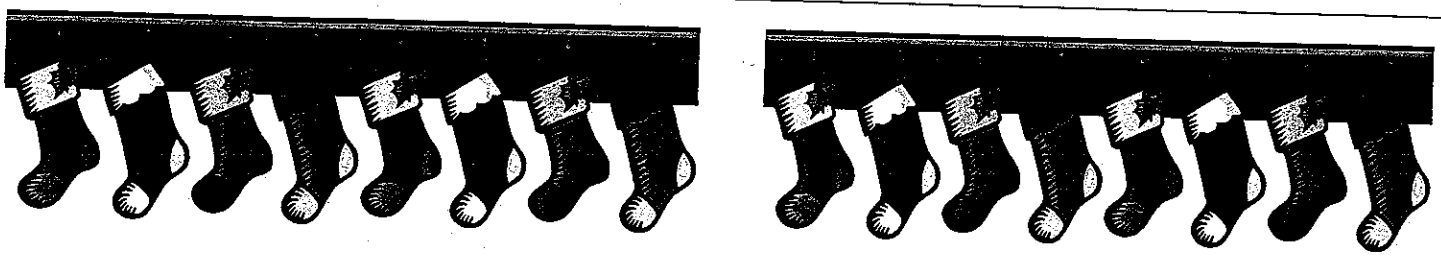

# CHINO BASIN WATERMASTER

# NOTICE OF MEETINGS

## Thursday, December 14, 2006

10:00 a.m. – Joint Appropriative and Non-Agricultural Pool Meeting

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

## Tuesday, December 19, 2006

9:00 a.m. – Agricultural Pool Meeting

***AT THE INLAND EMPIRE UTILITIES AGENCY OFFICES***
*6075 Kimball Ave. Bldg. A Board Room*
*Chino, CA 91710*
*(909) 993-1600*

# CHINO BASIN WATERMASTER

**December 14, 2006**

10:00 a.m. - Joint Appropriative & Non-Agricultural Pool Meeting

**December 19, 2006**

9:00 a.m. - Agricultural Pool Meeting

# AGENDA PACKAGE

# CHINO BASIN WATERMASTER
## *JOINT MEETING APPROPRIATIVE & NON-AGRICULTURAL POOLS*

10:00 a.m. – December 14, 2006
**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 November 9, 2006 *(Page 1)*

**B. FINANCIAL REPORTS**

1. Cash Disbursements for the month of November 2006 *(Page 13)*
2. Combining Schedule of Revenue, Expenses and Changes in Working Capital for the Period July 1, 2006 through October 31, 2006 *(Page 16)*
3. Treasurer's Report of Financial Affairs for the Period October 1, 2006 through October 31, 2006 *(Page 18)*
4. Profit & Loss Budget vs. Actual July 2006 through October 2006 *(Page 20)*

**C. WATER TRANSACTION**

Consider Approval for Transaction of Notice of Sale or Transfer – The lease and/or purchase of 500 acre-feet of water from West Valley Water District's storage account to Monte Vista Water District. This lease is made first from WVWD's net underproduction, if any, in Fiscal Year 2006-07, with any remainder to be recaptured from storage. Date of application: October 31, 2006 *(Page 22)*

**II. BUSINESS ITEMS**

**A. DR. SUNDING ECONOMIC BENEFITS REPORT**

Consider Approval of the Revised Economic Benefits Report *(Page 46)*

**B. INLAND VALLEY DAILY BULLETIN ADVERTISING CAMPAIGN**

Consider Approval of the Continued Community Outreach with Another 12-month Advertising Campaign with the Inland Valley Dailey Bulletin to match Contributing Funds with Inland Empire Utilities Agency in the Amount of $10,000 *(Page 68)*

## III. REPORTS/UPDATES

### A. WATERMASTER GENERAL LEGAL COUNSEL REPORT

1. Santa Ana River Application
2. Peace II
3. Waste Discharge Requirements
4. MZ1 Long Term Plan

### C. CEO/STAFF REPORT

1. Storm Water/Recharge Report
2. Legislative Update
3. Strategic Planning Issue Report
4. Holiday Open House

## IV. INFORMATION

1. Newspaper Articles *(Page 74)*

## V. POOL MEMBER COMMENTS

## VI. OTHER BUSINESS

## VII. FUTURE MEETINGS

| | | |
|---|---|---|
| December 13, 2006 | 1:00 p.m. | Water Quality Committee Meeting |
| December 14, 2006 | 9:00 a.m. | MZ1 Technical Committee Meeting |
| December 14, 2006 | 10:00 a.m. | Joint Appropriative & Non-Agricultural Pool Meeting |
| December 19, 2006 | 9:00 a.m. | Agricultural Pool Meeting @ IEUA |
| December 19, 2006 | 9:00 a.m. | GRCC Meeting |
| December 21, 2006 | 9:00 a.m. | Advisory Committee Meeting |
| December 21, 2006 | 11:00 a.m. | Watermaster Board Meeting |

**Meeting Adjourn**

# CHINO BASIN WATERMASTER
# AGRICULTURAL POOL MEETING

9:00 a.m. – December 19, 2006
**At The Offices Of**
**Inland Empire Utilities Agency**
6075 Kimball Ave., Bldg. A, Board Room
Chino, CA 91710

## 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 November 15, 2006 *(Page 7)*

**B. FINANCIAL REPORTS**

1. Cash Disbursements for the month of November 2006 *(Page 13)*
2. Combining Schedule of Revenue, Expenses and Changes in Working Capital for the Period July 1, 2006 through October 31, 2006 *(Page 16)*
3. Treasurer's Report of Financial Affairs for the Period October 1, 2006 through October 31, 2006 *(Page 18)*
4. Profit & Loss Budget vs. Actual July 2006 through October 2006 *(Page 20)*

**C. WATER TRANSACTION**

Consider Approval for Transaction of Notice of Sale or Transfer – The lease and/or purchase of 500 acre-feet of water from West Valley Water District's storage account to Monte Vista Water District. This lease is made first from WVWD's net underproduction, if any, in Fiscal Year 2006-07, with any remainder to be recaptured from storage. Date of application: October 31, 2006 *(Page 22)*

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**A. DR. SUNDING ECONOMIC BENEFITS REPORT**

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### A. WATERMASTER GENERAL LEGAL COUNSEL REPORT

1. Santa Ana River Application
2. Peace II
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1. Storm Water/Recharge Report
2. Legislative Update
3. Strategic Planning Issue Report
4. Holiday Open House

## IV. INFORMATION

1. Newspaper Articles *(Page 74)*

## V. POOL MEMBER COMMENTS

## VI. OTHER BUSINESS

## VII. FUTURE MEETINGS

| | | |
|---|---|---|
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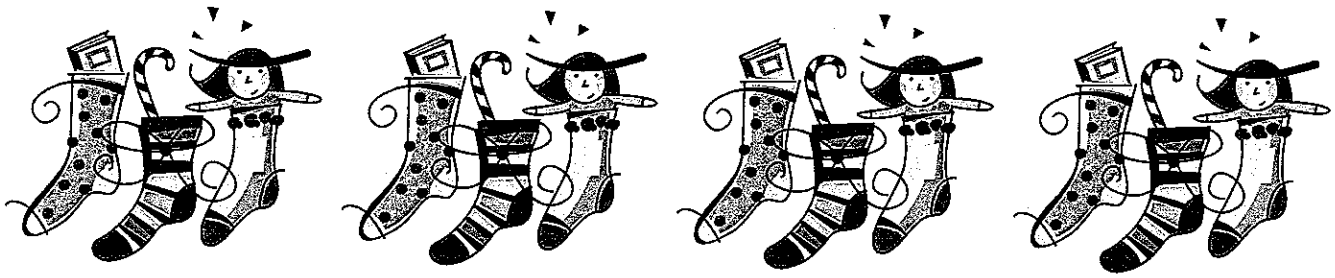
| December 14, 2006 | 10:00 a.m. | Joint Appropriative & Non-Agricultural Pool Meeting |
| December 19, 2006 | 9:00 a.m. | Agricultural Pool Meeting @ IEUA |
| December 19, 2006 | 9:00 a.m. | GRCC Meeting |
| December 21, 2006 | 9:00 a.m. | Advisory Committee Meeting |
| December 21, 2006 | 11:00 a.m. | Watermaster Board Meeting |

**Meeting Adjourn**



# CHINO BASIN WATERMASTER

## I. CONSENT CALENDAR

### A. MINUTES

1. Joint Appropriative & Non-Agricultural Pool Meeting – November 9, 2006

*Draft Minutes*

**CHINO BASIN WATERMASTER**

**JOINT APPROPRIATIVE & NON-AGRICULTURAL POOL MEETING**

November 9, 2006

The Joint Appropriative and Non-Agricultural Pool Meeting were held at the offices of Chino Basin Watermaster, 9641 San Bernardino Road, Rancho Cucamonga, CA, on November 9, 2006 at 10:00 a.m.

**APPROPRIATIVE POOL MEMBERS PRESENT**

| | |
|---|---|
| Robert DeLoach, Chair | Cucamonga Valley Water District |
| Mark Kinsey | Monte Vista Water District |
| Charles Moorrees | San Antonio Water Company |
| Mike McGraw | Fontana Water Company |
| Ken Jeske | City of Ontario |
| Ashok Dhingra | City of Pomona |
| Chris Diggs | Fontana Union Water Company |
| Rosemary Hoerning | City of Upland |
| Dave Crosley | City of Chino |
| Mike Maestas | City of Chino Hills |
| J. Arnold Rodriguez | Santa Ana River Water Company |

**NON-AGRICULTURAL POOL MEMBERS PRESENT**

| | |
|---|---|
| Justin Scott-Coe | Vulcan Materials Company (Calmat Division) |

**Watermaster Board Members Present**

| | |
|---|---|
| Sandra Rose | Monte Vista Water District |

**Watermaster Staff Present**

| | |
|---|---|
| Kenneth R. Manning | Chief Executive Officer |
| Sheri Rojo | CFO/Asst. General 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. |
| Andy Malone | Wildermuth Environmental Inc. |
| Tom McCarthy | Wildermuth Environmental Inc. |

**Others Present**

| | |
|---|---|
| Rich Atwater | Inland Empire Utilities Agency |

Chair DeLoach called the meeting to order at 10:02 a.m.

**AGENDA - ADDITIONS/REORDER**

There were no additions or reorders made to the agenda.

**I. CONSENT CALENDAR**

**A. MINUTES**

1. Minutes of the Joint Appropriative and Non-Agricultural Pool Meeting held October 12, 2006

**B. FINANCIAL REPORTS**

1. Cash Disbursements for the month of October 2006

2. Combining Schedule of Revenue, Expenses and Changes in Working Capital for the Period July 1, 2006 through September 30, 2006
3. Treasurer's Report of Financial Affairs for the Period September 1, 2006 through September 30, 2006
4. Profit & Loss Budget vs. Actual July 2006 through September 2006

Mr. Kinsey presented questions regarding check numbers 10857, 10860, and 10912 which were clarified by Ms. Rojo. Mr. Kinsey inquired about the Mathis & Associates contract and Mr. Manning stated Watermaster is currently working off of two separate contracts and the work they were to perform is primarily over. Chair DeLoach inquired about where legal fees are located in the Watermaster budget. A lengthy discussion ensued with regard to Watermaster counsel's legal fees.

*Motion by Kinsey, second by Jeske, and by unanimous vote – Non-Ag concurred*
***Moved to approve Consent Calendar Items A through B, as presented***

## II. BUSINESS ITEMS

### A. NEW YIELD ALLOWANCES FOR FY 06-07 ASSESSMENT PACKAGE

Mr. Manning stated last month this item was introduced for this committee and it was decided to postpone action until a workshop on this item could be held. That workshop took place last month. Staff is seeking approval for this item this month. Mr. Manning reiterated the difference with the 30% number being used as induced inflow and the judgments and/or courts definition of new yield. At the workshop Mr. Scalmanini stated he thought 50% number was the best number to use from a management perspective, however, Watermaster does not have the authority to use 50% at this time until the Judgment amendments contemplated under Peace II are approved. A lengthy discussion ensued with regard to this issue. Mr. Jeske commented on the fact that the decision to use 30% could cause his customers to incur higher costs and that this seems inappropriate since everyone agrees that 50% is the better number to use. Chair DeLoach agreed this could affect customer rates. A discussion ensued with regard to the adoption of the Peace II Agreement. Counsel Fife stated staff has put forward a recommendation for 30%; we have also prepared an Assessment Package based on 30%. Watermaster is under an independent duty to follow the Judgment and the Peace Agreement by court order. A question regarding the financial impact was presented. Mr. Manning stated with the FY 2006-2007 Assessment Package the financial impact would be zero; it is only an accounting process in terms of the Watermaster storage account. The Pool discussed different proposals regarding using 50% rather than 30% by dividing the 50% into a 30% component for induced inflow and a 20% component for implementation of basin reoperation. Chair DeLoach stated while he will vote in favor of the motion set forth, Cucamonga Valley Water District did want the number to be a 50% desalter offset and not 30%.

*Motion by Jeske, second by Crosley, and by unanimous vote – Non-Ag concurred*
***Moved to approve this item at 30% of desalter production with an additional 20% to be applied under the proposed re-operation of the basin unless the Peace II Term Sheet is not approved in a timely manner, then the 20% will be backed out at a later time.***

### B. FY 06-07 ASSESSMENT PACKAGE

Ms. Rojo stated the Assessment Package Workshop was held October 30, 2006. Ms. Rojo presented an overview for the FY 06-07 Assessment Package. The assessment analysis was broken down in detail and was compared to the FY 05-06 Assessment Package. The budgeted debt service was reviewed along with the replenishment reserve balance. In summary it was noted the assessments are set to increase from $28/af to $39/af (not including replenishment water reserves) and the recharge debt will increase based on % of operating safe yield. Ms. Rojo stated replenishment reserve increase options need to be discussed and noted two options for this reserve could be to review/update the Watermaster budget or to shorten the Water Activity Reporting timeframe. A discussion ensued with regard to the Assessment

Package presentation. Chair DeLoach noted there was a $10/af reduction in the presentation being given today. Ms. Rojo stated that was correct. Mr. Kinsey inquired into some of the water transactions on page 38 of the meeting package regarding the 85/15 rule. Ms. Rojo stated the way the 85/15 rule works is if you are an over producer in one year and you qualify for the 15% credit, if you purchase water, Watermaster evaluates the water purchase before any transfers/purchases to determine if a party qualifies for the 15% credit. The credit is not limited to the amount of your over production in any one of the years. A discussion ensued with regard to the 85/15 rule. Mr. Crosley questioned if action by this joint committee was delayed for a month, is there sufficient cash reserves on hand to pay the anticipated bills for that intervening time period. Ms. Rojo stated that Watermaster is looking at collecting monies in the January/February timeframe unless we levied an assessment in November. Chair DeLoach noted this type of assessment has been done before in the past. Mr. Jeske asked that when this item is brought back next month for consideration, if staff could revisit the numbers for the CEQA work prior to presentation. Chair DeLoach asked if staff could also prepare an analysis and a recommendation for options for amending the billing process. Mr. Manning stated this could be presented in January 2007.

*Motion by Crosley, second by Maestas, and by unanimous vote – Non-Ag concurred*

***Moved to table the FY 2006-2007 Assessment Package motion until next month to allow more time to review the numbers.***

***Moved to approve billing a special pre-assessment using 50% of last year's Assessment Package numbers to the parties to allow funds to come into Watermaster on a timely basis.***

## III. REPORTS/UPDATES

### A. WATERMASTER GENERAL LEGAL COUNSEL REPORT

1. Santa Ana River Application

   Counsel Fife stated the State Board has sent out some correspondence, not a notice, to all the parties involved letting them know that the State Board is hoping to notice a hearing on all of the Santa Ana River applications by the end of November. In subsequent discussions with the State Board, it turns out that almost all of the State Board's staff that is now assigned to this project is new to the project including the legal counsel. We still do not know for sure if this will go through to a hearing because of all the past delays over the past six years.

2. Peace II Term Sheet

   Counsel Fife stated that as was reported at the last Advisory and Watermaster Board meeting staff is considering to precede with the Peace II Term Sheet by some sort of bifurcation of the process. Staff and counsel were anticipating presenting an idea of how to do this next week at the Advisory Committee and Watermaster Board meeting which would break the larger package into smaller manageable pieces. Chair DeLoach stated the Appropriative Pool Committee members, by prior discussion, want that proposal to go through the pool process prior to the Advisory and Board. Mr. Manning stated another alternative would be to hold a separate workshop prior to the Advisory Committee meeting for all parties to attend so that the pools have a full understanding of what will be presented to the Advisory and Board meetings; we are not asking for action, only introducing the idea. A discussion ensued with regard to this process. Mr. Kinsey inquired into the macro financial analysis that Dr. Sunding is putting together and are the comments that were submitted to Dr. Sunding going to be incorporated and sent back through the Watermaster process. Counsel Fife stated the report is still being worked on and will go through the Watermaster process prior to court submission.

3. Waste Discharge Requirements re Santa Ana River

   Counsel Fife stated this is something that came up approximately six months ago when the Regional Board issued Draft Waste Discharge Requirements within the Santa Ana Watershed. There has been a process going on at SAWPA ever since and this is a

participant process that Watermaster has only been watching and not been involved in because we are a maximum benefit. Others have been negotiating an agreement under SAWPA and the Regional Board's supervision and have come out with a draft. That draft is available on the back table dated October 12, 2006. Counsel Fife stated we are soliciting feedback from the parties because now that there has been something released, Watermaster is going to get involved to make sure that whatever comes out of the process does not negatively impact what we have done with the Regional Board. This is an interesting agreement and two items which need to be highlighted are the governance structure that they are contemplating for salt management in the watershed that is composed of an executive committee. Watermaster has presented comments to this group to the affect that if there is going to be some sort of governance structure that is created, the Watermaster of the Chino Basin, wants to be represented on that committee. Watermaster has spent several years going through the maximum benefit process and has spent a lot of money on it and nobody in the watershed contributed to that except Chino Basin. While we want to be on this governance structure, we don't want to be paying into something that we have already paid into once. The next interesting item in this agreement is salt credits; this is all about salt management in the watershed. This process is very much in flux and there is going to be a lot of movement on this item in the near future.

**B. WATERMASTER ENGINEERING REPORT**

1. Progress on the Western Desalter Well Field

   Mr. Wildermuth gave his West Desalter Well Field Investigation presentation. The assignment given to Wildermuth regarding the Western Desalter Well Field (WDWF) was to develop the well field to achieve hydraulic control and develop a concept that will intercept the Chino Airport VOC plume. Mr. Wildermuth reviewed several area maps in detail and by a progression of dates to show how the Chino Airport VOC plume will be affected by the new WDWF wells. In addition to other assignments, Wildermuth Environmental will be preparing an addendum to the April report, coordinating with the Regional Water Quality Control Board and County, and prepare an addendum to be available before the end of November 2006. A brief discussion ensued with regard to the Wildermuth presentation.

Added Item:

Mr. Manning stated several months ago he along with Mr. Atwater from Inland Empire Utilities Agency and a number of other parties got together to prepare for submittal of some grants to the Department of Health Services (Prop 50 Grants). Watermaster ended up submitting three applications for grants which were, 1) Chino I Desalter Expansion for $15M, 2) Ontario Groundwater Recovery (OIA Plume) for $20M, and 3) the Chino Groundwater Recovery grant which is what Mr. Wildermuth just presented. This is a total of $55 million dollars which was applied for and all three were approved by the Department of Health Services to move onto the next round. These funds will most certainly help in getting the Potential Responsible Parties to the table for clean up. This is very good news!

**C. CEO/STAFF REPORT**

1. Storm Water/Recharge Report

   Mr. Treweek stated we are one third of the way through the year and are right on target for recharge. We have achieved 21,000 acre-feet of recharge towards our goal of 60,000 acre-feet. The day to day operations have been handled by Andy Campbell and his staff at Inland Empire Utilities Agency which has freed up Watermaster staff time to work on other projects. We have attempted to increase our recharge efforts by 20% to 25% each year.

2. Legislative/Bond Update

   Mr. Manning stated congress has changed hands due to the recent elections. IEUA has sent over the Congressional Outlook for the 100th Congress (Innovating Federal Strategies – a Comprehensive Government look at Relations) which is available on the back table for

review. Mr. Manning offered comment on how both houses being Democratic will affect us. Our hope that two items will get though in the funding one being WORDA and the other being the funding for our recycled water projects; both are sitting awaiting action in the senate.

3. Strategic Planning
Mr. Manning stated this item was placed on the agenda because staff was hopeful the matrix would be done from the recent Strategic Planning conference; that is not completed and will be brought back next month.

4. RAND Workshop Review
Mr. Manning stated the third and last workshop was held this past week. Overall the RAND series of three workshops were productive. There will be a follow up report and once that report is available we will provide a copy to all the parties. Other committee members who attended the RAND meetings offered comment on the workshops.

5. Invitation from French Government
Mr. Manning stated Mr. Neufeld and himself were notified last week by the French government that they had been selected to participate in a conference in France (paid by them) to attend the conference and visit with their officials over a four day period. An email was received just a few days ago stating this might not take place this year for them and Mr. Manning noted it was an honor just to be one of the few that were considered to attend this type of event. A copy of the invitation letter is available on the back table for review. Mr. Manning will keep the parties apprised if he will be attending the conference after final notice is received.

Added Item:

Mr. Manning stated as a reminder there is a confidential meeting for the Appropriators to discuss storage and recovery after this meeting concludes.

## IV. INFORMATION

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

## V. POOL MEMBER COMMENTS

No comment was made regarding this item.

## VI. OTHER BUSINESS

No comment was made regarding this item.

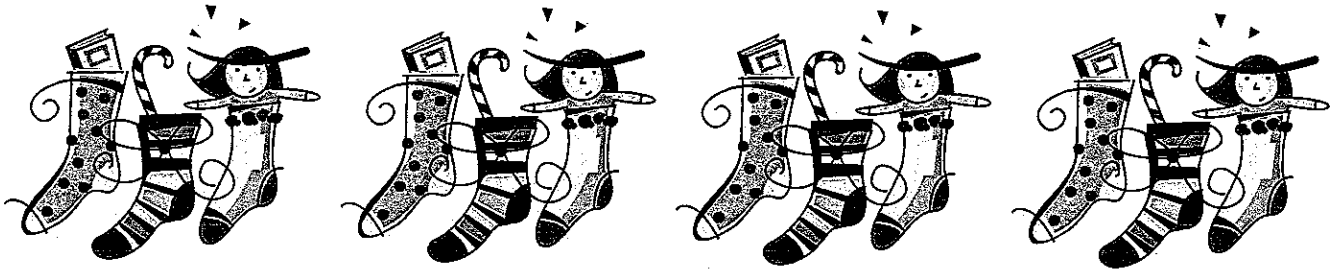
## VII. FUTURE MEETINGS

| | | |
|---|---|---|
| November 9, 2006 | 8:00 a.m. | MZ1 Technical Committee Meeting |
| November 9, 2006 | 10:00 a.m. | Joint Appropriative & Non-Agricultural Pool Meeting |
| November 15, 2006 | 1:00 p.m. | Agricultural Pool Meeting @ IEUA |
| November 16, 2006 | 9:00 a.m. | Advisory Committee Meeting |
| November 16, 2006 | 11:00 a.m. | Watermaster Board Meeting |
| November 20, 2006 | 1:00 p.m. | AGWA Meeting @ CBWM |
| November 28, 2006 | 9:00 a.m. | GRCC Meeting |
| November 30, 2006 | 10:00 a.m. | MZ1 Technical Committee Meeting |

The Joint Appropriative & Non-Agricultural Pool Meeting Adjourned at 11:45 a.m.

Secretary: _____

Minutes Approved: _____



# CHINO BASIN WATERMASTER

## I. CONSENT CALENDAR

### A. MINUTES

1. Agricultural Pool Meeting – November 15, 2006

*Draft Minutes*
**CHINO BASIN WATERMASTER**
**AGRICULTURAL POOL MEETING**
November 15, 2006

The Agricultural Pool Meeting was held at the offices of the Inland Empire Utilities Agency, 6075 Kimball Avenue, Chino, CA, on November 15, 2006 at 1:00 p.m.

**Agricultural Pool Members Present**

| | |
|---|---|
| Nathan deBoom, Chair | Dairy |
| Gene Koopman | Milk Producers Council |
| Jeff Pierson | Crops |
| Glen Durrington | Crops |
| John Huitsing | Dairy |
| Bob Feenstra | Dairy |
| John Ottinger | State of California CIW |
| Abayomi Sonuyi | State of California CIW |

**Watermaster Board Member Present**

| | |
|---|---|
| Sandra Rose | Monte Vista Water District |

**Watermaster Staff Present**

| | |
|---|---|
| Kenneth R. Manning | Chief Executive Officer |
| Sheri Rojo | CFO /Asst. General 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. |
| Tom McCarthy | Wildermuth Environmental Inc. |

**Others Present**

| | |
|---|---|
| Steve Lee | Reid & Hellyer |
| Mark Kinsey | Monte Vista Water District |

Chair deBoom called the meeting to order at 1:01 p.m.

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

I. **CONSENT CALENDAR**

**A. MINUTES**

1. Minutes of the Agricultural Pool Meeting held October 17, 2006

**B. FINANCIAL REPORTS**

1. Cash Disbursements for the month of October 2006
2. Combining Schedule of Revenue, Expenses and Changes in Working Capital for the Period July 1, 2006 through September 30, 2006

3. Treasurer's Report of Financial Affairs for the Period September 1, 2006 through September 30, 2006
4. Profit & Loss Budget vs. Actual July 2006 through September 2006

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

## II. BUSINESS ITEMS

### A. NEW YIELD ALLOWANCES FOR FY 06-07 ASSESSMENT PACKAGE

Mr. Manning stated this is the same item that was presented last month and pertains to the new yield allowance for the FY 06-07 Assessment Package. The Judgment and the Peace Agreement in their definition of new yield and in recognition that there is new yield within the basin, describes the new yield as verifiable water. Starting in the year 2000 and going up until this last year, we based our assessment packages on the analysis that 50% of the production of the desalters was being recaptured through inflow from the river and intercepted basin outflow. That was taken from the best information that we had available to us. Based upon the April Wildermuth Environmental report, that report indicates we are currently capturing about 30%. For this year's Assessment Package we must use the most current available information to create the Assessment Package and again that verifiable number is 30%. Staff is recommending the new yield allowance as 30% of desalter production. Mr. Manning stated when this same recommendation went to the Appropriate and Non-Agricultural Pool, those pool committee members modified the recommendation to the Advisory Committee and Watermaster Board by recommending we use 30% of desalter production with an additional 20% added on to begin the re-operation process and then if Hydraulic Control is not approved by the court we will then back out the 20% at a later time. A lengthy discussion ensued with regard to this item regarding the authority of Watermaster and the impacts of the different recommendations.

*Motion by Koopman, second by Pierson, and by unanimous vote*
***Moved to approve the use of 30% of desalter production as the new yield based on induced inflow and captured outflow and to authorize staff, once re-operation has received court approvel, to retroactively add another 20% as implementation of basin reoperation for the period of time between now and a point in time when re-operation is authorized.***

### B. FY 06-07 ASSESSMENT PACKAGE

Ms. Rojo stated the Assessment Package Workshop was held October 30, 2006. Ms. Rojo presented the overview for the FY 06-07 Assessment Package and noted the numbers being presented today use the 30% desalter production number. The assessment analysis was broken down in detail and was compared from the FY 05-06 Assessment Package. The budgeted debt service was reviewed along with the replenishment reserve balance. In summary it was noted the assessments are set to increase from $28/af to $39/af (not including replenishment water reserves) and the recharge debt will increase based on % of operating safe yield. Ms. Rojo stated replenishment reserve increase options need to be discussed and noted two options for this reserve could be to review/update the Watermaster budget or to shorten the water activity reporting assessment timeframe. A brief discussion regarding the presentation ensued. Mr. Feenstra thanked Ms. Rojo for a good job done on the Assessment Package. Ms. Rojo commented on the motion made at the Appropriative and Non-Agricultural Pool meetings last week which included holding a recommendation on the actual FY 06-07 Assessment Package for one month for further review and approving billing 50% of last year's assessments to assist in getting money into Watermaster now. A discussion ensued with regard to the motion made by the Appropriative and Non-Agricultural Pool and the needed reserve for Chino Basin Watermaster. Staff is recommending the approval of the fiscal year 2006-2007 Assessment Package. A discussion ensued with regard to replenishment.

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

***Moved to approve the fiscal year 2006-2007 Assessment Package, as presented***

This next item was taken out of order per the request of a committee member.

**B. WATERMASTER ENGINEERING REPORT**

1. Progress on the Western Desalter Well Field

Mr. Wildermuth gave his West Desalter Well Field Investigation presentation. The assignment given to Wildermuth regarding the Western Desalter Well Field (WDWF) was to develop the well field to achieve for hydraulic control and develop a concept that will intercept the Chino Airport VOC plume. Mr. Wildermuth reviewed several area maps in detail and by a progression of dates to show how the Chino Airport VOC plume will be affected by the new WDWF wells. In addition to other assignments, Wildermuth Environmental will be preparing an addendum to the April report, coordinating with the Regional Water Quality Control Board and County, and prepare an addendum to be available before the end of November 2006. A brief discussion ensued with regard to the Wildermuth presentation. A discussion ensued with regard to the plumes and the advancements taken to get the potential responsible parties to do clean up at the plume areas.

**III. REPORTS/UPDATES**

**A. WATERMASTER GENERAL LEGAL COUNSEL REPORT**

1. Santa Ana River Application

Counsel Fife stated the State Board has sent out some correspondence, not a notice, to all the parties involved letting them know that the State Board is hoping to notice a hearing on all of the Santa Ana River applications by the end of November. In subsequent discussions with the State Board, it turns out that almost all of the State Board's staff that is now assigned to this project is new to the project including the legal counsel. We still do not know for sure if this will go through to a hearing because of all the past delays over the past six years.

2. Peace II Term Sheet

Counsel Fife stated that as was reported at the last Advisory and Watermaster Board meeting staff is considering to precede with the Peace II Term Sheet by some sort of bifurcation of the process. Staff and counsel were anticipating presenting an idea of how to do this next week at the Advisory Committee and Watermaster Board meeting which would break the larger package into smaller manageable pieces tomorrow at the Advisory and Board meetings. The intention is after those meetings to devise a more specific plan and bring it back to the pools next month.

3. Waste Discharge Requirements re Santa Ana River

Counsel Fife stated this is something that came up approximately six months ago when the Regional Board issued Draft Waste Discharge Requirements within the Santa Ana Watershed. There has been a process going on at SAWPA ever since and this is a participant process that Watermaster has only been watching and not been involved in because we are a maximum benefit. Others have been negotiating an agreement under SAWPA and the Regional Board's supervision and have come out with a draft. That draft is available on the back table dated October 12, 2006. Counsel Fife stated we are soliciting feedback from the parties because now that there has been something released, Watermaster is going to get involved to make sure that whatever comes out of the process does not negatively impact what we have done with the Regional Board. This is an interesting agreement and two items which need to be highlighted are the governance structure that they are contemplating for salt management in the watershed that is composed of an executive committee. Watermaster has presented comments to this group to the affect that if there is going to be some sort of governance structure that is created, the Watermaster of the Chino Basin, wants to be represented on that committee. Watermaster has spent several years going through the maximum benefit process and has spent a lot of

spent a lot of money on it and nobody in the watershed contributed to that except Chino Basin. While we want to be on this governance structure, we don't want to be paying into something that we have already paid into once. The next interesting item in this agreement is salt credits; this is all about salt management in the watershed. This process is very much in flux and there is going to be a lot of movement on this item in the near future.

Added Item:

Mr. Manning stated several months ago he along with Mr. Atwater from Inland Empire Utilities Agency and a number of other parties got together prepare for submittal of some grants to the Department of Health Services (Prop 50 Grants). Watermaster ended up submitting three applications for grants which were, 1) Chino I Desalter Expansion for $15M, 2) Ontario Groundwater Recovery (OIA Plume) for $20M, and 3) the Chino Groundwater Recovery grant which is what Mr. Wildermuth just presented. This is a total of $55 million dollars which was applied for and all three were approved by the Department of Health Services to move onto the next round. These funds will most certainly help in getting the Potential Responsible Parties to the table for clean up. This is very good news!

**C. CEO/STAFF REPORT**

1. Storm Water/Recharge Report
   Mr. Treweek stated we are one third of the way through the year and are right on target for recharge. We have achieved 21,000 acre-feet of recharge towards our goal of 60,000 acre-feet. The day to day operations have been handled by Andy Campbell and his staff at Inland Empire Utilities Agency which has freed up Watermaster staff time to work on other projects. We have attempted to increase our recharge efforts by 20% to 25% each year.

2. Legislative/Bond Update
   Mr. Manning stated congress has changed hands due to the recent elections. IEUA has sent over the Congressional Outlook for the 100th Congress (Innovating Federal Strategies – a Comprehensive Government look at Relations) which is available on the back table for review. Mr. Manning offered comment on how both houses being Democratic will affect us. Our hope that two items will get though in the funding one being WORDA and the other being the funding for our recycled water projects; both are sitting awaiting action in the senate.

3. Strategic Planning
   Mr. Manning stated this item was placed on the agenda because staff was hopeful the matrix would be done from the recent Strategic Planning conference; that is not completed and will be brought back next month.

4. RAND Workshop Review
   Mr. Manning stated the third and last workshop was held this past week. Overall the RAND series of three workshops were productive. There will be a follow up report and once that report is available we will provide a copy to all the parties.

5. Invitation from French Government
   Mr. Manning stated Mr. Neufeld and himself were notified a few weeks ago by the French government that they had been selected to participate in a conference in France (paid by them) to attend the conference and visit with their officials over a four day period. Just this week both Mr. Manning and Mr. Neufeld were notified that this year's trip for them has been cancelled and they have been place on a waiting list for next year's conference. Mr. Manning noted it was an honor just to be one of the few that were considered to attend this type of event and he hopes to be chosen to go next year.

**IV. INFORMATION**

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

## V. POOL MEMBER COMMENTS

No comment was made regarding this item.

## VI. OTHER BUSINESS

No comment was made regarding this item.

## VII. FUTURE MEETINGS

| | | |
|---|---|---|
| November 9, 2006 | 8:00 a.m. | MZ1 Technical Committee Meeting |
| November 9, 2006 | 10:00 a.m. | Joint Appropriative & Non-Agricultural Pool Meeting |
| November 15, 2006 | 1:00 p.m. | Agricultural Pool Meeting @ IEUA |
| November 16, 2006 | 9:00 a.m. | Advisory Committee Meeting |
| November 16, 2006 | 11:00 a.m. | Watermaster Board Meeting |
| November 20, 2006 | 1:00 p.m. | AGWA Meeting @ CBWM |
| November 28, 2006 | 9:00 a.m. | GRCC Meeting |
| November 30, 2006 | 10:00 a.m. | MZ1 Technical Committee Meeting |

The Agricultural Pool Meeting Adjourned at 2:35 p.m.

Secretary: _____

Minutes Approved: _____

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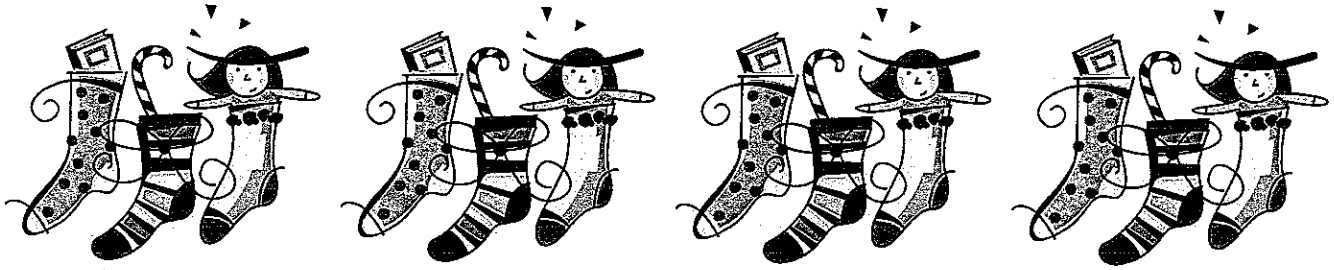
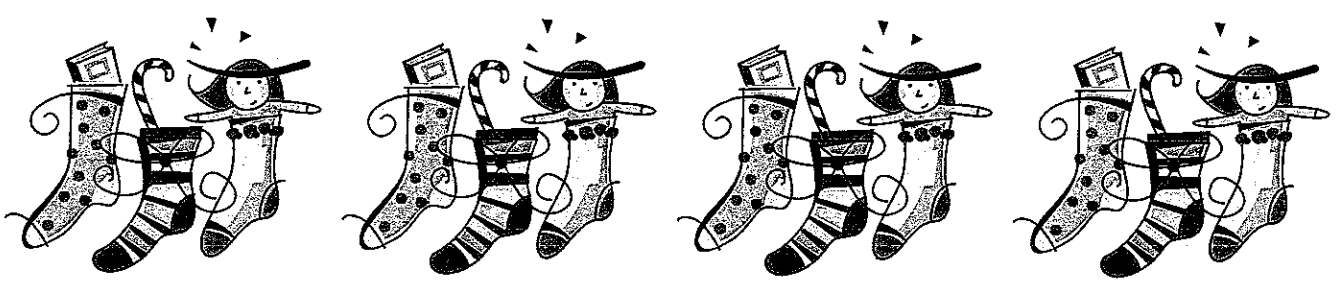


# CHINO BASIN WATERMASTER

## I. CONSENT CALENDAR

### B. FINANCIAL REPORTS

1. Cash Disbursements for the month of November 2006
2. Combining Schedule of Revenue, Expenses and Changes in Working Capital for the Period July 1, 2006 through October 31, 2006
3. Treasurer's Report of Financial Affairs for the Period October 1, 2006 through October 31, 2006
4. Profit & Loss Budget vs. Actual July 2006 through October 2006



# 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:** **December 14, 2006**
**December 19, 2006**
**December 21, 2006**

**TO:** **Committee Members**
**Watermaster Board Members**

**SUBJECT:** **Cash Disbursement Report – November 2006**

**SUMMARY**

**Issue** – Record of cash disbursements for the month of November 2006.

**Recommendation** – Staff recommends the Cash Disbursements for November 2006 be received and filed as presented.

**Fiscal Impact** – All funds disbursed were included in the FY 2005-06 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 November 2006 were $562,524.62. The most significant expenditures during the month were Wildermuth Environmental Inc. in the amount of $248,018.87 and Hatch and Parent in the amount of $100,212.69.

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**CHINO BASIN WATERMASTER**
**Cash Disbursement Detail Report**
**November 2006**

| Type | Date | Num | Name | Amount |
|---|---|---|---|---|
| **Nov 06** | | | | |
| Bill Pmt -Check | 11/1/2006 | 10931 | CITISTREET | -1,111.11 |
| Bill Pmt -Check | 11/1/2006 | 10932 | PUBLIC EMPLOYEES' RETIREMENT SYST... | -7,098.62 |
| Bill Pmt -Check | 11/1/2006 | 10933 | CITISTREET | -2,632.30 |
| Bill Pmt -Check | 11/1/2006 | 10934 | PUBLIC EMPLOYEES' RETIREMENT SYST... | -7,098.62 |
| Bill Pmt -Check | 11/2/2006 | 10935 | MEDIA JIM | -885.00 |
| Bill Pmt -Check | 11/9/2006 | 10954 | DEPARTMENT OF HEALTH SERVICES | -120.00 |
| Bill Pmt -Check | 11/9/2006 | 10953 | HATCH AND PARENT | -100,212.69 |
| Bill Pmt -Check | 11/9/2006 | 10952 | HSBC BUSINESS SOLUTIONS | -643.55 |
| Bill Pmt -Check | 11/9/2006 | 10951 | INLAND EMPIRE UTILITIES AGENCY | -69,903.81 |
| Bill Pmt -Check | 11/9/2006 | 10950 | JUAN POLLO | -129.29 |
| Bill Pmt -Check | 11/9/2006 | 10949 | OFFICE DEPOT | -939.46 |
| Bill Pmt -Check | 11/9/2006 | 10936 | PAYCHEX | -211.02 |
| Bill Pmt -Check | 11/9/2006 | 10937 | PREMIERE GLOBAL SERVICES | -38.00 |
| Bill Pmt -Check | 11/9/2006 | 10938 | PURCHASE POWER | -17.82 |
| Bill Pmt -Check | 11/9/2006 | 10939 | QUILL | -252.78 |
| Bill Pmt -Check | 11/9/2006 | 10940 | SPRINT | -423.24 |
| Bill Pmt -Check | 11/9/2006 | 10941 | SR ELECTRIC | -350.00 |
| Bill Pmt -Check | 11/9/2006 | 10942 | STANTEC CONSULTING, INC. | -1,900.00 |
| Bill Pmt -Check | 11/9/2006 | 10943 | STATE COMPENSATION INSURANCE FUND | -860.04 |
| Bill Pmt -Check | 11/9/2006 | 10944 | UNION 76 | -190.34 |
| Bill Pmt -Check | 11/9/2006 | 10945 | UNITED PARCEL SERVICE | -209.49 |
| Bill Pmt -Check | 11/9/2006 | 10946 | VELASQUEZ JANITORIAL | -1,200.00 |
| Bill Pmt -Check | 11/9/2006 | 10947 | VERIZON | -402.05 |
| Bill Pmt -Check | 11/9/2006 | 10948 | APPLIED COMPUTER TECHNOLOGIES | -4,090.15 |
| Bill Pmt -Check | 11/15/2006 | 10955 | HUITSING, JOHN | -375.00 |
| General Journal | 11/15/2006 | 06/11/03 | PAYROLL | -15,483.67 |
| General Journal | 11/15/2006 | 06/11/04 | PAYROLL | -9,872.65 |
| General Journal | 11/15/2006 | 06/11/04 | PAYROLL | -23,140.26 |
| Bill Pmt -Check | 11/16/2006 | 10956 | ACWA | -10,290.00 |
| Bill Pmt -Check | 11/16/2006 | 10958 | ACWA SERVICES CORPORATION | -221.50 |
| Bill Pmt -Check | 11/16/2006 | 10960 | ADVANCED ORNAMENTAL IRON | -125.00 |
| Bill Pmt -Check | 11/16/2006 | 10961 | BANK OF AMERICA | -4,281.16 |
| Bill Pmt -Check | 11/16/2006 | 10962 | COLLINS CO. | -326.05 |
| Bill Pmt -Check | 11/16/2006 | 10963 | DELUXE BUSINESS FORMS & SUPPLIES | -77.58 |
| Bill Pmt -Check | 11/16/2006 | 10964 | FIRST AMERICAN REAL ESTATE SOLUTIO... | -125.00 |
| Bill Pmt -Check | 11/16/2006 | 10965 | IDEAL GRAPHICS | -511.81 |
| Bill Pmt -Check | 11/16/2006 | 10966 | MCI | -907.73 |
| Bill Pmt -Check | 11/16/2006 | 10967 | PARK PLACE COMPUTER SOLUTIONS, INC. | -3,410.00 |
| Bill Pmt -Check | 11/16/2006 | 10968 | RBM LOCK & KEY | -182.10 |
| Bill Pmt -Check | 11/16/2006 | 10969 | REID & HELLYER | -4,832.26 |
| Bill Pmt -Check | 11/16/2006 | 10970 | RICOH BUSINESS SYSTEMS-Lease | -4,480.25 |
| Bill Pmt -Check | 11/16/2006 | 10971 | STAULA, MARY L | -136.61 |
| Bill Pmt -Check | 11/16/2006 | 10972 | THE FURMAN GROUP, INC. | -2,600.00 |
| Bill Pmt -Check | 11/16/2006 | 10973 | VERIZON WIRELESS | -229.34 |
| Bill Pmt -Check | 11/16/2006 | 10974 | RICOH BUSINESS SYSTEMS-Maintenance | -1,063.54 |
| Bill Pmt -Check | 11/16/2006 | 10975 | PITNEY BOWES CREDIT CORPORATION | -468.72 |
| Bill Pmt -Check | 11/16/2006 | 10976 | WILDERMUTH ENVIRONMENTAL INC | -248,018.87 |
| Bill Pmt -Check | 11/28/2006 | 10977 | PETTY CASH | -663.67 |
| General Journal | 11/30/2006 | 06/11/6 | PAYROLL | -6,569.81 |
| General Journal | 11/30/2006 | 06/11/6 | PAYROLL | -23,212.66 |
| **Nov 06** | | | | **-562,524.62** |

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CHINO BASIN WATERMASTER
COMBINING SCHEDULE OF REVENUE, EXPENSES AND CHANGES IN WORKING CAPITAL
FOR THE
PERIOD JULY 1, 2006 THROUGH OCTOBER 31, 2006

| | 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 2006-2007 |
|---|---|---|---|---|---|---|---|---|---|---|
| Administrative Revenues | | | | | | | | | | |
| Administrative Assessments | | | - | | - | | | | - | $7,308,205 |
| Interest Revenue | | | 59,855 | 6,061 | 2,573 | | | 24 | 68,513 | 136,500 |
| Mutual Agency Project Revenue | | - | | | | | | | - | 138,000 |
| Grant Income | | - | | | | | | | - | 0 |
| Miscellaneous Income | | | | | | | | | - | 0 |
| Total Revenues | - | - | 59,855 | 6,061 | 2,573 | - | - | 24 | 68,513 | 7,582,705 |
| Administrative & Project Expenditures | | | | | | | | | | |
| Watermaster Administration | 341,679 | | | | | | | | 341,679 | 601,598 |
| Watermaster Board-Advisory Committee | 15,180 | | | | | | | | 15,180 | 52,123 |
| Pool Administration | | | 7,533 | 25,287 | 2,417 | | | | 35,237 | 118,245 |
| Optimum Basin Mgnt Administration | | 628,513 | | | | | | | 628,513 | 1,855,795 |
| OBMP Project Costs | | 1,810,743 | | | | | | | 1,810,743 | 5,904,269 |
| Education Funds Use | | | | | | | | | - | 375 |
| Mutual Agency Project Costs | 5,216 | | | | | | | | 5,216 | 5,000 |
| Total Administrative/OBMP Expenses | 362,075 | 2,439,256 | 7,533 | 25,287 | 2,417 | | | - | 2,836,568 | 8,537,405 |
| Net Administrative/OBMP Income | (362,075) | (2,439,256) | | | | | | | | |
| Allocate Net Admin Income To Pools | 362,075 | | 278,656 | 75,632 | 7,788 | | | | - | 0 |
| Allocate Net OBMP Income To Pools | | 2,439,256 | 1,877,271 | 509,521 | 52,464 | | | | - | 0 |
| Agricultural Expense Transfer | | | 607,814 | (607,814) | | | | | - | 0 |
| Total Expenses | | | 2,771,274 | 2,625 | 62,669 | - | - | - | 2,836,568 | 8,537,405 |
| Net Administrative Income | | | (2,711,419) | 3,436 | (60,096) | | | 24 | (2,768,055) | (954,700) |
| Other Income/(Expense) | | | | | | | | | | |
| Replenishment Water Purchases | | | | | | 369,248 | | | 369,248 | 0 |
| MZ1 Supplemental Water Assessments | | | | | | | | | - | 0 |
| Water Purchases | | | | | | | | | - | 0 |
| MZ1 Imported Water Purchase | | | | | | | | | - | 0 |
| Groundwater Replenishment | | | | | | (1,480,310) | | | (1,480,310) | 0 |
| Net Other Income | | | - | - | - | (1,111,062) | - | - | (1,111,062) | 0 |
| Net Transfers To/(From) Reserves | | | (2,711,419) | 3,436 | (60,096) | (1,111,062) | - | 24 | (3,879,117) | (954,700) |
| Working Capital, July 1, 2006 | | | 4,439,157 | 470,561 | 186,984 | 1,139,615 | 158,251 | 1,942 | 6,396,510 | |
| Working Capital, End Of Period | | | 1,727,738 | 473,997 | 126,888 | 28,553 | 158,251 | 1,966 | 2,517,393 | |
| **05/06 Assessable Production** | | | 124,900.575 | 33,899.960 | 3,490.589 | | | | 162,291.124 | |
| **05/06 Production Percentages** | | | 76.961% | 20.888% | 2.151% | | | | 100.000% | |

Q:\Financial Statements\06-07\06 Oct\[CombiningSchedule Oct.xls]Sheet1

Prepared by Sheri Rojo, Chief Financial Officer /Assistant General Manager

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**CHINO BASIN WATERMASTER**
**TREASURER'S REPORT OF FINANCIAL AFFAIRS FOR THE PERIOD**
**OCTOBER 1 THROUGH OCTOBER 31, 2006**

| | | | |
|---|---|---|---|
| **DEPOSITORIES:** | | | |
| Cash on Hand - Petty Cash | | | $ 500 |
| Bank of America | | | |
| Governmental Checking-Demand Deposits | | $ 125,406 | |
| Savings Deposits | | 9,722 | |
| Zero Balance Account - Payroll | | - | 135,128 |
| Vineyard Bank CD - Agricultural Pool | | | 427,298 |
| Local Agency Investment Fund - Sacramento | | | 2,573,222 |
| **TOTAL CASH IN BANKS AND ON HAND** | 10/31/2006 | | **$ 3,136,148** |
| TOTAL CASH IN BANKS AND ON HAND | 9/30/2006 | | 4,657,844 |
| **PERIOD INCREASE (DECREASE)** | | | **$ (1,521,696)** |

**CHANGE IN CASH POSITION DUE TO:**

| | | |
|---|---|---|
| Decrease/(Increase) in Assets: | Accounts Receivable | $ 64,365 |
| | Assessments Receivable | - |
| | Prepaid Expenses, Deposits & Other Current Assets | (65,445) |
| (Decrease)/Increase in Liabilities | Accounts Payable | (998,018) |
| | Accrued Payroll, Payroll Taxes & Other Current Liabilities | 26,770 |
| | Transfer to/(from) Reserves | (549,368) |
| | **PERIOD INCREASE (DECREASE)** | **$ (1,521,696)** |

| **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 9/30/2006 | $ 500 | $ 711,467 | $ - | $ 9,722 | $ 425,955 | $ 3,510,200 | $ 4,657,844 |
| Deposits | - | 5,050 | - | - | 1,343 | 63,022 | 69,415 |
| Transfers | - | 941,648 | 58,352 | - | - | (1,000,000) | - |
| Withdrawals/Checks | - | (1,532,759) | (58,352) | - | - | - | (1,591,111) |
| Balances as of 10/31/2006 | $ 500 | $ 125,406 | $ - | $ 9,722 | $ 427,298 | $ 2,573,222 | $ 3,136,148 |
| | - | - | - | - | - | - | |
| **PERIOD INCREASE OR (DECREASE)** | **$ -** | **$ (586,061)** | **$ -** | **$ -** | **$ 1,343** | **$ (936,978)** | **$ (1,521,696)** |

**CHINO BASIN WATERMASTER**
**TREASURER'S REPORT OF FINANCIAL AFFAIRS FOR THE PERIOD**
**OCTOBER 1 THROUGH OCTOBER 31, 2006**

**INVESTMENT TRANSACTIONS**

| Effective Date | Transaction | Depository | Activity | Redeemed | Days to Maturity | Interest Rate(*) | Maturity Yield |
|---|---|---|---|---|---|---|---|
| 9/18/2006 | Withdrawal | | $ 1,000,000 | | | | |
| **TOTAL INVESTMENT TRANSACTIONS** | | | **$ 1,000,000** | - | | | |

* The earnings rate for L.A.I.F. is a daily variable rate; 4.93% was the effective yield rate at the Quarter ended September 30, 2006

**INVESTMENT STATUS**
**October 31, 2006**

| **Financial Institution** | **Principal Amount** | **Number of Days** | **Interest Rate** | **Maturity Date** |
|---|---|---|---|---|
| Local Agency Investment Fund | $ 2,573,222 | | | |
| **TOTAL INVESTMENTS** | **$ 2,573,222** | | | |

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
Chief Financial Officer & Assistant General Manager
Chino Basin Watermaster

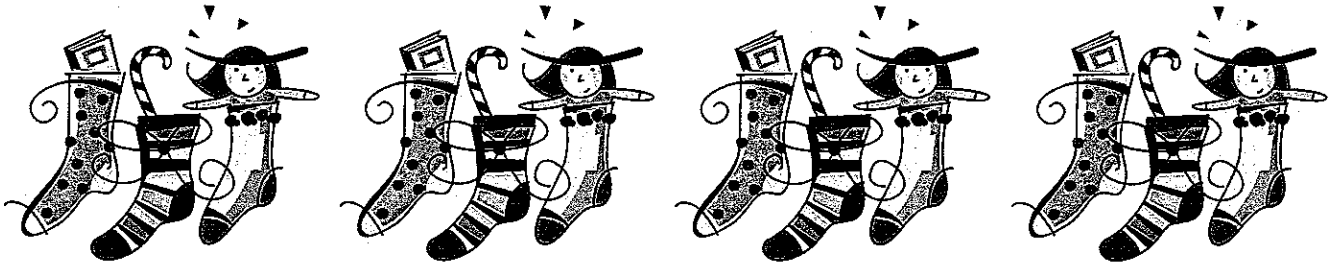
Q:\Financial Statements\06-07\06 Sep\[Treasurers Report September.xls]Sheet1

**CHINO BASIN WATERMASTER**
**Profit & Loss Budget vs. Actual**
**July through October 2006**

| | Jul - Oct 06 | Budget | $ Over Budget | % of Budget |
|---|---|---|---|---|
| **Ordinary Income/Expense** | | | | |
| **Income** | | | | |
| **4010 · Local Agency Subsidies** | 0 | 138,000 | -138,000 | 0.0% |
| **4110 · Admin Asmnts-Approp Pool** | 0 | 7,227,619 | -7,227,619 | 0.0% |
| **4120 · Admin Asmnts-Non-Agri Pool** | 0 | 80,586 | -80,586 | 0.0% |
| **4700 · Non Operating Revenues** | 68,513 | 136,500 | -67,987 | 50.19% |
| **Total Income** | 68,513 | 7,582,705 | -7,514,192 | 0.9% |
| **Gross Profit** | 68,513 | 7,582,705 | -7,514,192 | 0.9% |
| **Expense** | | | | |
| **6010 · Salary Costs** | 254,364 | 447,037 | -192,673 | 56.9% |
| **6020 · Office Building Expense** | 36,092 | 102,000 | -65,908 | 35.39% |
| **6030 · Office Supplies & Equip.** | 17,236 | 45,000 | -27,764 | 38.3% |
| **6040 · Postage & Printing Costs** | 32,950 | 78,500 | -45,550 | 41.97% |
| **6050 · Information Services** | 49,938 | 112,500 | -62,562 | 44.39% |
| **6060 · Contract Services** | 51,568 | 131,000 | -79,432 | 39.37% |
| **6080 · Insurance** | 0 | 25,210 | -25,210 | 0.0% |
| **6110 · Dues and Subscriptions** | 2,083 | 16,750 | -14,667 | 12.44% |
| **6140 · WM Admin Expenses** | 1,274 | 6,500 | -5,226 | 19.6% |
| **6150 · Field Supplies** | 795 | 4,000 | -3,205 | 19.88% |
| **6170 · Travel & Transportation** | 6,920 | 19,350 | -12,430 | 35.76% |
| **6190 · Conferences & Seminars** | 21,033 | 22,500 | -1,467 | 93.48% |
| **6200 · Advisory Comm - WM Board** | 3,638 | 15,168 | -11,530 | 23.99% |
| **6300 · Watermaster Board Expenses** | 11,542 | 36,955 | -25,413 | 31.23% |
| **8300 · Appr PI-WM & Pool Admin** | 7,533 | 15,918 | -8,385 | 47.32% |
| **8400 · Agri Pool-WM & Pool Admin** | 6,593 | 18,633 | -12,040 | 35.39% |
| **8467 · Agri-Pool Legal Services** | 16,069 | 65,000 | -48,931 | 24.72% |
| **8470 · Ag Meeting Attend -Special** | 2,625 | 12,000 | -9,375 | 21.88% |
| **8500 · Non-Ag PI-WM & Pool Admin** | 2,417 | 6,694 | -4,277 | 36.11% |
| **6500 · Education Funds Use Expens** | 0 | 375 | -375 | 0.0% |
| **9500 · Allocated G&A Expenditures** | -132,574 | -408,749 | 276,175 | 32.43% |
| **Subtotal G&A Expenditures** | 392,096 | 772,341 | -380,245 | 50.77% |
| **6900 · Optimum Basin Mgmt Plan** | 584,312 | 1,713,780 | -1,129,468 | 34.1% |
| **6950 · Mutual Agency Projects** | 5,216 | 5,000 | 216 | 104.32% |
| **9501 · G&A Expenses Allocated-OBMP** | 44,201 | 142,015 | -97,814 | 31.12% |
| **Subtotal OBMP Expenditures** | 633,729 | 1,860,795 | -1,227,066 | 34.06% |
| **7101 · Production Monitoring** | 39,936 | 61,565 | -21,629 | 64.87% |
| **7102 · In-line Meter Installation** | 4,820 | 64,904 | -60,084 | 7.43% |
| **7103 · Grdwtr Quality Monitoring** | 31,624 | 149,713 | -118,089 | 21.12% |
| **7104 · Gdwtr Level Monitoring** | 57,921 | 191,953 | -134,032 | 30.18% |
| **7105 · Sur Wtr Qual Monitoring** | 1,678 | 32,247 | -30,569 | 5.2% |
| **7107 · Ground Level Monitoring** | 33,042 | 160,984 | -127,942 | 20.53% |
| **7108 · Hydraulic Control Monitoring** | 82,063 | 483,258 | -401,196 | 16.98% |
| **7109 · Recharge & Well Monitoring Prog** | 15,047 | 146,350 | -131,303 | 10.28% |
| **7200 · PE2- Comp Recharge Pgm** | 690,984 | 1,822,997 | -1,132,013 | 37.9% |
| **7300 · PE3&5-Water Supply/Desalte** | 325 | 4,676 | -4,351 | 6.95% |

CHINO BASIN WATERMASTER
Profit & Loss Budget vs. Actual
July through October 2006

| | Jul - Oct 06 | Budget | $ Over Budget | % of Budget |
|---|---|---|---|---|
| 7400 · PE4- Mgmt Plan | 68,352 | 578,762 | -510,410 | 11.81% |
| 7500 · PE6&7-CoopEfforts/SaltMgmt | 77,467 | 310,507 | -233,040 | 24.95% |
| 7600 · PE8&9-StorageMgmt/Conj Use | 10,698 | 6,698 | 4,000 | 159.72% |
| 7690 · Recharge Improvement Debt Pymt | 608,415 | 1,608,000 | -999,586 | 37.84% |
| 7700 · Inactive Well Protection Prgm | 0 | 14,921 | -14,921 | 0.0% |
| 9502 · G&A Expenses Allocated-Projects | 88,372 | 266,734 | -178,362 | 33.13% |
| Subtotal Special Project Expenditures | 1,810,743 | 5,904,269 | -4,093,526 | 30.67% |
| Total Expense | 2,836,569 | 8,537,405 | -5,700,836 | 33.23% |
| Net Ordinary Income | -2,768,055 | -954,700 | -1,813,355 | 289.94% |
| Other Income/Expense | | | | |
| Other Income | | | | |
| 4210 · Approp Pool-Replenishment | 369,248 | 0 | 369,248 | 100.0% |
| Total Other Income | 369,248 | 0 | 369,248 | 100.0% |
| Other Expense | | | | |
| 5010 · Groundwater Replenishment | 1,480,310 | 0 | 1,480,310 | 100.0% |
| 9999 · To/(From) Reserves | -3,879,117 | -954,700 | -2,924,417 | 406.32% |
| Total Other Expense | -2,398,807 | -954,700 | -1,444,107 | 251.26% |
| Net Other Income | 2,768,055 | 954,700 | 1,813,355 | 289.94% |
| Net Income | | | | |



# CHINO BASIN WATERMASTER

## I. CONSENT CALENDAR

### C. WATER TRANSACTION

Consider Approval for Transaction of Notice of Sale or Transfer – The lease and/or purchase of 500 acre-feet of water from West Valley Water District's storage account to Monte Vista Water District. This lease is made first from WVWD's net underproduction, if any, in Fiscal Year 2006-07, with any remainder to be recaptured from storage. Date of application: October 31, 2006

# CHINO BASIN WATERMASTER

# NOTICE
# OF
# TRANSFER OF WATER

Notification Dated: December 8, 2006

A party to the Judgment has submitted a proposed transfer of water for Watermaster approval. Unless contrary evidence is presented to Watermaster that overcomes the rebuttable presumption provided in Section 5.3(b)(iii) of the Peace Agreement, Watermaster must find that there is "no material physical injury" and approve the transfer. Watermaster staff is not aware of any evidence to suggest that this transfer would cause material physical injury and hereby provides this notice to advise interested persons that this transfer will come before the Watermaster Board on or after 30 days from the date of this notice. The attached staff report will be included in the meeting package at the time the transfer begins the Watermaster process (comes before Watermaster).

*CHINO BASIN WATERMASTER*

# NOTICE

**OF**

## APPLICATION(S)

**RECEIVED FOR**

## WATER TRANSACTIONS – ACTIVITIES

Date of Notice:

December 8, 2006

This notice is to advise interested persons that the attached application(s) will come before the Watermaster Board on or after 30 days from the date of this notice.

## NOTICE OF APPLICATION(S) RECEIVED

Date of Application: **October 31, 2006** Date of this notice: **December 8, 2006**

Please take notice that the following Application has been received by Watermaster:

A. Notice of Sale or Transfer –The lease and/or purchase of 500 acre-feet of water from West Valley Water District's storage account to Monte Vista Water District. This lease is made first from WVWD's net underproduction, if any, in Fiscal Year 2006-07, with any remainder to be recaptured from storage.

This ***Application*** will first be considered by each of the respective pool committees on the following dates:

| | |
|---|---|
| Appropriative Pool: | December 14, 2006 |
| Non-Agricultural Pool: | December 14, 2006 |
| Agricultural Pool: | December 19, 2006 |

This ***Application*** will be scheduled for consideration by the Advisory Committee ***no earlier than thirty days from the date of this notice and a minimum of twenty-one calendar days*** after the last pool committee reviews it.

After consideration by the Advisory Committee, the ***Application*** will be considered by the Board.

Unless the ***Application*** *is* amended, parties to the Judgment may file ***Contests*** to the ***Application*** with Watermaster ***within seven calendar days*** of when the last pool committee considers it. Any ***Contest*** must be in writing and state the basis of the ***Contest***.

Watermaster address:

Chino Basin Watermaster
9641 San Bernardino Road
Rancho Cucamonga, CA 91730

Tel: (909) 484-3888
Fax: (909) 484-3890

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FOR PAGINATION

# 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:** **December 8, 2006**

**TO:** **Watermaster Interested Parties**

**SUBJECT:** **Summary and Analysis of Application for Water Transaction**

**Summary -**
There does not appear to be a potential material physical injury to a party or to the basin from the proposed transaction as presented.

**Issue -**

- Notice of Sale or Transfer – The lease and/or purchase of 500 acre-feet from West Valley Water District's storage account to Monte Vista Water District. The lease is made first from WVWD's net underproduction, if any, in Fiscal Year 2006-07, with any remainder to be recaptured from storage.

**Recommendation –**

1. Continue monitoring as planned in the Optimum Basin Management Program.
2. Use all new or revised information when analyzing the hydrologic balance and report to Watermaster if a potential for material physical injury is discovered, and
3. Watermaster approve the transaction, provided that Watermaster continue its current practice of prioritizing supplemental water recharge in Management Zone 1, pursuant to the recommendation made in Wildermuth Environmental Inc.'s December 7, 2006 analysis of material physical injury for this proposed transfer.

**Fiscal Impact –**

[ ] None
[X] Reduces assessments under the 85/15 rule
[ ] Reduce desalter replenishment costs

**Background**
The Court approved the Peace Agreement, the Implementation Plan and the goals and objectives identified in the OBMP Phase I Report on July 13, 2000, and ordered Watermaster to proceed in a manner consistent with the Peace Agreement. Under the Peace Agreement, Watermaster approval is required for applications to store, recapture, recharge or transfer water, as well as for applications for credits or reimbursements and storage and recovery programs.

Where there is no material physical injury, Watermaster must approve the transaction. Where the request for Watermaster approval is submitted by a party to the Judgment, there is a rebuttable presumption that most of the transactions do not result in Material Physical Injury to a party to the Judgment or the Basin (Storage and Recovery Programs do not have this presumption).

The following application for water transaction is attached with the notice of application.

- Notice of Sale or Transfer – The lease and/or purchase of 500 acre-feet from West Valley Water District's storage account to Monte Vista Water District. The lease is made first from WVWD's net underproduction, if any, in Fiscal Year 2006-07, with any remainder to be recaptured from storage.

Notice of the water transaction identified above was mailed on December 8, 2006 along with the materials submitted by the requestors.

**DISCUSSION**

Water transactions occur each year and are included as production by the respective entity (if produced) in any relevant analyses conducted by Watermaster pursuant to the Peace Agreement and the Rules & Regulations. Wildermuth Environmental conducted an analysis if material physical injury for the proposed transfer and that analysis is reported on in the attached report. The report states that the proposed transfer will not result in new subsidence or any other material physical injury, provided that Watermaster continue its current practice of prioritizing supplemental water recharge in Management Zone 1. This opinion pertains only to this proposed transfer and does not extend to other similar transfers in the future.

WILDERMUTH™
ENVIRONMENTAL INC.

December 7, 2006

Chino Basin Watermaster
Attention: Mr. Kenneth R. Manning, Chief Executive Officer
9641 San Bernardino Road
Rancho Cucamonga, CA 91730

**Subject: Material physical injury analysis – Monte Vista Water District (MVWD) lease of West Valley Water District (WVWD) water production rights in the Chino Basin for fiscal year 2006/07**

Dear Mr. Manning:

Per your direction, Wildermuth Environmental, Inc. (WEI) has prepared an assessment of material physical injury for the above referenced transfer of production rights pursuant to the Peace Agreement and Watermaster's Rules and Regulations. Our analysis is presented below.

**Background**

**The Proposed Transfer.** On October 31, 2006, the MVWD submitted an Application to Recapture Water in Storage to Watermaster. Attached to this application was an Application for the Sale or Transfer of Right to Produce Water from Storage, dated September 12, 2006. In the latter application, the transferring party is the WVWD and the receiving party is the MVWD. In the October 31, 2006 MVWD transmittal letter that accompanied these applications to Watermaster, the description of the proposed and complete transaction is:

> "This letter is to notify Watermaster of the lease and/or purchase of 500 acre-ft of water from West Valley Water District's storage account. This lease is made first from WVWD's net under production, if any, in Fiscal 2006-07, with any remainder to be recaptured from storage.
>
> This lease/transfer will be utilized by the District to offset a portion of its projected Fiscal Year 2006-07 replenishment obligation within the Chino Basin. Attached is an execute application for lease or transfer of a right to produce water from storage and a recapture plan for consideration by Watermaster."

**Review Process.** The Peace Agreement provides a process for the review of all proposed transfers (see Section 5.3 Transfers, pages 31 through 32). The following citations are relevant to this review.

> "Section 5.3 (a) Watermaster will ensure that any party to the judgment may Transfer water in a manner that is consistent with this Agreement, the OBMP and the law. Watermaster shall not approve a Transfer if it is inconsistent with the terms of the Agreement or will cause any Material Physical Injury to any party to the Judgment or the Basin. Any potential or threatened Material Physical Injury to any party to the Judgment or the Basin caused by the Transfer of water shall be fully and reasonably mitigated as a condition of approval. In the event that the Material Physical Injury cannot be fully and reasonably mitigated, the request for Transfer must be denied."

> "Section 5.3 (b)(ii) Watermaster shall approve the Transfer of water as provided in the Judgment so long as the individual Transfer does not result in any Material Physical Injury to any party or the Basin. Watermaster may approve a proposed Transfer with conditions that fully and reasonably mitigate any threatened or potential Material Physical Injury;"

The Watermaster Rules and Regulations essentially restate these requirements with one important exception.

> "Section 9.3 Integrated Watermaster Review. In reviewing Transfers under these Rules and Regulations, Watermaster shall exercise reasonable discretion. Watermaster shall review each proposed Transfer based upon the record before it and considering the potential impacts of the proposed Transfer alone. However, Watermaster shall also consider the cumulative impacts of Transfers generally when carrying out its responsibilities to implement the OBMP and Recharge and monitoring programs authorized by these Rules and Regulations and the Judgment."

**Potential Material Physical Injury with this Transfer.** The primary material physical injury concern regarding this transfer is subsidence; specifically, subsidence that could occur as a result of this transfer or the cumulative impact of similar transfers if this transfer is used as a precedent to allow other transfers. Figure 1 shows the areas of subsidence in MZ-1. Subsidence in the southern portion of MZ-1 (MZ-1 Managed Area) appears to have been eliminated, based on Watermaster's ground-level monitoring programs, and it is likely that subsidence will not significantly occur in the future if the Watermaster-proposed management plan is implemented. Subsidence in the central portion of MZ-1 (Central MZ-1) appears to have occurred in the recent past and, as described below, may have temporarily abated. Allowing transfers of un-pumped water from another Appropriator pumper in Management Zone 2 or 3 (MZ-2 or MZ-3) could result in lowering the recharge relative to pumping in MZ-1, which would subsequently result in lower groundwater levels, and may restart subsidence in Central MZ-1. The reconnaissance-level analysis presented below is an attempt to characterize the likelihood of this transfer reactivating subsidence in Central MZ-1.

### MZ-1 Conditions

This section contains a description of historical groundwater pumping, recharge, groundwater levels and subsidence in MZ-1 for the period that includes fiscal year 1992/93 through 2005/06. This period was chosen because it contains the most reliable combination of groundwater level and subsidence information.

**Groundwater Pumping.** Table 1 lists the annual groundwater pumping estimates in MZ-1 from fiscal year 1992/93 through 2005/06, a 14-year period. The Peace Agreement became effective in fiscal 2000/01. Table 1 therefore includes statistics to characterize the Peace Agreement period separate and apart from the pre-Peace Agreement period. This table shows that groundwater pumping in MZ-1 during the six-year period of fiscal year 2000/01 through 2005/06 ranged from a minimum of about 40,500 acre-ft/yr to a maximum of about 55,100 acre-ft/yr, totaled about 295,000 acre-ft, and averaged about 49,200 acre-ft/yr.

For the prior eight-year period of fiscal year 1992/93 through 1999/00, groundwater pumping in MZ-1 ranged from a minimum of about 40,500 acre-ft/yr to a maximum of about 54,700 acre-ft/yr, totaled about 393,900 acre-ft, and averaged about 49,200 acre-ft/yr.

The average annual pumping and the maximum and minimum years' pumping are almost identical between the two periods. Pumping by Pomona, MVWD, and the California Institution for Men (CIM) has increased since the Peace Agreement has been in effect. Pumping by Upland, Chino, Chino Hills, Ontario, the San Antonio Water Company, the Golden State Water Company, and the aggregate of all other pumpers has decreased. That said, the pumping by Pomona, MVWD and Chino Hills has dropped dramatically in the last three years of the Peace Agreement period, 2003/04 through 2005/06, as these agencies have been participating in in-lieu recharge for the Dry Year Yield (DYY) program.

**Groundwater Recharge.** Table 2 lists the annual recharge estimates in MZ-1 from fiscal year 1992/93 through October 2006. As in the case of Table 1, Table 2 includes statistics that characterize the Peace Agreement period separate and apart from the pre-Peace Agreement period. This table shows that the wet-water recharge of imported water during the six-year period of fiscal year 2000/01 through 2005/06 ranged from a minimum of about 3,600 acre-ft/yr to a maximum of about 18,900 acre-ft/yr, totaled about 49,900 acre-ft, and averaged about 8,300 acre-ft/yr.

The storm water recharge estimates are incomplete, but, based on partial estimates for the Montclair and Brooks Street Basins from fiscal year 2000/01 through 2002/03, contained in the 2004 State of the Basin Report, and estimates prepared by Watermaster staff for fiscal year 2004/05 and 2005/06, the storm water recharge during the six-year period of Fiscal 2000/01 through 2005/06 ranged from a minimum of about 900 acre-ft/yr to a maximum of about 6,700 acre-ft/yr, totaled about 16,000 acre-ft, and averaged about 3,900 acre-ft/yr. Total stormwater recharge was actually greater.

During the three-year period of fiscal year 2003/04 through 2005/06, the in-lieu recharge of the MZ-1 Appropriators through the DYY program ranged from a minimum of about 9,000 acre-ft/yr to a maximum of about 20,600 acre-ft/yr, totaled about 43,200 acre-ft, and averaged about 14,400 acre-ft/yr. There was no in-lieu recharge in MZ-1 for the period 2000/01 through 2002/03.

In total, about 109,000 acre-ft of artificial recharge has occurred in MZ-1 since the Peace Agreement became effective. Of this recharge, about 60 percent is from wet-water recharge and about 40 percent is from in-lieu means. All in-lieu recharge has occurred in the last three years of the six-year period.

**Groundwater Levels.** Figure 2 displays the groundwater level time histories for three key wells in Watermaster's MZ-1 monitoring program: CH-19, C-10, and P-11.

CH-19 is a deep well located in the MZ-1 Managed Area (perforated from 340-1,000 ft-bgs). Water levels in CH-19 have fluctuated by more than 300 feet (to depths of over 400 ft-bgs) due to pumping at the well and/or nearby deep wells. Since the implementation of the MZ-1 Interim Management Program in 2002, water levels have recovered at CH-19 to depths of less than 125 ft-bgs largely due to decreased pumping from the deep aquifer within the MZ-1 Managed Area.

C-10 is a deep well located just northeast of Central MZ-1 (perforated from 355-1,090 ft-bgs). Non-pumping water levels in C-10 have fluctuated by no more than 50 feet (between depths of 270 to 320 ft-bgs). Since 2000, water levels have been relatively stable at C-10.

P-11 is a well located just northwest of Central MZ-1 (perforated from 168-550 ft-bgs). Non-pumping water levels in P-11 have fluctuated by no more than 55 feet (between depths of 270 to 325 ft-bgs). From 1994 to about 2005, water levels at P-11 generally declined from about 270 ft-bgs to about 325 ft-bgs. Since 2005 water levels at P-11 have increased to about 280 ft-bgs.

**Subsidence.** Land subsidence has been measured in MZ-1 since the early 1990s via conventional ground level surveys. A subset of these data is displayed in Figure 2 (a benchmark in the MZ-1 Managed Area [BM-137/53 at the intersection of Schaefer and Central Avenues] and a benchmark in Central MZ-1 [BM-125/49 at the intersection of Walnut and Monte Vista Avenues]). Since 1993, subsidence has occurred in a similar pattern at both benchmarks: rapid subsidence in the early 1990s followed by a gradual slowing of subsidence from 1995-2005. Then, during the spring 2005 to spring 2006 period, both benchmarks recorded a slight rebound of the land surface. The rebound in the MZ-1 Managed Area is closely tied to the recovery of groundwater levels in the deep aquifer (as evidenced by CH-19 in Figure 2), which is due to decreased pumping from the deep aquifer. This conclusion is supported by the data that was collected and analyzed as part of the MZ-1 Interim Management Program.

The causes of rebound in Central MZ-1 are not as well understood due to the lack of a comprehensive land subsidence monitoring program in that area. This rebound does however coincide with MVWD's and Pomona's decrease in production, water level recovery within Pomona's well field to the northwest, and the significant increase in wet-water recharge in MZ-1 during the last three years, 2003/04 through 2005/06.

**Summary of Groundwater Conditions in MZ1.** Figure 2 shows the time history of recharge for fiscal years 1992/93 through 2005/06 in comparison to groundwater pumping in MZ-1, groundwater levels at three wells in MZ-1, and ground levels at two permanent benchmarks in MZ-1. This chart was prepared to compare these time histories and to see the temporal relationship among pumping, recharge, groundwater levels, and ground levels. The following observations can be made:

- Groundwater pumping in MZ-1 in aggregate during the Peace Agreement period is about equal to the pre-Peace Agreement period, although internal pumping by some entities has increased and by others has decreased. Groundwater pumping in aggregate has declined significantly over the last three years of the Peace Agreement period.
- Recharge in MZ-1 in aggregate during the Peace Agreement period has increased about 400 percent over the pre-Peace Agreement period through both wet-water and in-lieu means. Most of this increase has occurred during the last three years of the Peace Agreement period.
- Groundwater levels in the deep aquifer in the MZ-1 Managed Area have increased dramatically during the Peace Agreement period with most of this increase occurring in the last three years of the Peace Agreement period. Groundwater level data in Central MZ-1 is scarce due to a lack of wells in this area. But in the Pomona well field directly to the northwest of Central MZ-1, water levels have recovered by about 45 ft over the last two years. In the Chino area directly to the north-northeast of Central MZ-1, water levels have remained relatively constant for the past six years.
- The rate of subsidence has decreased over time. Sometime in early 2005, there was a change in curvature in the ground level time histories, indicating a reversal in subsidence (rebound) of the ground surface. This correlates temporally to the in-lieu recharge in the period 2003/04 to 2005/06; a large wet-water replenishment year in 2005/06; and a reduction in pumping by Chino Hills, MVWD, and Pomona.

### Analysis of Material Physical Injury

Given the above description of groundwater conditions in MZ-1 and the current state of subsidence, WEI evaluated the potential for material physical injury for the proposed transfer under two future operational scenarios:

- Pumping and recharge activities in 2006/07 would be similar to the last three years.
- Pumping and recharge activities during a DYY take period.

**Pumping and Recharge Activities in 2006/07 Similar to Last Three Years.** Under this scenario, there would be a continuation of the recent status quo with the exception that Watermaster replenishment in 2006/07 would be 500 acre-ft less in MZ-2 and/or MZ-3. The DYY storage account is about half full, and it was assumed that the continuation of in-lieu recharge will occur at a comparable rate for the next three years. It was also assumed that there will be replenishment water available, and Watermaster will, as is its current practice, prioritize the use of recharge basins in MZ-1 for replenishment during the next three years. There will be no new subsidence in MZ-1 from this transfer if the rate of recharge is maintained in MZ-1 and the reduction in wet-water recharge that occurs because of this transfer happens in either MZ-2 and/or MZ-3.

**Pumping and Recharge Activities during a DYY Take Period.** Under this scenario, the DYY parties would reduce their collective demand from Metropolitan for direct deliveries to their treatment plants, and there would be no replenishment water available for Watermaster. The maximum required shift from imported water to groundwater by MZ-1 Appropriators is 14,263 acre-ft/yr (City of Chino – 1,159 acre-ft/yr; City of Chino Hills – 1,148 acre-ft/yr; City of Ontario – 8,076 acre-ft/yr of which about 2,692 acre-ft/yr will be produced from MZ-1; City of Pomona – 2,000 acre-ft/yr; City of Upland – 3,001 acre-ft/yr; and MVWD – 3,963 acre-ft/yr). For a three-year period, this would total 42,789 acre-ft. In application, the total MZ-1 requirement during any take period will not exceed 42.8 percent of the water stored in Metropolitan's DYY storage account. As of June 30, 2006, about 85 percent of the 54,000 acre-ft in Metropolitan's DYY storage account had been recharged in MZ-1. If the current practice of filling the DYY account continues, there will be a net increase in storage in MZ-1 of about 42,000 acre-ft at the end of each 100,000 acre-ft put and take cycle.

In our professional opinion, there will likely be some subsidence resulting from the DYY program take and that the additional subsidence from a one-time reduction of wet-water recharge of 500 acre-ft in MZ-1 during fiscal 2006/07 would be negligible; even if Metropolitan makes a call on its DYY for the subsequent year. This additional negligible subsidence would not cause a material physical injury.

### Conclusions and Recommendations

It is our professional opinion that the proposed transfer, given the reasonable expectation of Watermaster's continued practice of prioritizing replenishment and DYY recharge to MZ-1, will not result in new subsidence and or any other material physical injury. This opinion pertains only to the proposed transfer discussed herein and does not extend to other similar transfers in the future. Should Metropolitan make a call on its DYY account in 2006/07 or later, this transfer could cause a negligible amount of subsidence however this subsidence will not result in a material physical injury.

As mentioned above in the section entitled *Subsidence*, the precise cause(s) of subsidence in Central MZ-1 are not entirely understood, and the relative contributions of recharge and local pumping to subsidence have not been estimated. We are concerned that a future proliferation of transfers of unused production

rights and water in storage from MZ-2 and MZ-3 into MZ-1 will erode the recent progress in controlling subsidence in Central MZ-1. We recommend that, until the science is done to understand the causes of subsidence in Central MZ-1, Watermaster, with the exception of the proposed transfer discussed herein, exercise restraint in approving future transfers into MZ-1.

We appreciate the opportunity to serve the Watermaster and the Parties to the Judgment. Please call me if you have any questions or need additional information.

Very truly yours,

**Wildermuth Environmental, Inc.**

Mark J. Wildermuth, PE
President

# Table 1
## Production in Management Zone 1 from Fiscal Year 1992/93 to the Present
(acre-ft)

| Year | MZ-1 Pumpers | | | | | | | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Upland | Pomona | MVWD | Chino | Chino Hills | Ontario | CIM | San Antonio Water Company | Golden State Water Company | All Others | |
| 1992/93 | 2,373 | 8,736 | 5,901 | 5,940 | 3,668 | 6,119 | 3,112 | 1,061 | 367 | 6,357 | 43,633 |
| 1993/94 | 2,182 | 10,052 | 5,788 | 4,130 | 3,710 | 4,591 | 3,629 | 740 | 199 | 5,483 | 40,505 |
| 1994/95 | 3,010 | 12,861 | 7,134 | 6,947 | 3,692 | 4,417 | 2,949 | 0 | 251 | 7,828 | 49,089 |
| 1995/96 | 2,490 | 16,517 | 6,167 | 9,145 | 4,128 | 5,799 | 3,274 | 0 | 306 | 5,596 | 53,421 |
| 1996/97 | 1,887 | 16,732 | 9,126 | 9,526 | 2,245 | 5,706 | 2,733 | 24 | 576 | 6,095 | 54,650 |
| 1997/98 | 1,924 | 14,124 | 6,829 | 7,574 | 2,909 | 5,718 | 2,660 | 0 | 380 | 3,902 | 46,020 |
| 1998/99 | 2,276 | 16,564 | 8,624 | 9,097 | 4,362 | 4,628 | 2,298 | 0 | 243 | 4,342 | 52,433 |
| 1999/00 | 1,731 | 18,966 | 9,313 | 8,438 | 4,264 | 4,588 | 2,531 | 10 | 482 | 3,853 | 54,176 |
| 2000/01 | 2,577 | 17,453 | 10,505 | 6,506 | 4,239 | 4,755 | 3,317 | 0 | 372 | 3,335 | 53,059 |
| 2001/02 | 2,390 | 17,666 | 13,405 | 5,526 | 3,605 | 4,836 | 3,883 | 0 | 225 | 3,548 | 55,084 |
| 2002/03 | 1,783 | 17,571 | 13,330 | 5,291 | 2,031 | 3,736 | 3,403 | 0 | 260 | 3,221 | 50,625 |
| 2003/04 | 1,929 | 16,110 | 13,056 | 5,381 | 2,416 | 1,263 | 3,974 | 0 | 171 | 3,356 | 47,657 |
| 2004/05 | 1,674 | 15,981 | 10,299 | 5,453 | 2,477 | 4,505 | 4,449 | 0 | 216 | 3,085 | 48,139 |
| 2005/06 | 1,394 | 9,763 | 8,585 | 5,084 | 852 | 5,589 | 6,384 | 0 | 438 | 2,378 | 40,467 |
| Totals through 1999/00 | 17,872 | 114,552 | 58,882 | 60,797 | 28,977 | 41,567 | 23,185 | 1,835 | 2,803 | 43,456 | 393,926 |
| Average through 1999/00 | 2,234 | 14,319 | 7,360 | 7,600 | 3,622 | 5,196 | 2,898 | 229 | 350 | 5,432 | 49,241 |
| Totals 2000/01 through 2005/06 | 11,745 | 94,544 | 69,180 | 33,242 | 15,620 | 24,684 | 25,411 | 0 | 1,682 | 18,923 | 295,032 |
| Average 2000/01 through 2005/06 | 1,958 | 15,757 | 11,530 | 5,540 | 2,603 | 4,114 | 4,235 | 0 | 280 | 3,154 | 49,172 |

MZ1_Production_1993-2006.xls -- Table 1
Created on 12/04/06
Printed on 12/7/2006

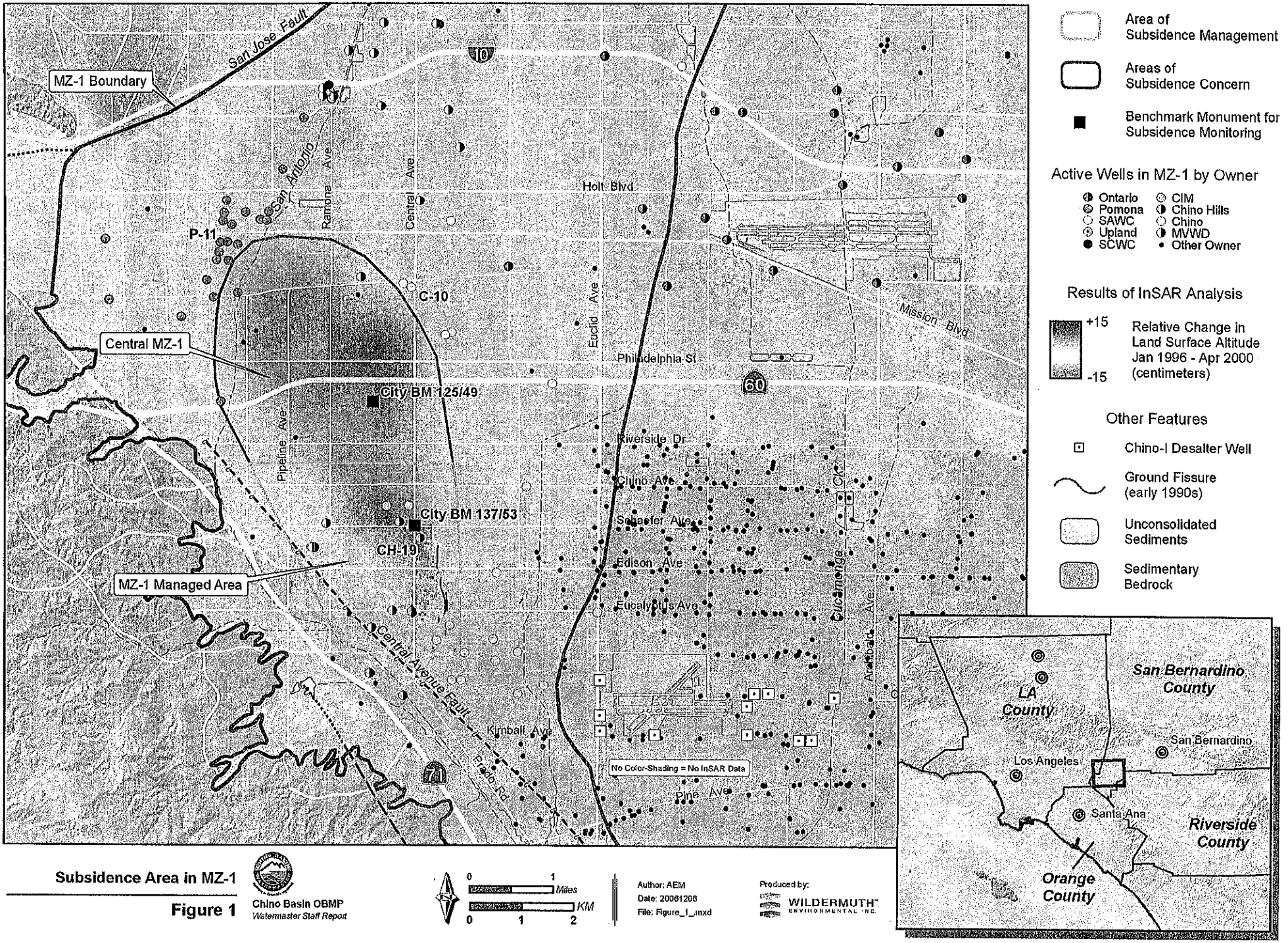
## Table 2
## Recharge in Management Zone 1 from Fiscal Year 1992/93 to the Present
(acre-ft)

| Year | Wet-Water Recharge[1] | | | | | | Cyclic, Mini Conjunctive Use, In Lieu Exchange for Replenishment, and DYY In Lieu Deliveries[1,2] | | | | | | Total Less Storm Water and Local Runoff | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 6,500 AFY Peace Agreement Obligation | Replenishment | Cyclic | DYY | Storm Water and Local Runoff[3] | Subtotal | Upland | Pomona | MVWD | Chino | Chino Hills | Subtotal | | |
| 1992/93 | 0 | 6,444 | 945 | 0 | | 7,389 | 936 | 1,593 | 289 | 356 | 189 | 3,363 | 10,752 | 10,752 |
| 1993/94 | 0 | 4,886 | 5,467 | 0 | | 10,353 | 3,696 | 6,361 | 0 | 0 | 0 | 10,057 | 20,410 | 20,410 |
| 1994/95 | 0 | 716 | 0 | 0 | | 716 | 0 | 1,051 | 0 | 0 | 0 | 1,051 | 1,767 | 1,767 |
| 1995/96 | 0 | 0 | 0 | 0 | | 0 | 1,487 | 0 | 1,697 | 0 | 285 | 3,469 | 3,469 | 3,469 |
| 1996/97 | 0 | 17 | 0 | 0 | | 17 | 0 | 0 | | 0 | 0 | 0 | 17 | 17 |
| 1997/98 | 0 | 8,323 | 0 | 0 | | 8,323 | 1,252 | 1,841 | 1,146 | 0 | 0 | 4,239 | 12,562 | 12,562 |
| 1998/99 | 0 | 3,032 | 0 | 0 | | 3,032 | 0 | 0 | 0 | 0 | 0 | 0 | 3,032 | 3,032 |
| 1999/00 | 0 | 214 | 1,001 | 0 | | 1,215 | 0 | 0 | 0 | 0 | 0 | 0 | 1,215 | 1,215 |
| 2000/01 | 6,530 | 0 | 0 | 0 | 2,890 | 9,420 | 0 | 0 | 0 | 0 | 0 | 0 | 6,530 | 9,420 |
| 2001/02 | 6,500 | 0 | 0 | 0 | 877 | 7,377 | 0 | 0 | 0 | 0 | 0 | 0 | 6,500 | 7,377 |
| 2002/03 | 6,499 | 0 | 0 | 0 | 2,004 | 8,503 | 0 | 0 | 0 | 0 | 0 | 0 | 6,499 | 8,503 |
| 2003/04 | 3,558 | 0 | 0 | 0 | | 3,558 | 0 | 0 | 4,215 | 3,265 | 1,500 | 8,980 | 12,538 | 12,538 |
| 2004/05 | 7,887 | 0 | 0 | 0 | 6,735 | 14,622 | 2,012 | 0 | 7,050 | 1,892 | 2,669 | 13,623 | 21,510 | 28,245 |
| 2005/06 | 1,526 | 17,397 | 0 | 0 | 3,413 | 22,336 | 3,001 | 4,084 | 8,500 | 1,500 | 3,550 | 20,635 | 39,558 | 42,971 |
| Totals through 1999/00 | 0 | 23,632 | 7,413 | 0 | 0 | 31,045 | 7,371 | 10,846 | 3,132 | 356 | 474 | 22,179 | 53,224 | 53,224 |
| Average through 1999/00 | 0 | 2,954 | 927 | 0 | na | 3,881 | 921 | 1,356 | 447 | 45 | 59 | 2,772 | 6,653 | 6,653 |
| Totals 2000/01 through 2005/06 | 32,500 | 17,397 | 0 | 0 | 15,919 | 65,816 | 5,013 | 4,084 | 19,765 | 6,657 | 7,719 | 43,238 | 93,135 | 109,054 |
| Average 2000/01 through 2005/06 | 5,417 | 2,900 | 0 | 0 | 3,184 | 10,969 | 1,671 | 1,361 | 6,588 | 2,219 | 2,573 | 14,413 | 24,535 | 27,918 |

1 -- Replenishment and DYY wet water recharge based on, in order of priority, MWDSC purchases from Danni Maurizio, Annual Report Appendices, Annual Recharge plans actuals report

2 -- DYY started in 2003/04. DYY In-Lieu Recharge from Danni Maurizio; average is for three-year DYY period 2003/4 through 2005/06.

3 -- From 2004 State of the Basin Report Table 6-1 and from 2004/05 afterwards from Gordon Treweek. Records are incomplete prior to 2004/05 and actual recharge is significantly larger.

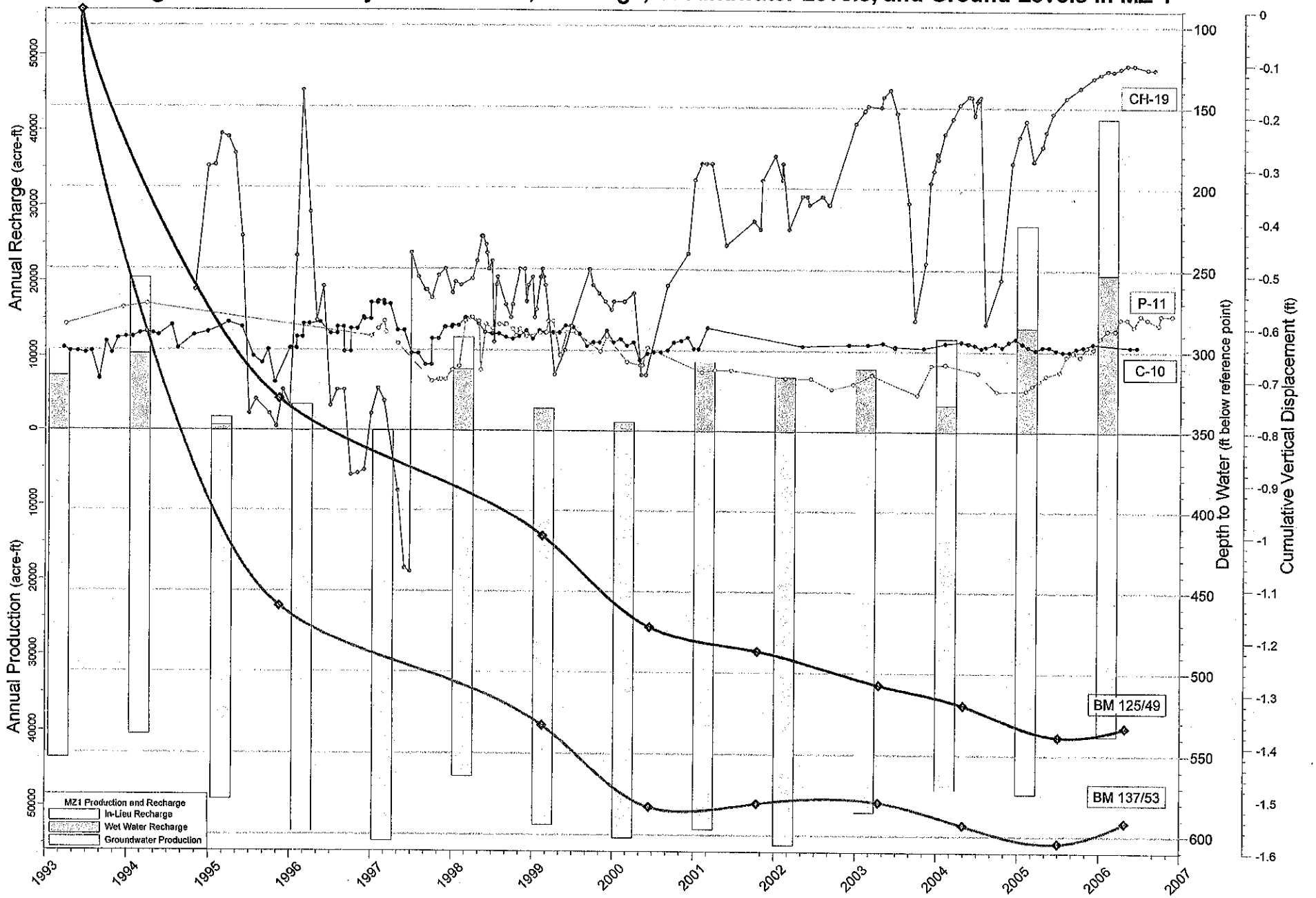



**Subsidence Area in MZ-1**

**Figure 1**

Chino Basin OBMP
*Watermaster Staff Report*

## Figure 2 - Time History of Production, Recharge, Groundwater Levels, and Ground Levels in MZ-1



Monte Vista Water District

**10575 Central Avenue**
**Montclair, California 91763**

**Telephone (909) 624-0035**
**Fax (909) 624-0037**

| | | | |
|---|---|---|---|
| **TO:** Ken Manning | **FROM:** Mark Kinsey | | |
| **COMPANY/AGENCY:** Chino Basin Watermaster | **SUBJECT:** | | |
| **FAX NUMBER:** | **DATE:** 10/31/2006 | **TIME:** 9:35:31 AM | **TOTAL PAGES:** 8 |

Please deliver these pages to the person(s) listed above. If you have difficulty receiving this transmission or if any pages are missing or illegible, please call and ask to speak to the sender listed above.



**COMMENTS:**

**Original will be sent via:**

**Mail**

# Monte Vista Water District

*Dedicated to Quality, Service and Innovation*

Mark N. Kinsey
GENERAL MANAGER

October 31, 2006



Mr. Ken Manning, Chief Executive Officer
CHINO BASIN WATERMASTER
9641 San Bernardino Road
Rancho Cucamonga, California 91730

**Lease of Water Production Rights in the Chino Basin: Fiscal Year 2006-07**

Dear Ken:

This letter is to notify Watermaster of the lease and/or purchase of 500 acre-feet of water from West Valley Water District's storage account. This lease is made first from WVWD's net underproduction, if any, in Fiscal Year 2006-07, with any remainder to be recaptured from storage.

This lease/transfer will be utilized by the District to offset a portion of its projected Fiscal Year 2006-07 replenishment obligation within the Chino Basin. Attached is an executed application for lease or transfer of a right to produce water from storage and a recapture plan for consideration by Watermaster. Please agendize this item at the earliest possible opportunity.

If you have any questions or require additional information concerning this matter, please call me at 624-0035, extension 170. Thank you.

Sincerely,

***Monte Vista Water District***

Mark N. Kinsey
General Manager

Attachments

Water District
10575 Central Avenue, Post Office box 71 • Montclair, California 91763 • (909) 624-0035 • FAX (909) 624-4725

**Form 4**

**APPLICATION OR AMENDMENT TO APPLICATION TO RECAPTURE WATER IN STORAGE**

**APPLICANT**

**Monte Vista Water District**
Name of Party

**10575 Central Avenue**
Street Address

**Montclair** | **CA** | **91763**
City | State | Zip Code

Telephone: **(909) 624-0035**

**September 12, 2006**
Date Requested

**500** Acre-feet
Amount Requested

**500 – 1,000 AF/month**
Projected Rate of Recapture

Facsimile: **(909) 624-0037**

_____
Date Approved

_____ Acre-feet
Amount Approved

**1 month**
Projected Duration of Recapture

**IS THIS AN AMENDMENT TO A PREVIOUSLY APPROVED APPLICATION?** [ ] YES [ **X** ] NO
**IF YES, ATTACH APPLICATION TO BE AMENDED**

**IDENTITY OF PERSON THAT STORED THE WATER: West Valley Water District**

**PURPOSE OF RECAPTURE**

[ ] Pump when other sources of supply are curtailed
[ **X** ] Pump to meet current or future demand over and above production right
[ ] Pump as necessary to stabilize future assessment amounts
[ ] Other, explain _____

**METHOD OF RECAPTURE (If by other than pumping) (e.g. exchange)**

**Recapture by pumping.**

**PLACE OF USE OF WATER TO BE RECAPTURED**

**For use within the Monte Vista Water District and City of Chino Hills service areas.**

**LOCATION OF RECAPTURE FACILITIES (IF DIFFERENT FROM REGULAR PRODUCTION FACILITIES).**

**Recapture to occur at regular production wells.**

**WATER QUALITY AND WATER LEVELS**

What is the existing water quality and what are the existing water levels in the areas that are likely to be affected?

**Static water levels range from 504' to 533' below ground levels. Nitrate water quality data for District wells range from 19 to 70 ppm.**

**MATERIAL PHYSICAL INJURY**

Is the Applicant aware of any potential Material Physical Injury to a party to the Judgment or the Basin that may be caused by the action covered by the application? Yes [ ] No [ X ]

If yes, what are the proposed mitigation measures, if any, that might reasonably be imposed to ensure that the action does not result in Material Physical Injury to a party to the Judgment or the Basin?
**No mitigation is required.**

**ADDITIONAL INFORMATION ATTACHED** Yes [ X ] No [ ]

**Mark N. Kinsey**
Applicant

**TO BE COMPLETED BY WATERMASTER**

DATE OF APPROVAL FROM NON-AGRICULTURAL POOL: _____

DATE OF APPROVAL FROM AGRICULTURAL POOL: _____

DATE OF APPROVAL FROM APPROPRIATIVE POOL: _____

HEARING DATE, IF ANY: _____

DATE OF ADVISORY COMMITTEE APPROVAL: _____

DATE OF BOARD APPROVAL: _____ Agreement #_____

# MONTE VISTA WATER DISTRICT

## Recapture Plan

Location of where the recaptured water will be extracted by the District is within Management Zone 1 of the Chino Basin and will be accomplished by any or all of the 10 wells owned and operated by the District. The approximate daily production capacity of these wells is noted below.

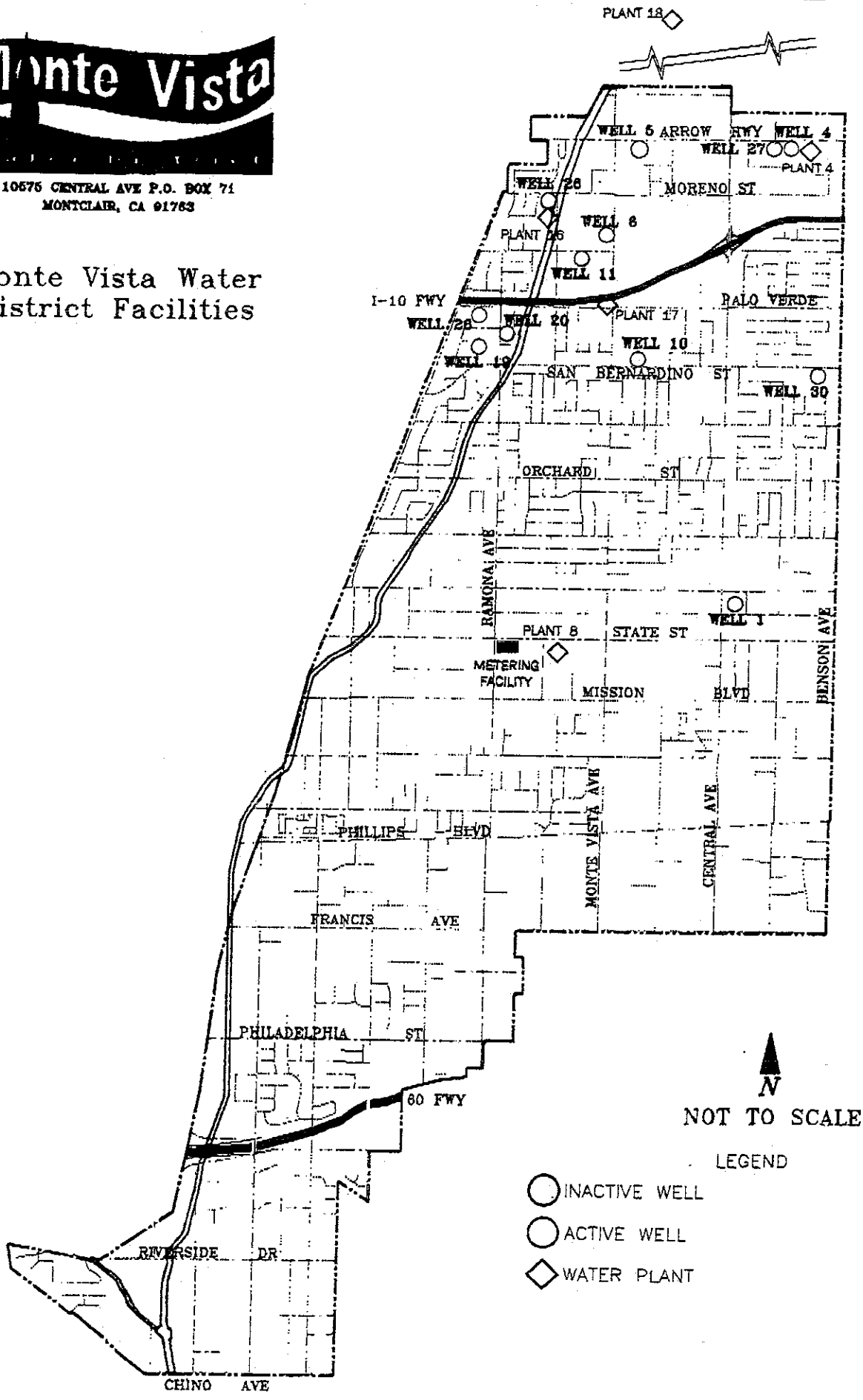
The 500 AF transfer will be utilized for delivery to the District's retail customers, for delivery to the City of Chino Hills, or to offset the District's Fiscal Year 2006-07 replenishment obligation resulting from actual groundwater production or from the District's participation in in-lieu deliveries to Metropolitan's Dry-Year Yield Storage Account within the Chino Basin.

| Well | Production Acre-Feet/Day |
|---|---|
| 4 | 4.2 |
| 5 | 6.1 |
| 6 | 5.2 |
| 10 | 5.2 |
| 19 | 9.0 |
| 20 | 5.8 |
| 26 | 9.0 |
| 27 | 9.0 |
| 28 | 9.0 |
| 30 | 9.0 |
| Daily Total | 71.5 |

A map showing the location of these wells is attached. The rate of extraction can vary significantly, depending upon system demand and seasonal changes.

Monte Vista
10575 CENTRAL AVE P.O. BOX 71
MONTCLAIR, CA 91763

# Monte Vista Water District Facilities



# APPLICATION FOR SALE OR TRANSFER OF RIGHT TO PRODUCE WATER FROM STORAGE

Transfer from Local Storage Agreement: **25**

Date Requested: **September 12, 2006**

Transferring Party: **West Valley Water District**

Date Approved:

Address: **855 West Base Line**
**Rialto, California 92377-0920**

Amount Requested (AF): **500**

Telephone: **(909) 875-1804**

Amount Approved (AF):

Fax: **(909) 875-7284**

**Applicant: Anthony W. Araiza, General Manager**

---

**Attach Recapture Form 4**

Receiving Party: **Monte Vista Water District**

Address: **10575 Central Avenue**
**Montclair, California 91763**

Telephone: **(909) 624-0035**

Fax: **(909) 624-0037**

Have any other transfers been approved by Watermaster between these parties covering the same fiscal year? ☐ Yes ☒ No

Water Quality and Water Levels:

What is the existing water quality and what are the existing water levels in the areas that are likely to be affected?

**Static water levels range from 504' to 533' below ground levels. Nitrate concentrations range between 19 to 70 ppm.**

Material Physical Injury:

Is the applicant aware of any potential material physical injury to a part to the Judgment or the Basin that may be caused by the action covered by the application? ☐ Yes ☒ No

If yes, what are the proposed mitigation measures, if any, that might reasonably be imposed to ensure that the action does not result in material physical injury to a part to the Judgment or the Basin?

**N/A**

Additional information attached? ☐ Yes ☒ No

**Applicant: Mark N. Kinsey, General Manager**

To be completed by Watermaster:

Date of approval from Non-Agricultural Pool:

Date of approval from Agricultural Pool:

Date of approval from Appropriative Pool:

Hearing date, if any:

Date of Advisory Committee approval:

Date of Board approval:

Agreement Number:

# CHINO BASIN WATERMASTER

## II. BUSINESS ITEM

### A. DR. SUNDING ECONOMIC BENEFITS REPORT

# 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:** **December 14, 2006**
**December 19, 2006**
**December 21, 2006**

**TO:** **Committee Members**
**Watermaster Board Members**

**SUBJECT:** **Macro-Level Economic Analysis by Dr. David Sunding**

## SUMMARY


***Recommendation*** – Staff recommends that the Pools recommend that the Advisory Committee and Board receive and file the report.

***Fiscal Impact*** – None


## BACKGROUND

The Stakeholder Non-Binding Term Sheet dated May 23, 2006, included a number of pre-conditions to a binding agreement. One of these was that Watermaster was to retain the services of an independent competent economist with experience in evaluating water markets and water projects to provide an evaluation of the macro costs and benefits to the parties as a whole that are attributable to Hydraulic Control, Basin Re-Operation and Desalter elements of the Non-Binding Term Sheet. (Non-Binding Term Sheet section I.A.2.)

Pursuant to this section, Watermaster retained the services of Dr. David Sunding. Dr. Sunding is an principal with the firm CRA International, Inc. and a professor College of Natural Resources University of California at Berkeley.

Dr. Sunding completed an initial draft of his report in July 2006, and the results of this draft were presented to the parties and the Referee at the workshop held at the Watermaster offices on July 26, 2006.

The parties provided Dr. Sunding numerous comments to the report both at the workshop and subsequent to the workshop. Since the workshop Dr. Sunding has worked closely with staff and Wildermuth Environmental in order to better understand Hydraulic Control and Basin Re-Operation in order to respond to the comments received. The final report included in this agenda package represents the revisions that have occurred in response to comments received from the parties and Dr. Sunding's further understanding of the project.

Various scenarios are considered in the analysis, with scenarios chosen to reflect uncertainty regarding future values of water, the time path of annual schedules regarding Re-Operation, and the use to which induced inflow is attributed. Depending on the scenario chosen, Dr. Sunding finds that the macro-level benefits of achieving Hydraulic Control through Basin Re-Operation range between $283.1 million and $438.8 million in 2006 dollars.

Staff recommends that the Pools recommend that the report be received and filed.

# Analysis of Aggregate Costs and Benefits of Hydraulic Control, Basin Re-Operation and Desalter Elements of Non-Binding Term Sheet

Prof. David Sunding
UC Berkeley

November 29, 2006

**Summary**

The report measures the economic costs and benefits of achieving hydraulic control through re-operation of the Chino Basin. Various scenarios are considered in the analysis, with scenarios chosen to reflect uncertainty regarding future values of water, the time path of annual overdrafts selected to dewater the basin, and the use of the resulting induced inflow from the Santa Ana River. As shown in Table 1, depending on the scenario chosen, the net benefits of achieving hydraulic control through basin re-operation range between $283.1 million and $438.8 million in 2006 dollars.

## 1. Introduction

Hydraulic control refers to the elimination or reduction to negligible quantities of discharge from the Chino North Management Zone to the Santa Ana River. Basin re-operation is defined as the increase in controlled overdraft as defined in the Judgment from 200,000 acre-feet over the period 1978 through 2017, to 600,000 acre-feet through 2030 with the 400,000 acre-feet allocated specifically to meet the replenishment obligation of the desalters.

## 2. Framework

The model of groundwater value used in this report is standard in the academic literature.[1] The net benefits in each period resulting from access to a groundwater resource are the gains from pumping (i.e., the demand for water) minus the costs of extraction in the current period and a "user cost" term that reflects the change in future consumption possibilities resulting from current choices. The stream of annual net benefits is then discounted back to current dollars using a discount factor predicated on the rate of interest.

[1] Brozovic, N., D. Sunding and D. Zilberman, "Optimal Management of Groundwater Over Space and Time." *Frontiers in Water Resource Economics*. D. Berga and R. Goetz, eds. New York: Springer-Verlag, 2005; Gisser, M., and Sanchez, D.A. "Competition versus Optimal Control in Groundwater Pumping." *Water Resources Research* (1980): 638-642; Brown, G., Jr., and Deacon, R. "Economic Optimization of a Single-Cell Aquifer." *Water Resources Research* (1975): 557-564.

The interest rate used in the analysis is 5.5%. This rate corresponds to the current risk-free long-term rate of interest, a relevant rate for public agencies with good credit. The discount factor for a payment occurring in some future period $t$ is then $(1.055)^{-t} \approx e^{-0.055t}$.

Let $y_t$ denote groundwater produced during period $t$, and $x_t$ equal the stock of groundwater at beginning of period $t$. The value of the groundwater resource is then

$$Value = \sum_{t=0}^{\infty} (1+r)^{-t} \left[ B(y_t) - C(x_t, y_t) \right],$$

where $B(y_t)$ denotes the benefits from groundwater production in period t, and $C(x_t, y_t)$ is the cost of extraction and recharge. In an economic optimization model, the problem is to find the time path of production and stock that maximizes the present value of access to the aquifer, subject to physical constraints such as the equation of motion $x_{t+1} = x_t + g(x_t, y_t) - y_t$ (where $g(x_t, y_t)$ denotes natural and artificial recharge) and regulatory constraints such as water quality objectives and requirements to operate the basin in a steady-state condition.

Viewed this way, basin re-operation and its alternatives can be modeled as different evolutions of production, stock and recharge. The net benefit of a particular basin re-operation strategy versus a baseline that maintains the current stock of groundwater is the difference of present value resulting from a particular choice of these policy variables.

The study period extends indefinitely into the future, but the period between the present and 2030 is modeled in more detail. This feature results from the fact that the Peace Agreement lasts until 2030, and more detailed environmental and water use modeling is available to this date. As described below, terminal values are assigned to key parameters from 2031 on, and at this point the groundwater system in the Chino Basin is assumed to enter into a steady state, with no expected change in production, groundwater elevation or recharge amounts.

Table 2 displays the assumptions made about groundwater production from the Chino Basin. All figures in the table are common to all scenarios considered, and thus these assumptions are not the basis for differences in value between scenarios. The table shows groundwater production increasing steadily throughout the study period. Desalter production is also increasing throughout the study period. Operating yield is set at 145,000 acre-feet through 2017, at which point it declines to 140,000 acre-feet annually. Finally, new stormwater recharge is assumed to be 12,000 acre-feet annually.

It is necessary to describe a scenario without basin re-operation in order to calculate the net benefits, if any, from this type of strategy. Table 3 displays the physical consequences of such an alternative. If the basin is not de-watered, then hydraulic control will not be achieved, and there will be water quality costs as a result. One such consequence is that relatively high-quality water must be used for recharge. In particular, the Basin would lose the ability to use relatively inexpensive recycled water for replenishment purposes

and would be forced to use water purchased from MWD instead.[2] Thus, Table 3 shows that the entire replenishment obligation for both normal and desalter production is met through the purchase of replenishment water from MWD.

In the event that hydraulic control is achieved, there are two types of benefits to the Chino Basin as a whole. The first benefit relates to water quality. As discussed above, if hydraulic control is achieved, then recycled water can be used for 30% of the total Basin replenishment obligation, up to an assumed capacity of 30,000 acre-feet annually.[3] The second benefit is that lowering the groundwater elevation in the Basin induces an inflow of water from the Santa Ana River. Specifically, forgiving a reduction in the stock of groundwater in the Basin results in an average of 9,900 acre-feet annually until the 400,000 acre-feet of depletion credits are exhausted, and then 12,500 acre-feet annually thereafter. This natural recharge is new yield in the Basin; as discussed below, it can be used either for reducing the desalter replenishment obligation or as an asset in its own right.

## 3. Scenarios

The valuation model is implemented under a variety of assumptions about how re-operation will occur, how the Santa Ana River inflows are treated, and the level of future water prices. This section describes the construction of alternative scenarios.

*Implementation of Basin Re-Operation*

The basic principle of basin re-operation is that it is a means of achieving hydraulic control by increasing cumulative overdraft by 400,000 acre-feet through 2030. Overdraft is to be achieved by forgiving the replenishment obligation of the desalters by some annual amount over a defined period of time. This general principle is silent about *how* the total quantity of forgiveness of desalter replenishment is to be allocated over time.

This analysis considers two possible implementation scenarios. The first scenario, termed the straightline alternative, envisions an annual overdraft of 20,346 acre-feet occurring until 2030, at which time the annual overdraft would fall to zero and the system is assumed to enter into a new steady-state from 2031 onward. The second scenario, called the most rapid depletion path alternative, sets the annual overdraft to eliminate the desalter replenishment obligation for as long as possible.

Tables 4 and 7 display annual overdraft amounts under these two alternatives for implementing basin re-operation. As described, the straightline alternative entails constant annual overdraft quantities, resetting to zero from 2031 onwards. The most rapid

[2] Alternatively, recycled water would have to be desalted prior to recharge. Costs are not available at this time for this option.

[3] Assumptions provided by Watermaster staff. If hydraulic control is achieved, it may be possible to increase this limit. In this case, the benefits resulting from basin re-operation would increase.

depletion path reaches a maximum annual overdraft of 30,289 acre-feet before dropping to zero in 2020.

*Allocation of Induced Santa Ana River Inflow*

A second dimension along which the scenarios vary is with regard to the allocation of Santa Ana River inflows induced by the reduction of the groundwater stock. A total of 12,500 acre-feet of new yield is assumed to result from the dewatering, and the scenarios differ in terms of the use of this new yield. One scenario allocates all Santa Ana River inflows from re-operation to reducing the desalter replenishment obligation. An alternative scenario treats these inflows as a resource to be used for any purpose; consequently, desalter replenishment obligations are higher under this assumption.

Tables 5 and 6 relate to the straightline depletion case and show replenishment obligations and sources under the two Santa Ana River inflow allocation alternatives. In Table 5, new yield is allocated to desalter replenishment, and the desalter replenishment obligation is negligible in the near term and reaches a maximum of 9,943 acre-feet during the study period. In Table 6, by contrast, total replenishment obligations are higher since the new yield can be used for any chosen purpose.

Tables 8 and 9 show replenishment obligations under the most rapid depletion path scenario. Results are similar as in the straightline depletion scenario, with the exception that desalter replenishment is forestalled until 2025 if new yield is allocated to this purpose.

*Future Water Prices*

Given the important role of relative prices in the economic analysis, and given uncertainties regarding the evolution of water values in Southern California, the analysis considers two alternative scenarios regarding future water prices. These scenarios are taken from MWD and are commonly referred to as the high rate and low rate scenarios. MWD scenarios cover Tier 1 and Tier 2 water, as well as replenishment water. The high rate scenario has the Tier 2 rate growing at an annual rate of 3.11% for the next five years, and then by 4.50% from 2011 to 2030. The replenishment rate grows at 6.94% through 2011, and then at 4.50% to 2030. In the low rate scenario, the Tier 2 rate grows by 2.28% annually for the next five years, and then by 3.00% from 2011 to 2030. The replenishment rate is assumed to grow by 4.79% through 2011, and by 3.00% thereafter.

The current price of recycled water for replenishment is assumed to be $69 per acre-foot.[4] In the high rate scenario, this price was assumed to grow at the same rate of inflation as

[4] One public comment received after the July 26, 2006 presentation stated that the actual price paid for recycled water should be used in the analysis. While this price is not yet known, it is likely to exceed $69 per acre-foot. Note, however, that this study considers the aggregate costs and benefits of elements of the non-binding term sheet. Thus, changes in the price of recycled water have distributional as opposed to efficiency effects, that is, they change the relative level of benefits enjoyed by the parties in the Chino Basin rather than affecting the total level of benefits.

the Tier 2 and MWD replenishment prices: 4.50%. Similarly, the recycled water price grows by 3.00% annually in the low rate scenario.

**4. Other Effects of Basin Re-Operation**

An additional benefit of hydraulic control is a reduction in storage losses. Measuring the value of reduced storage losses is conditioned on several factors that are not fully known at present. Of course, the ex post performance of any groundwater storage program depends on the sequence of puts and takes, which depend in turn on the sequence of wet and dry years. Based on conversations with Watermaster staff, the groundwater storage program is assumed to be 400,000 acre-feet over the study period, but may range from 300,000 to 500,000 acre-feet.[5] Calculations provided by Wildermuth Environmental detail the relationship between average storage over the life of the MWD Dry Year Yield program and associated losses at 0.66 and 2 percent. Table 12 summarizes cumulative losses through 2028, together with present values calculated using the high and low rate scenarios for MWD replenishment rates as described above.

Assuming 2 percent loss and a 400,000 acre-foot storage program, the present value of reduced storage losses is $24.9 million in 2006 dollars in the high rate scenario and $20.4 million in the low rate scenario. These calculations are performed ex ante, and the actual magnitude of reduced storage losses will depend on factors including the size of the storage program, the percentage storage loss, the timing of puts and takes, and the actual replenishment rates charged by MWD. For the purpose of aggregating reduced storage loss benefits with other benefits and costs of basin re-operation, we will assume a 400,000 acre-foot storage program for both the high and low rate scenarios with storage losses equal to half of the amounts in Table 12 (recall that storage losses could range from 0 to 2 percent). The corresponding values of reduced storage losses are $12.4 million and $10.2 million for the high and low rate scenarios, respectively.

Achieving hydraulic control through basin re-operation will also result in higher pumping costs since forgiveness of the desalter replenishment operation is intended to lower the groundwater elevation in certain regions. The information needed to calculate the present value of increased pumping costs includes the quantity-weighted average change in lift in the Basin resulting from re-operation, the energy requirement per unit lift and energy costs per kilowatt-hour. Wildermuth Environmental provided the weighted average changes in groundwater elevation. The price of electricity is assumed to be $0.14/kwh, and the pumping efficiency is taken to be 75 percent. The California Energy Commission forecasts that commercial and agricultural electricity rates charged by investor-owner utilities operating in California will decline slightly in nominal terms until 2013, when

[5] The Peace Agreement provides that there is Target Storage of 500,000 acre-feet *in excess* of then existing storage, whereas this report only considers the Safe Harbor quantity of 500,000 acre-feet of storage in total. In some sense, there is a tradeoff between the decision to pursue max-benefit and the feasibility of obtaining the higher amount of storage. It should also be noted, however, that the basin is at the limit of shift capacity for export, and expansion of recharge to achieve greater storage is costly. Further, the PEIR only considered an additional 250,000 acre-feet of storage.

their forecast terminates.[6] This analysis assumes that nominal electricity prices are constant.

Combining this information, increased pump lift costs have a present value of $14.9 million in the straightline depletion scenario. In the rapid pulldown scenario, re-operation has a larger impact on the present value of energy costs since the groundwater elevation is reduced to the same level but at an earlier date. Increased energy costs have a present value of $19.4 million in this scenario. Both calculations include increased energy costs in the new basin steady state achieved after 2030.

## 5. Results

Table 1 summarizes the results of the economic analysis. The figures in the table are the net benefits resulting from access to the Chino Basin aquifer under the alternative management and price scenarios described in the previous section. In all cases, basin re-operation results in aggregate net benefits. However, there are significant differences in net benefits depending on the realization of future water prices and the use of Santa Ana River inflows induced by reducing the stock of groundwater. The rapidity with which basin re-operation is implemented matters less.

When Santa Ana River inflow is allocated to desalter replenishment and overdraft occurs in constant annual amounts to 2030, basin re-operation results in gains of between $283.1 and $391.4 million in present value terms, depending on the growth of water prices and how the replenishment credit is used over time. These gains result from the ability to use recycled water for a fraction of recharge if hydraulic control is achieved, the value of new yield, and the value of the forgiven desalter replenishment.[7]

Since new yield is reliable, in any case more reliable than a supply of replenishment water, allocating it to desalter replenishment would seem to be inefficient. The Tier 2 rate is well above the price of replenishment water, which is a weighted average of the MWD replenishment rate and the price of recycled water. When Santa Ana River inflows are decoupled from replenishment obligations, the gains from straightline basin re-operation are between $341.9 and $438.8 million.

There is a small increase in the net benefits of basin re-operation when the most rapid overdraft strategy is implemented. Several factors explain this result. First, in the most rapid depletion scenario, the 30,000 acre-foot constraint on annual recycling recharge binds more frequently. Accordingly, less recycled water is recharged over the study

[6] http://www.energy.ca.gov/electricity/rates_iou_vs_muni_nominal/medium_commercial.html; http://www.energy.ca.gov/electricity/rates_iou_vs_muni_nominal/agricultural.html

[7] Another potential source of loss is the option value of the water taken from the groundwater stock. That is, water used to avoid desalter replenishment is water that is not available in the event of a major disruption in surface water supplies to the region. Given the difficulty of describing and quantifying these future states of nature, option values have not been calculated. However, conversations with Watermaster staff indicate that dewatering will not result in any meaningful loss of operational flexibility since the percentage depletion of the aquifer envisioned through re-operation is relatively small.

period under this scenario. Second, while the most rapid depletion strategy delays replenishment, it also hastens the date at which a large replenishment obligation occurs once the desalter replenishment forgiveness of 400,000 acre-feet is exhausted.[8] Given the relatively low real discount rate used in this study (i.e., the nominal discount rate minus the rate of growth of water prices), it is not surprising that dynamic factors such as this do not have a large effect on net benefits.

[8] This study has not considered the capital and operating costs of expanding recharge capacity. Allocating Santa Ana River inflows to desalter replenishment delays the date at which capacity is exceeded, as does the most rapid depletion strategy.

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**Table 1: Net Benefits of Hydraulic Control, Basin Re-Operation and Desalter Production**

(Figures in millions of 2006 dollars)

*Gain Over Baseline: SAR Inflow Allocated to Desalter Replenishment*

| | *High Rate* | *Low Rate* |
|---|---|---|
| *Straightline* | 388.6 | 283.1 |
| *Most Rapid* | 391.4 | 288.4 |

*Gain Over Baseline: SAR Inflow Unallocated*

| | *High Rate* | *Low Rate* |
|---|---|---|
| *Straightline* | 436.2 | 341.9 |
| *Most Rapid* | 438.8 | 347.7 |

Source: Calculated.

**Table 2: Production, Operating Yield and Stormwater Recharge**

| *Year* | *Total Production* | *Chino Desalter Production* | *Operating Yield* | *New Stormwater Recharge* |
|---|---|---|---|---|
| 2006 | 223,505 | 30,019 | 145,000 | 12,000 |
| 2007 | 230,566 | 31,923 | 145,000 | 12,000 |
| 2008 | 237,634 | 33,827 | 145,000 | 12,000 |
| 2009 | 244,702 | 35,731 | 145,000 | 12,000 |
| 2010 | 251,874 | 37,748 | 145,000 | 12,000 |
| 2011 | 251,768 | 38,980 | 145,000 | 12,000 |
| 2012 | 251,661 | 40,212 | 145,000 | 12,000 |
| 2013 | 251,551 | 41,445 | 145,000 | 12,000 |
| 2014 | 251,557 | 42,789 | 145,000 | 12,000 |
| 2015 | 250,216 | 42,789 | 145,000 | 12,000 |
| 2016 | 250,427 | 42,789 | 145,000 | 12,000 |
| 2017 | 250,640 | 42,789 | 145,000 | 12,000 |
| 2018 | 250,851 | 42,789 | 140,000 | 12,000 |
| 2019 | 251,060 | 42,789 | 140,000 | 12,000 |
| 2020 | 251,270 | 42,789 | 140,000 | 12,000 |
| 2021 | 254,049 | 42,789 | 140,000 | 12,000 |
| 2022 | 256,827 | 42,789 | 140,000 | 12,000 |
| 2023 | 259,605 | 42,789 | 140,000 | 12,000 |
| 2024 | 262,384 | 42,789 | 140,000 | 12,000 |
| 2025 | 265,163 | 42,789 | 140,000 | 12,000 |
| 2026 | 266,133 | 42,789 | 140,000 | 12,000 |
| 2027 | 267,104 | 42,789 | 140,000 | 12,000 |
| 2028 | 268,074 | 42,789 | 140,000 | 12,000 |
| 2029 | 269,044 | 42,789 | 140,000 | 12,000 |
| 2030 | 270,014 | 42,789 | 140,000 | 12,000 |

Source: Wildermuth Environmental.

**Table 3: Replenishment Obligations and Sources – No Basin Re-Operation**

| *Year* | *Normal Production Replenishment Obligation* | *Chino Desalter Replenishment Obligation* | *MWD Replenishment* | *Recycling Replenishment* |
|---|---|---|---|---|
| 2006 | 36,487 | 30,019 | 66,505 | 0 |
| 2007 | 41,643 | 31,923 | 73,566 | 0 |
| 2008 | 46,806 | 33,827 | 80,634 | 0 |
| 2009 | 51,970 | 35,731 | 87,702 | 0 |
| 2010 | 57,126 | 37,748 | 94,874 | 0 |
| 2011 | 55,788 | 38,980 | 94,768 | 0 |
| 2012 | 54,448 | 40,212 | 94,661 | 0 |
| 2013 | 53,107 | 41,445 | 94,551 | 0 |
| 2014 | 51,768 | 42,789 | 94,557 | 0 |
| 2015 | 50,427 | 42,789 | 93,216 | 0 |
| 2016 | 50,638 | 42,789 | 93,427 | 0 |
| 2017 | 50,851 | 42,789 | 93,640 | 0 |
| 2018 | 56,062 | 42,789 | 98,851 | 0 |
| 2019 | 56,271 | 42,789 | 99,060 | 0 |
| 2020 | 56,482 | 42,789 | 99,270 | 0 |
| 2021 | 59,260 | 42,789 | 102,049 | 0 |
| 2022 | 62,038 | 42,789 | 104,827 | 0 |
| 2023 | 64,816 | 42,789 | 107,605 | 0 |
| 2024 | 67,595 | 42,789 | 110,384 | 0 |
| 2025 | 70,374 | 42,789 | 113,163 | 0 |
| 2026 | 71,344 | 42,789 | 114,133 | 0 |
| 2027 | 72,315 | 42,789 | 115,104 | 0 |
| 2028 | 73,285 | 42,789 | 116,074 | 0 |
| 2029 | 74,255 | 42,789 | 117,044 | 0 |
| 2030 | 75,225 | 42,789 | 118,014 | 0 |

Source: Calculated.

Normal Production Replenishment Obligation = Total Production – Desalter Production – Operating Yield – New Stormwater Recharge

Desalter Replenishment Obligation = Desalter Production

**Table 4: Overdraft and SAR Inflow – Straightline Depletion Scenario**

| *Year* | *Annual Overdraft* | *Cumulative Overdraft* | *SAR Inflow* |
|---|---|---|---|
| 2006 | 16,000 | 16,000 | 9,900 |
| 2007 | 16,000 | 32,000 | 9,900 |
| 2008 | 16,000 | 48,000 | 9,900 |
| 2009 | 16,000 | 64,000 | 9,900 |
| 2010 | 16,000 | 80,000 | 9,900 |
| 2011 | 16,000 | 96,000 | 9,900 |
| 2012 | 16,000 | 112,000 | 9,900 |
| 2013 | 16,000 | 128,000 | 9,900 |
| 2014 | 16,000 | 144,000 | 9,900 |
| 2015 | 16,000 | 160,000 | 9,900 |
| 2016 | 16,000 | 176,000 | 9,900 |
| 2017 | 16,000 | 192,000 | 9,900 |
| 2018 | 16,000 | 208,000 | 9,900 |
| 2019 | 16,000 | 224,000 | 9,900 |
| 2020 | 16,000 | 240,000 | 9,900 |
| 2021 | 16,000 | 256,000 | 9,900 |
| 2022 | 16,000 | 272,000 | 9,900 |
| 2023 | 16,000 | 288,000 | 9,900 |
| 2024 | 16,000 | 304,000 | 9,900 |
| 2025 | 16,000 | 320,000 | 9,900 |
| 2026 | 16,000 | 336,000 | 9,900 |
| 2027 | 16,000 | 352,000 | 9,900 |
| 2028 | 16,000 | 368,000 | 9,900 |
| 2029 | 16,000 | 384,000 | 9,900 |
| 2030 | 16,000 | 400,000 | 9,900 |

Sources: Annual and Cumulative Overdraft: Assumed; SAR Inflow, Wildermuth Environmental.

**Table 5: Replenishment Obligations and Sources – Straightline Depletion Scenario with SAR Inflow Allocated to Desalter Replenishment**

| *Year* | *Normal Production Replenishment Obligation* | *Chino Desalter Replenishment Obligation* | *MWD Replenishment* | *Recycling Replenishment* |
|---|---|---|---|---|
| 2006 | 36,487 | 4,119 | 28,424 | 12,182 |
| 2007 | 41,643 | 6,023 | 33,366 | 14,300 |
| 2008 | 46,806 | 7,927 | 38,314 | 16,420 |
| 2009 | 51,970 | 9,831 | 43,261 | 18,541 |
| 2010 | 57,126 | 11,848 | 48,282 | 20,692 |
| 2011 | 55,788 | 13,080 | 48,208 | 20,660 |
| 2012 | 54,448 | 14,312 | 48,133 | 20,628 |
| 2013 | 53,107 | 15,545 | 48,056 | 20,595 |
| 2014 | 51,768 | 16,889 | 48,060 | 20,597 |
| 2015 | 50,427 | 16,889 | 47,121 | 20,195 |
| 2016 | 50,638 | 16,889 | 47,269 | 20,258 |
| 2017 | 50,851 | 16,889 | 47,418 | 20,322 |
| 2018 | 56,062 | 16,889 | 51,065 | 21,885 |
| 2019 | 56,271 | 16,889 | 51,212 | 21,948 |
| 2020 | 56,482 | 16,889 | 51,359 | 22,011 |
| 2021 | 59,260 | 16,889 | 53,304 | 22,845 |
| 2022 | 62,038 | 16,889 | 55,249 | 23,678 |
| 2023 | 64,816 | 16,889 | 57,194 | 24,512 |
| 2024 | 67,595 | 16,889 | 59,139 | 25,345 |
| 2025 | 70,374 | 16,889 | 61,084 | 26,179 |
| 2026 | 71,344 | 16,889 | 61,763 | 26,470 |
| 2027 | 72,315 | 16,889 | 62,443 | 26,761 |
| 2028 | 73,285 | 16,889 | 63,121 | 27,052 |
| 2029 | 74,255 | 16,889 | 63,801 | 27,343 |
| 2030 | 75,225 | 16,889 | 64,480 | 27,634 |

Source: Calculated.

Normal Production Replenishment Obligation = Total Production – Desalter Production – Operating Yield – New Stormwater Recharge

Desalter Replenishment Obligation = Desalter Production – Annual Overdraft – SAR Inflow

Recycling Replenishment = min[0.3*(Normal Production Replenishment Obligation + Desalter Replenishment Obligation), 30,000]

MWD Replenishment = Normal Production Replenishment Obligation + Desalter Replenishment Obligation - Recycling Replenishment

**Table 6: Replenishment Obligations and Sources – Straightline Depletion Scenario with SAR Inflow Unllocated**

| *Year* | *Total Replenishment Obligation* | *MWD Replenishment* | *Recycling Replenishment* |
|---|---|---|---|
| 2006 | 50,505 | 35,354 | 15,152 |
| 2007 | 57,566 | 40,296 | 17,270 |
| 2008 | 64,634 | 45,244 | 19,390 |
| 2009 | 71,702 | 50,191 | 21,511 |
| 2010 | 78,874 | 55,212 | 23,662 |
| 2011 | 78,768 | 55,138 | 23,630 |
| 2012 | 78,661 | 55,063 | 23,598 |
| 2013 | 78,551 | 54,986 | 23,565 |
| 2014 | 78,557 | 54,990 | 23,567 |
| 2015 | 77,216 | 54,051 | 23,165 |
| 2016 | 77,427 | 54,199 | 23,228 |
| 2017 | 77,640 | 54,348 | 23,292 |
| 2018 | 82,851 | 57,995 | 24,855 |
| 2019 | 83,060 | 58,142 | 24,918 |
| 2020 | 83,270 | 58,289 | 24,981 |
| 2021 | 86,049 | 60,234 | 25,815 |
| 2022 | 88,827 | 62,179 | 26,648 |
| 2023 | 91,605 | 64,124 | 27,482 |
| 2024 | 94,384 | 66,069 | 28,315 |
| 2025 | 97,163 | 68,014 | 29,149 |
| 2026 | 98,133 | 68,693 | 29,440 |
| 2027 | 99,104 | 69,373 | 29,731 |
| 2028 | 100,074 | 70,074 | 30,000 |
| 2029 | 101,044 | 71,044 | 30,000 |
| 2030 | 102,014 | 72,014 | 30,000 |

Source: Calculated.

Total Replenishment Obligation = Total Production – Operating Yield – Annual Overdraft – New Stormwater Recharge

Recycling Replenishment = min[0.3*Total Replenishment Obligation, 30,000]

MWD Replenishment = Total Replenishment Obligation - Recycling Replenishment

**Table 7: Overdraft and SAR Inflow – Most Rapid Depletion Scenario**

| *Year* | *Annual Overdraft* | *Cumulative Overdraft* | *SAR Inflow* |
|---|---|---|---|
| 2006 | 20,119 | 20,119 | 9,900 |
| 2007 | 22,023 | 42,141 | 9,900 |
| 2008 | 23,927 | 66,069 | 9,900 |
| 2009 | 25,831 | 91,900 | 9,900 |
| 2010 | 27,848 | 119,748 | 9,900 |
| 2011 | 29,080 | 148,828 | 9,900 |
| 2012 | 30,312 | 179,141 | 9,900 |
| 2013 | 31,545 | 210,685 | 9,900 |
| 2014 | 32,889 | 243,574 | 9,900 |
| 2015 | 32,889 | 276,463 | 9,900 |
| 2016 | 32,889 | 309,352 | 9,900 |
| 2017 | 32,889 | 342,241 | 9,900 |
| 2018 | 32,889 | 375,130 | 9,900 |
| 2019 | 24,870 | 400,000 | 9,900 |
| 2020 | 0 | 400,000 | 12,500 |
| 2021 | 0 | 400,000 | 12,500 |
| 2022 | 0 | 400,000 | 12,500 |
| 2023 | 0 | 400,000 | 12,500 |
| 2024 | 0 | 400,000 | 12,500 |
| 2025 | 0 | 400,000 | 12,500 |
| 2026 | 0 | 400,000 | 12,500 |
| 2027 | 0 | 400,000 | 12,500 |
| 2028 | 0 | 400,000 | 12,500 |
| 2029 | 0 | 400,000 | 12,500 |
| 2030 | 0 | 400,000 | 12,500 |

Sources: Annual and Cumulative Overdraft: Assumed; SAR Inflow: Wildermuth Environmental.

**Table 8: Replenishment Obligations and Sources – Most Rapid Depletion Scenario with SAR Inflow Allocated to Desalter Replenishment**

| *Year* | *Normal Production Replenishment Obligation* | *Chino Desalter Replenishment Obligation* | *MWD Replenishment* | *Recycling Replenishment* |
|---|---|---|---|---|
| 2006 | 36,487 | 0 | 25,541 | 10,946 |
| 2007 | 41,643 | 0 | 29,150 | 12,493 |
| 2008 | 46,806 | 0 | 32,764 | 14,042 |
| 2009 | 51,970 | 0 | 36,379 | 15,591 |
| 2010 | 57,126 | 0 | 39,988 | 17,138 |
| 2011 | 55,788 | 0 | 39,051 | 16,736 |
| 2012 | 54,448 | 0 | 38,114 | 16,335 |
| 2013 | 53,107 | 0 | 37,175 | 15,932 |
| 2014 | 51,768 | 0 | 36,238 | 15,530 |
| 2015 | 50,427 | 0 | 35,299 | 15,128 |
| 2016 | 50,638 | 0 | 35,447 | 15,191 |
| 2017 | 50,851 | 0 | 35,596 | 15,255 |
| 2018 | 56,062 | 0 | 39,243 | 16,819 |
| 2019 | 56,271 | 8,019 | 45,003 | 19,287 |
| 2020 | 56,482 | 30,289 | 60,739 | 26,031 |
| 2021 | 59,260 | 30,289 | 62,684 | 26,865 |
| 2022 | 62,038 | 30,289 | 64,629 | 27,698 |
| 2023 | 64,816 | 30,289 | 66,574 | 28,532 |
| 2024 | 67,595 | 30,289 | 68,519 | 29,365 |
| 2025 | 70,374 | 30,289 | 70,663 | 30,000 |
| 2026 | 71,344 | 30,289 | 71,633 | 30,000 |
| 2027 | 72,315 | 30,289 | 72,604 | 30,000 |
| 2028 | 73,285 | 30,289 | 73,574 | 30,000 |
| 2029 | 74,255 | 30,289 | 74,544 | 30,000 |
| 2030 | 75,225 | 30,289 | 75,514 | 30,000 |

Source: Calculated.

Normal Production Replenishment Obligation = Total Production – Desalter Production – Operating Yield – New Stormwater Recharge

Desalter Replenishment Obligation = Desalter Production – Annual Overdraft – SAR Inflow

Recycling Replenishment = min[0.3*(Normal Production Replenishment Obligation + Desalter Replenishment Obligation), 30,000]

MWD Replenishment = Normal Production Replenishment Obligation + Desalter Replenishment Obligation - Recycling Replenishment

**Table 9: Replenishment Obligations and Sources – Most Rapid Depletion Scenario with SAR Inflow Unllocated**

| *Year* | *Total Replenishment Obligation* | *MWD Replenishment* | *Recycling Replenishment* |
|---|---|---|---|
| 2006 | 46,387 | 32,471 | 13,916 |
| 2007 | 51,543 | 36,080 | 15,463 |
| 2008 | 56,706 | 39,694 | 17,012 |
| 2009 | 61,870 | 43,309 | 18,561 |
| 2010 | 67,026 | 46,918 | 20,108 |
| 2011 | 65,688 | 45,981 | 19,706 |
| 2012 | 64,348 | 45,044 | 19,305 |
| 2013 | 63,007 | 44,105 | 18,902 |
| 2014 | 61,668 | 43,168 | 18,500 |
| 2015 | 60,327 | 42,229 | 18,098 |
| 2016 | 60,538 | 42,377 | 18,161 |
| 2017 | 60,751 | 42,526 | 18,225 |
| 2018 | 65,962 | 46,173 | 19,789 |
| 2019 | 74,190 | 51,933 | 22,257 |
| 2020 | 99,270 | 69,489 | 29,781 |
| 2021 | 102,049 | 72,049 | 30,000 |
| 2022 | 104,827 | 74,827 | 30,000 |
| 2023 | 107,605 | 77,605 | 30,000 |
| 2024 | 110,384 | 80,384 | 30,000 |
| 2025 | 113,163 | 83,163 | 30,000 |
| 2026 | 114,133 | 84,133 | 30,000 |
| 2027 | 115,104 | 85,104 | 30,000 |
| 2028 | 116,074 | 86,074 | 30,000 |
| 2029 | 117,044 | 87,044 | 30,000 |
| 2030 | 118,014 | 88,014 | 30,000 |

Source: Calculated.

Total Replenishment Obligation = Total Production – Operating Yield – Annual Overdraft – New Stormwater Recharge

Recycling Replenishment = min[0.3*Total Replenishment Obligation, 30,000]

MWD Replenishment = Total Replenishment Obligation - Recycling Replenishment

**Table 10: Prices – High Price Scenario**

| *Year* | *Tier 2 Price* | *Replenishment Price* | *Recycling Price* |
|---|---|---|---|
| 2006 | 427 | 238 | 69 |
| 2007 | 427 | 238 | 72 |
| 2008 | 459 | 275 | 75 |
| 2009 | 473 | 297 | 79 |
| 2010 | 486 | 314 | 82 |
| 2011 | 497 | 331 | 86 |
| 2012 | 519 | 346 | 90 |
| 2013 | 543 | 361 | 94 |
| 2014 | 567 | 378 | 98 |
| 2015 | 593 | 395 | 103 |
| 2016 | 619 | 412 | 107 |
| 2017 | 647 | 431 | 112 |
| 2018 | 676 | 450 | 117 |
| 2019 | 707 | 471 | 122 |
| 2020 | 739 | 492 | 128 |
| 2021 | 772 | 514 | 134 |
| 2022 | 807 | 537 | 140 |
| 2023 | 843 | 561 | 146 |
| 2024 | 881 | 587 | 152 |
| 2025 | 920 | 613 | 159 |
| 2026 | 962 | 641 | 166 |
| 2027 | 1,005 | 669 | 174 |
| 2028 | 1,050 | 700 | 182 |
| 2029 | 1,098 | 731 | 190 |
| 2030 | 1,147 | 764 | 198 |

Source: Metropolitan Water District of Southern California.

**Table 11: Prices – Low Price Scenario**

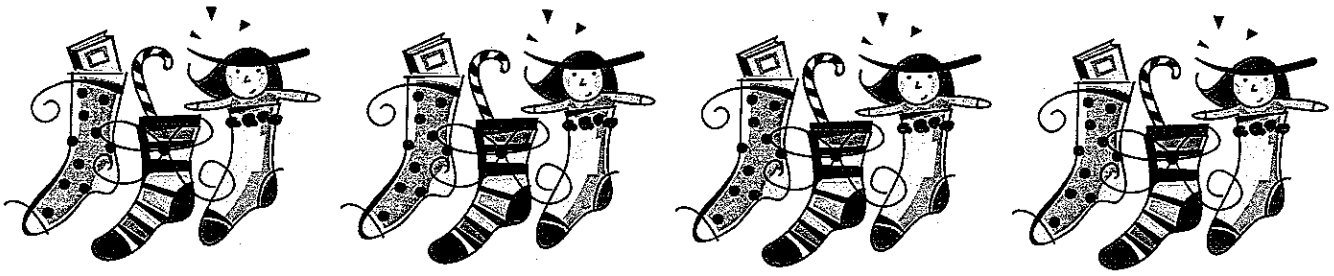
| *Year* | *Tier 2 Price* | *Replenishment Price* | *Recycling Price* |
|---|---|---|---|
| 2006 | 427 | 238 | 69 |
| 2007 | 427 | 238 | 71 |
| 2008 | 450 | 261 | 73 |
| 2009 | 457 | 268 | 75 |
| 2010 | 463 | 282 | 78 |
| 2011 | 477 | 300 | 80 |
| 2012 | 491 | 309 | 82 |
| 2013 | 506 | 318 | 85 |
| 2014 | 521 | 328 | 87 |
| 2015 | 537 | 338 | 90 |
| 2016 | 553 | 348 | 93 |
| 2017 | 570 | 358 | 96 |
| 2018 | 587 | 369 | 98 |
| 2019 | 604 | 380 | 101 |
| 2020 | 622 | 391 | 104 |
| 2021 | 641 | 403 | 107 |
| 2022 | 660 | 415 | 111 |
| 2023 | 680 | 428 | 114 |
| 2024 | 700 | 441 | 117 |
| 2025 | 722 | 454 | 121 |
| 2026 | 743 | 467 | 125 |
| 2027 | 765 | 481 | 128 |
| 2028 | 788 | 496 | 132 |
| 2029 | 812 | 511 | 136 |
| 2030 | 836 | 526 | 140 |

Source: Metropolitan Water District of Southern California.

**Table 12: Expected Value of Reduced Storage Losses**

| **Program Size** | *Losses* | *Present Value - High Rate* | *Present Value - Low Rate* |
|---|---|---|---|
| 300,000 | 80,175 | 18,647,350 | 15,290,827 |
| 400,000 | 106,900 | 24,863,133 | 20,387,769 |
| 500,000 | 133,626 | 31,079,149 | 25,484,903 |

Source: Wildermuth Environmental.



# CHINO BASIN WATERMASTER

## II. BUSINESS ITEM

### B. INLAND VALLEY DAILY BULLETIN ADVERTISING CAMPAIGN

# 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:** **December 14, 2006**
**December 19, 2006**
**December 21, 2006**

**TO:** **Committee Members**
**Watermaster Board Members**

**SUBJECT:** **Participation with the Chino Basin Public Outreach Campaign**

**Summary**

*Issue* – **Informing the public about water issues facing the Region and State**

*Recommendation* – **Approve the expenditure of $10,000 for participation in the joint Chino Basin Public Outreach Campaign for 2007**

*Fiscal Impact* – **This item is a budgeted expense.**

**Background**

Starting in 2005 Watermaster, in cooperation with Inland Empire Utilities Agency, Three Valley's MWD, Western MWD and the Chino Basin Conservation District have cosponsored the Public Outreach Campaign through the Inland Valley Daily Bulletin. This year IEUA has negotiated a campaign that has a slight increase in cost, but includes more copy space in the actual newspaper. The total cost for this year's program will be $124,000 with a greater number of conservation tip ads and fewer Run of Press (ROP) ads. This change in strategy will assist the group in reaching more readers with more impact.

IEUA will coordinate the campaign with representatives from the other contributing agencies providing input. The first publication that will be a part of this year's campaign will be seen in late January. It will be an eight page insert that highlights the agencies with a general message of cooperation threaded throughout. As we have done in the last two years, it will have at least one page dedicated to our federal and state representatives highlighting the work they are doing to assist us in meeting the infrastructure needs of our communities.

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FOR PAGINATION

KM, SR.

Inland Empire
UTILITIES AGENCY*
* A Municipal Water District

6075 Kimball Avenue • Chino, CA 91710
P.O. Box 9020 • Chino Hills, CA 91709
TEL (909) 993-1600 • FAX (909) 993-1983
www.ieua.org



November 6, 2006

Mr. Ken Manning
Chief Executive Officer
Chino Basin Watermaster
9641 San Bernardino Road
Rancho Cucamonga, California 91730

Dear Ken:

On December 13, 2006, the Inland Empire Utilities Agency's Board of Directors will consider approving a 12-month advertising agreement with the Los Angeles Newspaper Group (Inland Valley Daily Bulletin) for a 2007 community outreach campaign.

Since 2005, with the assistance of Mr. Christopher Lancaster, Government Relations Directors for the Los Angeles Newspaper Group, IEUA, in corporation with the Chino Basin Watermaster, Western Municipal Water District, Three Valleys Municipal Water District, and Chino Basin Water Conservation District, ran full page ads as well as a few editorials in the Inland Valley Daily Bulletin. In 2006, we ran 34 in full color and 14 eighth-of-a-page black and white ads (which we used for our *water conservation tip of the month*).

IEUA staff is proposing that we continue our community outreach with another 12-month advertising campaign with the Inland Valley Daily Bulletin. Attached is a copy of the advertising agreement that is being considered. The Inland Empire Utilities Agency is hoping that the Chino Basin Watermaster will participate in this year's program by again contributing $10,000.

Thank you for your consideration. If you have any questions, please don't hesitate to call.

Sincerely,

INLAND EMPIRE UTILITIES AGENCY

Richard W. Atwater
Chief Executive Officer
General Manager

Attachment

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FOR PAGINATION

INLAND VALLEY
Daily Bulletin

2041 East Fourth Street • Post Office Box 4000 • Ontario, CA 91761 (909) 987-6397

# ADVERTISING AGREEMENT

This agreement is between the Inland Empire Utilities Agency and the Los Angeles Newspaper Group (Inland Valley Daily Bulletin). This agreement confirms the Inland Empire Utilities Agency's purchase of:

| *Publication* | *Cost* | *Value* | *Publication Date* |
|---|---|---|---|
| 1. Civic Leadership Two pages | $6,950 | $16,552 | March 2007 |
| 2. Earth Day Two-pages | $6,950 | $16,552 | April 2007 |
| 3. Water Awareness Month Two-pages | $6,950 | $16,552 | May 2007 |
| 4. Living Here Magazine Four-pages | $6,950 | $13,146 | May 2007 |
| 5. Safety Awareness Month Two-pages | $6,950 | $16,552 | July 2007 |
| 6. Think Environment Week Two-pages | $6,950 | $16,552 | September 2007 |
| 7. LA County Fair One-page (Full-color) | $4,950 | $4,543 | September 2007 |
| 8. Education Week Two-pages | $6,950 | $16,552 | October 2007 |
| 9. Five (5) Full-page Rop Ads (Full-Color) | $29,259 | $45,217 | Date of your choice |
| 10. Eight-Page Section (Tab.) (Full-Color) | $25,229 | $32,845 | February 2007 |
| 11. Fourteen (14) eighth-of-a-page (Black and White ads) | $0.00 | $11,939 | Date of your choice |
| Grand Total | $108,088 | $207,002 | |

**Distribution**

All public outreach/educational advertisements are distributed in the Inland Valley Daily Bulletin newspaper property only.

**Production**

All prices include design, layout, printing and distribution.

**Added Value**

- (Total value-$207,002)-(Total costs $108,088) = ***Added value $98,914***

The Los Angeles Newspaper Group agrees to provide all services listed in this agreement, and the Inland Empire Utilities Agency agrees to pay the Los Angeles Newspaper Group (Inland Valley Daily Bulletin) a total of $108,088

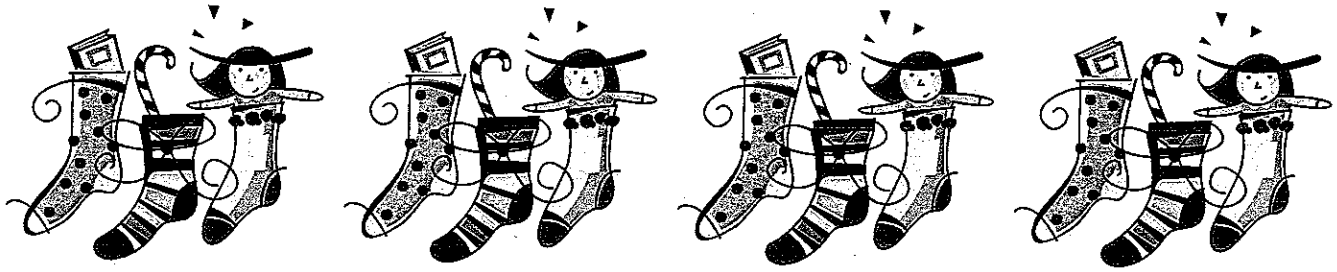
***All terms of this agreement must be fulfilled by December 31, 2007.***

Los Angeles Newspaper Group

10/11/06
Date

Inland Empire Utilities Agency

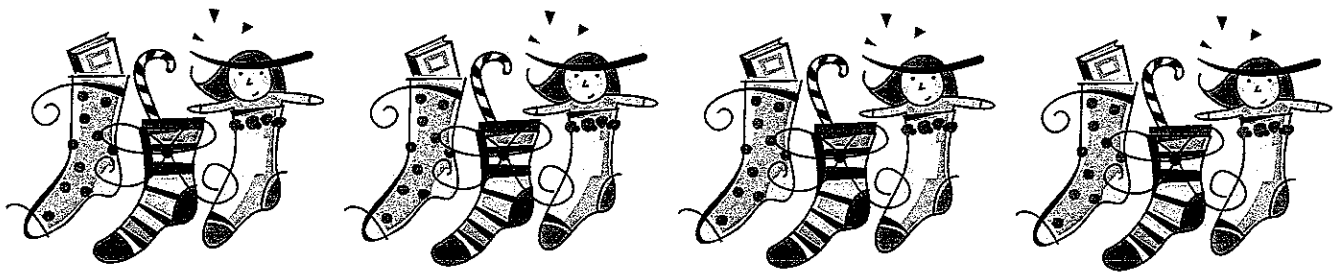
Date



# CHINO BASIN WATERMASTER

## V. INFORMATION

1. Newspaper Articles



Close Window | Send To Printer

# Toxic levels in water still high

## Study: Perchlorate amounts persist

By Fred Ortega Staff Writer
San Gabriel Valley Tribune

It has been two years since the state set a goal to limit the amount of perchlorate in Californians' drinking water, but officials have yet to establish a mandatory threshold for the potentially dangerous chemical.

And some environmental groups and scientists claim that the limit being considered does not go far enough to protect the state's most vulnerable residents.

Perchlorate is naturally occurring but is also used as an additive in rocket fuel. Over the years, the substance has leaked into the groundwater of countless American communities, and is now so prevalent in drinking water that a study by the Centers for Disease Control and Prevention found at least trace amounts of the chemical in every person it tested.

In the Southland, some of the biggest culprits of perchlorate contamination are the Jet Propulsion Laboratory, which is engaged in a multimillion-dollar cleanup of water wells in Altadena and Pasadena, and the former aerospace plants that dotted the San Gabriel Valley during the Cold War.

The federal limit for what is considered a safe level of exposure to perchlorate is 24.5 parts per billion (ppb). But local agencies have been following the state public health goal of 6 ppb in treating their water.

One part per billion is equivalent to about a half-teaspoon of the chemical in an Olympic-size swimming pool.

The state's 6 ppb goal is not mandatory and officials are still navigating the regulatory process required to make the limit legally binding, said Patti Roberts, a spokeswoman for the Department of Health Services.

"The process for establishing a state-mandated \ for perchlorate is a lengthy one," said Roberts, adding the department hopes to have a perchlorate limit codified into law sometime next year. The state's Office of Environmental Health Hazards Assessment first suggested the 6ppb limit in 2004.

But even that figure may not be enough to protect hundreds of thousands of Californians, according to an analysis of a recent Centers for Disease Control and Prevention study by the Environmental Working Group, a nonprofit public watchdog agency in Washington, D.C.

The group's analysis of the CDC report, released last month, suggests that even a 6 ppb threshold could negatively affect pregnant women with abnormally low iodine levels. That translates to about 36 percent of American women, said Dr. Anila Jacobs, a senior scientist for the Environmental Working Group.

"This subset of women is very vulnerable to the effects of perchlorate," said Jacobs, who spoke at a public hearing on the limits being considered by the state last month in Sacramento. "Those are the women we worry about should they become pregnant, because they could be pushed into something called subclinical hypothyroidism, which would require treatment."

Studies suggest the neural development of the fetus could be negatively affected if a woman with subclinical hypothyroidism is not treated with thyroid hormones during pregnancy, Jacobs said. IQ deficits and developmental delays are among the possible effects of the disorder on newborns, according to the Environmental Working Group's analysis.

The study also states that even under the state's proposed limits, perchlorate in drinking water could depress thyroid hormone levels in 272,000 California women to a point where they would need treatment. The group has recommended an even stricter standard of 2 parts per billion, a limit adopted recently in Massachusetts.

The CDC study is being weighed by OEHHA, said the agency's director, Joan Denton.

"We are very closely looking at it, analyzing its results and trying to duplicate their results," said Denton. "At this point our \ remains at 6 parts per billion."

A change in state-mandated perchlorate levels to 2 ppb would push the cost of cleaning up San Gabriel Valley water to over $1 billion, said Bob Kuhn, president of the board at the San Gabriel Valley Water Quality Authority. So far, only about $500 million in funding for cleaning up Valley water has been secured, and officials say they need at least $400 million more to finish the job.

"We have had to install cleanup devices in each well \, and that costs $2 million to $5 million each just counting the hardware, not operation," Kuhn said. "If they make the limit lower, the wells that are in operation without cleanup devices would have to have them installed, and that is where the money gets dicey."

The authority already treats perchlorate in its wells to non-detect levels, said Gabriel Monares, director of resource development for the authority. Monares' group was formed in the early 1990s to coordinate groundwater cleanup in the Valley.

But non-detect levels are considered about 4 parts per billion, said Shan Kwan, director of the water division at Pasadena Water and Power. So if the state were to set the limit at 2 parts per billion, agencies would have to come up with completely new technology to make sure they are in compliance.

"You have labs today that say they can detect below 4 \, but that hasn't been universally accepted yet," said Kwan, whose agency has had to shut down nine wells in the Pasadena area since 1997 because of perchlorate levels exceeding 6parts per billion.

JPL is cleaning up four of the wells and is monitoring the remaining five to determine if the pollution emanated from its campus northwest of the city. And while he was unsure of the actual figures, a change from 6 to 2 ppb would definitely increase treatment costs at the wells, Kwan said.

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# Settlement leaves us a bit unsettled

**Our view: While an end to court battle is good, it's still going to cost taxpayers a bundle.**

Article Launched:12/03/2006 01:00:00 AM PST

At long last, the county and the Colonies have put away their slingshots, and decided to call it a day. Now, they can improve the flood control basin and move on to secure the safety of Colonies residents and those who live downstream.

But the settlement they reached last week doesn't mean everything is really settled - not by a long shot. All sorts of messy details still need to be hashed out to satisfy taxpayers.

Even so, we congratulate both on ending the protracted legal battle. Settlements usually end up being less costly in the long run.

But this one, at a cost to taxpayers of $102 million in cash, leaves much to be desired.

As much as the judge, and our editorial board, have urged the two sides to settle, this unprecedented giveaway - the largest settlement in county history - is off-putting, to say the least.

The Board of Supervisors agreed Tuesday, 3-2, to pay the Upland developer $102 million to settle the 4-year-old legal battle that has cost both sides plenty. Indeed, if supervisors had acted sooner, chances are they could have gotten off with paying far less, with the Colonies willing to take land or something more in the range of the initial $25 million they asked for, instead of quadruple that.

And while there is more than money at stake - the lawsuit centered around the building of a regional flood control basin on the developer's property, and who had responsibility for it, with public safety at its root - the huge amount of money being drained from the county Flood Control District is more than worrisome.

In accepting the settlement, with the first $22 million already secured, the Colonies Partners LP said in a statement it was pleased the majority of the board "acknowledged the county's financial and public safety responsibility in this matter."

True, the county had responsibility for the flood control facility, and erred in not accepting that responsibility much sooner.

But the supervisors who approved the settlement still have some reckoning to do. Supervisors Josie Gonzales and Dennis Hansberger, who opposed the settlement, did not feel the Colonies justified the magnitude of what they wanted the county to pay out. And the speed with which the final deal was nailed down, without full vetting, leaves us anxious. Now, the three supervisors who approved the settlement should provide exactly that sort of accounting to the public.

Red flags have been raised, with lawyers for the county resigning over the board's decision to thwart its advice and go ahead with the settlement. Law firm Jones Day - which has represented the county since its first legal team withdrew after questioning supervisors' judgment over terms it deemed excessive - quit Wednesday.

Moreover, the settlement bears the signature of Supervisors Chairman Bill Postmus, who is on his way out at the end of the year. But it does not contain the signatures of any county attorney - another warning bell.

Also odd is the peculiar language in the settlement saying the county would drop its related lawsuit against Upland, for a fee of $2 million paid "by or on behalf of the city of Upland." But it is not an agreement Upland was party to. Will the Colonies make that payment, making the settlement essentially an even $100 million?

The board is left in the position of trying to raise the remaining $80 million through the sale of long-term bonds, or paying the Colonies off at 9 percent interest. The money owed will put a huge crimp in the flood control district's $31.5 million annual budget. Though current flood control facilities and projects will not be at risk, according to the county's director of public works, Pat Mead, numerous future projects will have to be deferred by at least several years.

Public safety, of course, should be the overriding issue. And as shepherds of that responsibility, the Board of Supervisors needs to get back to its primary role of protecting the public's welfare.

While we'd like to put this behind us, we would remind supervisors that flood protection falls under their purview, and we do not wish to see it compromised now or in the future.

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# S.B. County supes reach accord with Colonies

## Land developers to receive $102M after four-year legal battle

By Jeff Horwitz, Staff Writer
Inland Valley Daily Bulletin

Article Launched:11/29/2006 01:32:51 AM PST

SAN BERNARDINO - County supervisors Tuesday approved a $102 million cash offer to settle the Colonies flood-control dispute.

The settlement, approved on a 3-2 vote and accepted by the Colonies Partners LP, will be the largest in the county's history. It comes after more than four years of legal strife, during which the price of a settlement quadrupled from the Colonies' original demand for $25 million it said was necessary to build a regional flood-control basin on its property.

"Ultimately this will save the county taxpayers money," said Supervisor Paul Biane, in whose district the Colonies' development is located. "The community of Upland is going to be protected. That's probably the best thing that came out of today's settlement."

Late Tuesday afternoon, the Colonies released a statement saying it is pleased a majority of the board had "acknowledged the County's financial and public safety responsibility in this matter."

The settlement was approved despite opposition from supervisors Dennis Hansberger and Josie Gonzales, who have both said that the Colonies has failed to produce documents justifying the magnitude of Tuesday's settlement. An original offer on Tuesday's agenda that would have combined developable land and cash was scrapped because it required four votes to pass.

By dropping the land from the deal, Biane, Supervisor Gary Ovitt, and outgoing board chairman Bill Postmus were able to pass the settlement with a simple majority vote.

"I wasn't opposed to paying the money," Gonzales said. "I was just opposed to paying the money without the proper documentation to support the payout. In the end, they didn't need my vote."

Hansberger said settling the case without the appropriate documentation leaves the county wide open to a taxpayers lawsuit challenging the settlement.

"We're spending money and can't even say why ($102 million) is the correct number," Hansberger said. "It's just a figment of someone's imagination."

Colonies spokeswoman Lorraine LeClear disputed Hansberger's statement in an e-mail. The documentation the Colonies provided to the county clearly showed their costs, she wrote, and the most recent ruling in the case left little doubt the county was at fault.

"Supervisor Hansberger continues to live within a bubble and views the world from his limited ability," she wrote. "It's that same limited view that caused this dispute to last four years and cost us all so much."

Earlier this month, a Claremont attorney representing San Bernardino County Taxpayers for Fair Resolution, a previously unknown group opposed to a settlement, began requesting documents pertaining to the Colonies case from the county. The attorney, Robert Ferguson, could not be reached Tuesday.

Suing the county for an alleged gift of public funds would be "entirely appropriate," Hansberger said.

Assuming the settlement stands, it would impose draconian limits on future spending by the Flood Control District, which is separate from the rest of the county's finances. Under Tuesday's offer, the district would pay the Colonies an initial $22 million - wiping out the vast majority of its financial reserves - and then attempt to raise another $80 million through the sale of long-term bonds.

If the county is unable to bond for $80 million after 180 days - a prospect county administrators said was possible but unlikely - the district would be required to pay off its remaining debt to the Colonies in 10 annual installments at a 9 percent interest rate.

Given that much of the Flood Control District's annual revenue of $31.5 million is taken up by salaries, maintenance and administrative costs, the payments could amount to nearly half the district's discretionary budget, said Assistant County Administrator Norm Kanold.

The offer also requires the district to pay for maintaining the flood-control basins on the Colonies property, which the developer has previously stated costs around $1 million a year.

The settlement would not damage the district's ability to maintain its current facilities or carry out federally funded projects, Pat Mead, the county's director of public works, said after the meeting. However, Mead added, "numerous projects" in each of the Flood Control District's zones would have to be deferred by at least several years.

The settlement won't jeopardize projects to improve safety.

One way to lessen the strain on the Flood Control District's finances would be for the district to sell off land, Mead said.

"We have a lot of surplus property," he said. "There are assets that could be sold in an emergency."

Previous settlement offers in the case have always been contingent upon the county being able to recoup some of the costs of the settlement from entities involved with the Colonies' property, such as Upland, Caltrans, and San Bernardino Associated Governments, a regional transportation organization.

Because these bodies were not party to the settlement, Gonzales said, the county's ability to hold them responsible for some of the settlement may be damaged.

"There's going to be a whole lot of beneficiaries, and the county isn't one of them," Gonzales said. "They're going to turn around and say you never included us in the decision process of putting out $102 million."

Biane disagreed.

"The county will still move forward with its cases," he said, citing the county's settlement as potentially a benefit to Caltrans, Upland and SANBAG. " Ultimately it will help cap the ultimate exposure of those other agencies."

*Staff writer Jeff Horwitz can be reached by e-mail at jeff.horwitz@sbsun.com or by phone at (909) 386-3856.*

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# Controversy surrounds safe perchlorate level

Fred Ortega, Staff Writer
San Bernardino County Sun

Article Launched:11/26/2006 12:00:00 AM PST

It has been two years since the state set a goal to limit the amount of perchlorate in Californians' drinking water, but officials have yet to establish a mandatory threshold for the potentially dangerous chemical.

And some environmental groups and scientists claim that the limit being considered does not go far enough to protect the state's most vulnerable residents.

The issue is also being closely followed by Inland Empire officials and residents, from Rialto to Norco, who are concerned about contamination in their groundwater.

Perchlorate is naturally occurring but is also used as an additive in rocket fuel. Over the years, the substance has leached into the groundwater of countless American communities and is now so prevalent in drinking water that a study by the Centers for Disease Control and Prevention found at least trace amounts of the chemical in every person it tested.

Rialto and Colton have sued suspected perchlorate polluters in an effort to recoup the cost of investigating and cleaning up the contamination found in wells. A federal judge threw out Colton's case earlier this year. A similar suit filed by Rialto is pending.

In Norco, the state has detected perchlorate in groundwater both on and off the former military - and manufacturing - testing Wyle Laboratories site, but the levels of contamination have been deemed unreliable, and further testing is under way.

In other parts of Southern California, one of the biggest culprits of perchlorate contamination is Jet Propulsion Laboratory, which is engaged in a multimillion-dollar cleanup of water wells in Altadena and Pasadena. The former aerospace plants that dotted the San Gabriel Valley during the Cold War were also major perchlorate polluters.

The federal limit for what is considered a safe level of exposure to perchlorate is 24.5 parts per billion. But local agencies have been following the state public-health goal of 6 ppb in treating water.

One part per billion is equivalent to about a half-teaspoon of the chemical in an Olympic- sized pool.

The state's 6 ppb goal is not mandatory, and officials are still navigating the regulatory process required to make the limit legally binding, said Patti Roberts, a spokeswoman for the Department of Health Services.

"The process for establishing a state-mandated (maximum contaminant level) for perchlorate is a lengthy one," said Roberts, adding the department hopes to have a perchlorate limit codified into law sometime next year. The state's Office of Environmental Health Hazards Assessment first suggested the 6 ppb limit in 2004.

But even that figure might not be enough to protect hundreds of thousands of Californians, according to an analysis of a recent CDC study by the Environmental Working Group, a nonprofit public watchdog in Washington, D.C.

For Norco residents seeking the source of what they say are unprecedented numbers of thyroid-related illnesses, perchlorate - a known thyroid inhibitor - has been a prime suspect.

The group's analysis of the CDC report, released last month, suggests that even a 6 ppb threshold could negatively affect pregnant women with abnormally low iodine levels. That translates to about 36 percent of American women, said Dr. Anila Jacobs, a senior scientist for the Environmental Working Group.

"This subset of women is very vulnerable to the effects of perchlorate," said Jacobs, who spoke at a public hearing on the limits being considered by the state last month in Sacramento. "Those are the women we worry about should they become pregnant, because they could be pushed into something called subclinical hypothyroidism, which would require treatment."

Studies suggest the neural development of the fetus could be negatively affected if a woman with subclinical hypothyroidism is not treated with thyroid hormones during pregnancy, Jacobs said. IQ deficits and developmental delays are among the possible effects of the disorder on newborns, according to the Environmental Working Group's analysis.

The study also states that even under the state's proposed limits, perchlorate in drinking water could depress thyroid hormone levels in 272,000 California women to a point where they would need treatment. The group has recommended an even stricter standard of 2 ppb, a limit adopted recently in Massachusetts.

State experts maintain water contaminated with perchlorate must be consumed to pose a health risk. Norco residents no longer use the contaminated groundwater wells on their properties. Of the groundwater wells found to be contaminated in Colton and Rialto, several now have treatment equipment in place that scrubs the chemical from the water.

The CDC study is being weighed by the Office of Environmental Health Hazards Assessment, said the agency's director, Joan Denton.

"We are very closely looking at it, analyzing its results and trying to duplicate their results," said Denton. "At this point, our (public-health goal) remains at 6 parts per billion."

*Staff writer Andrea Bennett contributed to this report.*

# Tackling a messy cleanup

## OUR VIEW

IT'S a dirty little secret that environmental decisions are based on health *and* money. And we're convinced both are in play regarding the state Department of Health Services' future decision on how clean is clean when it comes to perchlorate.

We can't say we blame the state on this one.

Because any move by the state to drop the action level of 6 parts per billion (that's billion with a "b") to 4 ppb or 2 ppb will add millions and millions of dollars to the price tag for cleanup. Who will pick up this tab? Ratepayers, who already are seeing spikes in utility bills.

A DHS move down to 4 ppb would mean many more wells delivering water will be shut and required to install cleanup equipment that costs $500,000 to $2 million per well. It's an expensive move.

Already, the chemical additive perchlorate is found in concentrations above 6 ppb in 400-500 wells in the state. Here in the San Gabriel Valley area, the current price tag for cleaning up shut-down wells in polluted portions of the aquifer is $400 million. That's $400 million the San Gabriel Basin Water Quality Authority, the agency in charge of the cleanup, does not have. In other words, we already have a Christmas list with no piggy bank to help fill it.

Adding to the already unfunded mandate for ridding wells of minute amounts of this chemical, found in rocket fuel, road flares and other propellants, only compounds the problem. In fact, the result could be more delays in cleanup and more red tape.

No, now is not the time to lower the cleanup threshold for perchlorate. Such a move would make things worse for the Valley's polluted aquifer.

Instead, the state should be part of the solution by forking over funding for cleaning polluted wells to non-detectable levels of perchlorate. As it stands, the state has done more regulating and navel-contemplating than actual cleanup.

The feds, on the other hand, thanks to local congressmen David Dreier and Adam Schiff, have delivered more than $70 million for local well cleanup. Also, the WQA, the U.S. Environmental Protection Agency, local water producers and local water districts, have made strong headway in the cleanup, in part by dragging responsible parties (i.e. polluters) to the party and also by leading the way with treatment plants paid with up-front money.

Recently, the Jet Propulsion Laboratory has made tremendous progress in cleaning up ground water in downstream Pasadena and Altadena wells.

The perchlorate problem — like the overall polluted groundwater — will not be going away any time soon, however. Not unless the San Gabriel Valley receives a Christmas gift of $400 million. So why complicate things more and make it much more expensive by changing the perchlorate "action level" in drinking water from the current 6 parts per billion? Until more study can show that 2 more parts per billion (2 ppb is equal to one teaspoon of the chemical additive in an Olympic-size swimming pool) makes a difference to the public's health, the standard should not be changed.

Funding cleanup of existing wells closed from perchlorate contamination should be the No. 1 agenda item for the state DHS.

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