current and emerging treatment technologies for specific contaminants of concern in the Chino Basin; including nitrates, perchlorate, arsenic, and specific VOCs.

THIS PERIOD

With respect to the VOC plume at OIA, Wildermuth Environmental completed their data gathering effort at the RWQCB and prepared five draft Letters of Notification/Cleanup and Abatement Orders for review by the RWQCB prior to their mailing to identified potential dischargers. At the Chino Airport VOC plume, Watermaster obtained permission from private well owners to release VOC water quality data to the RWQCB. Tetra Tech, a consulting engineering firm performing quarterly groundwater monitoring of the VOC plume immediately southwest of the airport property in turn obtained these data from the RWQCB to assist in their efforts to model plume movement.

Tetra Tech is under contract to the County of San Bernardino, Department of Architecture and Engineering, the owner and operator of Chino Airport, and is attempting to determine the sources of the VOC plume. Tetra Tech is currently negotiating to install five additional groundwater monitoring wells, and to perform additional soil gas surveys, in order to locate the VOC sources. Watermaster's water level and water quality monitoring programs over the last several years have resulted in a robust database that is being used by Watermaster and other stakeholders in the basin to help answer these kinds of questions.

With respect to perchlorate in MZ-3, a number of wells in the Fontana area of Chino Basin have been impacted and shut down because of relatively low levels of perchlorate (but above the State Action Level of 6 µg/l). Some parties in the basin believe that significant perchlorate sources near the Mid-Valley Landfill (Goodrich, Aerojet, Quickset, Emhart Industries, Denova Environmental, Pyro Spectacular, Rialto Ammunition Storage Point, et al.) in the Rialto-Colton basin may also be sources of perchlorate in Chino Basin. The proposed transport pathway is leakage across the Rialto-Colton Fault. Members of the WQC proposed that Watermaster perform a hydrogeologic investigation of that area to better understand cross basin transport. The investigation may be prohibitively expensive, given the complexity of the fault system and aquifer heterogeneity.

In a related study, the RWQCB has done an extensive historical perchlorate usage literature review and has produced a sizable volume of circumstantial evidence that large quantities of Chilean fertilizer may have been used for citrus in the Fontana area.

TO COME

Neil Sturchio, Professor and Head of the Earth and Environmental Sciences at the University of Illinois at Chicago, has developed a technique for using stable isotope ratios of oxygen and chloride to distinguish the origin of perchlorate (man-made or Chilean fertilizer). Natural perchlorate carries a unique ^{18}O and ^{37}Cl signature – very robust parameters that can be used to distinguish between man-made and natural sources of perchlorate. Professor Sturchio has

tested several samples of leachate from fertilizer nitrogen (from the Atacama Desert in Chile) and rocket fuel sources. One of the innovations that Professor Sturchio has developed is the use of a flow-through column with an bifunctional anion-exchange resin. This is required to concentrate the typically low levels of perchlorate in groundwater so that the perchlorate can be analyzed isotopically.

Watermaster intends to utilize this isotopic perchlorate analysis to determine if source of the perchlorate in groundwater MZ-3 is anthropogenic or from Chilean fertilizer.

Watermaster and Regional Board Propose TDS and Nitrogen Objectives to Promote Maximum Benefit of Waters Available to the Chino Basin

BACK-GROUND

Watermaster staff worked with the Total Dissolved Solids (TDS)/ Nitrogen (N) Task Force to revise the sub-basin boundaries, and the TDS and N objectives for the Chino Basin to promote maximum beneficial use of waters in the Basin (as opposed to the Regional Board's current, more rigid anti-degradation based objectives). The maximum beneficial use approach will increase water supplies and lower costs over time while meeting water quality requirements. In December 2002, Watermaster proposed specific water-quality management zone boundaries, and N and TDS objectives for the Chino Basin to the RWQCB. The TDS/N Task Force and the RWQCB incorporated Watermaster recommendations in the TDS/N Basin Plan Amendment dated November 21, 2003.

The Basin Plan Amendment incorporating the sub-basin boundaries and maximum beneficial use concept was adopted by the RWQCB on January 24, 2004 (RWQCB Basin Plan Amendment, and Attachment to Resolution No. R8-2004-001). Watermaster staff immediately developed and submitted surface water and groundwater monitoring programs to the RWQCB on February 21, 2004. These monitoring programs measure the progress of CBWM and IEUA in achieving the "maximum benefit" goal for TDS/N in the Chino and Cucamonga Basins. The Basin Plan amendment was reviewed and approved by the State Water Resources Control Board (SWRCB) on September 8, 2004. It is currently under review by the Office of Administrative Law (OAL) and U.S. Environmental Protection Agency (USEPA).

BACK-GROUND

Cooperative Effort to Determine State of Hydraulic Control. One remaining issue regarding the Basin Plan changes was to develop a monitoring plan to evaluate the state of hydraulic control in the southern end of the Basin. Hydraulic control is one tool that can be used to maximize the safe yield of the Basin. Watermaster staff developed a monitoring program for OBMP purposes and described this effort in the Initial State of the Basin Report (October 2002). The execution of this monitoring program is included in Program Element 1. Watermaster and IEUA have collaborated with OCWD and the RWQCB to select existing wells and to site nine new multi-piezometer wells that will be used to monitor and assess the state of hydraulic control.

In addition to being a core element of the OBMP, hydraulic control is a requirement of the Basin Plan Amendment. Watermaster, OCWD, and RWQCB staffs developed a conceptual monitoring program in June 2003 to assess the state of hydraulic control and to provide information to Watermaster to manage future production and recharge. The final work plan for the Hydraulic Control Monitoring Program was completed in May 2004, and implementation is now occurring. This program will change over time as new information is developed and will last for several years. The coordination and review of the hydraulic control monitoring data and the

development of management programs to maintain hydraulic control have been added to Program Elements 6 and 7.

Watermaster, IEUA, OCWD, and the Regional Board have agreed to construct nine new monitoring wells as part of the piezometric monitoring element of the HCMP. These monitoring wells are necessary because existing well locations and well construction are not sufficient to measure the extent of hydraulic control in the vicinity of the Desalter well fields and because of the loss of monitoring use of agricultural wells as these wells are destroyed in the land conversion from agricultural to urban uses. These new wells will document the creation of a regional depression in the piezometric surface, for both the shallow and deep aquifer systems, as a result of Desalter pumping. These wells will be installed during fiscal year 2004/05.

Funding for the construction of the nine monitoring wells will come from Watermaster, IEUA, and other sources. These other sources include $250,000 from the Local Groundwater Assistance Fund, sponsored by the California Department of Water Resources (DWR) and about $400,000 from the U.S. Bureau of Reclamation (BOR). The DWR funding will support the construction of two of the nine piezometric monitoring wells; the BOR funding will support construction of three of the nine piezometric monitoring wells.

THIS PERIOD

The following tasks were performed during June-August 2004 for the nine HCMP wells:

- Continued land acquisition efforts for all wells
- Prepared various permits in support of land acquisition efforts
- Completed CEQA/NEPA processes for all wells
- Finalized the IEUA plans and specifications for wells MW-2/-3/-5/-7/-8/-9
- Finalized the IEUA bid package for wells MW -2/-3-/-5/-7/-8/-9
- Supported Bureau of Reclamation (BOR) in its preparation of plans and specifications for wells MW-1/-4/-6
- Conducted the pre-bid meeting and site walk for all wells with drilling contractors in conjunction with IEUA/CBWM/BOR on August 5, 2004. IEUA and BOR provided separate bid packages to drilling contractors.

TO COME

The following tasks are projected to be performed during September-November 2004 for the 9 HCMP wells:

- IEUA and BOR to award separate contracts to drilling contractor(s)
- IEUA to submit and negotiate finalized site acquisition offers to well site landowners
- Prepare and submit well construction permits and fees
- Begin construction of wells in November.

Salt Budget Tool To Establish TDS Objectives

COMPLETED

Watermaster has developed a salt budget tool to estimate the current and future salt loads to the Basin and the salt benefits of the OBMP. This tool was used to establish TDS objectives for the northern part of the Basin based on maximum beneficial use of water available to the region. These projections were based on the water supply plan in the Implementation Plan and include alternative recycled water and State Project water recharge scenarios. Watermaster consultants prepared a letter report (February 20, 2004) describing the salt budget and the Chino Basin Maximum Benefit Commitment. The commitments require Watermaster and IEUA to take specific actions triggered by ambient water quality and other time-certain conditions. An implementation schedule is specified, with the RWQCB responsible for overseeing compliance.

PROGRAM ELEMENT 8 – DEVELOP AND IMPLEMENT GROUNDWATER STORAGE MANAGEMENT PROGRAM; AND

PROGRAM ELEMENT 9 – DEVELOP AND IMPLEMENT STORAGE AND RECOVERY PROGRAM

This section summarizes the work accomplished to date and the work planned over the next few months for the Chino Basin Dry Year Yield (DYY) and Storage and Recovery Programs. The DYY Program is a conjunctive use program between the Metropolitan Water District of Southern California (MWDSC) and several Basin appropriators, which would develop a maximum of 100,000 acre-feet of storage. These Programs also explore the potential for using up to 500,000 acre-feet of storage capacity.

BACK-GROUND

Completed Preliminary Design Report. The first draft of the DYY Preliminary Design Report was completed in July 2003 and submitted to Watermaster. The DYY Program documentation is organized into four volumes: Volumes I and II, prepared by Black & Veatch, comprise the Preliminary Design Report (PDR). Volume I describes the background information and design objectives of the Program, while Volume II describes the facilities to be designed to help the agencies meet their shift obligation. Volume III presents the groundwater modeling report developed by Wildermuth Environmental, Inc., and Volume IV contains the CEQA Findings of Consistency environmental documentation prepared by Tom Dodson and Associates.

ON GOING

DYY Shift Obligation. Participants in the DYY Program will be required to reduce (shift) their imported water usage by a predetermined amount during a dry year. Each participating agency will have a specific shift obligation that, when added together, will provide MWDSC with 33,000 acre-feet of dry year yield. The shift obligations were determined through meetings and correspondence among IEUA, Watermaster, Black & Veatch, and representatives from each participating agency.

The eight participating agencies are as follows:

• City of Chino	• Monte Vista Water District (MVWD)
• City of Chino Hills	• City of Ontario
• Cucamonga Valley Water District (CVWD)	• City of Pomona
	• City of Upland
• Jurupa Community Services District (JCSD)	

Facility Requirements and Site Selection. A preliminary screening of potential sites identified the most feasible locations for the DYY Program facilities. The information was presented to the agencies and a final selection was made. The Program facilities consist of five new ion exchange (IX) facilities, expansion of two existing IX facilities, construction of seven new non-water quality impaired wells, and two new perchlorate wellhead treatment facilities. The new wellhead IX facilities would contribute approximately 18,000 acre-feet of dry year yield, while the new well facilities would contribute approximately 15,000 acre-feet of additional yield. The total capital cost for the facilities is estimated to be $38 million. MWDSC will contribute approximately $27 million. The Groundwater Storage Program Funding Agreement between MWDSC, IEUA, Three Valleys Municipal Water District (TVMWD), and Watermaster was signed in July 2003.

ON GOING

Final Design of PDR Facilities. The designs for the facilities outlined in the PDR are either under way, completed, or will commence shortly. All design documents are scheduled to be completed by September 2004.

BACK-GROUND

Final Approval of DYY Storage Account. Pursuant to Article X of Watermaster's Rules and Regulations, IEUA submitted an Application to enter into a Storage and Recovery Program Storage Agreement. This Application was approved unanimously by all Pools and received unanimous approval from the Advisory Committee and Board on October 23, 2003. Watermaster and IEUA developed a storage agreement pursuant to the Application and processed that agreement through the Watermaster approval process in March 2004. The agreement was submitted to the Court for approval. Prior to Court approval, MWDSC is utilizing its existing Trust Storage Account with the intention of transferring its water stored in the Trust Account into the DYY account upon approval of the Storage Agreement.

BACK-GROUND

Groundwater Modeling. The Chino Basin groundwater model was completed and the draft modeling report was submitted to Watermaster in July 2003. In addition to evaluating the effects of the DYY program on the Basin, the model was used to:

- Develop draft future replenishment and wet water recharge criteria based on requirements described in the Section 7.1b of the Watermaster Rules and Regulations regarding the balance of recharge and discharge. (See Wildermuth, Analysis of Supplemental Water Recharge Pursuant to the Peace Agreement. To be filed with the Court.)
- Evaluate the cumulative effects of transfers among the Parties as described in Section 9.3 of the Watermaster Rules and Regulations. (See Wildermuth, Evaluation of the Cumulative Effects of Transfers Pursuant to the Peace Agreement. To be filed with the Court.)

- Describe pumping patterns in Management Zone 1 that will not reduce piezometric levels below current conditions.

These management criteria were incorporated into the DYY program. The results of this work were presented to the Pool Committees, Advisory Committee, and the Watermaster Board in June and August 2003, and the final report was submitted in September 2003.

BACK-GROUND **Engineering Review and Determination of the Operational Storage Requirement and Safe Storage.** The Operational Storage Requirement was defined in the Peace Agreement as part of the storage in the Chino Basin "necessary to maintain the safe yield" of the Basin (Peace Agreement, Exhibit B – Implementation Plan, page 37). Safe storage is the maximum storage in the Basin that can occur without significant water quality and high groundwater related problems. The draft results of this work were presented to the Pool Committees, Advisory Committee, and the Watermaster Board in August 2003.

ON-GOING **Other Uses of the Groundwater Model in the OBMP Implementation.** The groundwater model is currently being used to investigate alternative management strategies including reduced storage in the eastern part of the basin, expanded storage and recovery programs, and assessing hydraulic control with various appropriator proposed pumping alternatives in the southern Chino Basin. A draft report documenting the modeling effort and related investigations will be submitted to Watermaster during the next reporting period.

CONCLUSION

THIS PERIOD This has been an active reporting period for Watermaster, with major activities on a number of issues:

- Construction on Bid Packages 1 and 2 of the Recharge Facilities Improvement Project was accepted, and construction on Bid Packages 3-7 is progressing on schedule. Demonstration projects for recharge in College Heights, Montclair and Brooks Basins were undertaken.
- The groundwater level and quality monitoring programs have been reorganized to better support new initiatives, such as MZ1, HCMP, Nitrogen Loss, and Desalter Expansion. Selected wells are being equipped with automatic measuring and recording devices to continually collect water level data at wells at frequent intervals. Field sampling and laboratory analyses used in FY 2003/04 have transitioned to the new monitoring program.
- Planning and design of nine new HCMP monitoring wells was completed.
- Updated status reports were developed for Chino Basin plumes at Kaiser, GE Flat Iron, GE Test Cell, OIA and Chino Airport. An initial evaluation of potential perchlorate sources and plumes was undertaken based on an EDR database.
- Data from the Ayala Park Extensometer indicated that deformation within the aquifer system sediments has been primarily elastic compression and expansion during the 2003 pumping season and the FY2003/04 recovery season. Additional test protocols are being developed for FY2004-05.

- Following the resignation of John Rossi, the former Watermaster CEO, an extensive search was undertaken and Kenneth R. Manning was offered the position of new Watermaster CEO.

CHINO BASIN WATERMASTER

II. BUSINESS ITEMS

A. Consider Mitigation of
Temporary Loss of
Hydraulic Control

CHINO BASIN WATERMASTER

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

KENNETH R. MANNING
Chief Executive Officer

DATE: **March 10, 2005**
March 24, 2005

TO: **Committee Members**
Watermaster Board Members

SUBJECT: Chino Basin Watermaster and Inland Empire Utilities Agency proposal for mitigation of temporary loss of hydraulic control

SUMMARY

Issue – In December 2002, Watermaster and Inland Empire Utilities Agency (IEUA) submitted a proposal to the Regional Water Quality Control Board requesting TDS and Nitrogen objectives be established using the maximum benefit concept. The Regional Board accepted this proposal, with slight modification and incorporated it into the 2004 Basin Plan amendment. One condition of the maximum benefit-based objective is that Watermaster and IEUA must submit a mitigation plan for temporary loss of hydraulic control. The proposed mitigation plan for temporary loss of hydraulic control is attached to this staff letter. There may be new costs to the Watermaster and IEUA to mitigate temporary loss of hydraulic control. These costs are more than offset by maintaining hydraulic control.

Recommendation – Watermaster approve the mitigation plan for temporary loss of hydraulic control.

BACKGROUND

The Regional Board adopted order number R8-2004-0001 in 2004. This order amended the Water Quality Management Plan for the Santa Ana Watershed (Basin Plan) for TDS and nitrogen. Watermaster and IEUA proposed that the TDS and nitrogen objectives for the Chino Basin be established based on maximum benefit concepts (WC S13241). The Regional Board incorporated the Watermaster and IEUA proposal into the Basin Plan amendment because of the establishment and successful implementation of the OBMP.

One of the requirements of the maximum benefit objectives is that Watermaster and IEUA maintain hydraulic control of the Chino North Management Zone. In the Basin Plan, the Chino North Management Zone is the aggregate of OBMP management zones 1, 2 and 3, less the area in the Prado reservoir (area with elevation below 566 feet-msl). The groundwater pumping and recharge plans being implemented by Watermaster, IEUA and the parties to the Judgment are the means to maintain hydraulic control. Watermaster and IEUA have developed a detailed Hydraulic Control Monitoring Program (HCMP) that monitors and assesses the state of hydraulic control for the Chino North Management Zone.

DISCUSSION

Temporary loss of hydraulic control, if it occurs, would likely be due to either temporary outage of the desalter facilities or from extremely wet years such as 2004/05. Watermaster and IEUA would detect the temporary loss of hydraulic control after it occurs and in some cases after hydraulic control is re-established. The proposed mitigation for a temporary loss of hydraulic control will depend on the following circumstances:

- **Circumstance 1.** If a temporary loss of hydraulic control occurred during the prior year, without impairment of downstream beneficial use, and the OBMP facilities and operations have resulted in a net TDS and nitrogen reduction in the Chino Basin, then no mitigation will be required.
- **Circumstance 2.** If a temporary loss of hydraulic control occurred during the prior year with impairment of downstream beneficial use, then recycled water recharge will cease until either hydraulic control can be demonstrated or Circumstance 1 is established.

Under Circumstance 1 there will be no cost to Watermaster or IEUA. Under Circumstance 2, Watermaster's cost for replenishment will increase as State Project Water will replace the recycled water being used for replenishment; and IEUA will lose income from recycled water sales. The cost associated with Circumstance 2 will be far less than the benefit of recharging recycled water during the majority of the time when hydraulic control is occurring.

CHINO BASIN WATERMASTER

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

KENNETH R. MANNING
Chief Executive Officer

March 3, 2005

Mr. Gerard Thibeault
Executive Officer
Regional Water Quality Control Board
3737 Main Street, Suite 500
Riverside, CA 92501-3339

Subject: Chino Basin Watermaster and Inland Empire Utilities Agency proposal for mitigation of temporary loss of hydraulic control.

Dear Mr. Thibeault:

The Chino Basin Watermaster (Watermaster) and the Inland Empire Utilities Agency (IEUA) hereby submit this proposal to the Regional Board for mitigation of temporary loss of hydraulic control pursuant to the 2004 Basin Plan Amendment. Our proposal is as follows.

Monitoring

Watermaster and IEUA will conduct monitoring as described in the Hydraulic Control Monitoring Plan (HCMP) (*Final Hydraulic Control Monitoring Program Work Plan, Optimum Basin Management Program*, WEI, May 2004) and per the formal monitoring plan that was submitted to the Regional Board in early 2004 pursuant to the 2004 Basin Plan amendment. Quarterly reports summarizing the data from the monitoring program will be sent to the Regional Board starting in April this year. An annual report will be sent to the Regional Board each February starting next year. Watermaster and IEUA initiated this monitoring program in 2003 prior to submitting the monitoring plan to the Regional Board.

Watermaster and IEUA will prepare tables that show the TDS and nitrogen budget for the Optimum Basin Management Program (OBMP) facilities and operations that will show, by quarter and cumulatively, the TDS and nitrogen debits and credits attributed to the OBMP: recharge of storm, recycled and State Project Water; and TDS and nitrogen removed by the OBMP desalter facilities. These calculations will be shown in each quarterly monitoring report and the annual report.

Annual Assessment of Hydraulic Control

Watermaster and IEUA will review the monitoring data and prepare a hydraulic control assessment for the Regional Board using the procedures described in *Exhibit A Assessment of Hydraulic Control* (attached). The procedures described in Exhibit A were developed by Wildermuth Environmental, Inc. during the development of the HCMP work plan in which staff

from the Regional Board participated. Any temporary loss of hydraulic control that occurred during the year will be identified and the means to improve OBMP operations will be identified and incorporated into subsequent operations.

Mitigation for Temporary Loss of Hydraulic Control

The mitigation for a temporary loss of hydraulic control will depend on the following circumstances.

Circumstance 1. If a temporary loss of hydraulic control occurred during the prior year, without impairment of downstream beneficial use, and the OBMP facilities and operations have resulted in a net TDS and nitrogen reduction in the Chino Basin, then no mitigation will be required.

Circumstance 2. If a temporary loss of hydraulic control occurred during the prior year with impairment of downstream beneficial use, then recycled water recharge will cease until either hydraulic control can be demonstrated or Circumstance 1 is established.

Watermaster and IEUA believe that this proposal is consistent with the 2004 Basin Plan amendment, will promote maximum beneficial use of the waters of the State, and protect downstream beneficial uses. Please call either Richard Atwater or me if you have any questions regarding our proposal.

Sincerely,

CHINO BASIN WATERMASTER

Kenneth R. Manning
Chief Executive Officer

Encl.

METRICS TO DETERMINE STATE OF HYDRAULIC CONTROL

HCMP TERMINOLOGY, METRICS, AND TRIGGERS ARE DEFINED BELOW.

Term	Definition as Applied in HCMP
Key Well	A key well is one of a number of wells within Chino Basin's monitoring network. Key wells will be selected to provide areal and vertical coverage to characterize groundwater heads and groundwater quality to a degree that satisfies all members of the HCMP.
Hydraulic Control	Hydraulic control, for the purposes of this study, is condition where groundwater originating in the northern part of Chino Basin is intercepted before discharging to the Santa Ana River.
Metric	A metric is the method whereby the effectiveness or performance of the system (hydraulic control) is measured or quantified.
Trigger	A trigger is a combination of performance metrics that have not been met – over a specific time span – that would trigger an action to correct the situation.

The following metrics will be used for determining whether hydraulic control exists in Chino Basin:

1. ***Water Chemistry***. As discussed in HCMO Work Plan (WEI 2004), general water chemistry will be analyzed to determine if a significant difference in water character exists between groundwater migrating from Chino North and surface water in the Santa Ana River. If a significant difference exists, it may be possible to determine if there is rising water or recharge from the Santa Ana River. The quantifiable metric for this water chemistry cannot be developed until the data are analyzed.
2. ***VOC Plume Migration***. As discussed in Section 3 of the HCMP Work Plan, there is a significant VOC plume upgradient of the Chino 1 Desalter wellfield. Concentrations near the wellfield are less than 5 µg/L. VOCs will be monitored in the newly installed multi piezometric monitoring wells. The metric is VOC concentrations exceeding 5 µg/L for 4 consecutive quarters in the newly installed downgradient monitoring well.
3. ***Hydrology***. Groundwater modeling, in conjunction with analyses of piezometric levels and hydrologic balance, will be used to determine if the basin is in hydraulic control. As discussed in the HCMP Work Plan, an estimate of hydrologic balance of surface waters will be accomplished by conducting sampling events at a regular frequency at key location on the Santa Ana River, its tributaries, points of non-tributary discharge and at wells in the lower Basin. Piezometric level measurements will be used to construct detailed groundwater elevation maps in the area near the Desalter well fields. Where possible, static levels will be used to construct the piezometric contour maps. The hydrology metric would be to demonstrate a reverse gradient south of the desalter well fields. This demonstration would be accomplished through groundwater flow modeling, groundwater contour maps, and by showing that the water level in the downgradient piezometer is greater than the water level in the piezometer installed in the desalter well field. The groundwater model would be updated every two years.
4. ***Impairment of Water Quality at the Below Prado USGS Station***. The HCMP Work Plan show time histories of measured TDS and TIN at Below Prado from 1950 to the present. Included on the figures are 5-year moving average trend lines. TDS concentrations have been trending toward lower concentrations since about 1986 and TIN has been decreasing since about 1993. The At Below Prado metric would be an increase in the 5-year moving average sustained over a 3-year period.

The At Below Prado metric is perhaps the most important one, because one of the primary objectives of Hydraulic Control is to ensure that water moving from the Upper to Lower Santa Ana Watershed does not decrease in quality due to management activities in Chino Basin or that the decrease in quality is *de minimus*. However in developing the following conditions, one must keep in mind that water quality at Below Prado is also influenced by other discharges and flow from other basins, especially Temescal Basin.

- ***Condition 1***. Water quality trends at Below Prado continue to improve or are flat. No action would be required of CBWM or IEUA, even if other metrics do not show hydraulic control.

- ***Condition 2***. Water quality at Below Prado trends toward poorer water quality. Two or more of the other three metrics indicate that hydraulic control is occurring. Hydraulic control is occurring. No action would be required of CBWM or IEUA. RWQCB may require further monitoring or studies in Temescal basin.

- ***Condition 3***. Water quality at Below Prado trends toward poorer water quality. One or none of the other three metrics indicates that hydraulic control is occurring. CBWM and IEUA must implement mitigation measures.

Water Chemistry Monitoring and Assessment

The purpose of monitoring water chemistry in surface and groundwater is to determine if groundwater from the Chino Basin is discharging as rising groundwater to the Santa Ana River. The general water chemistry of Chino Basin groundwater is different from the Santa Ana River. Native groundwater in the Chino Basin typically has a calcium-bicarbonate water character, while the Santa Ana River reflects the influence of tertiary wastewater in the baseflow of the river and has more sodium-chloride-sulfate character. The dry-weather discharge of the Santa Ana River in the Basin consists of rising groundwater from the Riverside Basin, recycled water discharged by publicly-owned treatment works (POTWs), and rising groundwater from either the Temescal or Chino Basins. From time to time, other waters are discharged to the Santa Ana River, including Arlington Desalter water, SWP water, and groundwater pumped from the San Bernardino area.

These discharges will be identified and their chemistries will be characterized using Piper diagrams and a modification of the Piper method for time histories known as Water Character Index (WCI). WCI is a parameter that can be used to generally characterize water in terms of rations of major cations and anions. WCI is a unitless parameter that provides a numerical estimation of water character. WCI is used to assess the ionic distribution of constituents in a water sample. WCI is analogous to a trilinear or Piper diagram, which is a graphical means of displaying the ratios of the principal ionic constituents in water (Piper, 1944; Watson and Burnett, 1995). The utility of the WCI method, compared with a Stiff or Piper/trilinear diagram, is that many data points can be plotted as time histories for a given well or surface water station. The points can also be plotted to show areal and spatial distributions of water character.

In addition to general water chemistry, Watermaster's database of groundwater quality in the southern Chino Basin area will be queried to see if there are other naturally occurring or introduced constituents that can potentially be used as a tracer to determine if Basin groundwater is discharging to the Santa Ana River.

Hydrologic Balance Assessment

An estimate of hydrologic balance of surface waters would be accomplished by conducting sampling events at a regular frequency at key location on the Santa Ana River, its tributaries, points of non-tributary discharge and at wells in the lower Basin. Review of Santa Ana River Watermaster reports show that baseflow increases in the Santa Ana River at Prado Dam by about 80 cubic feet per second (cfs) during the winter. Recycled water and other non-tributary discharges to the River cannot account for this change in flow. The increase in baseflow discharge could be caused by a decrease in evapotranspiration of groundwater by riparian vegetation in Prado Reservoir and near the river, an increase in rising groundwater due to reduced pumping by Chino and Temescal Basin producers, or both. An assessment of evapotranspiration will be conducted to determine whether seasonal baseflow changes at Prado can be accounted for by evapotranspiration (see the HCMP Work Plan).

Piezometric Levels Assessment

A monitoring program will be conducted to measure piezometric levels in existing private wells and desalter wells in the southern portion of the Chino Basin. This program consists of collecting piezometric data at existing and the nine new nested piezometers constructed for the HCMP, evaluation of hydrogeology in the area of concern, potential construction of new nested piezometers, and monitoring and analysis of piezometric data. Piezometric levels will be measured and referenced to an elevation obtained by survey or GPS to an accuracy of plus or minus 0.01 feet. Perforated interval information for wells without construction logs will be determined from video logging. Piezometric levels from these wells will be collected on a frequent (hourly to monthly) basis.

These piezometric level measurements will be used to construct detailed groundwater elevation maps in the area near the desalter well fields. The status of the well (pumping, recovering, or static) will be noted by the field staff and will be corroborated by plotting piezometric level time histories for each well. Where possible, static levels will be used to construct the piezometric contour maps. As with water chemistry, wells with significantly different piezometric values are often found in close proximity to each other, suggesting that there may be vertical stratification of aquifer zones. If warranted, additional nested piezometers may be constructed to augment data collected from the existing private wells in the vicinity of the desalter well fields.

The new piezometers would be used to better characterize the hydrogeology in this area, including the hydrostratigraphy, the vertical and horizontal piezometric distribution, and the groundwater quality. Subsequent monitoring at these wells and other nearby wells, along with groundwater modeling efforts, will determine if hydraulic control is occurring in the vicinity of the desalter well field, or will determine how desalter well field production should be changed to ensure hydraulic control.

Groundwater Modeling

Modeling is the last of the four elements of hydraulic control monitoring and assessment. Watermaster developed and periodically updates a three-dimensional model of the Chino Basin based on MODFLOW 2000. The model is dynamically linked to the Santa Ana River and major tributaries. The model is used to simulate the piezometric level and groundwater flow responses to groundwater management programs such as: conjunctive use, new supplemental water recharge, new stormwater recharge, new desalter well fields, assess hydraulic control, and assess subsidence potential in the western portion of the basin. All of these management programs have an influence on the state of hydraulic control. In addition to the flow model, Watermaster uses MODPATH and MT3D to simulate the transport of contaminant plumes and how the transport of plumes is changed as a result of the various management activities of the Watermaster and others.

As mentioned above, hydraulic control is desirable to maximize the yield of the Chino Basin and to protect the Santa Ana River. Watermaster intends to use the results of the water chemistry, hydrologic, and piezometric elements to continuously refine the conceptual model that underlies the numerical model and, subsequently, to refine the numerical model. After the new nested piezometers have been constructed and some monitoring has occurred, the flow model will be revised to incorporate the lithologic, piezometric, and aquifer property information derived from the new nested piezometers.

THIS PAGE

HAS

INTENTIONALLY

BEEN LEFT

BLANK

FOR PAGINATION

CHINO BASIN WATERMASTER

III. REPORTS/UPDATES

A. WATERMASTER GENERAL LEGAL COUNSEL REPORT

3. Senator Kuehl's Water Bill

February 28, 2005

HATCH & PARENT
A Law Corporation

RECEIVED
MAR 03 2005
WATERMASTER SERVICES

Senate Bill 820
Dramatic Changes Proposed for California Water Law

On February 23, 2005, Senator Sheila Kuehl, Chair of the powerful Senate Natural Resources and Water Committee, unveiled SB 820, a bill that provides for sweeping changes in California water law affecting both urban and agricultural water users. Appropriately, the bill has been coined the "Mega Water Bill."[1] This note highlights key provisions of the bill and possible impacts and outcomes associated with it.

The stated objectives of the bill are: (1) to strengthen water conservation policy; (2) to reduce uncertainty about the use and abundance of the state's water resources; and (3) to increase the integrity and integration of water resource planning and management. The bill includes three broad approaches to achieve these objectives:

- Mandatory water conservation;
- Mandatory reporting of water use; and
- Expanded water resources planning requirements.

MANDATORY WATER CONSERVATION

The California Constitution prohibits the unreasonable and wasteful use of water. Under existing law, the burden of proof on a waste claim falls on the party alleging waste. SB 820 would reverse that burden by establishing a "rebuttable presumption" of waste "whenever any person fails to implement cost-effective water conservation practices."

Conservation is deemed to be "cost-effective" if the monetary benefits of conservation exceed the monetary costs of conservation. Benefits include the cost of avoided water supply, energy savings, labor savings and "any other avoided costs or savings." "Water conservation" may be achieved by reducing currently irrecoverable water losses, or by reducing diversions or extractions while maintaining the current "social and economic benefits" of the current uses of water. If enacted, the provision would become operative on January 1, 2011.

The bill in its current form will likely result in increased litigation because a party need only make a claim that water is being wasted for the presumption of waste to apply; the burden of defending the litigation will then shift to the water rights holder.

MANDATORY REPORTING OF WATER USE

Groundwater Use

Overcoming past initiatives,[2] groundwater use in California remains largely unregulated; only specified groundwater producers experiencing severe overdraft in certain Southern California counties have been required to report annual groundwater extraction. SB 820 takes a dramatic

step toward the regulation of all groundwater use in the state by requiring all groundwater users who extract more than 25 acre-feet of water per year to report annual extractions to the State Water Resources Control Board (SWRCB) or to a designated depository agency beginning in 2006. The bill also provides penalties for failure to file the required reports, including potential forfeiture of water rights and loss of eligibility to receive state grant funds.

Presently, many of the state's groundwater basins have no monitoring capabilities in place. The bill provides no funding for groundwater monitoring systems and is unclear whether metering to substantiate reported groundwater use will be required.

Surface Water Use

SB 820 also enhances reporting requirements for surface water use. Current law requires all surface water appropriators to make periodic reports of their water use to the SWRCB, but no penalty is associated with the failure to report, and the reports themselves are purely informational. Under SB 820, failure to file annual water use reports will be deemed to constitute non-use for the years not reported and will result in civil penalties and loss of eligibility to receive state grant funds.

EXPANDED WATER RESOURCES PLANNING REQUIREMENTS

Following the direction of her SB 221, Senator Kuehl also proposes to expand the requirements in current law related to the preparation of Urban Water Management Plans (UWMPs) and Groundwater Management Plans (GWMPs). SB 820 also reinstates and greatly expands the scope of the law relating to Agricultural Water Management Plans (AWMPs).

Urban Water Management Plans

SB 820 would make the preparation and adoption of UWMPs subject to the California Environmental Quality Act (CEQA). The bill will also make permanent and expand the scope of the requirement that a UWMP be filed with the Department of Water Resources (DWR) as a condition of receiving state grant funds from DWR, the SWRCB or the California Bay-Delta Authority. Under current law, this requirement will sunset on December 31, 2005, and is limited to only a few grant programs.

The bill would require energy demands and costs to be considered in UWMPs when evaluating alternative strategies and water conservation measures, including coordination with local electric and gas utilities. The bill also calls for expanded distribution of UWMPs to facilitate public review.

The most onerous of these new planning requirements is the removal of the CEQA exemption for UWMPs. CEQA compliance is time-consuming and expensive, and the projects described in a UWMP are already projects subject to CEQA. Environmental review at the planning stage is often difficult because it requires speculation on the physical impacts of projects that may or may

not become part of a water supplier's water supply portfolio in the future. This single change in the law will impose substantial time and expense burdens on all urban water suppliers.

Groundwater Management Plans

SB 820 requires that existing GWMPs be updated by December 31, 2008 (unless the original GWMP was adopted on or after January 1, 2004) and every five years thereafter. It also requires an update to:

- evaluate the progress made in achieving the adopted basin management objectives;
- identify successes and shortcomings in meeting those objectives;
- revise the basin management objectives as appropriate; and
- develop a plan to achieve the revised basin management objectives.

Agricultural Water Management Plans

SB 820 would also reinstate and expand the scope of AWMPs in several significant ways. The bill:

- Requires the filing of AWMPs by all agricultural water suppliers serving at least 2,000 acre-feet of water annually beginning December 31, 2010 and every five years thereafter. Current law has a floor of 50,000 acre-feet annually, so this represents a significant expansion of the agricultural reporting requirement.
- Expands the required elements of AWMPs to include operating rules and regulations, water rate schedules, water shortage allocation policies, and water supply reliability estimates.
- Eliminates the financial assistance provisions included in prior law so that agricultural water suppliers must bear the cost of preparing AWMPs.
- Maintains the CEQA exemption for AWMPs, unlike UWMPs.
- Requires wide distribution of the AWMPs as a condition for receiving grant funds from DWR, the SWRCB or the California Bay-Delta Authority.
- Expands the definition of "conservation."

The reinstatement and expansion of AWMPs will be one of the most controversial elements of SB 820. The bill's provisions will cause agricultural water suppliers to bear significant costs in the preparation of AWMPs and make many of the details of their water supplies, existing and projected water use, and operations subject to public scrutiny.

SB 820 also adds "early warning" provisions regarding the likely availability of water from stream systems and the State Water Project. While existing law prohibits the SWRCB from accepting new applications to appropriate water from streams that have been formally declared to be fully appropriated, SB 820 requires the SWRCB to publish a list of stream systems that are "likely" to be declared fully appropriated and therefore may no longer be available for additional consumptive uses. Similarly, the bill will require DWR to provide all State Water Project contractors, city and county planning departments, and regional and metropolitan planning

departments with a report of the then existing overall delivery capability of the project facilities and the allocation of that capacity to each contractor.

NEXT STEPS

Senator Kuehl's office has asked for input from interested parties and will hold a series of working group meetings to refine the language of the bill. Senator Kuehl wants to know any policy concerns with the bill, and also asks for specific proposals for changes to the bill's language and provisions.

Senator Kuehl's SB 820 will make major changes to California water law and will place heavy burdens on water users and state government alike. The bill is a first step toward comprehensive regulation of groundwater in California, and it makes validity and security of water rights contingent on meeting government reporting requirements and policy objectives. ***All water users and water suppliers will be affected by this bill and need to follow its progress.***

Hatch & Parent is a full service law firm specializing in water and environmental law. At the forefront of the practice for more than 30 years, the firm seeks lasting solutions to complex resource management challenges employing a fully integrated range of services — negotiation, legislative advocacy, public relations management and litigation — to meet our clients' needs. Our breadth of skill and experience covers the full range of water resource related matters, including strategic planning; asset development and protection; water rights and infrastructure sales and transfers; regulatory permitting and compliance; water quality protection; water rights and water quality related litigation; and advocacy at every level of government. Please visit our website at www.hatchparent.com for a more complete description of our practice and our members.

If you would like to know more about SB 820, obtain a copy of the bill, or speak with one of our lawyers or legislative advocates about how the bill may affect you, your water rights, or business operations, please contact Chris Frahm or Jeff Volberg at (916) 441-1232, or Stephanie Hastings at (805) 882-1415.

---

[1] The bill amends Sections 5000, 5001, 5003, 5004, 5005, 5009, 5101, 5106, 5107, 10004.5, 10004.6, 10620, 10631, 10644, 10645, 10652, 10656, 10753.7, 10811, 10814, 10816, 10840, 10841, and 10844 of, to add Sections 139, 276, and 1205.5 to, to repeal Sections 4999, 5108, 10657, 10822, 10823, 10824, 10826, and 10855 of, and to repeal and add Sections 10820, 10821, 10825, 10845, 10853, and 10854 of, the Water Code, relating to water.

[2] In 2002, the SWRCB hired Berkeley law professor Joseph Sax to review its legal basis for asserting water rights permitting authority over groundwater. The so-called "Sax Report" concluded that it would be preferable to regulate all hydraulically connected surface and groundwater under a single permitting scheme, but that the historical resistance in California to regulating groundwater would make full regulation infeasible. Instead, Sax suggested a series of "quantitative" criteria that the SWRCB could use in deciding whether to assert jurisdiction based on the need to protect surface waters from adverse impacts from groundwater pumping. He also suggested that the SWRCB could utilize its jurisdiction under other statutes to limit groundwater use where the result would violate the public trust or constitute "waste." SB 820 takes these same approaches and issues "head on."

In bill text the following has special meaning
underline denotes added text
~~struck-out text denotes deleted text~~

2005 CA S 820
AUTHOR: Kuehl
VERSION: Introduced
VERSION DATE: 02/22/2005

SENATE BILL
No. 820

INTRODUCED BY Senator Kuehl

FEBRUARY 22, 2005

An act to amend Sections 5000, 5001, 5003, 5004, 5005, 5009, 5101, 5106, 5107, 10004.5, 10004.6, 10620, 10631, 10644, 10645, 10652, 10656, 10753.7, 10811, 10814, 10816, 10840, 10841, and 10844 of, to add Sections 139, 276, and 1205.5 to, to repeal Sections 4999, 5108, 10657, 10822, 10823, 10824, 10826, and 10855 of, and to repeal and add Sections 10820, 10821, 10825, 10845, 10853, and 10854 of, the Water Code, relating to water.

LEGISLATIVE COUNSEL'S DIGEST

SB 820, as introduced, Kuehl. Water. (1) Under existing law, the Department of Water Resources operates the State Water Project, which includes state water facilities, as defined.

This bill would require the department, commencing in 2006, and every 2 years thereafter, to prepare and deliver to State Water Project contractors, city and county planning departments, and regional and metropolitan planning departments within the project service area a report that accurately sets forth, under a range of hydrologic conditions, the then existing overall delivery capability of the project facilities and the allocation of that capacity to each contractor.

(2) Existing law requires the department and the State Water Resources Control Board to take all appropriate proceedings or actions before executive, legislative, or judicial agencies to prevent waste, unreasonable use, unreasonable method of use, or unreasonable method of diversion of water in this state.

Under this bill, on and after January 1, 2011, a rebuttable presumption of waste would arise whenever any person fails to implement cost-effective water conservation practices, as defined.

(3) Existing law declares all water flowing in any natural channel, except as specified, to be public water of the state and subject to appropriation. Existing law authorizes the state board, following notice and hearing, to adopt a declaration that a stream system is fully appropriated.

This bill would require the executive director of the board to establish, maintain, and publish a list of stream systems that are candidates for being declared fully appropriated, for information purposes only.

(4) Existing law, with certain exceptions, requires a person who, after 1955, extracts groundwater in excess of 25 acre-feet in any year in the Counties of Riverside, San Bernardino, Los Angeles, and Ventura to file with the state board an annual notice of extraction. Existing law, with certain exceptions, provides that, after 1959, the failure to file a notice for any calendar year within 6 months after the close of that calendar year is equal to nonuse of the groundwater in those counties for that calendar year by each person failing to so file.

This bill would impose parallel provisions on the balance of the counties in the state for extractions on and after January 1, 2006.

(5) Existing law, except as specified, requires each person who, after December 31, 1965, diverts water to file with the state board, before July 1 of the succeeding year, a statement of diversion and use. Existing law excepts diversions that are covered by an application, or a permit or license to appropriate water on file with the state board. Existing law also excepts diversions reported by the department in its hydrologic data bulletins or included in the consumptive use data for the delta lowlands published by the department in its hydrologic data bulletins. Under existing law, the making of any willful misstatement regarding statements of diversion or use is a misdemeanor and any person who makes a material misstatement under these provisions may be civilly liable. Under existing law, statements filed pursuant to those provisions are for informational purposes only, and, except as specified, neither the failure to file a statement nor any error in the information filed have any legal consequences.

This bill would, with regard to the covered diversions, modify that provision to except diversions covered by a permit or license to appropriate water or a registration of appropriation for small domestic or livestock pond uses that are on file with the state board. The bill would limit those other described exceptions to diversions that occurred before January 1, 2006.

The bill would delete that informational purpose provision and expand the civil liability provision to apply to any person who fails to file a statements for a diversion or use that occurs on or after January 1, 2006. The bill would also make any person who

fails to file a statement for a diversion or use that occurs on or after January 1, 2006, ineligible for funds made available pursuant to any program administered by the state board, the department, or the California Bay-Delta Authority.

(6) Under existing law, a plan for the orderly and coordinated control, protection, conservation, development, and utilization of the water resources of the state is known as the California Water Plan. Existing law requires the department to update the plan on or before December 31, 2003, and every 5 years thereafter. Existing law requires the plan to include a discussion or specified topics.

This bill would require the plan to include a discussion of the energy requirements of strategies that may be pursued to meet the future water needs of the state, and would require the department to release certain information regarding the energy required to provide current and projected water supplies.

(7) Existing law requires every urban water supplier to prepare and adopt an urban water management plan, as prescribed, including a requirement that the urban water supplier coordinate the preparation of the plan with other appropriate agencies, to the extent practicable. Existing law requires an urban water supplier to submit a copy of its plan to the department, the California State Library, and any city or county within which the supplier provides water supplies, and to make the plan available for public review during normal business hours.

This bill would include public utilities that provide electric or gas service in those coordinating agencies. The bill would require a plan to quantify the energy requirements of certain existing and planned water sources and, with regard to a cost-benefit analysis for water demand management measures, to include energy costs and benefits of conserved water. The bill would require an urban water supplier to submit a copy of its plan to additional entities, and to make the plan available for public review on its Internet Web site.

(8) Existing law exempts the preparation and adoption of urban water management plans from the California Environmental Quality Act.

This bill would make the preparation and adoption of urban water management plans subject to the California Environmental Quality Act.

(9) Under existing law, if an urban water supplier fails to prepare, adopt, and submit an urban water management plan, it is ineligible for certain bond funds and drought assistance until it does so. Existing law, until January 1, 2006, also requires the department to take into consideration whether a plan has been submitted in determining eligibility for other program funds.

This bill would delete those provisions, and would, instead, make an urban water supplier that fails to prepare, adopt, and submit an urban water management plan, ineligible for funds made available pursuant to any program administered by the state

board, the department, or the California Bay-Delta Authority until it does so.

(10) Existing law authorizes a local agency whose service area includes a groundwater basin that is not subject to groundwater management to adopt and implement a groundwater management plan pursuant to certain provisions of law. Existing law requires a groundwater management plan to include certain components to qualify as a plan for the purposes of those provisions, including a provision that establishes funding requirements for the construction of certain groundwater projects.

This bill, except as specified, would require a local agency to update the plan on or before December 31, 2008, and every 5 years thereafter. The bill would require a local agency to file a copy of its plan with specified entities.

(11) Existing law relating to agricultural water management planning, until January 1, 1993, and thereafter only as specified, provides for the preparation and adoption of water management plans. That existing law defines "agricultural water supplier" or "supplier" to mean a supplier, either publicly or privately owned, supplying more than 50,000 acre-feet of water annually for agricultural purposes.

This bill would substantially revise existing law relating to agricultural water management planning to require every agricultural water supplier to prepare and adopt an agricultural water management plan, as prescribed, on or before December 31, 2010. The bill would define "agricultural water supplier" or "supplier" to mean a supplier, either publicly or privately owned, supplying more than 2,000 acre-feet of water annually for agricultural purposes. The bill would require every person that becomes an agricultural water supplier to adopt an agricultural water management plan within one year after it has become an agricultural water supplier. The bill would require an agricultural water supplier to update the plan, file it, and make it available, as prescribed. The bill would make an agricultural water supplier that fails to prepare, adopt, and submit a plan ineligible for funds made available pursuant to any program administered by the state board, the department, or the California Bay-Delta Authority.

Vote: majority. Appropriation: no. Fiscal committee: yes. State-mandated local program: no.

THE PEOPLE OF THE STATE OF CALIFORNIA DO ENACT AS FOLLOWS:

SECTION 1. Section 139 is added to the Water Code , to read:

139. Commencing in 2006, and every two years thereafter, the department shall prepare and deliver to State Water Project contractors, city and county planning departments, and regional and metropolitan planning departments within the project service area, a report that accurately sets forth, under a range of hydrologic conditions, the then-existing overall delivery capability of the project facilities and the allocation of

that capacity to each contractor. The range of hydrologic conditions shall include, but is not limited to, the historic extended dry cycle and the long-term average. The biennial report shall also disclose, for each of the 10 years immediately preceding the report, the total amount of project water delivered and the amount of project water delivered to each contractor. The information presented in each report shall be presented in a manner readily understandable by the public.

SEC. 2. Section 276 is added to the Water Code , to read:

276. (a) A rebuttable presumption of waste arises whenever any person fails to implement cost-effective water conservation practices. (b) The following definitions govern the construction of this section:

(1) "Cost-effective" means that the monetary benefits of the water conservation program exceed the monetary costs of implementing the water conservation program. Benefits include the cost of avoided water supply, energy savings, labor savings, and any other avoided costs or savings.

(2) "Water conservation" means both of the following:

(A) Reducing water losses currently irrecoverable for reuse because they flow to a salt sink or an inaccessible or degraded aquifer, or evaporate to the atmosphere.

(B) Reducing diversions or extractions while maintaining the current social and economic benefits of the current uses of water.

(3) "Practices" means programs, projects, or practices.

(c) In enacting this section, the Legislature does not intend to impinge upon, or otherwise limit, the authority of either the department or the State Water Resources Control Board.

(d) This section shall become operative on January 1, 2011.

SEC. 3. Section 1205.5 is added to the Water Code , to read:

1205.5. (a) The executive director of the board shall establish, maintain, and publish a list of stream systems that are candidates for being declared fully appropriated pursuant to Section 1205. (b) The executive director shall add or remove stream systems to the candidate list established in subdivision (a), based on information known to the executive director and the executive director's best judgment of the likelihood of the board declaring the stream system fully appropriated.

(c) The list of candidate stream systems shall be used for informational purposes only.

SEC. 4. Section 4999 of the Water Code is repealed.

~~4999. The Legislature finds and declares that by reason of the combination of light rainfall, concentrated population, the transition of considerable areas of land from agricultural use to urban use, and a similar dependence on ground water supplies which prevails in the Counties of Riverside, San Bernardino, Los Angeles, and Ventura, together with the fact that most such underground water supplies are overdrawn, it is necessary that the provisions of this part apply to said counties only.~~

SEC. 5. Section 5000 of the Water Code is amended to read:

5000. As used in this ~~Part 5~~ part, the following terms ~~shall~~ have the ~~respective~~ following meanings ~~stated below, viz.~~: (a) ~~"Ground water~~ "Groundwater" means water beneath the surface of the ground whether or not flowing through known and definite channels.

(b) "Surface water" means water on the surface of the ground.

(c) "Four counties" means the Counties of Riverside, San Bernardino, Los Angeles, and Ventura.

(d) "Balance of the state" means all of this state, excluding the four counties.

(e) "Person" means all persons whether natural or artificial, including the United States of America, the State of California, and all political subdivisions, districts, municipalities and public agencies of or in either the State or the United States.

~~(e)~~

(f) "Sources" means any point of diversion or extraction of water and includes among other things wells, tunnels, and headworks.

SEC. 6. Section 5001 of the Water Code is amended to read:

5001. (a) Each person who, after 1955 in the four counties, and on and after January 1, 2006, in the balance of the state, extracts ~~ground water~~ groundwater in excess of 25 acre-feet in any year shall file with the board on or before March 1st of the succeeding year a "Notice of Extraction and Diversion of Water" ~~(hereinafter called "notice")~~ in the form provided in Section ~~5002; provided, however, that no~~ 5002. (b) No notice need be filed with respect to, and there shall not be required to be included in any such notice, ~~(a) information~~ any of the following:

(1) Information concerning the extraction or diversion of water from a source from which less than 10 acre-feet has been taken during such ~~year, (b) information~~ year.

(2) Information concerning a taking or diversion of surface water for the purpose of generating electrical energy and other nonconsumptive uses, and for incidental uses in

connection ~~therewith, or (c) information~~ therewith.

(3) Information concerning extractions or diversions of water ~~which~~ that are included in annual reports filed with a court or the board by a watermaster appointed by a court or pursuant to statute to administer a final judgment determining rights to water, which reports identify the persons who have extracted or diverted water and give the general place of use and the quantity of water ~~which~~ that has been extracted or diverted from each source.

SEC. 7. Section 5003 of the Water Code is amended to read:

5003. No prescriptive right ~~which~~ that might otherwise accrue to extract ~~ground water~~ groundwater shall arise or accrue to, nor shall any statute of limitations operate in regard to ~~such ground water~~ that groundwater in the ~~four counties~~ state or any of them after the year 1956 in the four counties, and on and after January 1, 2006 , in the balance of the state, in favor of any person required to file ~~such~~ the notice of extraction and diversion of water, until ~~such~~ that person ~~shall file~~ files with the board the first "Notice of Extraction and Diversion of Water" substantially in the form mentioned in Section 5002; and as to each person who fails to file ~~such~~ notice by the end of the year 1957 in the four counties and on and after January 1, 2007 , in the balance of the state , it shall be deemed for the period from that time until the first notice ~~of such person~~ is filed, that no claim of right to the extraction of ~~ground water~~ groundwater from any ~~such~~ source ~~in the four counties~~ has been made by ~~such~~ that person, and that water so extracted by ~~such~~ that person from ~~such ground water~~ that groundwater source during ~~such~~ that period has not been devoted to or used for any beneficial use. The beneficial use of water from any ~~ground water~~ groundwater source ~~within the four counties~~ in any year by ~~such~~ that person shall be deemed not to exceed the quantity reported in the notice filed for ~~such~~ that year.

SEC. 8. Section 5004 of the Water Code is amended to read:

5004. (a) After the year 1959 in the four counties, and on and after January 1, 2007 , in the balance of the state , failure to file with the board a notice for any calendar year within six months after the close of ~~such~~ that calendar year shall be deemed equivalent for all purposes to nonuse for ~~such~~ that year of any ~~ground water within the four counties~~ groundwater by each person failing to so file a notice within said ~~period; provided, that~~ period. (b) Notwithstanding subdivision (a), this section and Section 5003 shall not apply to any person whose aggregate extractions of ~~ground water~~ groundwater in any year does not exceed 25 acre-feet nor to any extractions of ~~ground water~~ groundwater with respect to which no notice is required to be filed under this part.

(c) Any person who fails to submit statements required by this part shall be ineligible to receive funds made available pursuant to any program administered by the board, the department, or the California-Bay Delta Authority.

SEC. 9. Section 5005 of the Water Code is amended to read:

5005. Except as specified in Section 5004, failure to file the notice or delay in filing the same shall not cause the loss of rights to ~~ground water which~~ groundwater that existed on January 1, 1956 , for persons in the four counties, and January 1, 2006 , for persons in the balance of the state .

SEC. 10. Section 5009 of the Water Code is amended to read:

5009. (a) (1) Notwithstanding any other provision of this part, on and after January 1, 2005, in the four counties, and on and after January 1, 2006, in the balance of the state, each person who extracts groundwater in a board-designated local area, and who is otherwise subject to this part, shall file the required notice with the appropriate local agency designated pursuant to subdivision (e), instead of the board, in accordance with this part. The notice shall be on a form provided by the local agency and the content of the form shall be determined by the local agency in accordance with Section 5002. To the extent possible, the form shall consolidate the notice required under this section with other reports required by the local agency relating to the extraction of groundwater.(2) A person who is subject to this section is subject to this part in the same manner and to the same extent as a person who files his or her notice with the board.

(b) Each notice filed with the local agency may include a filing fee determined by the local agency. If the local agency chooses to impose a filing fee, the local agency shall calculate the amount of the fee to pay for administrative expenses incurred in connection with the processing, compiling, and retaining of the notices, but in no event shall the fee amount exceed that amount charged by the board pursuant to Section 5006.

(c) The local agency shall make available to the public the information collected pursuant to this section.

(d) For the purposes of this section:

(1) "Board-designated local area" means the area entirely within the jurisdiction of the local agency that the board has determined shall be subject to this section.

(2) "Local agency" means the local public agency or court appointed watermaster that has been designated by the board in accordance with subdivision (e).

(e) The board may designate an entity as a local agency for the purposes of this section if the board determines that all of the following apply:

(1) The entity has volunteered to be designated.

(2) The entity has responsibilities relating to the extraction or use of groundwater.

(3) The entity has made satisfactory arrangements with the board to identify which groundwater extractors are within the designated local area and to avoid the submission of notices to both the board and one or more local agencies.

(4) The entity has made satisfactory arrangements with the board to maintain records filed under this part for extractions within the designated local area, and to make those records available to governmental agencies.

SEC. 11. Section 5101 of the Water Code is amended to read:

5101. Each person who, after December 31, 1965, diverts water shall file with the board, prior to July 1 of the succeeding year, a statement of his diversion and use; provided, however, that no statement need be filed if the diversion is any of the following:(a) From a spring which does not flow off the property on which it is located.

(b) Covered by ~~an application, a~~ permit or license to appropriate water , or a registration of appropriation for small domestic or livestock stockpond uses, on file with the board.

(c) Included in a notice filed pursuant to Part 5 (commencing with Section 4999) of this division.

(d) Regulated by a watermaster appointed by the department.

~~(e) Reported by the department in its hydrologic data bulletins.~~

~~(f) Included in the consumptive use data for the delta lowlands published by the department in its hydrologic data bulletins.~~

~~(g)~~

(e) Included in annual reports filed with a court or the board by a watermaster appointed by a court or pursuant to statute to administer a final judgment determining rights to water, which reports identify the persons who have diverted water and give the general place of use and the quantity of water which has been diverted from each source.

~~(h)~~

(f) For use in compliance with the provisions of Article 2.5 (commencing with Section 1226) of Chapter 1 of Part 2 of this division.

(g) A diversion that occurs before January 1, 2006, if any of the following applies:

(1) The diversion is covered by an application to appropriate water on file with the board.

(2) The diversion is reported by the department in its hydrologic data bulletins.

(3) The diversion is included in the consumptive used data for the delta lowlands

published by the department in its hydrologic data bulletins.

SEC. 12. Section 5106 of the Water Code is amended to read:

5106. (a) Neither the statements submitted under this part nor the determination of facts by the board pursuant to Section 5105 shall establish or constitute evidence of a right to divert or use water.(b) (1) The board may rely on the names and addresses included in statements submitted under this part for the purpose of determining the names and addresses of persons who are to receive notices with regard to proceedings before the board.

(2) Notwithstanding paragraph (1), any person may submit, in writing, a request to the board to provide notification to a different address, and the board shall provide the notification to that address.

(3) If the board provides notice to persons who file statements under this part, the notice shall not be determined to be inadequate on the basis that notice was not received by a person, other than a party to whom the board's action is directed, who fails to file a statement required to be filed under this part.

(4) This subdivision does not affect the requirement in Section 2527 to provide notice to all persons who own land that appears to be riparian to the stream system.

(c) In any proceeding before the board to determine whether an application for a permit to appropriate water should be approved, any statement submitted under this part or determination by the board pursuant to Section 5105 is evidence of the facts stated therein.

(d) In any proceeding before the board in which it is alleged that an appropriative right has ceased because water has not been put to beneficial use, any use occurring on or after January 1, 2006, that is required to be included in a statement submitted under this part shall be deemed not to have occurred unless it was reported in a statement submitted under this part, and the quantity used shall be deemed not to exceed the quantity reported.

SEC. 13. Section 5107 of the Water Code is amended to read:

5107. (a) The making of any willful misstatement pursuant to this part is a misdemeanor punishable by a fine not exceeding one thousand dollars ($1,000) or by imprisonment in the county jail for not to exceed six months, or both.(b) Any person who fails to file a statement required to be filed under this part for a diversion or use that occurs on or after January 1, 2006, or who makes a material misstatement pursuant to this part may be liable civilly as provided in subdivision (c).

(c) Civil liability may be administratively imposed by the board pursuant to Section 1055 in an amount not to exceed five hundred dollars ($500) for each violation. In determining the appropriate amount, the board shall consider all relevant circumstances,

including, but not limited to, all of the following factors:

(1) The extent of harm caused by the violation.

(2) The nature and persistence of the violation.

(3) The length of time over which the violation occurs.

(4) Any corrective action undertaken by the violator.

(d) All funds recovered pursuant to this section shall be deposited in the Water Rights Fund established pursuant to Section 1550.

(e) Any person who fails to file a statement required to be filed under this part for a diversion or use that occurs on or after January 1, 2006, is ineligible for funds made available pursuant to any program administered by the board, the department, or the California Bay-Delta Authority.

SEC. 14. Section 5108 of the Water Code is repealed.

~~5108. Statements filed pursuant to this part shall be for informational purposes only, and neither the failure to file a statement nor any error in the information filed shall have any legal consequences whatsoever other than those specified in this part.~~

SEC. 15. Section 10004.5 of the Water Code is amended to read:

10004.5. As part of the requirement of the department to update The California Water Plan pursuant to subdivision (b) of Section 10004, the department shall include in the plan a discussion of ~~various~~ all of the following: (a) Various strategies, including, but not limited to, those relating to the development of new water storage facilities, water conservation, water recycling, desalination, conjunctive use, and water transfers that may be pursued in order to meet the future water needs of the state. ~~The department shall also include a discussion of the~~

(b) The energy requirements of each strategy.

(c) The potential for alternative water pricing policies to change current and projected uses. ~~The department shall include in the plan a discussion of the~~

(d) The potential advantages and disadvantages of each strategy and an identification of all federal and state permits, approvals, or entitlements that are anticipated to be required in order to implement the various components of the strategy.

SEC. 16. Section 10004.6 of the Water Code is amended to read:

10004.6. (a) As part of updating The California Water Plan every five years pursuant

to subdivision (b) of Section 10004, the department shall conduct a study to determine the amount of water needed to meet the state's future needs and to recommend programs, policies, and facilities to meet those needs.(b) The department shall consult with the advisory committee established pursuant to subdivision (b) of Section 10004 in carrying out this section.

(c) ~~On or before January 1, 2002, and one~~ One year prior to issuing each ~~successive~~ update to The California Water Plan, the department shall release a preliminary draft of the assumptions and other estimates upon which the study will be based, to interested persons and entities throughout the state for their review and comments. The department shall provide these persons and entities an opportunity to present written or oral comments on the preliminary draft. The department shall consider these documents when adopting the final assumptions and estimates for the study. For the purpose of carrying out this subdivision, the department shall release, at a minimum, assumptions and other estimates relating to all of the following:

(1) Basin hydrology, including annual rainfall, estimated unimpaired stream flow, depletions, and consumptive uses.

(2) Groundwater supplies, including estimates of sustainable yield, supplies necessary to recover overdraft basins, and supplies lost due to pollution and other groundwater contaminants.

(3) Current and projected land use patterns, including the mix of residential, commercial, industrial, agricultural, and undeveloped lands.

(4) Environmental water needs, including regulatory instream flow requirements, nonregulated instream uses, and water needs by wetlands, preserves, refuges, and other managed and unmanaged natural resource lands.

(5) Current and projected population.

(6) Current and projected water use for all of the following:

(A) Interior uses in a single-family dwelling.

(B) Exterior uses in a single-family dwelling.

(C) All uses in a multifamily dwelling.

(D) Commercial uses.

(E) Industrial uses.

(F) Parks and open spaces.

(7) Evapotranspiration rates for major crop types, including estimates of evaporative losses by irrigation practice and the extent to which evaporation reduces transpiration.

(8) Current and projected adoption of urban and agricultural conservation practices.

(9) Current and projected supplies of water provided by water recycling and reuse.

(10) The energy required to provide current and projected water supplies.

(d) The department shall include a discussion of the potential for alternative water pricing policies to change current and projected water uses identified pursuant to paragraph (6) of subdivision (c).

(e) Nothing in this section requires or prohibits the department from updating any data necessary to update The California Water Plan pursuant to subdivision (b) of Section 10004.

SEC. 17. Section 10620 of the Water Code is amended to read:

10620. (a) Every urban water supplier shall prepare and adopt an urban water management plan in the manner set forth in Article 3 (commencing with Section 10640).(b) Every person that becomes an urban water supplier shall adopt an urban water management plan within one year after it has become an urban water supplier.

(c) An urban water supplier indirectly providing water shall not include planning elements in its water management plan as provided in Article 2 (commencing with Section 10630) that would be applicable to urban water suppliers or public agencies directly providing water, or to their customers, without the consent of those suppliers or public agencies.

(d) (1) An urban water supplier may satisfy the requirements of this part by participation in areawide, regional, watershed, or basinwide urban water management planning where those plans will reduce preparation costs and contribute to the achievement of conservation and efficient water use.

(2) Each urban water supplier shall coordinate the preparation of its plan with other appropriate agencies in the area, including other water suppliers that share a common source, water management agencies, public utilities that provide electric or gas service and other relevant public agencies, to the extent practicable.

(e) The urban water supplier may prepare the plan with its own staff, by contract, or in cooperation with other governmental agencies.

(f) An urban water supplier shall describe in the plan water management tools and options used by that entity that will maximize resources and minimize the need to import water from other regions.

SEC. 18. Section 10631 of the Water Code is amended to read:

10631. A plan shall be adopted in accordance with this chapter and shall do all of the following:(a) Describe the service area of the supplier, including current and projected population, climate, and other demographic factors affecting the supplier's water management planning. The projected population estimates shall be based upon data from the state, regional, or local service agency population projections within the service area of the urban water supplier and shall be in five-year increments to 20 years or as far as data is available.

(b) Identify and quantify, to the extent practicable, the existing and planned sources of water available to the supplier over the same five-year increments described in subdivision (a). If groundwater is identified as an existing or planned source of water available to the supplier, all of the following information shall be included in the plan:

(1) A copy of any groundwater management plan adopted by the urban water supplier, including plans adopted pursuant to Part 2.75 (commencing with Section 10750), or any other specific authorization for groundwater management.

(2) A description of any groundwater basin or basins from which the urban water supplier pumps groundwater. For those basins for which a court or the board has adjudicated the rights to pump groundwater, a copy of the order or decree adopted by the court or the board and a description of the amount of groundwater the urban water supplier has the legal right to pump under the order or decree. For basins that have not been adjudicated, information as to whether the department has identified the basin or basins as overdrafted or has projected that the basin will become overdrafted if present management conditions continue, in the most current official departmental bulletin that characterizes the condition of the groundwater basin, and a detailed description of the efforts being undertaken by the urban water supplier to eliminate the long-term overdraft condition.

(3) A detailed description and analysis of the location, amount, and sufficiency of groundwater pumped by the urban water supplier for the past five years. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

(4) A detailed description and analysis of the amount and location of groundwater that is projected to be pumped by the urban water supplier. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

(c) Describe the reliability of the water supply and vulnerability to seasonal or climatic shortage, to the extent practicable, and provide data for each of the following:

(1) An average water year.

(2) A single dry water year.

(3) Multiple dry water years.

For any water source that may not be available at a consistent level of use, given specific legal, environmental, water quality, or climatic factors, describe plans to supplement or replace that source with alternative sources or water demand management measures, to the extent practicable.

(d) Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.

(e) Quantify the energy requirements of each existing and planned water source identified in subdivisions (b) and (d).

(f) (1) Quantify, to the extent records are available, past and current water use, over the same five-year increments described in subdivision (a), and projected water use, identifying the uses among water use sectors including, but not necessarily limited to, all of the following uses:

(A) Single-family residential.

(B) Multifamily.

(C) Commercial.

(D) Industrial.

(E) Institutional and governmental.

(F) Landscape.

(G) Sales to other agencies.

(H) Saline water intrusion barriers, groundwater recharge, or conjunctive use, or any combination thereof.

(I) Agricultural.

(2) The water use projections shall be in the same five-year increments described in subdivision (a).

~~(f)~~

(g) Provide a description of the supplier's water demand management measures. This

description shall include all of the following:

(1) A description of each water demand management measure that is currently being implemented, or scheduled for implementation, including the steps necessary to implement any proposed measures, including, but not limited to, all of the following:

(A) Water survey programs for single-family residential and multifamily residential customers.

(B) Residential plumbing retrofit.

(C) System water audits, leak detection, and repair.

(D) Metering with commodity rates for all new connections and retrofit of existing connections.

(E) Large landscape conservation programs and incentives.

(F) High-efficiency washing machine rebate programs.

(G) Public information programs.

(H) School education programs.

(I) Conservation programs for commercial, industrial, and institutional accounts.

(J) Wholesale agency programs.

(K) Conservation pricing.

(L) Water conservation coordinator.

(M) Water waste prohibition.

(N) Residential ultra-low-flush toilet replacement programs.

(2) A schedule of implementation for all water demand management measures proposed or described in the plan.

(3) A description of the methods, if any, that the supplier will use to evaluate the effectiveness of water demand management measures implemented or described under the plan.

(4) An estimate, if available, of existing conservation savings on water use within the supplier's service area, and the effect of the savings on the supplier's ability to further reduce demand. ~~(g)~~

(h) An evaluation of each water demand management measure listed in paragraph (1) of subdivision ~~(f)~~ (g) that is not currently being implemented or scheduled for implementation. In the course of the evaluation, first consideration shall be given to water demand management measures, or combination of measures, that offer lower incremental costs than expanded or additional water supplies. This evaluation shall do all of the following:

(1) Take into account economic and noneconomic factors, including environmental, social, health, customer impact, and technological factors.

(2) Include a cost-benefit analysis, identifying total benefits and total costs , including, but not limited to, the energy costs and benefits of conserved water .

(3) Include a description of funding available to implement any planned water supply project that would provide water at a higher unit cost.

(4) Include a description of the water supplier's legal authority to implement the measure and efforts to work with other relevant agencies to ensure the implementation of the measure and to share the cost of implementation.

~~(h)~~

(i) Include a description of all water supply projects and water supply programs that may be undertaken by the urban water supplier to meet the total projected water use as established pursuant to subdivision (a) of Section 10635. The urban water supplier shall include a detailed description of expected future projects and programs, other than the demand management programs identified pursuant to paragraph (1) of subdivision ~~(f)~~ (g) , that the urban water supplier may implement to increase the amount of the water supply available to the urban water supplier in average, single-dry, and multiple-dry water years. The description shall identify specific projects and include a description of the increase in water supply that is expected to be available from each project. The description shall include an estimate with regard to the implementation timeline for each project or program.

~~(i)~~

(j) Describe the opportunities for development of desalinated water, including, but not limited to, ocean water, brackish water, and groundwater, as a long-term supply.

~~(j)~~

(k) Urban water suppliers that are members of the California Urban Water Conservation Council and submit annual reports to that council in accordance with the "Memorandum of Understanding Regarding Urban Water Conservation in California," dated September 1991, may submit the annual reports identifying water demand

management measures currently being implemented, or scheduled for implementation, to satisfy the requirements of subdivisions ~~(f) and~~ (g) and (h).

~~(k)~~

(l) Urban water suppliers that rely upon a wholesale agency for a source of water, shall provide the wholesale agency with water use projections from that agency for that source of water in five-year increments to 20 years or as far as data is available. The wholesale agency shall provide information to the urban water supplier for inclusion in the urban water supplier's plan that identifies and quantifies, to the extent practicable, the existing and planned sources of water as required by subdivision (b), available from the wholesale agency to the urban water supplier over the same five-year increments, and during various water-year types in accordance with subdivision (c). An urban water supplier may rely upon water supply information provided by the wholesale agency in fulfilling the plan informational requirements of subdivisions (b) and (c).

SEC. 19. Section 10644 of the Water Code is amended to read:

10644. (a) An urban water supplier shall submit to the ~~department, the California State Library, and any city or county within which the supplier provides water supplies~~ entities listed in subdivision (b) a copy of its plan no later than 30 days after adoption. Copies of amendments or changes to the plans shall be submitted to the ~~department, the California State Library, and any city or county within which the supplier provides water supplies~~ entities listed in subdivision (b) within 30 days after adoption.(b) An urban water supplier shall file a copy of its plan and amendments or changes with each of the following entities:

(1) The department.

(2) Any city or county within which the urban water supplier provides water supplies.

(3) Any groundwater management entity within which the urban water supplier extracts or provides water supplies.

(4) Any agricultural water supplier within which district the urban water supplier provides water supplies.

(5) Any city or county library within which district the urban water supplier provides water supplies.

(6) The California State Library.

(c) The department shall prepare and submit to the Legislature, on or before December 31, in the years ending in six and one, a report summarizing the status of the plans adopted pursuant to this part. The report prepared by the department shall identify the outstanding elements of the individual plans. The department shall provide a copy of the

report to each urban water supplier that has submitted its plan to the department. The department shall also prepare reports and provide data for any legislative hearings designed to consider the effectiveness of plans submitted pursuant to this part.

SEC. 20. Section 10645 of the Water Code is amended to read:

10645. Not later than 30 days after ~~filing a copy of~~ adopting its plan ~~with the department~~, the urban water supplier ~~and the department~~ shall make the plan available for public review ~~during normal business hours~~ on the Internet World Wide Web site of the urban water supplier.

SEC. 21. Section 10652 of the Water Code is amended to read:

10652. The California Environmental Quality Act (Division 13 (commencing with Section 21000) of the Public Resources Code) ~~does not apply~~ applies to the preparation and adoption of plans pursuant to this part ~~or~~ and to the implementation of actions taken pursuant to Section 10632. Nothing in this part shall be interpreted as exempting from the California Environmental Quality Act any project that would significantly affect water supplies for fish and wildlife, or any project for implementation of the plan, other than projects implementing Section 10632, or any project for expanded or additional water supplies.

SEC. 22. Section 10656 of the Water Code is amended to read:

10656. An urban water supplier that does not prepare, adopt, and submit its urban water management plan ~~to the department~~ in accordance with this part, is ineligible to receive ~~funding pursuant to Division 24 (commencing with Section 78500) or Division 26 (commencing with Section 79000), or receive drought assistance from the state~~ funds made available pursuant to any program administered by the board, the department, or the California Bay-Delta Authority until the urban water management plan is submitted pursuant to this article.

SEC. 23. Section 10657 of the Water Code is repealed.

~~10657. (a) The department shall take into consideration whether the urban water supplier has submitted an updated urban water management plan that is consistent with Section 10631, as amended by the act that adds this section, in determining whether the urban water supplier is eligible for funds made available pursuant to any program administered by the department.(b) This section shall remain in effect only until January 1, 2006, and as of that date is repealed, unless a later enacted statute, that is enacted before January 1, 2006, deletes or extends that date.~~

SEC. 24. Section 10753.7 of the Water Code is amended to read:

10753.7. (a) For the purposes of qualifying as a groundwater management plan under this section, a plan shall contain the components that are set forth in this section. In

addition to the requirements of a specific funding program, any local agency seeking state funds administered by the department , the board, or the California Bay-Delta Authority for the construction of groundwater projects or groundwater quality projects, excluding programs that are funded under Part 2.78 (commencing with Section 10795), shall do all of the following:(1) Prepare and implement a groundwater management plan that includes basin management objectives for the groundwater basin that is subject to the plan. The plan shall include components relating to the monitoring and management of groundwater levels within the groundwater basin, groundwater quality degradation, inelastic land surface subsidence, and changes in surface flow and surface water quality that directly affect groundwater levels or quality or are caused by groundwater pumping in the basin.

(2) For the purposes of carrying out paragraph (1), the local agency shall prepare a plan to involve other agencies that enables the local agency to work cooperatively with other public entities whose service area or boundary overlies the groundwater basin.

(3) For the purposes of carrying out paragraph (1), the local agency shall prepare a map that details the area of the groundwater basin, as defined in the department's Bulletin No. 118, and the area of the local agency, that will be subject to the plan, as well as the boundaries of other local agencies that overlie the basin in which the agency is developing a groundwater management plan.

(4) The local agency shall adopt monitoring protocols that are designed to detect changes in groundwater levels, groundwater quality, inelastic surface subsidence for basins for which subsidence has been identified as a potential problem, and flow and quality of surface water that directly affect groundwater levels or quality or are caused by groundwater pumping in the basin. The monitoring protocols shall be designed to generate information that promotes efficient and effective groundwater management.

(5) Local agencies that are located in areas outside the groundwater basins delineated on the latest edition of the department' s groundwater basin and subbasin map shall prepare groundwater management plans incorporating the components in this subdivision, and shall use geologic and hydrologic principles appropriate to those areas.

(6) (A) The local agency shall update the plan on or before December 31, 2008, and every five years thereafter. The update will evaluate the progress made in achieving the adopted basin management objectives, identify successes and shortcomings in meeting those objectives, revise the basin management objectives as appropriate, and develop a plan to achieve the basin management objectives as they may or may not be revised. The updated plans are due on or before December 31 in years ending in three and eight.

(B) Notwithstanding subparagraph (A), a local agency is not required to update a groundwater management plan on or before December 31, 2008, if their plan was adopted on or after January 1, 2004.

(b) (1) (A) A local agency may receive state funds administered by the department for

the construction of groundwater projects or for other projects that directly affect groundwater levels or quality if it prepares and implements, participates in, or consents to be subject to, a groundwater management plan, a basinwide management plan, or other integrated regional water management program or plan that meets, or is in the process of meeting, the requirements of subdivision (a). A local agency with an existing groundwater management plan that meets the requirements of subdivision (a), or a local agency that completes an upgrade of its plan to meet the requirements of subdivision (a) within one year of applying for funds, shall be given priority consideration for state funds administered by the department over local agencies that are in the process of developing a groundwater management plan. The department shall withhold funds from the project until the upgrade of the groundwater management plan is complete.

(B) Notwithstanding subparagraph (A), a local agency that manages groundwater under any other provision of existing law that meets the requirements of subdivision (a), or that completes an upgrade of its plan to meet the requirements of subdivision (a) within one year of applying for funding, shall be eligible for funding administered by the department. The department shall withhold funds from a project until the upgrade of the groundwater management plan is complete.

(C) Notwithstanding subparagraph (A), a local agency that conforms to the requirements of an adjudication of water rights in the groundwater basin is in compliance with subdivision (a). For purposes of this section, an "adjudication" includes an adjudication under Section 2101, an administrative adjudication, and an adjudication in state or federal court.

(D) Subparagraphs (A) and (B) do not apply to proposals for funding under Part 2.78 (commencing with Section 10795), or to funds authorized or appropriated prior to September 1, 2002.

(2) Upon the adoption of a groundwater management plan in accordance with this part, the local agency shall submit to the entities listed in paragraph (3) a copy of the plan no later than 30 days after the date of adoption. The local agency shall submit copies of amendments or changes to the plan to the entities listed in paragraph (3) within 30 days after the date of adoption.

(3) A local agency shall file a copy of its plan and amendments with each of the following:

(A) The department.

(B) Any city or county within which the groundwater basin lies in whole or in part.

(C) Any urban water supplier that extracts or provides water supplies within the groundwater basin.

(D) Any agricultural water supplier that extracts or provides water supplies within the

groundwater basin.

(E) Any city or county library within which district the groundwater basin lies in whole or in part.

(F) The California State Library.

(4) Not later than 30 days after the date of adopting its plan, the local agency shall make the plan available for public review on the local agency's Internet World Wide Web site.

SEC. 25. Section 10811 of the Water Code is amended to read:

10811. "Conservation" means the use of cost-effective measures that ~~reduce evapotranspiration, evaporation, or flows to unusable water bodies in order to prevent the waste, the unreasonable use, or the unreasonable method of use of water~~ do either of the following: (a) Reduce existing irrecoverable losses by reducing losses currently unavailable for reuse because they flow to salt sink or an inaccessible or degraded aquifer, or evaporate to the atmosphere.

(b) Reduce diversions or extractions while maintaining the current social and economic benefits of the current uses of water . .

SEC. 26. Section 10814 of the Water Code is amended to read:

10814. "Plan" means an agricultural water management plan prepared pursuant to this part. A plan shall describe and evaluate reasonable and practical efficient uses and conservation activities. ~~The components of the plan may vary according to an area's characteristics and its capabilities to conserve and use water efficiently.~~ The plan shall address measures for agricultural water management as set forth in Article 2 (commencing with Section ~~10830)~~ 10825) of Chapter 3. In addition, a strategy and time schedule for implementation shall be included in the plan.

SEC. 27. Section 10816 of the Water Code is amended to read:

10816. "Agricultural water supplier" or "supplier" means a supplier, either publicly or privately owned, supplying more than ~~50,000~~ 2,000 acre-feet of water annually for agricultural purposes. An agricultural water supplier includes a supplier or contractor for water, regardless of the basis of right, which distributes or sells for ultimate resale to customers.

SEC. 28. Section 10820 of the Water Code is repealed.

~~10820. (a) The requirements of this part shall be satisfied by any water management or conservation plan prepared to meet federal or state laws or regulations which substantially include the contents of a plan required under this part if that plan was~~

~~prepared after January 1, 1981.(b) Those suppliers that have prepared, or are preparing, an alternate plan as described in subdivision (a) shall submit that plan to the department not later than December 31, 1991.~~

SEC. 29. Section 10820 is added to the Water Code , to read:

10820. (a) An agricultural water supplier shall prepare and adopt an agricultural water management plan in the manner set forth in this chapter on or before December 31, 2010.(b) Every person that becomes an agricultural water supplier shall adopt an agricultural water management plan within one year after the date it has become an agricultural water supplier.

(c) An agricultural water supplier indirectly providing water shall not include planning elements in its water management plan as provided in Article 2 (commencing with Section 10825) that would be applicable to agricultural water suppliers or public agencies directly providing water, or to their customers, without the consent of those suppliers or public agencies.

(d) (1) An agricultural water supplier may satisfy the requirements of this part by participation in areawide, regional, watershed, or basinwide urban water management planning if those plans will reduce preparation costs and contribute to the achievement of conservation and efficient water use.

(2) An agricultural water supplier, to the extent practicable, shall coordinate the preparation of its plan with other appropriate agencies in the area, including, but not limited to, other water suppliers that share a common source, water management agencies, and relevant public agencies.

(e) An agricultural water supplier may prepare the plan with its own staff, by contract, or in cooperation with other governmental agencies.

(f) An agricultural water supplier shall describe in the plan water management tools and options used by that entity that will maximize resources and minimize the need to import water from other regions.

SEC. 30. Section 10821 of the Water Code is repealed.

~~10821. (a) Every agricultural water supplier serving water directly to customers shall prepare an informational report based on information from the last three irrigation seasons on its water management and conservation practices in the manner set forth in Article 2 (commencing with Section 10825) and shall submit the report to the department not later than December 31, 1989.(b) The informational report shall include a determination of whether the supplier has a significant opportunity to conserve water or reduce the quantity of highly saline or toxic drainage water through improved irrigation water management in the manner set forth in subdivision (g) of Section 10825.~~

~~(c) Suppliers may consult with appropriate state agencies or the Agricultural Experiment Station to help determine whether significant opportunities exist. State agencies shall cooperate with agricultural water suppliers in any reasonable manner.~~

~~(d) Those suppliers that determine that a significant opportunity exists to conserve water or reduce the quantity of highly saline or toxic drainage water in the manner set forth in subdivision (g) of Section 10825 shall prepare and adopt an agricultural water management plan based on information from the last three irrigation seasons in the manner set forth in Section 10826 and shall submit the plan to the department not later than December 31, 1991.~~

SEC. 31. Section 10821 is added to the Water Code , to read:

10821. (a) An agricultural water supplier shall update its plan at least once every five years on or before December 31, in years ending in five and zero.(b) An agricultural water supplier required to prepare a plan pursuant to this part shall notify any city or county within which the supplier provides water supplies that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan. The agricultural water supplier may consult with, and obtain comments from, any city or county that receives notice pursuant to this subdivision.

(c) The amendments to, or changes in, the plan shall be adopted and filed in the manner set forth in Article 3 (commencing with Section 10840).

SEC. 32. Section 10822 of the Water Code is repealed.

~~10822. Every person that becomes an agricultural water supplier after December 31, 1988, shall comply with the requirements of this part within two years after becoming an agricultural water supplier to an area.~~

SEC. 33. Section 10823 of the Water Code is repealed.

~~10823. An agricultural water supplier indirectly providing water to customers may adopt an agricultural water management plan or participate in areawide, regional, watershed, or basinwide agricultural water management planning.~~

SEC. 34. Section 10824 of the Water Code is repealed.

~~10824. An agricultural water supplier may satisfy the requirements of this part by participation in areawide, regional, watershed, or basinwide agricultural water management planning where those plans will reduce preparation costs and contribute to the achievement of conservation and efficient water use and where those plans satisfy the requirements of this part.~~

SEC. 35. Section 10825 of the Water Code is repealed.

~~10825. To the extent information is available, the reports shall address all of the following:(a) The quantity and source of water delivered to, and by, the supplier.~~

~~(b) Other sources of water used within the service area, such as groundwater and other diversions.~~

~~(c) A general description of the supplier's water delivery system and service area, including a map.~~

~~(d) Total irrigated acreage within the service area.~~

~~(e) The amount of acreage of trees and vines grown within the service area.~~

~~(f) An identification of all of the following: (1) Current water conservation and reclamation practices being used.~~

~~(2) Plans for changing current water conservation plans.~~

~~(3) Conservation educational services being used.~~

~~(g) A determination of whether the supplier, through improved irrigation water management, has a significant opportunity to do one or both of the following:~~

~~(1) Save water by means of reduced evapotranspiration, evaporation, or reduction of flows to unusable water bodies that fail to serve further beneficial uses.~~

~~(2) Reduce the quantity of highly saline or toxic drainage water.~~

SEC. 36. Section 10825 is added to the Water Code , to read:

10825. It is the intent of the Legislature, in enacting this part, to permit levels of water management planning commensurate with the numbers of customers served and the volume of water supplied.

SEC. 37. Section 10826 of the Water Code is repealed.

~~10826. To the extent information is available, the plans shall address all of the following:(a) The quantity and source of surface water, groundwater, and recycled water delivered to and by the supplier.~~

~~(b) A description of all of the following:~~

~~(1) The water delivery system used in the area supplied.~~

~~(2) The beneficial uses of the water supplied, including noncrop beneficial uses.~~

~~(3) Conjunctive use programs.~~

~~(4) Incidental and planned groundwater recharge.~~

~~(5) Water recycling programs, including treatment and distribution facilities.~~

~~(6) The amounts of the delivered water that are lost to further beneficial use to unusable bodies of water or moisture-deficient soils through the following:~~

~~(A) Crop evapotranspiration.~~

~~(B) Noncrop evapotranspiration.~~

~~(C) Evaporation from water surfaces.~~

~~(D) Surface flow or percolation.~~

~~(c) An identification of cost-effective and economically feasible measures for water conservation and recycling, their resulting detriments and benefits, and the impacts on amounts of downstream surface water supply and immediately adjacent groundwater supply.~~

~~(d) An evaluation of other significant impacts, including impacts within the service area and downstream on fish and wildlife habitat, water quality, energy use, and other factors of either local or statewide concern or interstate concern, where applicable. Alternatives should be designed to minimize impacts on other beneficial users currently being served both within and without the service area and to result in improved overall water management.~~

~~(e) A schedule prepared by the supplier to implement those water management practices that it determines to be cost-effective and economically feasible. Priority shall be given to those water management practices, or combination of practices, that offer lower incremental costs than expanded or additional water supplies.~~

SEC. 38. Section 10826 is added to the Water Code , to read:

10826. A plan shall be adopted in accordance with this chapter and shall do all of the following:(a) Describe the agricultural water supplier and the service area, including all of the following:

(1) History and size of the service area.

(2) Location of the service area and its water management facilities.

(3) Terrain and soils.

(4) Climate.

(5) Operating rules and regulations.

(6) Water delivery measurements or calculations.

(7) Water rate schedules and billing.

(8) Water shortage allocation policies.

(b) Describe the quantity and quality of water resources of the agricultural water supplier, including all of the following:

(1) Surface water supply.

(2) Groundwater supply.

(3) Other water supplies.

(4) Source water quality monitoring practices.

(5) Water uses within the water supplier's service area, including all of the following:

(A) Agricultural.

(B) Environmental.

(C) Recreational.

(D) Municipal and industrial.

(E) Groundwater recharge.

(F) Transfers and exchanges.

(G) Other water uses.

(6) Drainage from the water supplier service area.

(7) Water accounting, including:

(A) Quantifying the water supplier's water supplies.

(B) Tabulate water uses.

(C) Overall water budget.

(8) Water supply reliability.

(c) Review previous water management activities.

(d) Identify efficient water management practices.

(e) Develop a schedule for program implementation, estimate the budget needed for implementation, and identify the results expected from full implementation of the agricultural water management plan.

SEC. 39. Section 10840 of the Water Code is amended to read:

10840. Every agricultural water supplier ~~required to prepare a water management plan pursuant to subdivision (d) of Section 10821~~ shall prepare its plan pursuant to ~~Section 10826~~ Article 2 (commencing with Section 10825) .

SEC. 40. Section 10841 of the Water Code is amended to read:

10841. ~~(a)~~ An agricultural water supplier required to prepare a plan may consult with, and obtain comments from, any public agency or state agency or any person who has special expertise with respect to water conservation and reclamation and management methods and techniques. ~~(b) In order to assist agricultural water suppliers in obtaining needed expertise as provided for in subdivision (a), the department, upon request of an agricultural water supplier, shall provide the supplier with a list of persons or agencies having expertise or experience in the development of water management plans.~~

~~(c) The department shall prepare by July 1, 1988, an outline of model informational reports and water management plans which an agricultural water supplier may use in complying with the requirements of this part.~~

SEC. 41. Section 10844 of the Water Code is amended to read:

10844. (a) An agricultural water supplier shall file with the ~~department~~ entities listed in subdivision (b) a copy of its plan no later than 30 days after adoption. Copies of amendments or changes to the plans shall be filed with the ~~department~~ entities listed in subdivision (b) within 30 days after adoption. ~~Not later than January 1, 1993, the department shall prepare and submit to the Legislature a report summarizing the status of the plans adopted pursuant to this part.~~

(b) An agricultural water supplier shall file a copy of its plan and amendments or changes to the plan with each of the following entities:

(1) The department.

(2) Any city or county, or city and county, within which the agricultural water supplier

provides water supplies.

(3) Any groundwater management entities within which the agricultural water supplier extracts or provides water supplies.

(4) Any urban water supplier within which district the agricultural water supplier provides water supplies.

(5) Any city or county library within which district the agricultural water supplier provides water supplies.

(6) The California State Library.

(c) The department shall prepare and submit to the Legislature, on or before December 31, in the years ending in six and one, a report summarizing the status of the plans adopted pursuant to this part. The report prepared by the department shall identify the outstanding elements of the individual plans. The department shall provide a copy of the report to each urban water supplier that has submitted its plan to the department. The department shall also prepare reports and provide data for any legislative hearings designed to consider the effectiveness of plans submitted pursuant to this part.

SEC. 42. Section 10845 of the Water Code is repealed.

~~10845. The adoption of a plan or submission of a report as specified in subdivision (d) of Section 10821 satisfies any requirements of state statute, regulation, or order, including those of the State Water Resources Control Board, for the preparation of water management plans. If the board requires additional information concerning water conservation to implement its existing authority, nothing in this part limits the board in obtaining that information.~~

SEC. 43. Section 10845 is added to the Water Code , to read:

10845. The adoption of a plan as specified in Section 10820 satisfies any requirements of state statute, regulation, or order, including those of the State Water Resources Control Board, for the preparation of water management plans. If the State Water Resources Control Board requires additional information concerning water conservation to implement its existing authority, nothing in this part limits that board in obtaining that information.

SEC. 44. Section 10853 of the Water Code is repealed.

~~10853. The department, from funds appropriated for this purpose, shall reimburse each supplier preparing an informational report pursuant to this part for the cost incurred in preparing the report up to an amount, not to exceed five thousand dollars ($5,000) per report. The department shall reimburse each supplier preparing an agricultural water management plan pursuant to this part for the costs incurred by the supplier in preparing~~

~~the plan up to an amount, not to exceed twenty-five thousand dollars ($25,000) per plan.~~

SEC. 45. Section 10853 is added to the Water Code , to read:

10853. The adoption of a plan as specified in Section 10820 satisfies any requirements of state statute, regulation, or order, including those of the State Water Resources Control Board, for the preparation of water management plans. If the State Water Resources Control Board requires additional information concerning water conservation to implement its existing authority, nothing in this part limits that board in obtaining that information.

SEC. 46. Section 10854 of the Water Code is repealed.

~~10854. No agricultural water supplier shall be required to prepare an agricultural water management plan pursuant to this part unless funds are appropriated by the Legislature for the 1990-91 fiscal year, or before, to reimburse the agricultural water supplier for its costs associated with the plans.~~

SEC. 47. Section 10854 is added to the Water Code , to read:

10854. An agricultural water supplier that does not prepare, adopt, and submit its agricultural water management plan in accordance with this part, is ineligible to receive funds made available pursuant to any program administered by the State Water Resources Control Board, the department, or the California Bay-Delta Authority until the agricultural water management plan is submitted pursuant to this article.

SEC. 48. Section 10855 of the Water Code is repealed.

~~10855. This part shall remain operative only until January 1, 1993, except that, if an agricultural water supplier fails to submit its information report or agricultural water management plan prior to January 1, 1993, this part shall remain operative with respect to that supplier until it has submitted its report or plan, or both.~~

Copyright 2004 State Net. All Rights Reserved.

CHINO BASIN WATERMASTER

IV. INFORMATION

1. Newspaper Articles

PE.com
The Press-Enterprise

Deal OK'd for water cleanup

$69 million plan: The tainted underground reservoir serves 600,000 Inland residents.

11:38 PM PST on Friday, February 18, 2005

By CHRIS RICHARD and K. FRANKE SANTOS / The Press-Enterprise

The federal government has signed a consent decree freeing $69 million to clean up San Bernardino water contamination caused by an Army facility during World War II.

Local water districts now are maneuvering to protect water supplies that they pump from the basin before the final plan goes into effect. The Bunker Hill Basin provides drinking water to 600,000 people in San Bernardino and Riverside counties, said Stacy Alstadt, deputy general manager of San Bernardino's city water department.

The consent decree, a roadmap for directing complex settlement agreements, removes major legal and financial roadblocks that could delay a resolution of the issue for decades.

The decree, a document as thick as a big-city telephone directory, dictates how San Bernardino will spend a one-time payout -- from a Justice Department fund used to pay legal claims against the government -- over a period of 50 years.

WATER DEAL

The U.S. Justice Department has signed off on an agreement for the San Bernardino Water Department to clean up contamination dating from World War II.

The City Gets: $69 million in a lump sum.

What it's for: Cleanup efforts lasting another 50 years.

The decree gives San Bernardino money to pay for and operate a water-cleaning system in the Bunker Hill Basin, which sits beneath the city. There also is money to reimburse the federal Environmental Protection Agency for its future oversight costs.

The agreement is important from the perspectives of public health and resource management, since it concerns a drinking-water basin that serves hundreds of thousands of people.

The EPA already has built the cleanup wells, which pump water polluted with the solvents tetrachloroethylene and trichloroethylene from the Bunker Hill Basin. The solvents both have been classified as probable carcinogens by health agencies.

The solvents were used at a north San Bernardino Army camp to clean tents and oil roads. They seeped into the ground, creating a plume of contaminants in groundwater. The plume has gradually spread southeast from the original camp site.

Under the cleanup procedure, after the water is pumped from the wells it goes to nearby filtration plants that remove the contaminants and transfer the purified water into city pipelines.

Federal Judge Mariana R. Pfaelzer has set a March 14 hearing to review the agreement, said Alstadt.

"We are really anticipating a consent decree will be entered within the next month to month and a half," she said. Judges frequently take that long to consider a case before rendering a decision, she said.

With the decree in force, Alstadt said, "all the obligations of all the parties are clear and we have a clear roadmap as to who does what. If it's not entered quickly, we run into a time period where things have to get done, things have to be paid for, and everybody's saying, 'OK, we'll cough up the money and rely on the fact that the consent decree will be signed.' "

Meanwhile, neighboring water agencies have been trying to make sure the proposed solution to San Bernardino's water contamination doesn't cause problems for them, from a loss of water rights to increased risk of earthquake damage.

On Tuesday, Rialto withdrew its objections to the consent decree because of a tentative agreement with San Bernardino. Originally, the consent decree included language that would have allowed San Bernardino to limit other parties' pumping. Rialto officials worried that would mean giving away their water rights within the Bunker Hill Basin.

Rialto has a right to pump at least 11,000 acre-feet annually from the Bunker Hill aquifer, but currently pumps about 5,000 acre-feet annually, said Robert Owen, Rialto city attorney. An acre-foot is 326,000 gallons, or enough to supply two average households for a year.

The two wells in the Bunker Hill Basin represent about 40 percent of Rialto's supply, Owen said. The city supplies water to about half its residents, with the other half is supplied by the West Valley Water District.

Under the tentative agreement, Rialto will pump about half of its current production from the two Bunker Hill wells, and San Bernardino will supply the remainder at Rialto's production cost, said Rialto City Administrator Henry Garcia.

Rialto pays about $135 per acre-foot for pumping, said City Councilman Ed Scott.

The agreement has not been put into writing, Scott said. If it is, it will be good for one year, to allow San Bernardino to determine how water flows in the aquifer, he said. Rialto has problems with water contamination by perchlorate, which officials believe was washed into the Rialto-Colton aquifer by the military and operations at an industrial site in north Rialto. If another well becomes tainted by perchlorate, the city may drill a new well in either basin, Garcia said.

San Bernardino also is negotiating with the Western Municipal Water District, which provides water for western Riverside county from Temecula to the county's northern border, and the San Bernardino Valley Municipal Water District, which oversees groundwater storage in a 325-square-mile area extending from Bloomington to Yucaipa.

Those agencies jointly filed a lawsuit in December, claiming that in planning the cleanup, San Bernardino failed to complete state-mandated environmental reviews.

Attorney Piero Dallarda, representing Western and Valley, withdrew the suit two days after he filed it. He said he's in settlement talks and expects a favorable outcome, but declined to comment further.

The court filing claims that the pumping and filtration procedures jeopardize the plaintiffs' rights to

167,238 acre-feet of water. Further, the decree could restrict access to spreading fields where the San Bernardino Valley Municipal Water District allows water to percolate underground to recharge the aquifer. The filing also alleged that the pumping plan under the consent decree could hasten the spread of contaminants from the plume.

The suit also raised concerns about earthquake safety. The water table in the southern Bunker Hill Basin area rises to within 10 feet of the surface and, during an earthquake, the land would be prone to liquefaction, the court filing claims.

Alstadt declined to comment on the court filing or to discuss settlement talks. She said several other agencies have filed formal comments on the consent decree. All have joined settlement discussions to work out a management plan for the Bunker Hill area, Alstadt said.

Reach Chris Richard at (909) 806-3076 or crichard@pe.com

Reach K. Franke Santos at (909) 806-3065 or fsantos@pe.com

Online at: http://www.pe.com/localnews/sanbernardino/stories/PE_News_Local_decree19.580ed.html

91

THIS PAGE

HAS

INTENTIONALLY

BEEN LEFT

BLANK

FOR PAGINATION

PE.com
The Press-Enterprise

San Bernardino County Board of Supervisors - 02/16

11:23 AM PST on Wednesday, February 16, 2005

The Press-Enterprise

San Bernardino County Board of Supervisors

The Board of Supervisors approved changes to its meeting rules that would allow for holdings meetings outside of the city of San Bernardino.

The changes also call for the adoption of a calendar of scheduled meetings instead of holdings meetings every Tuesday.

Board chairman Bill Postmus, who proposed the changes, said it would increase efficiency to skip meetings on weeks when there is little business to consider. He also said it would be beneficial for the board to get out more to the outlying areas of the county, such as the High Desert area he represents.

A proposed calendar will be brought back to the board for approval March 1. The board approved a general plan amendment in Mentone, rezoning a 4.78-acre parcel from multi-family to single-family housing.

The parcel is part of a larger, 14-acre piece of land for which the board also approved a tentative tract map for 44 lots, between 7,240 to 16,662 square feet, on the north side of Colton Avenue.

The board approved a state legislative platform for 2005, outlining nine areas where it plans to lobby the state government.

The priorities include: requesting $20 million in perchlorate cleanup funds; pressing for a law to make reckless driving that results in great bodily injury a felony; securing funding for three sheriff's helicopters; and supporting legislation to give counties more say in the placement of sex offenders in group homes.

Other issues in the platform deal with airport funding, taxes, construction design, the authority of the local Children and Families Commission, and water-bond funding.

The board agreed to authorize the creation of a new employee bargaining unit for nurses.

The per diem nurses unit will include registered nurses who are not part of the regular nurses unions.

Online at: http://www.pe.com/localnews/sanbernardino/stories/PE_News_Local_bsupes16.57f2e.html

THIS PAGE

HAS

INTENTIONALLY

BEEN LEFT

BLANK

FOR PAGINATION

Inland Valley Daily Bulletin

Officials: Upland eyeing Hesperia's city manager
Some deny search has started, while others point to Quincey
By EDWARD BARRERA
Staff Writer

Friday, February 25, 2005 - UPLAND - Robb Quincey, Hesperia's city manager, is the leading candidate to become Upland's next city manager following the abrupt departure of Michael Milhiser last Tuesday, according to officials familiar with the situation.

Quincey, a resident of Chino, also is president of the Monte Vista Water District. He has been Hesperia's city manager since 2000, according to a water district official.

Quincey did not return repeated phone calls.

Three officials familiar with Upland's city manager search confirmed Quincey's status this week but requested anonymity.

Councilman Ray Musser acknowledged that he also has heard about the interest in Quincey, though no council discussions have been held about the city manager's position.

"I have heard from multiple sources that Robb is the favorite candidate. I really don't know him as an individual and his qualifications," Musser said on Friday. "I didn't know about it until three days ago."

Milhiser resigned Tuesday, accepting a lucrative consultant deal with the city worth at least $200,000.

While Mayor John Pomierski and Councilmen Ken Willis and Brendan Brandt said they were acceding to Milhiser's request to obtain more outside consultant work, others, including Musser and Councilman Tom Thomas, said the decision was rushed and reached without discussion.

Musser added that Milhiser was pushed out because he clashed once too often with council members.

A Monte Vista Water spokeswoman said Quincey was elected to the Monte Vista board in 1993 and has been re-elected twice. He has been board president since 1995. Before being elected to the board, Quincey was general manager of the Inland Empire Utilities Agency, the spokeswoman said.

Hesperia, in the high desert of north San Bernardino County, has a population of just under 63,000, according to the 2000 Census. Upland's population is about 68,000.

Pomierski, who on Tuesday said there was no front-runner for city manager, did not return phone calls. Willis could not be reached for comment.

Though Thomas praised Quincey, he said Upland's city manager search hasn't even started, and a selection process for any nominee will be discussed at Monday's council meeting.

"I know Robb personally, and I think he would be an excellent candidate, but no decision has been made," he said.

Musser and Brandt back an in-depth search for any candidate, with Brandt saying he had not heard that Quincey was in line for the position.

"I have not had any people mention any names, and it is my position that I think we should do a thorough and proper search for city manager," Brandt said.

Hesperia Councilwoman Rita Vogler said she had heard rumors of Quincey's possible move but that she had not been officially notified by Quincey. She did say he would be an excellent candidate for Upland's opening. At Monday's meeting, the City Council also will consider the appointment of city Finance Director Stephen Dunn as the interim city manager.

Pomierski mentioned Dunn as a possible interim manager two weeks ago, though no one voted on the choice. The finance director has been acting as city manager since Milhiser's resignation.

On Thursday, Dunn announced the appointment of police Capt. Steve Adams as interim police chief, though police Chief Martin Thouvenell is on board until his March 31 retirement.

The City Council's Monday meeting will start at 7 p.m. at City Hall, 460 N. Euclid Ave.

Edward Barrera can be reached by e-mail atedward.barrera@dailybulletin.com or by phone at (909) 483-9356.

L.A. TIMES

2/24/05

Water Supplies Still Not Normal

By Hector Becerra
Times Staff Writer

This year may set records for the most rain, but it won't be enough to reverse the impact of five years of drought on Southern California's water supplies, weather experts and water officials said Wednesday.

Local supplies have improved greatly. All 27 of Los Angeles County's groundwater collecting basins are filled to capacity, the county's Department of Public Works said. Similarly, the Sierra Nevada snowpack — an important source of water for the region — is 40% above normal this season.

But the Colorado River reservoirs remain far below normal levels. About 70% of the water used in Southern California is imported from the river as well as from the California Aqueduct in Northern California and the Sierra Nevada, said Denis Wolcott, a spokesman for the Metropolitan Water District.

William Patzert, a meteorologist at the Jet Propulsion Laboratory in La Cañada Flintridge, said that although Southern California has had much heavier rain than usual, the upper Colorado River Basin continues to suffer from a prolonged drought. It has received less rain than Los Angeles.

Lake Mead and Lake Powell, which are fed by the Colorado River, remain at only about 59% and 34% full, respectively, said Debra Man, chief operating officer of the Metropolitan Water District, which manages the distribution of water to a plethora of districts serving 18 million people in Southern California. For the first time since 1999, hydrologists in the upper Colorado River Basin are predicting near-normal water flows into Lake Powell, one of the West's biggest reservoirs.

Lake Mead's storage level, however, is expected to drop, in part because of water releases to keep the Colorado River flowing to protect fish and habitat, said Wolcott.

Meteorologists and others said that the Colorado River region has suffered through years of drought conditions, and that one wet year won't bring water levels back to normal.

"This is the kind of year people have been asking for, and they're getting more than they bargained for," said Kelly Redmond, regional climatologist for the Western Regional Climate Center in Reno. "But when you're in a deficit, it's hard for water managers to turn water down."

Bob Walsh, spokesman for the U.S. Bureau of Reclamation in Boulder City, added, "Most hydrologists would tell you that one good year does not make up for five bad years."

Closer to home, the wet weather is making a significant difference.

The storms have encouraged conservation by reducing water demand for such activities as landscaping and washing cars. According to the Department of Water and Power, demand has been slashed by 25% because of the rainfall as people turn off their automatic sprinklers.

If Southern California requires less imported water this year, that might allow officials to begin building up reservoirs, including Lake Mead and Lake Powell.

"All in all, it's adding up to a really strong water supply year," Walsh said.

Lots of rain, but drought persists

An unusual weather pattern caused by persistent high pressure over the Gulf of Alaska has drenched most of California this year, but the storms have not fully offset years of previous drought.

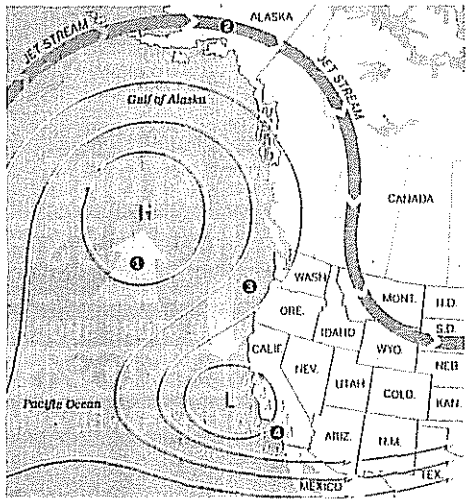
The rain wouldn't stop . . .

❶ Dry high-pressure system —"blocking high"—slides north.

❷ Arctic jet stream forms an oval shape around the high.

❸ A wet low-pressure system gets cut off from the jet stream.

❹ With no wind to drive it east, the low stalls, spinning rain ashore for days.



but the drought isn't completely gone

California's snowpack is the heaviest it has been in 10 years, but some areas, including the Klamath Basin of Oregon and the Upper Colorado River Basin, remain under drought conditions.

Snowpack

Region	Water content, in inches	% of normal year-to-date total	% of yearly average*
Northern Sierra	27.90	119%	99
Central Sierra	34.50	124	101
Southern Sierra	33.20	160	126
Statewide	32.30	135	110

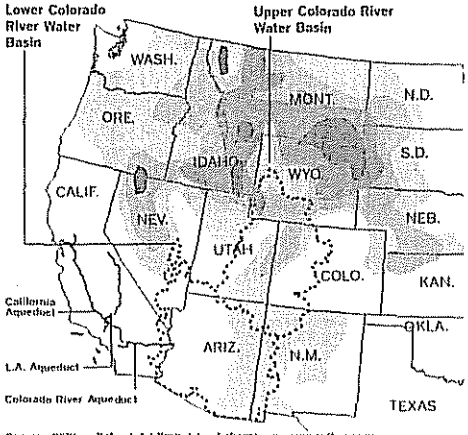
*April 1 is the date of normal maximum accumulation for the season.

Key reservoir storage in California

Reservoir	River	% of average	% of capacity
Trinity Lake	Trinity	90	67
Shasta Lake	Sacramento	94	67
Lake Oroville	Feather	78	56
New Bullards Bar Res	Yuba	92	57
Folsom Lake	American	111	61
New Melones Res	Stanislaus	101	58
Don Pedro Res	Tuolumne	116	81
Lake McClure	Merced	103	53
Millerton Lake	San Joaquin	114	75
Pine Flat Res	Kings	77	41
Isabella	Kern	81	24
San Luis Res	(Offstream)	111	94

U.S. drought situation as of Feb. 15

Abnormally dry · Moderate drought · Severe drought · Extreme drought · Exceptional drought



Sources: William Patzert, Jet Propulsion Laboratory; accuweather.com; theweatherprediction.com; National Oceanic and Atmospheric Administration; Rich Tinker, NOAA Climate Prediction Center
Graphics reporting by Joel Greenberg and Pat Ratigan

Doug Stevens, Leslie Carlson *Los Angeles Times*

more Los Angeles Times
To subscribe, call 1-800 LA TIMES.

THIS PAGE

HAS

INTENTIONALLY

BEEN LEFT

BLANK

FOR PAGINATION

Daily Bulletin 2/28/05

Managing drought by using the market

In Las Vegas, a city of histrionic architecture, the building that matters most may be the bland, low-slung headquarters of the Southern Nevada Water Authority.

The general manager since the authority was formed in 1991, the elegant, no-nonsense Pat Mulroy, 52, is determined to prevent a water shortage from inhibiting the growth of this city that is dedicated to the proposition that inhibitions are sinful.

GEORGE WILL

She is dealing with a five-year drought, the worst in 100 years of record keeping. She also is dealing with reverberations from the day in 1877 when Thomas Blythe strode into the Colorado River near the California town now named for him, 100 miles south of the Nevada border, and claimed for California 9 million acre-feet of the river – an acre-foot being about 326,000 gallons.

Because of the principle "first in time, first in right," California got an abundance. Then, in 1922, six other states – Arizona, Colorado, Nevada, New Mexico, Utah and Wyoming – joined with California in the Colorado River Compact. Westerners say whisky is for *drinking* and water is for fighting over, but the seven states can do pretty much anything they can agree to, such as "banking" water underground to use in trading river entitlements. They cooperate to keep Washington from butting in.

Today, California gets 4.4 million acre-feet. Las Vegas' water needs are supplied mostly from Lake Powell – down to 59 percent of capacity – and, downstream from Powell, Lake Mead, now at 34 percent of capacity.

Some 30 million people from Denver to Salt Lake City, Phoenix, Tucson, Los Angeles and San Diego – almost a tenth of all Americans – depend on the river's water. But agriculture sops up 90 percent of it. The sprawl of Phoenix onto agricultural land actually decreases water use.

The Strip – the portion of Las Vegas Boulevard that has 15 of the world's 20 largest hotels – features vast fountains, a sea battle between pirate ships and an 8.5-acre lake in front of the Bellagio hotel. However, Mulroy says, The Strip accounts for less than 1 percent of the state's water use – while producing 60 percent of the state's economy. The average hotel room uses 300 gallons of water a day, but it is all recycled. The drought has elicited un-Western demands to slow this city's growth, but Mulroy briskly demurs: "You don't use a growth moratorium to manage through a drought." You use, primarily, the market.

For example, most people who move here – there were a record 29,248 new home sales in 2004, an increase of 16 percent from 2003, which also set a record – come from less arid places and they use home irrigation systems to reproduce the green lawns they left behind.

"It is," says Mulroy, "mind-boggling: they move to the desert and plant Kentucky blue grass" – a particularly thirsty kind. "We were," she says incredulously, "putting grass on *medians*." It was, she says, "like moving to Alaska and walking down the street in a bathing suit in January."

The city got little response paying 40 cents a square foot for removed grass. But Nevadans understand pricing: $1 a square foot has bought the removal of turf to 50.9 million square feet, for annual savings of 2.8 billion gallons of water. Now garden stores stock desert plants for "water smart landscaping," so lawns do not need to look like a Georgia O'Keeffe painting – a cactus and a dead cow skull.

Americans, passionate subduers of nature, are surpassing themselves here. Having built the nation's fastest growing city in a desert, they are now bringing the desert back to town. From 2002 to 2003, while population was growing 5,000 a month, water consumption declined from 318,000 acre-feet to less than 272,000, and was even less in 2004.

Today, Mulroy is worrying about snow. Falling in the Rockies, it should melt and flow into Lake Powell. But when mountain winds pick up, "sublimated" snow evaporates. The moisture goes into clouds "and rains on Nebraska" – an indignity. Mulroy is not amused. If she decides to stop it, this betting town would not bet against her.

THIS PAGE

HAS

INTENTIONALLY

BEEN LEFT

BLANK

FOR PAGINATION

PE.com
The Press-Enterprise

Perchlorate detected widely in mother's milk

08:24 AM PST on Wednesday, February 23, 2005

By DAVID DANELSKI / The Press-Enterprise

A study published Tuesday found the rocket fuel chemical perchlorate in all human milk samples collected from women in 18 states, raising new concerns about the federal government's efforts to determine a safe level in drinking water.

The researchers calculated that most of the babies whose mothers gave samples are consuming more perchlorate than the National Academy of Sciences recently found is safe.

The lead author of the study, published in the online edition of Environmental Science & Technology, said women shouldn't stop breastfeeding.

"It's something that may have been around for 50 years, and we just now found it," said Andrea Kirk, a doctoral student in environmental toxicology at Texas Tech University in Lubbock.

"It may be in formula, also," she said.

The U.S. Environmental Protection Agency is considering regulating perchlorate because certain amounts of the chemical can impair the thyroid gland's ability to produce hormones that fetuses and babies need for proper neurological development.

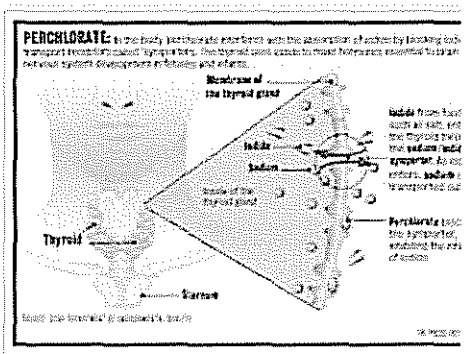


Illustration: Click to enlarge

The Texas Tech scientists collected samples from 36 lactating volunteers in 2003 and 2004. The women were recruited by word of mouth and a notice posted on www.mothering.com, a website of Mothering maternity magazine. Samples were frozen and shipped to researchers.

Perchlorate concentrations in the breast milk ranged from 1.4 parts per billion to 92.2 parts per billion, with an average of 10.5 parts per billion. By comparison, California last year set a public health goal of six parts per billion in drinking water.

Like an earlier study of cows' milk by the U.S. Food and Drug Administration, the perchlorate contamination was detected in samples collected nationwide. The concentrations in breast milk, however, were five times higher than in cows' milk samples analyzed by the Texas researchers.

Food May Be Source

They found no correlation between contamination in breast milk and perchlorate concentrations in tap water or bottled water used by the nursing mothers. Food may be a major source of the chemical, the researches wrote.

Peggy O'Mara, the editor, publisher and owner of Mothering magazine, said the problem isn't breast milk.

"Breast milk is always the best choice," O'Mara said. "I wonder of how healthy the environment is if these chemical are showing up in breast milk.

101

"If it is in breast milk, it is in everything."

An EPA analysis issued Friday concluded that 24.5 parts per billion in drinking water is safe for all people.

That was based on a dose per kilogram of body weight found to be safe by a National Academy committee that spent nearly two years reviewing studies about perchlorate's effects on health. The EPA arrived at 24.5 parts per billion by applying the National Academy's formula to a 70-kilogram (about 150-pound) adult who drinks two liters of water a day.

That analysis is controversial within the EPA.

Kevin Mayer, EPA perchlorate coordinator for the Pacific Southwestern states, said his interpretation of the National Academy's work would put the safe level at 4.3 parts per billion for babies because they consume more liquid per unit of body weight than adults do.

"I'm just not able to explain with any clarity from a professional standpoint how the agency arrived at this (24.5 ppb) conclusion," said Mayer, perchlorate coordinator for more than seven years.

But Bill Farland, an acting deputy assistant administrator at the EPA's Office of Research and Development in Washington, D.C., said basing the safe dose on an adult's weight was appropriate because the most sensitive population is fetuses of pregnant women who have thyroid problems. The safe dose is based on the mother's weight.

Babies More Resilient

Babies are more resilient to perchlorate exposure than such fetuses, Farland said in a telephone interview.

"They can clear the chemical more quickly," he said.

Farland noted that the standard of 24.5 parts per billion is not binding and is subject to change as more is learned about perchlorate ingestion from food. The chemical also has been in found dairy milk, lettuce and grain, the Texas Tech researchers said.

The EPA will examine the Texas Tech data to determine how much of the chemical nursing babies are consuming, Farland said.

Environmental groups said the Texas Tech study supports their calls for federal and state governments to push for cleanups of perchlorate-contaminated drinking water supplies.

Perchlorate is used in rockets, munitions and road flares. Leaks and spills at factories and military bases have allowed the chemical to enter the lower Colorado River, a major drinking and irrigation water source for Southern California, and several Inland groundwater basins.

About 15 percent of the nation's crops and about 13 percent of livestock use water from the Colorado River, according to the Texas Tech researchers. Contaminated water has been found throughout the nation.

Standards For Infants

Renee Sharp, an Oakland-based analyst with the Environmental Working Group, said the Texas Tech findings should prompt the EPA to revise its analysis of how much perchlorate is safe in drinking water.

"This will practically force the EPA into writing a standard that protects infants -- not just healthy adults," Sharp said. "I will be shocked and appalled if EPA doesn't change that."The National Academy of Sciences report on perchlorate called for more research on how the chemical affects breast tissue.

Breast and thyroid cells both have microscopic pumps, called sodium iodide symporters, that bring iodide into the cells. In the thyroid, the iodide helps make hormones needed for fetal development.

In the breast tissue of lactating women, iodide goes into the milk for the thyroid of the feeding baby, said Gregory Brent, a UCLA medical school professor and member of the National Academy perchlorate committee.

Studies on mice could answer questions about whether perchlorate impairs movement of iodide through breast tissue, Brent said.

Kirk, of Texas Tech, said her study found lower levels of iodide in the breast milk samples with the highest levels of perchlorate. Kirk and the other researchers said pregnant and lactating women might need to increase their intake of iodine to compensate for perchlorate.

Reach David Danelski at (951) 368-9471 or ddanelski@pe.com

Online at: http://www.pe.com/breakingnews/local/stories/PE_News_Local_milk23.58366.html

THIS PAGE

HAS

INTENTIONALLY

BEEN LEFT

BLANK

FOR PAGINATION

PE.com
The Press-Enterprise

Officials downplay perchlorate discovery

SANTA ANA RIVER: Rain has carried the chemical downstream from the Stringfellow acid pits.

11:36 PM PST on Monday, February 14, 2005

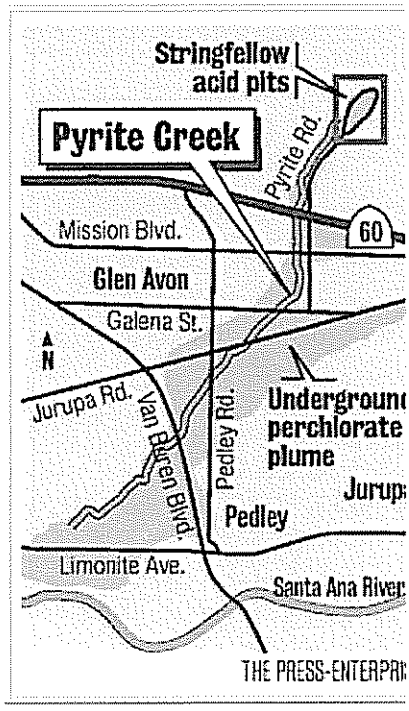
By JENNIFER BOWLES / The Press-Enterprise

The state agency overseeing the cleanup of the Stringfellow acid pits has for the first time detected a rocket fuel chemical in a creek that flows through northwest Riverside County to the Santa Ana River, officials said Monday.

Although Pyrite Creek runs behind an elementary school and through the back yards of some homes in the semi-rural Jurupa Valley, the California Department of Toxic Substances Control said there is no immediate health risk from the perchlorate.

The potential for human contact is low, given that the chemical is not easily absorbed through the skin and it moved quickly in the rain-swollen creek when tests were conducted last month, said Allen Wolfenden, chief of the state agency's Stringfellow Branch.

Elliott Duchon, superintendent of the Jurupa Unified School District, said the discovery should not pose a hazard for children at Glen Avon Elementary School since the creek, which is a concrete-lined channel near the campus, is fenced off. Wolfenden said the levels of perchlorate dropped in the creek to trace amounts before it reached the Santa Ana River, which is used downstream by Orange County for drinking water.



Mike Wehner, water quality director at Orange County Water District, said the agency would review the test results and verify the river hasn't been tainted.

"I'm just grateful we got everyone off the groundwater ... so we don't have to panic every time something like this is found," said Penny Newman, Stringfellow activist and executive director of the Center for Community Action and Environmental Justice in Glen Avon.

"Like anything," she said, "it's something we have to watch."

Perchlorate, which has been linked to thyroid illness, has seeped into groundwater supplies across the Inland region as a result of leaks and spills at factories and military bases that used perchlorate in solid-state rocket fuel, munitions and fireworks.

The chemical was detected four years ago in an underground plume of contamination coming from the Stringfellow acid pits, nestled in a canyon above Glen Avon, where 35 million gallons of toxic waste were dumped until the pits closed in 1972.

Given the recent heavy rains that can carry contamination from soil into waterways, Wolfenden said the state

agency decided to test surface water in the vicinity of the pits.

The tests showed perchlorate levels ranging from 1.8 to 42 parts per billion. The state has set a draft health goal of 6 parts per billion for drinking water and is expected to set a drinking water limit later this year.

It is unknown if the perchlorate is also coming from just west of the pits in the Jurupa Mountains where aerospace companies used to conduct testing that may have used perchlorate, Wolfenden said. More tests will be conducted during upcoming storms to pinpoint the source, he said.

Online at: http://www.pe.com/breakingnews/local/stories/PE_News_Local_stringfellow15.f516.html

PE.com
The Press-Enterprise

Uranium poses threat to river

COLORADO: Officials urge the federal government to move waste away from the Inland water source.

07:24 AM PST on Monday, February 28, 2005

By JENNIFER BOWLES / The Press-Enterprise

The federal government should move about 12 million tons of uranium mining waste in Utah away from the banks of the Colorado River, a major drinking water source for 18 million Southern Californians, regional water officials said.

In a letter to the U.S. Department of Energy, officials with Metropolitan Water District of Southern California said relocating the waste "offsite is the only reliable and permanent" answer to protecting the river downstream from further contamination of radioactivity.

"Naturally, it's a lot more expensive but we think that's the best alternative," said Jeff Kightlinger, the general counsel for Metropolitan.

The federal agency will announce in the spring how it will clean up the 130-acre tailings pile on the west bank of the river near Moab, Utah, said Donald Metzler, the government's project director.

The agency is considering an option that would leave the pile in place and cap it, a move that has drawn the ire of environmental groups as well as water suppliers.

Metropolitan, in its Feb. 17 letter, said that if the pile remains in place, it potentially could leak into the river and be subject to flooding that could wash uranium into the river.

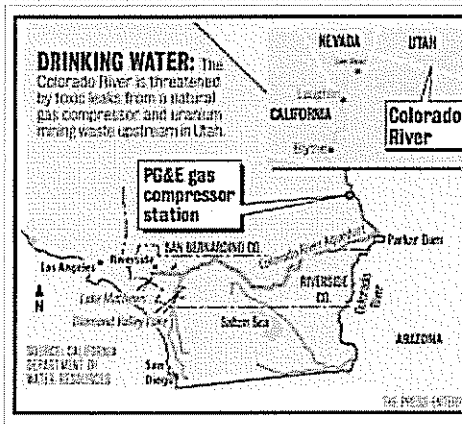


Illustration: Click to enlarge

Groundwater concentration of uranium found at the site is more than 750 times above the federal drinking water standard, the letter notes.

The Colorado River is a major drinking source for the Inland region, particularly in parts of western Riverside County. It also irrigates crops in the Coachella Valley.

Inland water agencies said they supported the letter written by Metropolitan.

"It's always easier to keep sources of supply from getting contaminated rather than after the fact, trying to remove them," said Peter Odencrans, a spokesman for Perris-based Eastern Municipal Water District.

Melodie Johnson, a spokeswoman for Riverside-based Western Municipal Water District, said she was particularly concerned by the high amount of salts the uranium waste could potentially dump in the river. Salts can reduce the usability of water for recycling projects that stretch water supplies.

"For any recycling project you want to get the salts as low as you reasonably can," she said. "The numbers

here are something else."

The former uranium ore-processing facility was licensed by the U.S. Nuclear Regulatory Commission until it ceased operation in 1984. The mill tailings are residue left over from the processing of uranium ore, which recovers about 95 percent of the uranium, according to the Energy Department. However, the residue contains uranium, thorium, radium, polonium and radon.

While the Utah sites pose a large threat to the Colorado, a more immediate threat is the high levels of chromium six that are inching toward the river near Needles in the San Bernardino County desert, officials said.

Last Tuesday, the state ordered Pacific Gas and Electric to step up its cleanup of an underground plume of contamination coming from its natural gas compressor after well detected high levels of the contaminant 60 feet from the river's edge.

The test showed the chromium had moved much closer to the river and at higher levels than earlier detected.

The level this time was 354 parts per billion, seven times the state drinking water for total chromium, which includes chromium six.

Chromium six, the contaminant made famous in the movie "Erin Brockovich," is considered a cancer-causing agent when inhaled but debate remains over its effect when ingested.

"It's something we just as soon keep out of drinking water and not be concerned with," said Kightlinger, of Metropolitan. "These sites are tricky, so we're not shocked they found a pocket of it but we do expect them to be aggressive in treating it."

Jon Tremayne, a PG&E spokesman, said the company has increased its pumping to 90 gallons a minute and is building a larger facility to treat more of the tainted water.

He said no chromium has been detected in the river.

Reach Jennifer Bowles at 951-368-9548 or jbowles@pe.com

Online at: http://www.pe.com/breakingnews/local/stories/PE_News_Local_river28.a12fa.html

Cost of new water treatment facility in Chino increases

A $4.7 million water treatment plant being built in Chino will cost nearly $1 million more than originally planned.

The city council approved an additional $900,000 on Tuesday for a plant that will remove nitrates and perchlorate, resulting in more drinking water to meet the city's increasing needs.

The IEUA will reimburse the city $300,000, the cost of a brine line included in the additional cost.

The treatment facility was fabricated off-site by Pittsburgh, Pa.-based Calgon Carbon Corp. and is being assembled at wells No. 5 and No. 9 on Benson Avenue, south of Francis Avenue, said assistant city engineer Jim Hill.

It's expected to be completed this spring, he said.

The additional cost was anticipated when a construction contract was awarded in August 2003, but the actual amount was not known at that time, Mr. Hill said. The extra amount is for design modifications needed as a result of changes in construction scope, taxes, additional materials and contingencies, according to a city staff report.

It will be funded from reserves in the city's Water Development Impact Fee Fund.

When completed, the facility will treat 2.6 billion gallons annually. It's expected to provide drinking water to approximately 30,000 people, more than twice the number served currently.

Nitrate contamination has been a widespread groundwater problem in the Chino Basin. Agricultural and dairy uses over the years have caused nitrates from fertilizers and manure to seep into the region's groundwater.

Although not as severe, traces of perchlorate are also found.

Water from these wells is currently blended with water imported from the Metropolitan Water District to reduce the nitrate level and make it potable.

The treatment facility is expected to bring down the cost of potable water because it will reduce the city's need for costly imported water.

THIS PAGE

HAS

INTENTIONALLY

BEEN LEFT

BLANK

FOR PAGINATION