

CHINO BASIN WATERMASTER



NOTICE OF MEETINGS

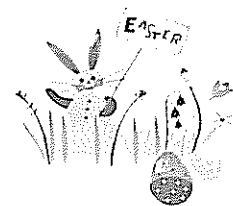
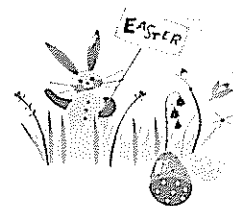
Thursday, April 27, 2006

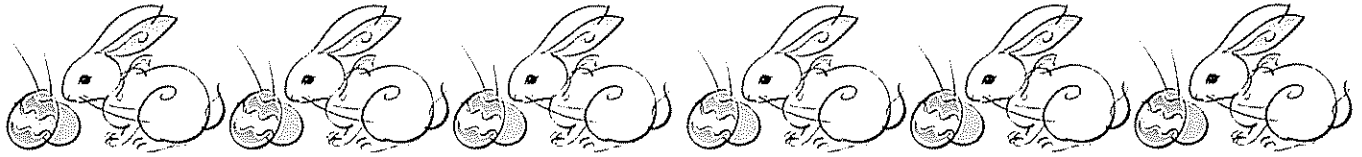
9:00 a.m. – Advisory Committee Meeting
11:00 a.m. – Watermaster Board Meeting

(Lunch will be served)

AT THE CHINO BASIN WATERMASTER OFFICES

9641 San Bernardino Road
Rancho Cucamonga, CA 91730
(909) 484-3888





CHINO BASIN WATERMASTER

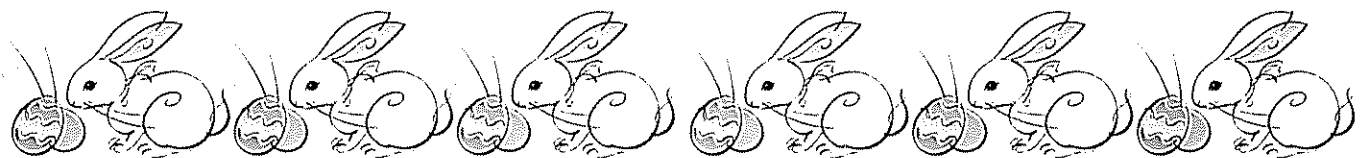
April 27, 2006

9:00 a.m. - Advisory Committee Meeting

11:00 a.m. - Watermaster Board Meeting

(Lunch will be served)

AGENDA PACKAGE



**CHINO BASIN WATERMASTER
ADVISORY COMMITTEE MEETING**

9:00 a.m. – April 27, 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 Advisory Committee Meeting held March 23, 2006 *(Page 1)*

B. FINANCIAL REPORTS

5. Cash Disbursements for the month of March 2006 *(Page 13)*
6. Combining Schedule of Revenue, Expenses and Changes in Working Capital for the Period July 1, 2005 through February 28, 2006 *(Page 17)*
7. Treasurer's Report of Financial Affairs for the Period February 1, 2006 through February 28, 2006 *(Page 19)*
8. Profit & Loss Budget vs. Actual July through February 2006 *(Page 21)*

C. WATER TRANSACTION

Consider Approval for Transaction of Notice of Sale or Transfer – Cucamonga Valley Water District has agreed to purchase from West Valley Water District water in storage in the amount of 500 acre-feet. Date of application: January 10, 2006 *(Page 23)*

II. BUSINESS ITEMS

A. MZ1 SUMMARY REPORT

Consider Approval of the February 2006 MZ-1 Summary Report *(Page 37)*

III. REPORTS/UPDATES

A. WATERMASTER GENERAL LEGAL COUNSEL REPORT

1. Peace II Process
2. Santa Ana River Water Rights Application

B. WATERMASTER ENGINEERING CONSULTANT REPORT

1. Update on Report on Balance of Recharge and Discharge

C. CEO/STAFF REPORT

1. Consequences of Non-Implementation of Peace II
2. DataX Presentation

- 3. Legislative Update
- 4. MWD Groundwater Study
- 5. Workshops Update
- 6. Storm Water/Recharge Update
- 7. Draft Desalter III Alternative Study Update

D. INLAND EMPIRE UTILITIES AGENCY

- 1. Monthly Water Conservation Programs Report *(Page 109)*
- 2. Groundwater Operations Recharge Summary - handout
- 3. Monthly Imported Water Deliveries Report *(Page 111)*
- 4. State/Federal Legislation Reports *(Page 115)*
- 5. Public Relations Report *(Page 143)*

E. OTHER METROPOLITAN MEMBER AGENCY REPORTS

IV. INFORMATION

- 1. Newspaper Articles *(Page 145)*

V. COMMITTEE MEMBER COMMENTS

VI. OTHER BUSINESS

VII. FUTURE MEETINGS

April 25, 2006	9:00 a.m.	GRCC Committee Meeting
April 27, 2006	9:00 a.m.	Advisory Committee Meeting
April 27, 2006	11:00 a.m.	Watermaster Board Meeting
April 27, 2006	1:00 p.m.	Boardsmanship Workshop
May 2, 2006	9:00 a.m.	Budget Workshop
May 11, 2006	9:00 a.m.	Appropriative & Non-Agricultural Pool Meeting
May 16, 2006	9:00 a.m.	Agricultural Pool Meeting @ IEUA
May 25, 2006	9:00 a.m.	Advisory Committee Meeting
May 25, 2006	11:00 a.m.	Watermaster Board Meeting

Meeting Adjourn

**CHINO BASIN WATERMASTER
WATERMASTER BOARD MEETING**

11:00 a.m. – April 27, 2006

At The Offices Of

Chino Basin Watermaster

9641 San Bernardino Road

Rancho Cucamonga, CA 91730

AGENDA

CALL TO ORDER

PLEDGE OF ALLEGIANCE

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 Annual Watermaster Board Meeting held March 23, 2006 *(Page 7)*

B. FINANCIAL REPORTS

5. Cash Disbursements for the month of March 2006 *(Page 13)*
6. Combining Schedule of Revenue, Expenses and Changes in Working Capital for the Period July 1, 2005 through February 28, 2006 *(Page 17)*
7. Treasurer's Report of Financial Affairs for the Period February 1, 2006 through February 28, 2006 *(Page 19)*
8. Profit & Loss Budget vs. Actual July through February 2006 *(Page 21)*

C. WATER TRANSACTION

Consider Approval for Transaction of Notice of Sale or Transfer – Cucamonga Valley Water District has agreed to purchase from West Valley Water District water in storage in the amount of 500 acre-feet. Date of application: January 10, 2006 *(Page 23)*

II. BUSINESS ITEMS

A. MZ1 SUMMARY REPORT

Consider Approval of the February 2006 MZ-1 Summary Report *(Page 37)*

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A. WATERMASTER GENERAL LEGAL COUNSEL REPORT

1. Peace II Process
2. Santa Ana River Water Rights Application

B. WATERMASTER ENGINEERING CONSULTANT REPORT

1. Update on Report on Balance of Recharge and Discharge

C. CEO/STAFF REPORT

1. Consequences of Non-Implementation of Peace II
2. DataX Presentation
3. Legislative Update
4. MWD Groundwater Study
5. Workshops Update
6. Storm Water/Recharge Update
7. Draft Desalter III Alternative Study Update

IV. INFORMATION

1. Newspaper Articles (*Page 145*)

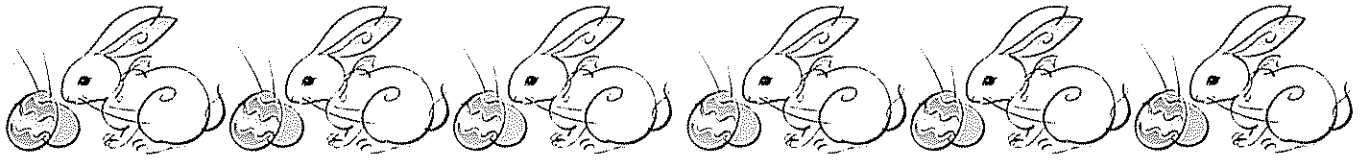
V. BOARD MEMBER COMMENTS

VI. OTHER BUSINESS

VII. FUTURE MEETINGS

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May 11, 2006	9:00 a.m.	Appropriative & Non-Agricultural Pool Meeting
May 16, 2006	9:00 a.m.	Agricultural Pool Meeting @ IEUA
May 25, 2006	9:00 a.m.	Advisory Committee Meeting
May 25, 2006	11:00 a.m.	Watermaster Board Meeting

Meeting Adjourn

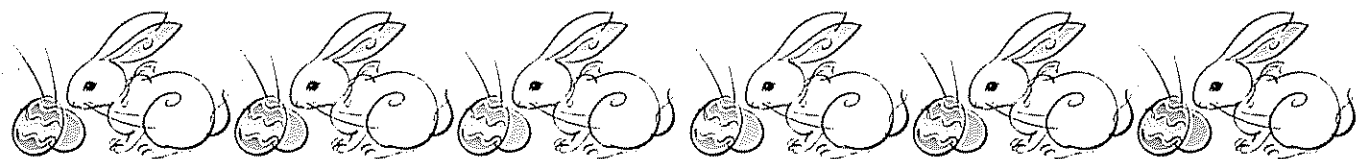


CHINO BASIN WATERMASTER

I. CONSENT CALENDAR

A. MINUTES

1. Advisory Committee Meeting – March 23, 2006



Draft Minutes
CHINO BASIN WATERMASTER
ADVISORY COMMITTEE MEETING

March 23, 2006

The Advisory Committee meeting was held at the offices of the Chino Basin Watermaster, 9641 San Bernardino Road, Rancho Cucamonga, California, on March 23, 2006 at 9:00 a.m.

ADVISORY COMMITTEE MEMBERS PRESENT

Agricultural Pool

Nathan deBoom, Chair	Ag Pool/Dairy
Bob Feenstra	Ag Pool/Dairy

Appropriative Pool

Ken Jeske	City of Ontario
Robert DeLoach	Cucamonga Valley Water District
Mike McGraw	Fontana Water Company
Rosemary Hoerning	City of Upland
Dave Crosley	City of Chino
Jim Taylor	City of Pomona
Charles Moorrees	San Antonio Water Company
Mark Kinsey	Monte Vista Water District
J. Arnold Rodriguez	Santa Ana River Water Company
Mike Maestas	City of Chino Hills
Justin Brokaw	Marygold Mutual Water Company

Non-Agricultural Pool

Bob Bowcock	Vulcan Materials Company (Calmat Division)
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Watermaster Board Members Present

Ken Willis	West End Consolidated Water Company
John Anderson	Inland Empire Utilities Agency
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
Sheri Lynne Molino	Recording Secretary

Watermaster Consultants Present

Michael Fife	Hatch & Parent
Mark Wildermuth	Wildermuth Environmental Inc.
Andy Malone	Wildermuth Environmental Inc.

Others Present

Chris Diggs	Fontana Water Company
Bill Kruger	City of Chino Hills
Frank Brommenschenkel	Frank B. & Associates
Ash Dhingra	City of Pomona
Martha Davis	Inland Empire Utilities Agency
Henry Pepper	City of Pomona
Terry Catlin	Inland Empire Utilities Agency
Tom Love	Inland Empire Utilities Agency

The Advisory Committee meeting was called to order by Chair deBoom at 9:10 a.m.

AGENDA - ADDITIONS/REORDER

No comment was made regarding this item.

Added: Opening Remark

Mr. Jeske stated that Ontario Councilman Jerry DuBois who was a good friend and colleague in the water industry passed on earlier this week and will be greatly missed by many people. Mr. Jeske asked that his memory be memorialized by adjourning this meeting in his memory. It was noted the memorial service for Mr. DuBois will be held on Saturday, March 25, 2006 at 10:00 a.m. at Chaffey High School on Euclid Avenue in Ontario.

I. CONSENT CALENDAR**A. MINUTES**

1. Minutes of the Advisory Committee Meeting held February 23, 2006

B. FINANCIAL REPORTS

1. Cash Disbursements for the month of February 2006
2. Combining Schedule of Revenue, Expenses and Changes in Working Capital for the Period July 1, 2005 through January 31, 2006
3. Treasurer's Report of Financial Affairs for the Period January 1, 2006 through January 31, 2006
4. Profit & Loss Budget vs. Actual July through January 2006

Motion by McGraw, second by Rodriguez, and by unanimous vote

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

II. BUSINESS ITEMS**A. CONTRACT FOR DRILLING AND CONSTRUCTION OF A NESTED PIEZOMETER**

Mr. Manning stated the monitoring equipment in the MZ1 area that has exposed subsidence has been experiencing difficulties. The centerpiece of this monitoring program is the nested piezometers which are located at the Ayala Park facility. The facility was constructed for the purpose of determining the extent of subsidence that is caused by pumping. During the course of the testing that has been performed at that this site. Periodic anomalies have caused staff to question the reliability of gathered data from these nested piezometers. It has been recommended by our consultants that staff evaluate and consider installing new piezometers so that clearer and more accurate data can be gathered to analyze and document. The subsidence issue is an important issue to all Watermaster parties and staff wants to make sure we have an adequate monitoring program in place. The contract which is in the meeting package is with the Layne Christensen Company of Fontana in the amount of \$292,000. Staff is pleased with this contracting company who has done work in this area for us. Staff is recommending moving forward with this item that has been unanimously approved by the Pools. Chair deBoom inquired to the number of companies who bid on this project. Mr. Malone stated two companies came through with a bid. Mr. Jeske inquired if the City of Chino has approved the work to be performed and Mr. Malone acknowledged that this has been approved by the City of Chino. It was also noted the MZ1 Technical Committee is in full support of this endeavor. A discussion ensued with regard to the work that will be performed. Mr. Malone gave a detailed description of how the new piezometers will work more efficiently than the previous ones and noted there is a one year warranty included.

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

Moved to approve the Layne Christensen Company contract for drilling and construction of a nested piezometer at Ayala Park in Chino, as presented

B. IEUA/DWR GRANT FUNDING AGREEMENT

Mr. Manning stated in January 2005, Inland Empire Utilities Agency (IEUA) received a grant of \$15,500,000 from the Department of Water Resources (DWR) through the Proposition 13 Groundwater Recharge and Storage Programs. Mr. Manning noted that the purpose of this grant was to fund IEUA's Chino Basin Conjunctive Use Expansion Program. The total project cost for this program was estimated to be \$40 million with the local share being funded through IEUA's Water and Sewer Rate revenue and a combination of various State and Federal funds. Mr. Manning stated in 2002, a separate grant of Proposition 13 money was given to IEUA that was used to fund implementation of Watermaster's Recharge Master Plan. That project involved a total cost of approximately \$40 million. One half of this project cost was paid through grant funds, and the one-half local share was split evenly between IEUA and Watermaster. Through the initial implementation of the Recharge Master Plan, most, but not all, of the identified recharge basin improvements were constructed; the available funding fell short of being able to fund all of the identified improvements. Mr. Manning noted that additional improvement work was identified as necessary over the course of initial project construction and over the past year of use of the facilities. IEUA has proposed using a portion of the most recent grant funding to perform further improvement work on the recharge basins. IEUA has also proposed using \$5,250,000 of grant money for this purpose, using the same cost sharing arrangement that was used for the grant money that was used for initial implementation of the Recharge Master Plan. Staff is recommending moving forward with this agreement and this was approved unanimously by the Pools. Mr. Love stated this is consistent with the agreement regarding cost sharing on the first set of improvements on the \$40 million dollar project, which was 50% grant funded and 50% shared equally between IEUA and Watermaster. A question was presented regarding operating and maintenance (O&M) costs and Mr. Manning stated agreements are in place that handles the O&M costs. A discussion regarding costs ensued.

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

Moved to approve the agreement regarding recharge facilities improvements matching funds Cost Sharing Agreement between Inland Empire Utilities Agency and the Chino Basin Watermaster dated March, 2006, as presented

III. REPORTS/UPDATES**A. WATERMASTER GENERAL LEGAL COUNSEL REPORT****1. Attorney Manager Process/Discussion of Peace II Agreement**

Counsel Fife stated we are at the eve of being able to put out the report that will respond to the questions that were brought up during the workshops in November and December, 2005. Wildermuth Environmental is finished with their work and there are some legal issues that counsel needs to respond to. Staff is anticipating those responses will be out within the next week. After that release, staff and counsel will be prepared to move into finishing the Peace II process. This might involve coming back to the parties with the original agreement which was distributed in October 2005, or if there is a need to modify that document, we can then discuss how we will go about that process. A question regarding confidentiality was presented and Counsel Fife stated the same attorney-manager confidentiality agreements will remain in place at the next round of meetings. A brief discussion ensued regarding the next set of meetings and Mr. Manning reviewed the tight timeline in order to meet the July Special Referee's workshop deadline. Mr. Manning stated there will be an item on the April agenda specifically detailing the consequences of not implementing Peace II.

B. WATERMASTER ENGINEERING CONSULTANT REPORT**1. Update on Report on Balance of Recharge and Discharge**

Mr. Wildermuth stated one of the many things Wildermuth Environmental is doing for the Watermaster is this presented item which deals with certain provisions of the Peace Agreement and with Peace II. This report, as of late last night, was completed in an administrative draft form. Mr. Wildermuth stated that a "draft administrative form" is a document, for all intent and purposes, 95% to 97% complete. The report will first be circulated through the Watermaster staff and Watermaster legal counsel to ensure all the

technical questions are answered that were presented at the workshops regarding the Peace II Term Sheet. It is most likely staff and counsel will turn this document around quickly and staff is anticipating very little changes to be made and this item will be sent through the Watermaster process.

C. CEO/STAFF REPORT

1. USGS-GAMA Program

Mr. Manning stated in May this pool is going to be given a presentation on the USGS-GAMA Program which is a groundwater ambient water monitoring and assessment program. This is where the USGS comes into various groundwater basins and tests and evaluates water quality (called the GAMA Program). Mr. Manning stated he recently had a conversation with Robert Kent from USGS, who is the person who will be giving the May presentation, by letting him know that this basin is already light years ahead of other basins in data collection and data management and that we will gladly cooperate in assisting him in his quest by offering data that we have already gathered. Staff is trying to avoid letting the USGS come in and test where they want and then take incorrect or uncorroborated data back to our legislature and let legislature make assumptions against isolated tests. This is an awareness issue and a full presentation will be given in May on this item.

2. Legislative Update

Mr. Manning stated a number of people were in Washington last week talking with members of congress about issues relative to California water issues. This was the ACWA Legislative Agenda that was being discussed. This agenda gave us an opportunity to talk about the issues which are taking place within our own basin. Because of the tight schedules and the hastiness at those ACWA meetings, staff and representatives will be returning in a few weeks to talk in greater detail specifically Chino Basin issues and where we think congress can be effective in meeting our mission in delivering an affordable water supply.

Mr. Manning stated that there is a meeting being held, as we speak, with Senator Margett and Senator Dutton who are currently negotiating, on our behalf, to put money into the bond for the Chino Basin. The deadline for getting our bond issue onto the ballot is March 10, 2006. It appears by several conversations with legislatures that our interests are being protected and staff is in contact with them quite frequently.

3. SAW DMS Data Coordination

Mr. Manning stated there are a few letters provided in the meeting packet which parties have probably already received a copy of wherein SAWPA is asking to come in and talk to the parties about data at each agency. After Watermaster staff received this letter, an email was sent to Daniel Cozad at SAWPA which expressed to him that staff would like to coordinate this through Watermaster; it is preferred that SAWPA not work with all the individual parties and that there are reasons and benefits to work with Watermaster in a joint effort on this item. By working together Watermaster can eliminate a lot of duplicated work efforts and also possibly save them some money. Mr. Manning stated this is an awareness issue and that Daniel was open and receptive to the idea.

4. Department of Health Services Public Hearing on Recycled Water

Mr. Manning noted the flyer for the Department of Health Services Public Hearing on Recycled Water is available on the back table. This meeting is co-sponsored by Watermaster and Mr. Manning encouraged all members to attend this important hearing in support of recycled water. The hearing is on April 20, 2006 at 9:30 a.m. here at the Watermaster offices.

5. Monthly Recharge Update

Mr. Manning noted that by commitments made at previous meetings in which Watermaster would provide the parties with monthly recharge updates at these meetings, a copy of the

most recent update is available on the back table. Mr. Treweek stated we have been fortunate recently in having some late spring storm events. Mr. Treweek reviewed the handout in detail and noted we are pretty much on target as far as capturing water; our goal for the year is 50,000 acre-feet and in order to achieve that we need more months like February with its heavier rain storms. Some of our basins are only recharged, at this point in time, with only storm water and this recharge situation will be rectified shortly via our DWR grant for improvements.

Added Comment:

Mr. Manning stated when he came to the Chino Basin one of the first things he did was join the Ontario Kiwanis Club and one of the first people he met in that club and embraced him was Jerry DuBois. Mr. DuBois inducted Mr. Manning into the Kiwanis Club and has been a good friend ever since and Mr. Manning stated he is going to be greatly missed. Mr. DuBois was a true advocate for the City of Ontario. Mr. Manning agreed this meeting should be adjourned in Congressman DuBois honor.

D. INLAND EMPIRE UTILITIES AGENCY

1. MWD Status Update

Mr. Love stated the Department of Water Resources will maintain the 70% allocation on the State Water Project. This also means there will be a lot of supply available and hopefully capacity will not be reached at the Rialto pipeline in July and August. The new MWD general manager, Jeff Kightlinger, will be out for a reception which will be hosted by Eastern Municipal Water District and Western Municipal Water District, Inland Empire Utilities Agency, and others. Watermaster staff with IEUA and MWD staff met and discussed the operating plan for the DYY Program for the upcoming year; things are moving well on this program. A brief discussion ensued with regard to water deliveries.

2. Phase 2 Chino Basin Recycled Water Groundwater Recharge Project

Mr. Love stated there a scheduled DHS & Regional Water Quality Control Board public hearing on Thursday, April 20, 2006 starting at 9:30 a.m. and is being held at the Chino Basin Watermaster office. Mr. Love offered history on the public hearing which was held in December of 2003 regarding Phase 1 basins. Mr. Love is asking all the appropriators to speak in support of this program that has broad regional benefits to the groundwater basin.

3. Regional Water Conservation Program and Proposed FY Budget

Ms. Davis gave the IEUA Regional Water Conservation Program FY 2006/2007 Proposed Conservation Initiatives and Budget presentation. Ms. Davis reviewed the conservation programs that are currently in place which include: Conservation Rebates, Landscape Programs, School Programs, Public Information Programs, and Member Agency Support Programs. Ms. Davis also reviewed the proposed new conservation programs which include: Ultra Low Flow Toilets, new Landscape Programs, broader Public Information Programs, and more School Programs. The fiscal year 2006/2006 conservation program revenues were discussed in detail noting IEUA will continue to seek additional funds through state grants and other programs to augment the conservation budget.

4. Recycled Water Update

Mr. Jeske stated that while at the Agricultural Pool meeting which was held prior to this meeting today, it was brought up at that meeting one of issues in getting recycled water into the ground and it taking over a year for it to go through the process. Mr. Jeske stated that perhaps that length of time is understandable where there is a regional wide groundwater basin involved; however, the City of Ontario has experienced the same familiarity on a site-by-site basis where we are proposing direct reuse of recycled water that is not making its way back in immediate recharge into the groundwater basin. Mr. Jeske spoke on permitting and landscaping watering issues.

- 5. Monthly Water Conservation Program Report
Mr. Love stated this report is provided in the meeting package for review.
- 6. Monthly Imported Water Deliveries Report
No comment was made regarding this item.
- 7. State/Federal Legislation Reports
No comment was made regarding this item.
- 8. Public Relations Report
No comment was made regarding this item.
- 9. Groundwater Update
No comment was made regarding this item.

E. OTHER METROPOLITAN MEMBER AGENCY REPORTS
No comment was made regarding this item.

IV. INFORMATION

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

V. COMMITTEE MEMBER COMMENTS

No comment was made regarding this item.

VI. OTHER BUSINESS

No comment was made regarding this item.

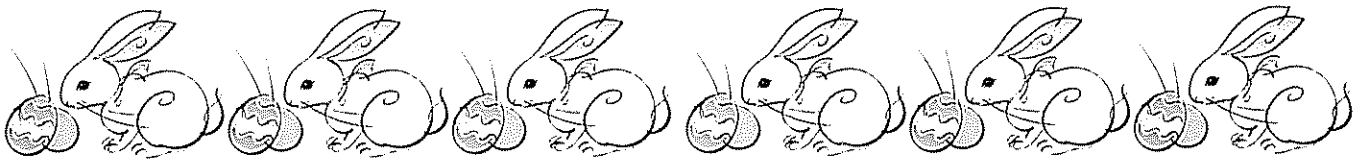
VII. FUTURE MEETINGS

March 23, 2006	9:00 a.m.	Advisory Committee Meeting
March 23, 2006	11:00 a.m.	Watermaster Board Meeting
March 28, 2006	9:00 a.m.	GRCC Meeting
April 13, 2006	9:00 a.m.	Joint Appropriative Pool Meeting
April 18, 2006	9:00 a.m.	Agricultural Pool Meeting @ IEUA
April 27, 2006	9:00 a.m.	Advisory Committee Meeting
April 27, 2006	11:00 a.m.	Watermaster Board Meeting

Advisory Committee Meeting Adjourned at 10:00 a.m. in honor of Congressmen Jerry DuBois

Secretary: _____

Minutes Approved: _____

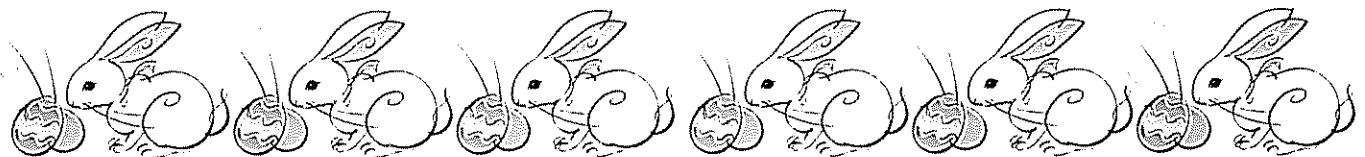


CHINO BASIN WATERMASTER

I. CONSENT CALENDAR

A. MINUTES

1. Watermaster Board Meeting –
March 23, 2006



Draft Minutes
CHINO BASIN WATERMASTER
WATERMASTER BOARD MEETING

March 23, 2006

The Watermaster Board Meeting was held at the offices of the Chino Basin Watermaster, 9641 San Bernardino Road, Rancho Cucamonga, California, on March 23, 2006 at 11:00 a.m.

WATERMASTER BOARD MEMBERS PRESENT

Ken Willis, Chair	West End Consolidated Water Company
Sandra Rose	Monte Vista Water District
John Anderson	Inland Empire Utilities Agency
Al Lopez	Western Municipal Water District
Bob Kuhn	Three Valleys Municipal Water District
Bob Bowcock	Vulcan Materials Company
Paul Hofer	Agricultural Pool, Crops
Paul Hamrick	Jurupa Community Services District
Geoffrey Vanden Heuvel	Agricultural Pool, Dairy

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

Scott Slater	Hatch & Parent
Michael Fife	Hatch & Parent
Mark Wildermuth	Wildermuth Environmental Inc.
Andy Malone	Wildermuth Environmental Inc.

Others Present

Rosemary Hoerning	City of Upland
Terry Catlin	Inland Empire Utilities Agency
Ken Jeske	City of Ontario
Mark Kinsey	Monte Vista Water District
Jim Taylor	City of Pomona
Carole McGreevy	Jurupa Community Services District
Ash Dhingra	City of Pomona
Charles Moorrees	San Antonio Water Company
Dave Crosley	City of Chino
Henry Pepper	City of Pomona
Tom Love	Inland Empire Utilities Agency
David DeJesus	Three Valleys Municipal Water District

The Watermaster Board Meeting was called to order by Mr. Willis at 11:05 a.m.

PLEDGE OF ALLEGIANCE

AGENDA - ADDITIONS/REORDER

There were no additions or reorders made to the agenda.

I. CONSENT CALENDAR**A. MINUTES**

1. Minutes of the Watermaster Board Meeting held February 23, 2006

B. FINANCIAL REPORTS

1. Cash Disbursements for the month of February 2006
2. Combining Schedule of Revenue, Expenses and Changes in Working Capital for the Period July 1, 2005 through January 31, 2006
3. Treasurer's Report of Financial Affairs for the Period January 1, 2006 through January 31, 2006
4. Profit & Loss Budget vs. Actual July through January 2006

Motion by Bowcock, second by Kuhn, and by unanimous vote

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

II. BUSINESS ITEMS**A. CONTRACT FOR DRILLING AND CONSTRUCTION OF A NESTED PIEZOMETER**

Mr. Manning stated a very extensive program for monitoring throughout this basin and one of the most extensive programs is in the MZ1 area where issues of subsidence have been detected. The centerpiece of this monitoring program is the nested piezometers which are located at the Ayala Park facility. The facility was constructed for the purpose of determining the extent of subsidence that is caused by pumping. During the course of the testing that has been performed at that this site, has shown periodic anomalies occurring causing cross contamination to occur between the different well casings. Having inconsistent data will not be sufficient for our monitoring program for MZ1. It has been recommended by our consultants that staff evaluate and consider installing new piezometers and then abandon the current site so that clearer and more accurate data can be gathered. The subsidence issue is an important issue to all Watermaster parties and staff wants to make sure we have an adequate monitoring program in place. The contract which is in the meeting package is with the Layne Christensen Company of Fontana in the amount of \$292,000. Staff is pleased with this contracting company and they have done of work for us before. Staff is recommending moving forward with this item that has been unanimously approved by the Pools and the Advisory Committee. The question of what an actual piezometer is was presented. Mr. Malone gave a detailed explanation on what a piezometer is and does and how it is not properly functioning currently. A discussion ensued with regards to costs and completion dates.

Motion by Anderson, second by Hamrick, and by unanimous vote

Moved to approve the Layne Christensen Company contract for drilling and construction of a nested piezometer at Ayala Park in Chino, as presented

B. IEUA/DWR GRANT FUNDING AGREEMENT

Mr. Manning stated in January 2005, Inland Empire Utilities Agency (IEUA) received a grant of \$15,500,000 from the Department of Water Resources (DWR) through the Proposition 13 Groundwater Recharge and Storage Programs. Mr. Manning noted that the purpose of this grant was to fund IEUA's Chino Basin Conjunctive Use Expansion Program. The total project cost for this program was estimated to be \$40 million with the local share being funded through IEUA's Water and Sewer Rate revenue and a combination of various State and Federal funds. Mr. Manning stated in 2002, a separate grant of Proposition 13 money was given to IEUA that was used to fund implementation of Watermaster's Recharge Master Plan. That project involved a total cost of approximately \$40 million. One half of this project cost was paid through grant funds, and the one-half local share was split evenly between IEUA and Watermaster. Through the initial implementation of the Recharge Master Plan, most, but not all, of the identified recharge basin improvements were constructed; the available funding fell short of being able to fund all of the identified improvements. Mr. Manning noted that additional improvement work was identified as necessary over the course of initial project construction and over the past year of use of the facilities. IEUA has proposed using a portion of the most recent

grant funding to perform further improvement work on the recharge basins. IEUA has also proposed using \$5,250,000 of grant money for this purpose, using the same cost sharing arrangement that was used for the grant money that was used for initial implementation of the Recharge Master Plan. Staff is recommending moving forward with this agreement and noted this was approved unanimously by the Pools and the Advisory Committee.

Motion by Bowcock, second by Kuhn, and by unanimous vote

Moved to approve the agreement regarding recharge facilities improvements matching funds Cost Sharing Agreement between Inland Empire Utilities Agency and the Chino Basin Watermaster dated March, 2006, as presented

III. REPORTS/UPDATES

A. WATERMASTER GENERAL LEGAL COUNSEL REPORT

1. Attorney Manager Process/Discussion of Peace II Agreement

Counsel Slater stated based upon some of the comments that have been shared at the last few Watermaster Board meetings this report will be given in more detail than usual as to bring the members up to date on the historic and factual context of the Peace II process. This report is designed to bring the parties up to date on the status of the Attorney-Manager process and the discussion regarding the Peace II Term Sheet. Counsel Slater stated the Watermaster Board sits by virtue of the existence of a decree, a judgment, and the board itself is not a public agency. The Board is an extension of the judiciary, an arm of the court, to make findings of fact and decisions on things that come before you. As an extension of the court this board is not authorized or burdened by some of the requirements that might be attached to public agencies. The board has this power for two reasons; the parties to the judgment that initiated the litigation in 1978 decided to adopt a Watermaster structure, a rather complicated set of governance procedures and rules that have multiple cross checks and there are reasons and rational that go into why that was formed that may never be known to any of us. The fact is, what is left today is a contract which articulated a structure that the parties to the judgment trusted for purposes of making decisions. The Board serves at the discretion of the court because all of this while it may be a matter of contract, is still subject to the judicial review. This is why at one point in time the court said, "If certain things are not being carried out by Watermaster, I as the judge will exercise my discretion to disband this Watermaster and substitute in a new form of governance". There are two prongs in which this board sits; 1) the will of the parties under a contract, and 2) by virtue of the judicial review and consistent pleasure with your performance as an extension of the court. Watermaster's overall role is essentially to lead, guide, recommend, sometimes condition, and sometimes deny in accordance with our constitution, which is effectively the judgment. Watermaster itself, in particularly the board are somewhat constrained in how they deliberate. The affairs of Watermaster are essentially that of the court; in the extent this board is in the position to pass judgment one or more parties who ultimately come before you, the parties felt they were uncomfortable with this board being in a position to collectively deliberate confidentially among themselves about things that were to come before the board in the form of a subsequent application or conflict among their members. The boards' rules regarding confidential sessions are relatively constrained. If a subject matter is going to come before this board on the merits for which you would exercise your discretion and make a decision and ultimately carry that forward to the court, you are not entitled to hold a confidential session because the deliberation ought to be in public. This should be contrasted with a contract negotiation that you have with a third party. Mr. Slater stated that it has been asked before to counsel and staff why it is that Watermaster can't have confidential sessions about the subjects in the Peace Agreement. The reason is this way is because the discussions in the Peace Agreement are the kinds of things that routinely come before you for which you will require to exercise your discretion. This has a bearing on the origin or the genesis of the Attorney-Manager process, although, counsel understands there is discomfort with a confidential process, there is some reluctance on the part of the people who would ultimately appear before their judge and jury to confront their judge and jury about the

reasonableness of their individual stakeholder positions. Each of the members of the board represents the public generally and also represents a constituency; this is how one is ultimately appointed to the board. There has been a long standing concern, at least since 2005 that the parties themselves need to have an ability to organize, to talk privately, without predigesting "the board" with regard to positions they may take. People are more conformable discussing compromise in a confidential setting when what is said in those confidential meetings is not subsequently held up against them in a public setting. This process was initially engaged in an Attorney-Manager process which was designed to solicit stakeholder input in a non-confrontational confidential setting to develop an outline. That outline on the basis of all of the parties who participated in that work product, that they wanted it to be day lighted into the Watermaster process; counsel complied with that request by holding workshops. In those workshops comments were received and in the interim since the last workshop in December, Mark Wildermuth's office has been busy preparing a technical response to the plethora of comments that were received, and counsel is pleased to report an administrative draft is now complete. Staff and counsel has committed to releasing the draft report for review very shortly. Counsel Slater stated that having gone through the workshop process, the individual meeting processes, and all other avenues to resolve the term sheet issues, counsel suggests, unless the board feels strongly otherwise, counsel would like to prepare on behalf of staff a facilitator amalgamation, a straw man proposal, and distribute that. Counsel feels the best place to start this next process is in a confidential setting, this board convened as Watermaster can not convene in confidential in a confidential setting. This board can allow the parties, at their own convenience, to convene confidentially and agree amongst themselves not to introduce things that someone says at the meeting. This allows people to talk fairly among them, and the theory is not to limit it, to the Attorney-Manager process but to actually open this meeting up to any person or party who is willing to adhere to the confidential rules. This will entail staff and counsel to attending a single session to allow an opportunity to present the straw man proposal. At that session we would then either bring the proposal back to the board with whatever further modifications or suggestions which are received at that process and then the board would then make a decision whether it was worthy of presentation to the pools for an initiation into the traditional Watermaster process or if the members at the proposal session detested the proposal counsel would forward that information to this board and that would then be a dead end in the process. Counsel is anticipating the latter suggestion will not come into play and there will be some sort of proposal brought back to this board for a decision after the session. Counsel Slater stated during the second week in April the straw man proposal will be released followed by the scheduled, April 18, meeting by which was described in an earlier statement. At the next Watermaster Board meeting on Thursday, April 27, 2006 the results of the April 18, meeting will be presented with the expectation, if all goes well, we will then taken into the Watermaster process in May and on time to respond to the courts request for a July workshop date. A lengthy discussion ensued with regard to "board" closed sessions.

B. WATERMASTER ENGINEERING CONSULTANT REPORT

1. Update on Report on Balance of Recharge and Discharge

Mr. Wildermuth stated one of the many things Wildermuth Environmental is doing for the Watermaster is this presented item which deals with certain provisions of the Peace Agreement and with Peace II. This report, as of late last night, was completed in an administrative draft form. Mr. Wildermuth stated that a "draft administrative form" is a document, for all purposes, 95% to 97% complete. The report will first be circulated through the Watermaster staff and Watermaster legal counsel to ensure all the technical questions are answered that were presented at the workshops regarding the Peace II Term Sheet. It is most likely staff and counsel will turn this document around quickly and staff is anticipating very little changes to be made and this item will be sent through the Watermaster process.

C. CEO/STAFF REPORT1. USGS-GAMA Program

Mr. Manning stated in May this pool is going to be given a presentation on the USGS-GAMA Program which is a groundwater ambient water monitoring and assessment program. This is where the USGS comes into various groundwater basins and tests and evaluates water quality (called the GAMA Program). Mr. Manning stated he recently had a conversation with Robert Kent from USGS, who is the person who will be giving the May presentation, by letting him know that this basin is already light years ahead of other basins in data collection and data management and that we will gladly cooperate in assisting him in his quest by offering data that we have already gathered. Staff is trying to avoid letting the USGS come in and test where they want and then take incorrect or uncorroborated data back to our legislature and let legislature make assumptions against isolated tests. This is an awareness issue and a full presentation will be given in May on this item.

2. Legislative Update

Mr. Manning stated a number of people were in Washington last week talking with members of congress about issues relative to California water issues. This was the ACWA Legislative Agenda that was being discussed. This agenda gave us an opportunity to talk about the issues which are taking place within our own basin. Because of the tight schedules and the hastiness at those ACWA meetings, staff and representatives will be returning in a few weeks to talk in greater detail specifically about Chino Basin issues and where we think congress can be effective in meeting our mission in delivering an affordable water supply.

Mr. Manning stated that there is a meeting being held, as we speak, with Senator Margett and Senator Dutton who are currently negotiating, on our behalf, to put money into the bond for the Chino Basin. The deadline for getting our bond issue onto the ballot is March 10, 2006. It appears by several conversations with legislatures that our interests are being protected and staff is in contact with them quite frequently.

3. SAW DMS Data Coordination

Mr. Manning stated there are a few letters provided in the meeting packet which parties have probably already received a copy of wherein SAWPA is asking to come in and talk to the parties about data at each agency. After Watermaster staff received this letter, an email was sent to Daniel Cozad at SAWPA which expressed to him that staff would like to coordinate this through Watermaster; it is preferred that SAWPA not work with all the individual parties that there are reasons and benefits to work with Watermaster in a joint effort on this item. By working together Watermaster can eliminate a lot of duplicated work efforts on their part and also possibly save them some money. Mr. Manning stated this is an awareness issue and that Daniel was open and receptive to the idea.

4. Department of Health Services Public Hearing on Recycled Water

Mr. Love stated there a scheduled DHS & Regional Water Quality Control Board public hearing on Thursday, April 20, 2006 starting at 9:30 a.m. and is being held at the Chino Basin Watermaster office. Mr. Love offered history on the public hearing which was held in December of 2003 regarding Phase 1 basins. Mr. Love is asking all the appropriators, Watermaster's, and stake holders, in writing and at the actual hearing, speak in support of this program that has broad regional benefits to the groundwater basin.

5. Monthly Recharge Update

Mr. Manning noted that by commitments made at previous meetings in which Watermaster would provide the parties with monthly recharge updates at these meetings, a copy of the most recent update is available on the back table. Mr. Treweek stated we have been fortunate recently in having some late spring storm events. Mr. Treweek reviewed the handout in detail and noted we are pretty much on target as far as capturing water; our goal for the year is 50,000 acre-feet and in order to achieve that we need more months like

February with its heavier rain storms. Some of our basins are only recharged, at this point in time, with only storm water and this recharge situation will be rectified shortly via our DWR grant for improvements.

Added Comment:

Mr. Manning stated when he came to the Chino Basin one of the first things he did was join the Ontario Kiwanis Club and one of the first people he met in that club and embraced him was Jerry DuBois. Mr. DuBois inducted Mr. Manning into the Kiwanis Club and has been a good friend ever since and Mr. Manning stated he is going to be greatly missed. Congressman DuBois was a true advocate for the City of Ontario. Mr. Manning asked that this meeting be adjourned in Congressman DuBois honor.

IV. INFORMATION

1. Newspaper Articles

Chair Willis noted that Mr. Vanden Heuvel put together a really great article which is included in the meeting packet and inquired to Mr. Manning if staff could work on getting Geoff a guest column in the Daily Bulletin to submit articles such as the one presented here.

V. BOARD MEMBER COMMENTS

Ms. Rose inquired into the past discussions of holding a Watermaster Board member training/education workshop by the end of April. Mr. Manning stated it will be accomplished in April and the invitation will be opened to all who would like to attend to go through in depth the role of the Watermaster Board member. Staff will be sending out notice on this informal workshop shortly.

VI. OTHER BUSINESS

No comment was made regarding this item.

VII. FUTURE MEETINGS

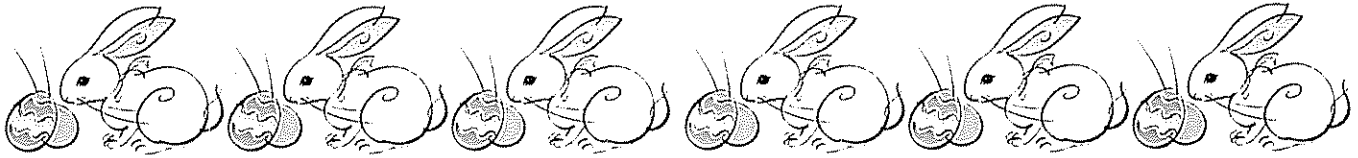
March 23, 2006	9:00 a.m.	Advisory Committee Meeting
March 23, 2006	11:00 a.m.	Watermaster Board Meeting
March 28, 2006	9:00 a.m.	GRCC Meeting
April 13, 2006	9:00 a.m.	Joint Appropriative Pool Meeting
April 18, 2006	9:00 a.m.	Agricultural Pool Meeting @ IEUA
April 27, 2006	9:00 a.m.	Advisory Committee Meeting
April 27, 2006	11:00 a.m.	Watermaster Board Meeting

Chair Willis asked the board members and attendees to partake in a moment of silence to observe the passing of Jerry DuBois.

The Watermaster Board Meeting Adjourned at 12:05 p.m. in honor of Congressman Jerry DuBois

Secretary: _____

Minutes Approved: _____

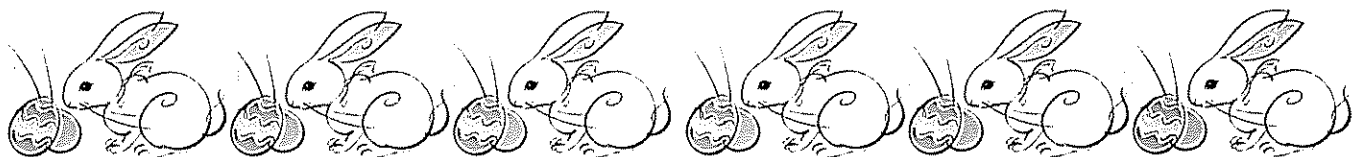


CHINO BASIN WATERMASTER

I. CONSENT CALENDAR

B. FINANCIAL REPORTS

1. Cash Disbursements for the month of March 2006
2. Combining Schedule of Revenue, Expenses and Changes in Working Capital for the Period July 1, 2005 through February 28, 2006
3. Treasurer's Report of Financial Affairs for the Period February 1, 2006 through February 28, 2006
4. Profit & Loss Budget vs. Actual July through February 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: April 13, 2006
April 18, 2006
April 27, 2006

TO: Committee Members
Watermaster Board Members

SUBJECT: Cash Disbursement Report – March 2006

SUMMARY

Issue – Record of cash disbursements for the month of March 2006.

Recommendation – Staff recommends the Cash Disbursements for March 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 March 2006 were \$2,097,843.49. The most significant expenditures during the month were Inland Empire Utilities Agency in the amount of \$880,331.90, Inland Empire Utilities Agency in the amount of \$860,601.70, Wildermuth Environmental Inc. in the amount of \$161,921.61, and Hatch and Parent in the amount of \$56,282.51.

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CHINO BASIN WATERMASTER
Cash Disbursement Detail Report
March 2006

Type	Date	Num	Name	Amount
Mar 06				
Bill Pmt -Check	3/3/2006	10308	CAFE CALATO	-102.90
Bill Pmt -Check	3/7/2006	10309	A & R TIRE	-282.42
Bill Pmt -Check	3/7/2006	10310	ANDERSON, JOHN	-125.00
Bill Pmt -Check	3/7/2006	10311	APPLIED COMPUTER TECHNOLOGIES	-1,635.70
Bill Pmt -Check	3/7/2006	10312	ARROWHEAD MOUNTAIN SPRING WATER	-83.77
Bill Pmt -Check	3/7/2006	10313	BLACK & VEATCH CORPORATION	-1,177.50
Bill Pmt -Check	3/7/2006	10314	BOWCOCK, ROBERT	-125.00
Bill Pmt -Check	3/7/2006	10315	CUCAMONGA VALLEY WATER DISTRICT	0.00
Bill Pmt -Check	3/7/2006	10316	DIRECTV	-74.98
Bill Pmt -Check	3/7/2006	10317	HAMRICK, PAUL	-125.00
Bill Pmt -Check	3/7/2006	10318	INLAND EMPIRE UTILITIES AGENCY	-880,311.90
Bill Pmt -Check	3/7/2006	10319	KUHN, BOB	-125.00
Bill Pmt -Check	3/7/2006	10320	MONTE VISTA WATER DIST	-250.00
Bill Pmt -Check	3/7/2006	10321	PETTY CASH	-713.95
Bill Pmt -Check	3/7/2006	10322	PRINTING RESOURCES	-322.93
Bill Pmt -Check	3/7/2006	10323	PURCHASE POWER	-15.28
Bill Pmt -Check	3/7/2006	10324	RAUCH COMMUNICATION CONSULTANTS, LLC	-979.80
Bill Pmt -Check	3/7/2006	10325	RICOH BUSINESS SYSTEMS-Maintenance	-745.50
Bill Pmt -Check	3/7/2006	10326	SANTA ANA WATERSHED PROJECT AUTHORITY	-356.96
Bill Pmt -Check	3/7/2006	10327	UNION 76	-128.41
Bill Pmt -Check	3/7/2006	10328	VANDEN HEUVEL, GEOFFREY	-633.10
Bill Pmt -Check	3/7/2006	10329	VELASQUEZ JANITORIAL	-1,200.00
Bill Pmt -Check	3/7/2006	10330	VERIZON	-41.44
Bill Pmt -Check	3/7/2006	10331	WILLIS, KENNETH	-375.00
Bill Pmt -Check	3/7/2006	10332	YUKON DISPOSAL SERVICE	-134.72
Bill Pmt -Check	3/7/2006	10333	CUCAMONGA VALLEY WATER DISTRICT	-5,076.00
Bill Pmt -Check	3/7/2006	10334	SOUTHERN CALIFORNIA WATER COMMITTEE	-50.00
Bill Pmt -Check	3/9/2006	10335	COMPUSA, INC.	-403.25
Bill Pmt -Check	3/9/2006	10336	LOS ANGELES TIMES	-42.40
Bill Pmt -Check	3/9/2006	10337	MCCALL'S METER SALES & SERVICE	-9,347.32
Bill Pmt -Check	3/9/2006	10338	PARK PLACE COMPUTER SOLUTIONS, INC.	-2,200.00
Bill Pmt -Check	3/9/2006	10339	PAYCHEX	-172.38
Bill Pmt -Check	3/9/2006	10340	UNITED PARCEL SERVICE	-375.96
Bill Pmt -Check	3/9/2006	10341	VERIZON	-364.25
General Journal	3/15/2006	06/03/3	PAYROLL	-5,629.68
General Journal	3/15/2006	06/03/3	PAYROLL	-20,248.82
Bill Pmt -Check	3/22/2006	10362	ACWA SERVICES CORPORATION	-234.16
Bill Pmt -Check	3/22/2006	10363	PUMP CHECK	-2,509.99
Bill Pmt -Check	3/22/2006	10364	REID & HELLYER	-8,866.32
Bill Pmt -Check	3/22/2006	10365	THE FURMAN GROUP, INC.	-2,695.00
Bill Pmt -Check	3/22/2006	10342	BANK OF AMERICA	-5,644.55
Bill Pmt -Check	3/22/2006	10343	CAL CPA	-320.00
Bill Pmt -Check	3/22/2006	10344	CALPERS	-2,650.83
Bill Pmt -Check	3/22/2006	10345	ELLISON, SCHNEIDER & HARRIS, LLP	-13,911.12
Bill Pmt -Check	3/22/2006	10346	FIRST AMERICAN REAL ESTATE SOLUTIONS	-125.00
Bill Pmt -Check	3/22/2006	10347	GREENLEE, GAIL	-69.61
Bill Pmt -Check	3/22/2006	10348	HATCH AND PARENT	-56,282.51
Bill Pmt -Check	3/22/2006	10349	INLAND EMPIRE UTILITIES AGENCY	-860,601.70
Bill Pmt -Check	3/22/2006	10350	MCI	-908.17
Bill Pmt -Check	3/22/2006	10351	OFFICE DEPOT	-641.56
Bill Pmt -Check	3/22/2006	10352	PRE-PAID LEGAL SERVICES, INC.	-103.60
Bill Pmt -Check	3/22/2006	10353	PREMIERE GLOBAL SERVICES	-126.14
Bill Pmt -Check	3/22/2006	10354	RAUCH COMMUNICATION CONSULTANTS, LLC	-5,146.43
Bill Pmt -Check	3/22/2006	10355	RICOH BUSINESS SYSTEMS-Lease	-3,591.31
Bill Pmt -Check	3/22/2006	10356	STANDARD INSURANCE CO	-579.88
Bill Pmt -Check	3/22/2006	10357	STAULA, MARY L	-136.61
Bill Pmt -Check	3/22/2006	10358	WHEELER METER MAINTENANCE	-900.00
Bill Pmt -Check	3/22/2006	10359	WILDERMUTH ENVIRONMENTAL INC	-161,921.03
Bill Pmt -Check	3/22/2006	10360	RICOH BUSINESS SYSTEMS-Lease	-888.94
Bill Pmt -Check	3/22/2006	10361	RICOH BUSINESS SYSTEMS-Maintenance	-26.60
Bill Pmt -Check	3/23/2006	10366	EL TORITO	-261.55
Bill Pmt -Check	3/24/2006	10367	VIP AUTO DETAILING	-499.20
General Journal	3/25/2006	06/03/5	PAYROLL	-5,058.95
General Journal	3/25/2006	06/03/5	PAYROLL	-19,166.41
Mar 06				<u>-2,087,843.49</u>

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CHINO BASIN WATERMASTER
 COMBINING SCHEDULE OF REVENUE, EXPENSES AND CHANGES IN WORKING CAPITAL
 FOR THE
 PERIOD JULY 1, 2005 THROUGH FEBRUARY 28, 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 2004-05
Administrative Revenues										
Administrative Assessments			4,781,347		66,160				4,847,507	\$3,984,888
Interest Revenue			100,514	10,433	3,278			37	114,262	78,330
Mutual Agency Project Revenue		29,763							29,763	0
Grant Income									-	0
Miscellaneous Income									-	0
Total Revenues	-	29,763	4,881,861	10,433	69,438	-	-	37	4,991,532	4,063,218
Administrative & Project Expenditures										
Watermaster Administration	371,958								371,958	621,784
Watermaster Board-Advisory Committee	37,185								37,185	37,018
Pool Administration			14,040	85,761	3,287				103,088	91,153
Optimum Basin Mgmt Administration		903,659							903,659	1,019,183
OBMP Project Costs		1,227,637							1,227,637	3,733,694
Education Funds Use								375	375	375
Mutual Agency Project Costs	21,075								21,075	80,004
Total Administrative/OBMP Expenses	430,218	2,131,296	14,040	85,761	3,287			375	2,664,977	5,583,211
Net Administrative/OBMP Income	(430,218)	(2,101,533)								
Allocate Net Admin Income To Pools	430,218		334,086	90,050	6,082				-	0
Allocate Net OBMP Income To Pools		2,101,533	1,631,945	439,878	29,710				-	0
Agricultural Expense Transfer			609,539	(609,539)					-	0
Total Expenses			2,589,610	6,150	39,079	-	-	375	2,664,977	5,583,211
Net Administrative Income			2,292,251	4,283	30,359			(338)	2,326,555	(1,519,993)
Other Income/(Expense)										
Replenishment Water Purchases						6,635,065			6,635,065	0
MZ1 Supplemental Water Assessments									-	2,179,500
Water Purchases									-	0
MZ1 Imported Water Purchase									-	(2,278,500)
Groundwater Replenishment						(5,748,143)			(5,748,143)	0
Net Other Income			-	-	-	886,922	-	-	886,922	(99,000)
Net Transfers To/(From) Reserves			2,292,251	4,283	30,359	886,922	-	(338)	3,213,477	(1,618,993)
Working Capital, July 1, 2005			4,450,869	464,653	187,298	3,580,499	158,251	2,238	8,843,808	
Working Capital, End Of Period			6,743,120	468,936	217,657	4,467,421	158,251	1,900	12,057,285	
04/05 Production			127,810.967	34,450.449	2,326.836				164,588.252	
04/05 Production Percentages			77.655%	20.931%	1.414%				100.000%	

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**CHINO BASIN WATERMASTER
TREASURER'S REPORT OF FINANCIAL AFFAIRS FOR THE PERIOD
FEBRUARY 1 THROUGH FEBRUARY 28, 2006**

DEPOSITORIES:

Cash on Hand - Petty Cash		\$ 500
Bank of America		
Governmental Checking-Demand Deposits	\$ 204,976	
Savings Deposits	9,685	
Zero Balance Account - Payroll	25,423	240,084
Vineyard Bank CD - Agricultural Pool		416,453
Local Agency Investment Fund - Sacramento		12,945,566
TOTAL CASH IN BANKS AND ON HAND	2/28/2006	\$ 13,602,603
TOTAL CASH IN BANKS AND ON HAND	1/31/2006	12,952,000
PERIOD INCREASE (DECREASE)		<u>\$ 650,603</u>

CHANGE IN CASH POSITION DUE TO:

Decrease/(Increase) in Assets: Accounts Receivable		\$ 9,883
Assessments Receivable		1,963,906
Prepaid Expenses, Deposits & Other Current Assets		17,183
(Decrease)/Increase in Liabilities: Accounts Payable		(77,298)
Accrued Payroll, Payroll Taxes & Other Current Liabilities		959
Transfer to/(from) Reserves		(1,264,030)
PERIOD INCREASE (DECREASE)		<u>\$ 650,603</u>

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 1/31/2006	\$ 500	\$	180,974	\$	-	\$	9,685	\$	415,275	\$	12,345,566	\$	12,952,000
Deposits	-		1,973,790		-		-		1,178		600,000		2,574,968
Transfers	-		(677,951)		77,951		-		-		-		(600,000)
Withdrawals/Checks	-		(1,271,837)		(52,528)		-		-		-		(1,324,365)
Balances as of 2/28/2006	\$ 500	\$	204,976	\$	25,423	\$	9,685	\$	416,453	\$	12,945,566	\$	13,602,603
PERIOD INCREASE OR (DECREASE)	\$ -	\$	24,002	\$	25,423	\$	-	\$	1,178	\$	600,000	\$	650,603

**CHINO BASIN WATERMASTER
TREASURER'S REPORT OF FINANCIAL AFFAIRS FOR THE PERIOD
FEBRUARY 1 THROUGH FEBRUARY 28, 2006**

INVESTMENT TRANSACTIONS

Effective Date	Transaction	Depository	Activity	Redeemed	Days to Maturity	Interest Rate(*)	Maturity Yield
2/24/2006	Deposit	L.A.I.F.	\$ 600,000				
TOTAL INVESTMENT TRANSACTIONS			\$ 600,000	-			

* The earnings rate for L.A.I.F. is a daily variable rate; 3.63% was the effective yield rate at the Quarter ended December 31, 2005

**INVESTMENT STATUS
February 28, 2006**

<u>Financial Institution</u>	<u>Principal Amount</u>	<u>Number of Days</u>	<u>Interest Rate</u>	<u>Maturity Date</u>
Local Agency Investment Fund	\$ 12,945,566			
TOTAL INVESTMENTS	\$ 12,945,566			

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

CHINO BASIN WATERMASTER
Profit & Loss Budget vs. Actual
July 2005 through February 2006

	<u>Jul '05 - Feb 06</u>	<u>Budget</u>	<u>\$ Over Budget</u>	<u>% of Budget</u>
Ordinary Income/Expense				
Income				
4010 · Local Agency Subsidies	29,763	132,000	-102,238	22.55%
4110 · Admin Asmnts-Approp Pool	4,781,347	4,804,121	-22,774	99.53%
4120 · Admin Asmnts-Non-Agri Pool	66,160	73,425	-7,265	90.11%
4700 · Non Operating Revenues	114,262	78,330	35,932	145.87%
Total Income	<u>4,991,532</u>	<u>5,087,876</u>	<u>-96,344</u>	<u>98.11%</u>
Gross Profit	4,991,532	5,087,876	-96,344	98.11%
Expense				
6010 · Salary Costs	323,692	404,153	-80,461	80.09%
6020 · Office Building Expense	57,589	97,850	-40,261	58.85%
6030 · Office Supplies & Equip.	15,067	47,500	-32,433	31.72%
6040 · Postage & Printing Costs	52,107	75,700	-23,593	68.83%
6050 · Information Services	80,034	103,500	-23,466	77.33%
6060 · Contract Services	14,163	130,500	-116,337	10.85%
6080 · Insurance	16,525	24,210	-7,685	68.26%
6110 · Dues and Subscriptions	3,250	14,000	-10,750	23.21%
6140 · WM Admin Expenses	1,032	6,500	-5,468	15.87%
6150 · Field Supplies	-1,827	4,050	-5,877	-45.1%
6170 · Travel & Transportation	48,000	45,200	2,800	106.19%
6190 · Conferences & Seminars	12,084	17,500	-5,416	69.05%
6200 · Advisory Comm - WM Board	9,562	14,082	-4,520	67.91%
6300 · Watermaster Board Expenses	27,623	29,782	-2,159	92.75%
8300 · Appr PI-WM & Pool Admin	14,040	15,347	-1,307	91.48%
8400 · Agri Pool-WM & Pool Admin	13,128	18,756	-5,628	70.0%
8467 · Agri-Pool Legal Services	66,483	45,000	21,483	147.74%
8470 · Ag Meeting Attend -Special	6,150	10,000	-3,850	61.5%
8500 · Non-Ag PI-WM & Pool Admin	3,287	7,423	-4,136	44.28%
6500 · Education Funds Use Expens	375	375	0	100.0%
9500 · Allocated G&A Expenditures	<u>-249,756</u>	<u>-378,284</u>	<u>128,528</u>	<u>66.02%</u>
Subtotal G&A Expenditures	512,605	733,144	-220,539	69.92%
6900 · Optimum Basin Mgmt Plan	820,172	996,767	-176,595	82.28%
6950 · Mutual Agency Projects	21,075	75,000	-53,925	28.1%
9501 · G&A Expenses Allocated-OBMP	<u>83,487</u>	<u>109,541</u>	<u>-26,054</u>	<u>76.22%</u>
Subtotal OBMP Expenditures	924,734	1,181,308	-256,574	78.28%
7101 · Production Monitoring	44,179	68,755	-24,576	64.26%
7102 · In-line Meter Installation	40,688	97,954	-57,266	41.54%
7103 · Grdwtr Quality Monitoring	48,829	66,503	-17,674	73.42%
7104 · Gdwtr Level Monitoring	86,292	184,812	-98,520	46.69%
7105 · Sur Wtr Qual Monitoring	8,016	90,223	-82,207	8.88%
7106 · Wtr Level Sensors Install	0	5,734	-5,734	0.0%
7107 · Ground Level Monitoring	91,109	554,825	-463,716	16.42%
7108 · Hydraulic Control Monitoring	162,347	495,368	-333,021	32.77%
7109 · Recharge & Well Monitoring Prog	143,234	133,061	10,173	107.65%
7200 · PE2- Comp Recharge Pgm	246,456	759,105	-512,649	32.47%
7300 · PE3&5-Water Supply/Desalte	339	12,548	-12,209	2.7%

CHINO BASIN WATERMASTER
Profit & Loss Budget vs. Actual
July 2005 through February 2006

	<u>Jul '05 - Feb 06</u>	<u>Budget</u>	<u>\$ Over Budget</u>	<u>% of Budget</u>
7400 · PE4- Mgmt Plan	134,082	1,081,014	-946,932	12.4%
7500 · PE6&7-CoopEfforts/SaltMgmt	48,849	255,769	-206,920	19.1%
7600 · PE8&9-StorageMgmt/Conj Use	6,849	77,268	-70,419	8.86%
7690 · Recharge Improvement Debt Pymt	0	300,000	-300,000	0.0%
7700 · Inactive Well Protection Prgm	0	12,128	-12,128	0.0%
9502 · G&A Expenses Allocated-Projects	166,269	268,742	-102,473	61.87%
Subtotal Special Project Expenditures	<u>1,227,537</u>	<u>4,463,809</u>	<u>-3,236,272</u>	<u>27.5%</u>
Total Expense	<u>2,664,877</u>	<u>6,378,261</u>	<u>-3,713,384</u>	<u>41.78%</u>
Net Ordinary Income	2,326,655	-1,290,385	3,617,040	-180.31%
Other Income/Expense				
Other Income				
4231 · MZ1 Assigned Water Sales	0	600,000	-600,000	0.0%
4210 · Approp Pool-Replenishment	6,635,065	0	6,635,065	100.0%
Total Other Income	<u>6,635,065</u>	<u>600,000</u>	<u>6,035,065</u>	<u>1,105.84%</u>
Other Expense				
5010 · Groundwater Replenishment	5,748,143	699,000	5,049,143	822.34%
9999 · To/(From) Reserves	3,213,578	-1,389,385	4,602,963	-231.3%
Total Other Expense	<u>8,961,721</u>	<u>-690,385</u>	<u>9,652,106</u>	<u>-1,298.08%</u>
Net Other Income	<u>-2,326,655</u>	<u>1,290,385</u>	<u>-3,617,040</u>	<u>-180.31%</u>
Net Income	<u>0</u>	<u>0</u>	<u>0</u>	<u>0.0%</u>

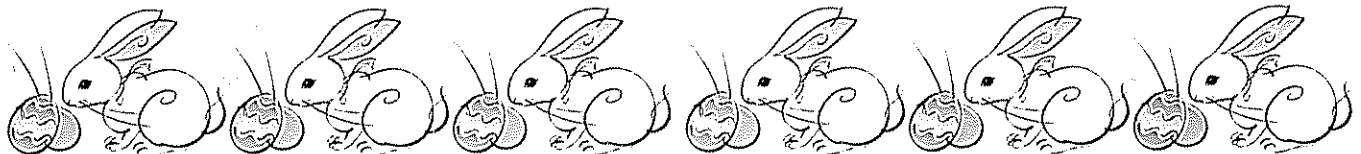


CHINO BASIN WATERMASTER

I. CONSENT CALENDAR

C. WATER TRANSACTION

Notice of Sale or Transfer – Cucamonga Valley Water District has agreed to purchase from West Valley Water District water in storage in the amount of 500 acre-feet.





Chino Basin Watermaster

9641 San Bernardino Road,, Rancho Cucamonga, CA 91730

Date: February 1, 2006

TRANSMITTAL

To: Watermaster Interested Parties

Mail: See list attached

Email: See list attached

File: Water Transactions

From: Janine Wilson

Chino Basin Watermaster

9641 San Bernardino Road

Rancho Cucamonga, Ca. 91730

Phone: 909.484.3888

Fax: 909.484.3890

REMARKS:

Enclosed

x

For your review

Per Your Request

Please comment

Attached please find the following Application(s) for Water Transaction(s):

1. Notice of Sale or Transfer –Cucamonga Valley Water District has agreed to purchase from West Valley Water District water in storage in the amount of 500 acre-feet.

This matter will come before the Pool Committees in February 2006 and the Advisory Committee and Watermaster Board in March 2006.

THIS TRANSMISSION IS INTENDED ONLY FOR THE PARTY TO WHOM IT IS ADDRESSED AND MAY CONTAIN PRIVILEGED AND CONFIDENTIAL INFORMATION. If you are not the intended recipient, you are hereby notified that any use, dissemination or copying of this transmission is strictly prohibited. If you have received this transmission in error, please notify us by telephone immediately

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CITY OF CHINO HILLS
2001 GRAND AVE
CHINO HILLS, CA 91709

SHARON JOYCE
STATE OF CA CDC
1515 S STREET, ROOM 314-F
SACRAMENTO, CA 95814

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KRONICK ET AL
KRONICK MOSKOVITZ TIEDEMANN
& GIRARD
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RONALD LA BRUCHERIE
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ONTARIO, CA 91761-7903

CARLOS LOZANO
STATE OF CA YTS
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CHINO BASIN WATERMASTER

NOTICE

OF

APPLICATION(S)

RECEIVED FOR

WATER TRANSACTIONS – ACTIVITIES

Date of Notice:

February 1, 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.

CHINO BASIN WATERMASTER

NOTICE OF TRANSFER OF WATER

Notification Dated: February 1, 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

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: February 1, 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 – Cucamonga Valley Water District has agreed to purchase from West Valley Water District water in storage in the amount of 500 acre -feet.

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. Approve the transaction as presented.

Fiscal Impact –

- None
- 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 – Cucamonga Valley Water District has agreed to purchase from West Valley Water District water in storage in the amount of 500 acre -feet.



CUCAMONGA VALLEY WATER DISTRICT

10440 Ashford Street
Rancho Cucamonga, CA 91730
(909) 987-2591 Fax (909) 476-8032

RECEIVED

JAN 29 2005

ROBERT A. DeLOACH
Secretary / General Manager/CEO

CHINO BASIN WATERMASTER

January 10, 2006

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

Dear Mr. Manning:

Please be advised that Cucamonga Valley Water District ("CVWD") has an agreement with West San Bernardino County Water District ("WSBCWD") whereby CVWD will purchase 500 acre feet of WSBCWD's stored Chino Basin groundwater. Please credit the 500 acre feet to CVWD's local storage account.

Enclosed please find:

- Form 3 – Application for Sale or Transfer of Right to Produce Water from Storage
- Form 4 – Application or Amendment to Application to Recapture Water in Storage
- Form 5 – Application to Transfer Annual Production Right or Safe Yield
- Map of CVWD's Chino Basin Wells

CVWD requests that this transfer be agendized for the next available Appropriative Pool meeting.

Should you have any questions, please contact me. Thank you.

Respectfully,

Robert A. DeLoach
General Manager

Enclosures

JAMES V. CURATALO, JR.
President

ROBERT NEUFELD
Vice President

JEROME M. WILSON
Director

RANDALL REED
Director

KATHY TIEGS
Director

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

TRANSFER FROM LOCAL STORAGE AGREEMENT # _____

West San Bernardino County Water District
Name of Party

January 4, 2006
Date Requested

_____ Date Approved

855 W. Baseline Road
Street Address

500 Acre-feet
Amount Requested

_____ Acre-feet
Amount Approved

Rialto CA 92376
City State Zip Code

Telephone: (909) 875-1804

Facsimile: (909) 875-7284

Anthony W. Araiza
Applicant

TRANSFER TO:

Cucamonga Valley Water District

Attach Recapture Form 4

Name of Party
10440 Ashford Street
Street Address

Rancho Cucamonga CA 91730
City State Zip Code

Telephone: (909) 987-2591

Facsimile: (909) 476-8032

Have any other transfers been approved by Watermaster between these parties covering the same fiscal year? Yes [] No [X]

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 vary from 418' to 503'. Of the wells routinely pumped, nitrate levels vary from a low of 3.5 ppm to a high of 38 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?
N/A

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

APPLICANT

<u>Cucamonga Valley Water District</u> Name of Party			<u>January 4, 2006</u> Date Requested	_____ Date Approved
<u>10440 Ashford Street</u> Street Address			<u>500</u> Acre-feet Amount Requested	_____ Acre-feet Amount Approved
<u>Rancho Cucamonga</u> City	<u>CA</u> State	<u>91730</u> Zip Code	<u>Varies</u> Projected Rate of Recapture	<u>July 1, 2005 – June 30, 2006</u> Projected Duration of Recapture
Telephone: <u>(909) 987-2591</u>			Facsimile: <u>(909) 476-8032</u>	

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 San Bernardino County Water District

PURPOSE OF RECAPTURE

- Pump when other sources of supply are curtailed
- 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)

N/A

PLACE OF USE OF WATER TO BE RECAPTURED

Within Cucamonga County Water District's service area (see attached map) Management Zone 2

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

N/A

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 vary from 418' to 503'. Of the wells routinely pumped, nitrate levels vary from a
Low of 3.5 ppm to a high of 38 ppm.

APPLICATION
TO
TRANSFER ANNUAL PRODUCTION RIGHT OR SAFE YIELD

Fiscal Year 2005 - 2006

Commencing on July 1, 2005 and terminating on June 30, 2006, West San Bernardino County Water District ("Transferor") hereby transfers to Cucamonga Valley Water District ("Transferee") the quantity of 500 acre-feet of corresponding Annual Production Right (Appropriative Pool) or Safe Yield (Non-Agricultural Pool) adjudicated to Transferor or its predecessor in interest in the Judgment rendered in the Case of "CHINO BASIN MUNICIPAL WATER DISTRICT vs. CITY OF CHINO, et al.," RCV 51010 (formerly Case No. SCV 164327).

Said Transfer shall be conditioned upon:

- (1) Transferee shall exercise said right on behalf of Transferor under the terms of the Judgment and the Peace Agreement and for the period described above. The first water produced in any year shall be that produced pursuant to carry-over rights defined in the Judgment. After production of its carry-over rights, if any, the next (or first if no carry-over rights) water produced by Transferee from the Chino Basin shall be that produced hereunder.
- (2) Transferee shall put all waters utilized pursuant to said Transfer to reasonable beneficial use.
- (3) Transferee shall pay all Watermaster assessments on account of the water production hereby Transferred.
- (4) Any Transferee not already a party must intervene and become a party to the Judgment.

TO BE EXECUTED by both Transferor and Transferee, and to be accompanied by a general description of the area where the Transferred water was to be Produced and used prior to the Transfer, and where it will be Produced and used after the Transfer. This general description can be in the form of a map.

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?

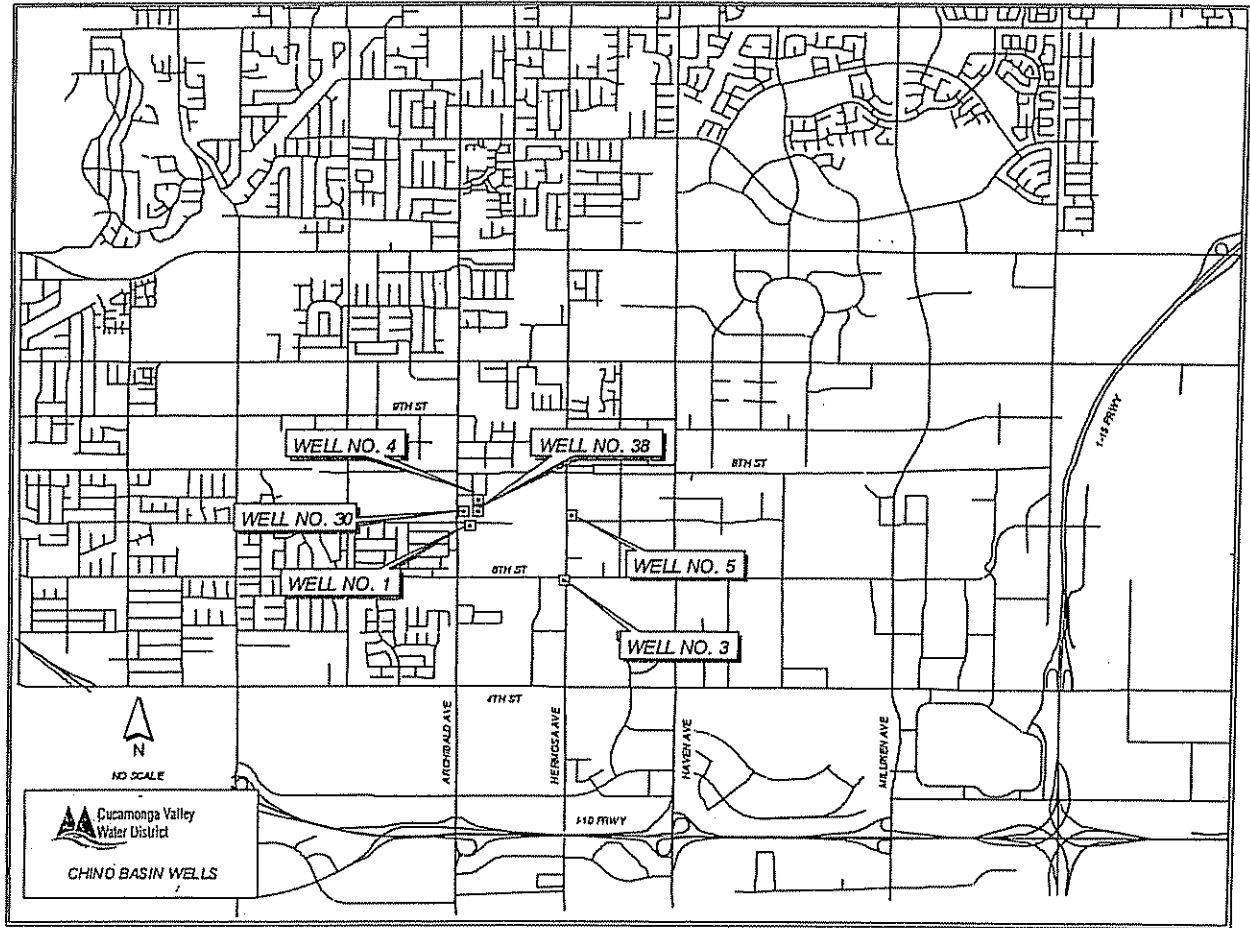
Static water levels vary from 418' to 503'. Of the wells routinely pumped, nitrate levels vary from a low of 3.5 ppm to a high of 38 ppm.

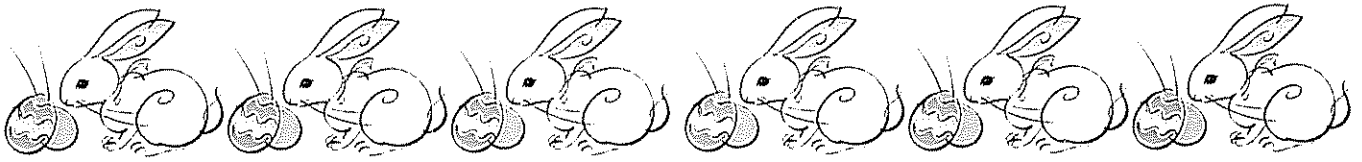
MATERIAL PHYSICAL INJURY

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?

N/A



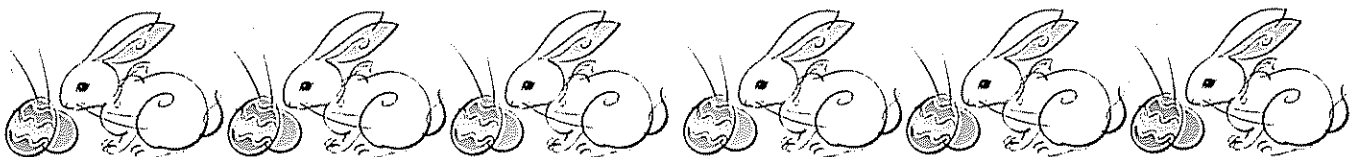


CHINO BASIN WATERMASTER

II. BUSINESS ITEMS

A. MZ1 SUMMARY REPORT

1. Consider Approval of the February 2006 MZ1 Summary 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: April 13, 2006
April 18, 2006
April 27, 2006

TO: Committee Members
Watermaster Board Members

SUBJECT: MZ-1 Summary Report

SUMMARY

Issue – Pursuant to the Special Referee's report dated June 16, 2005, Watermaster staff prepared a report titled *Management Zone 1 Interim Monitoring Program, MZ-1 Summary Report*. This report presents a summary of all the data collected as part of the MZ-1 monitoring program (through September 2005) and the conclusions reached from the analysis of the monitoring data. The report also includes MZ-1 Guidance Criteria, which are a recommended groundwater management criteria for the management of subsidence in the southern part of MZ-1 (Chino). These guidance criteria will be the basis of the long-term subsidence management plan.

Recommendation – Approve the February 2006 MZ-1 Summary Report.

Fiscal Impact – To be determined. The MZ-1 Summary Report recommends the continuation of the monitoring activities that have been implemented to date. The cost to Watermaster to provide this monitoring and reporting will be about \$175,000 per year in 2006 dollars.

BACKGROUND

The Implementation Plan of the Optimum Basin Management Program (OBMP) called for an aquifer-system investigation of suspected pumping-induced land subsidence and ground fissuring that has occurred in the southern region of Management Zone 1 (MZ-1). Watermaster has coordinated and conducted the investigation under the guidance of the MZ-1 Technical Committee, which is composed of representatives from all major MZ-1 producers and their technical consultants. The results of the investigation are being used in the development of a long-term plan to minimize or abate future land subsidence and ground fissuring.

To date, the main conclusions derived from the investigation are:

1. The current state of aquifer-system deformation in south MZ-1 (in the vicinity of Ayala Park) is essentially elastic. Little, if any, inelastic (permanent) compaction is now occurring in this area, which is in contrast to the past when about 2.2 feet of land subsidence occurred, accompanied by ground fissuring, from about 1987-1995.
2. Groundwater production from the deep, confined aquifer system in this area causes the greatest stress to the aquifer system. In other words, pumping of the deep aquifer system causes water level drawdowns that are much greater in magnitude and lateral extent than drawdowns caused by pumping of the shallow aquifer system.
3. Water level drawdowns due to pumping of the deep aquifer system can cause inelastic (permanent) compaction of the aquifer-system sediments, which results in permanent land subsidence. The initiation of inelastic compaction within the aquifer system was identified during this investigation when water levels fell below a depth of about 250 feet in the PA-7 piezometer at Ayala Park.
4. Through this study, a previously undetected barrier to groundwater flow was identified. The barrier is located within the deep aquifer system and is aligned with the historical zone of ground fissuring. Pumping from the deep aquifer system is limited to the area west of the barrier, and the resulting drawdowns do not propagate eastward across the barrier. Thus, compaction occurs within the deep system on the west side of the barrier, but not on the east side, which causes concentrated differential subsidence across the barrier and creates the potential for ground fissuring.
5. InSAR and ground level survey data indicate that permanent subsidence in the central region of MZ-1 (north of Ayala Park) has occurred in the past and continues to occur today. The InSAR data also indicate that the groundwater barrier extends northward into central MZ-1. These observations suggest that the conditions that very likely caused ground fissuring near Ayala Park in the 1990s are also present in central MZ-1, and should be studied in more detail.

A workshop was held May 25, 2005 to update the Special Referee on progress of the investigation and development of the long-term plan for MZ-1. After the workshop, the Special Referee issued a report to the Court that summarized the workshop and requested that Watermaster:

- produce a MZ-1 Summary Report that describes the investigation results and conclusions to date
- notify the Court of the schedule for the completion of the long-term plan
- provide "guidance criteria" to the MZ-1 producers in an effort to minimize the potential for future subsidence and fissuring, pending completion of the long-term plan

The MZ-1 Summary Report contains the guidance criteria, which consist mainly of setting a "guidance" water level – 245 feet below the reference point for the PA-7 piezometer at Ayala Park – and recommends that groundwater production from a selected list of wells in MZ-1 not cause water levels to fall below the guidance level.

The report also outlines the process and schedule for developing a long-term management plan by June 2006. The primary objective of the long-term plan is to prevent additional permanent land subsidence that could initiate additional ground fissuring. A developing secondary objective is to optimize the use of existing groundwater production infrastructure. A key element of the long-term plan will be its adaptive nature, as new data are collected and periodically analyzed to evaluate the effectiveness of the long-term plan.

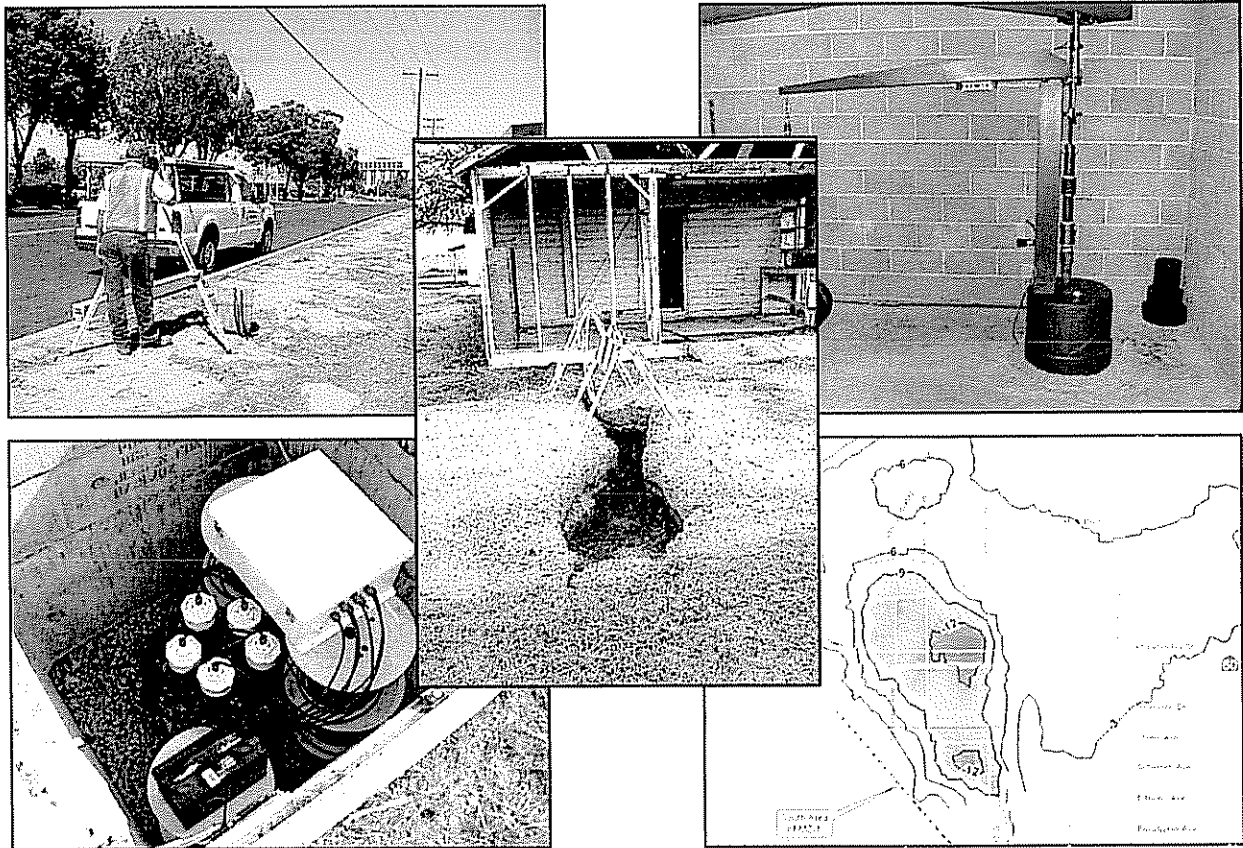
The guidance criteria and the long-term plan discussed above relate to the management of pumping-induced subsidence within the southern region of MZ-1, where associated ground fissuring damaged infrastructure in the early 1990s. However, this investigation has also revealed that the central region of MZ-1 has experienced in the past, and is currently experiencing, measurable land subsidence. This discovery has initiated an additional effort by Watermaster to characterize the subsidence mechanisms in this region through a slightly expanded monitoring effort. The adaptive nature of the long-term plan should accommodate the results that will emerge from the expanded monitoring effort in central MZ-1, so as to minimize the risk of future ground fissuring in this heavily urbanized region of Chino Basin.

The MZ1 Summary Report is best viewed in color which may done by downloading this document from:
<ftp://citrix.wildermuthenvironmental.com/MZ1>

CHINO BASIN
OPTIMUM BASIN MANAGEMENT PROGRAM

Management Zone 1
Interim Monitoring Program

MZ-1 Summary Report



Prepared for
MZ-1 Technical Committee

Prepared by
Wildermuth Environmental, Inc.

February 2006

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CHINO BASIN
OPTIMUM BASIN MANAGEMENT PROGRAM

Management Zone 1
Interim Monitoring Program

MZ-1 Summary Report

Prepared for

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ACRONYM AND ABBREVIATIONS LIST

AE	Associated Engineers
CA	California
CBWM	Chino Basin Watermaster
CIM	California Institution for Men
IMP	Interim Monitoring Program
MZ-1	Management Zone 1
OBMP	Optimum Basin Management Program
CH	Chino Hills
InSAR	Synthetic Aperture Radar Interferometry
MSL	mean sea level
PA	Piezometer A at Ayala Park Piezometer/Extensometer Facility
USGS	United States Geological Survey
WEI	Wildermuth Environmental Inc



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EXECUTIVE SUMMARY

The Implementation Plan of the Optimum Basin Management Program (OBMP) called for an aquifer-system investigation of suspected pumping-induced land subsidence and ground fissuring that has occurred in the southern region of Management Zone 1 (MZ-1). Watermaster has coordinated and conducted the investigation under the guidance of the MZ-1 Technical Committee, which is composed of representatives from all major MZ-1 producers and their technical consultants. The results of the investigation are being used to develop management tools (models) that will assist in the development of a long-term plan to minimize or abate future land subsidence and ground fissuring.

To date, the main conclusions derived from the investigation are:

1. The current state of aquifer-system deformation in south MZ-1 (in the vicinity of Ayala Park) is essentially elastic. Little, if any, inelastic (permanent) compaction is now occurring in this area, which is in contrast to the past when about 2.2 feet of land subsidence occurred, accompanied by ground fissuring, from about 1987-1995.
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A workshop was held May 25, 2005 to update the Special Referee on progress of the investigation and development of the long-term plan for MZ-1. After the workshop, the Special Referee issued a report to the Court that summarized the workshop and requested that Watermaster:

- produce a MZ-1 Summary Report (this report) that describes the investigation results and conclusions to date
- notify the Court of the schedule for the completion of the long-term plan
- provide "guidance criteria" to the MZ-1 producers in an effort to minimize the potential for future subsidence and fissuring, pending completion of the long-term plan

This report contains the guidance criteria, which consist mainly of setting a "control" water level – 245 feet below the reference point for the PA-7 piezometer at Ayala Park – and recommend that groundwater production from a selected list of wells in MZ-1 not cause water levels to fall below the control level.



EXECUTIVE SUMMARY
MZ-1 SUMMARY REPORT

This report also outlines the process and schedule for developing a long-term management plan by June 2006. The primary objective of the long-term plan is to prevent additional permanent land subsidence that could initiate additional ground fissuring. A developing secondary objective is to optimize the use of existing groundwater production infrastructure. A key element of the long-term plan will be its *adaptive* nature, as new data are collected and periodically analyzed to evaluate the effectiveness of the long-term plan.

The guidance criteria and the long-term plan discussed above relate to the management of pumping-induced subsidence within the southern region of MZ-1, where associated ground fissuring damaged infrastructure in the early 1990s. However, this investigation has also revealed that the central region of MZ-1 has experienced in the past, and is currently experiencing, measurable land subsidence. This discovery has initiated an additional effort by Watermaster to characterize the subsidence mechanisms in this region through a slightly expanded monitoring effort. The adaptive nature of the long-term plan should accommodate the results that will emerge from the expanded monitoring effort in central MZ-1, so as to minimize the risk of future ground fissuring in this heavily urbanized region of Chino Basin.

The monitoring and analyses associated with this investigation dovetail nicely with other Watermaster efforts associated with basin re-operation and hydraulic control.



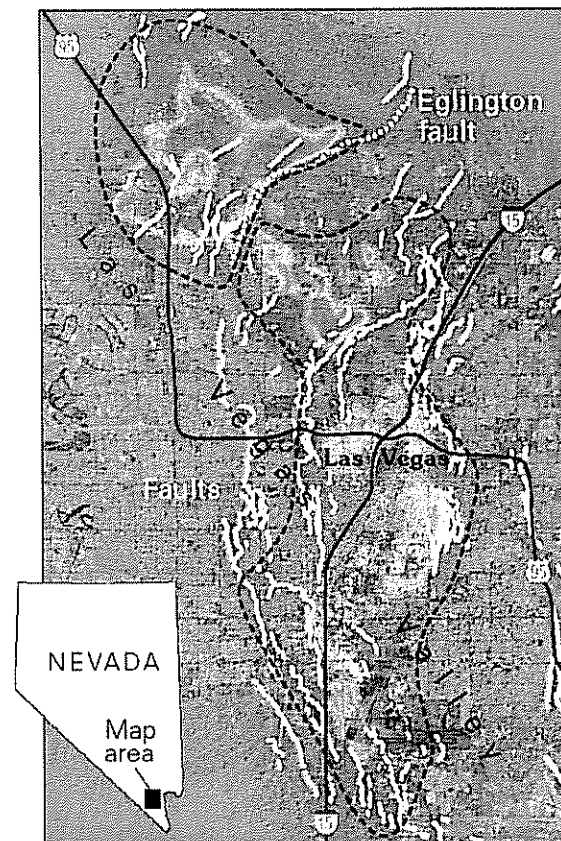
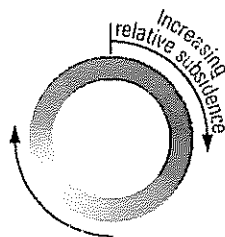
SECTION 1 – BACKGROUND
MZ-1 SUMMARY REPORT

several basins in Arizona. In many of these regions, earth fissuring occurred in areas of differential subsidence (*i.e.* where rates and accumulated magnitudes of subsidence vary over short horizontal distances).

Although drawdown of water levels is the driving force that causes land subsidence due to groundwater pumping, the geology of a groundwater basin also plays an important role in this process. Clay layers within the aquifer-system are relatively compressible materials. Therefore, aquifer-systems that contain thick and/or numerous clay layers are most susceptible to permanent compaction and land subsidence when groundwater is extracted. In addition, faults that act as groundwater barriers can focus and augment drawdown in the aquifer-system when pumping wells are located near these faults. When pumping and drawdown are concentrated on one side of a fault barrier, then differential land subsidence and ground fissuring are a common result (see Las Vegas, as an example).

This map graphic depicts land subsidence in the Las Vegas Valley that occurred from April 1992 to December 1997. The subsidence, attributed to aquifer-system compaction caused by groundwater production, was measured by remote sensing techniques (InSAR). Geologic faults (shown in white) appear to control the location of subsidence, and have been the focal point of earth fissure formation (USGS, 1999).

One color cycle represents about 4 inches of subsidence



The scientific model that describes the phenomenon of pumping-induced land subsidence is termed the *aquitard-drainage model*. This model has been successfully applied to numerous cases of land subsidence world-wide. It has been incorporated into the industry-standard computer models of groundwater flow and is increasingly recognized as critical to the understanding of aquifer-system hydraulics (flow and storage) and mechanics (deformation). A brief summary of the aquitard-drainage model is below:

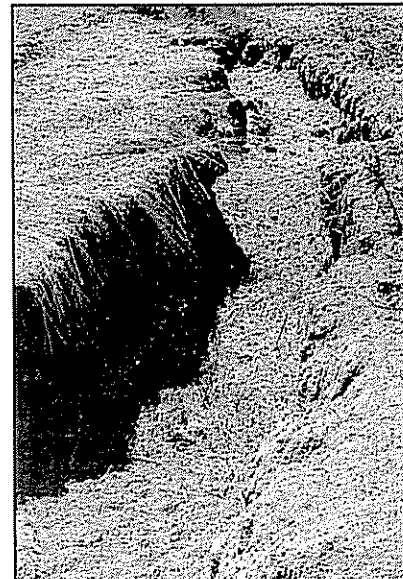


Aquitard-Drainage Model. Simply stated, an aquifer system consists of permeable sand and gravel layers (the aquifers) interbedded with less-permeable silt and clay layers (the aquitards). Pumping wells cause water-level drawdowns in the aquifers which, in turn, cause the aquitards to slowly drain into the aquifers. The draining allows aquitard pore pressures to decay toward equilibrium with the reduced heads in the adjacent aquifers. Since the pressure of the pore water provides some internal support for the sedimentary structure of the aquitards, this loss of internal support causes the aquitards to compress, resulting in a small amount of subsidence at the land surface. When the pumping wells turn off, and water levels recover in the aquifers, groundwater migrates back into the aquitards and they expand, resulting in a small amount of rebound at the land surface. Over a limited range of seasonal water level fluctuations this process can occur in a purely elastic fashion. That is, a recovery of water levels to their original values causes the land surface to rebound to its original elevation. However, when drawdown falls below a certain “threshold” level, elastic compression transitions to a non-recoverable inelastic compaction of the aquitards, resulting in permanent land subsidence. The “threshold” water level, referred to as the *preconsolidation stress*, is taken to be the maximum past stress to which the sedimentary structure had previously equilibrated under the gradually increasing load of accumulating sediments. [Note: The probable value of the virgin preconsolidation stress in the Chino Basin has not been documented, but studies in similar areas suggest that drawdowns in the range of 40 to 100 feet will typically exceed the initial threshold value.]

Drawdowns exceeding a previous threshold water level result in an increase in the value of maximum past stress, and thus the establishment of a deeper threshold, accompanied by an increment of inelastic aquitard compaction. Concomitantly, the compaction results in the one-time irreversible mining of groundwater from the aquitards. The benefits of this process include not only the obvious economic value of the water produced but also the often overlooked fact that, by establishing deeper thresholds, it increases the volume of confined groundwater storage available for cyclical drawdown and replenishment under strictly elastic conditions. The cost, of course, is the resulting deformation of the land surface and its impact on vulnerable infrastructure.

History of Ground Fissuring and Land Subsidence in Chino Basin

Ground Fissuring. One of the earliest indications that land subsidence was occurring in Chino Basin was the appearance of ground fissures in the City of Chino. These fissures appeared as early as 1973 (Fife et al., 1976), but an accelerated occurrence of ground fissuring ensued after 1991. Figure 1-1 shows the location of the fissures within the larger context of Management Zone 1 (MZ-1) and the Chino Basin. Figure 1-2 shows a detailed view of this area.



Surface expression of earth fissure that developed in a field north of CIM in February 1991.

Photo source: Geomatrix Consultants



Subsequent studies of the fissuring attributed the phenomenon to land subsidence (Fife et al., 1976; Kleinfelder, 1993, 1996; Geomatrix, 1994). The evidence to support this cause-and-effect relationship between the subsidence and fissuring is shown in Figure 1-2. In this figure, and as pointed out by Geomatrix (1994), the north-south trend of fissuring is located on the steep eastern limb of the main trough of subsidence that was mapped by ground level surveying (discussed below) – an area where east-west directed extensional stress should be associated with subsidence to the west. These observations and conclusions prompted efforts to quantify the magnitude of historical subsidence and to monitor the rates of on-going subsidence. These efforts included:

- Compilation and analysis of leveling survey data to estimate historical subsidence
- Compilation and analysis of remote sensing data to estimate historical subsidence
- Initiation of monitoring efforts to track on-going subsidence

Through these efforts, the history of land subsidence near the area of ground fissuring was characterized in good detail for the period after 1987, and in lesser detail for the period prior to 1987.

Recent Land Subsidence (Post-1987). Repeated leveling surveys were conducted within the City of Chino from 1987-1999 (Kleinfelder, 1993, 1996, 1999). Figure 1-1 shows the location and extent of the surveys within the larger context of MZ-1 and the Chino Basin. Figure 1-2 shows a close-up view of this area, and subsidence contours of the survey data. These contours delineate a subsidence trough generally aligned north-south with maximum subsidence during the 12-year period of 2.4 feet along Central Avenue between Eucalyptus and Schaefer Avenues (the trough axis). The subsidence trough extends approximately from Pipeline Avenue on the west to Benson Avenue on the east, and from Merrill Avenue on the south to the edge of the survey area on the north (Riverside Drive). The contours suggest that the subsidence trough extends further north of Riverside Drive, but the surveys did not include benchmarks north of Riverside Drive.

Remote sensing studies of subsidence were conducted (Peltzer, 1999a, 1999b) to further analyze subsidence in MZ-1. These studies employed Synthetic Aperture Radar Interferometry (InSAR), which utilizes radar imagery from an Earth-orbiting spacecraft to map ground surface deformation. Figures 1-1 and 1-2 show the results of these InSAR studies that independently confirmed the location and relative magnitude of subsidence in MZ-1 as defined by the leveling surveys, and indicated the occurrence of subsidence north of the area monitored by the leveling surveys (north of Riverside Drive).

The leveling surveys and the InSAR analyses both indicated that subsidence rates have slowed significantly since about 1995. In fact, the leveling surveys indicated that about 90% of the total subsidence measured along Central Avenue from 1987-1999 occurred prior to 1996.

Historical Land Subsidence (Pre-1987). Much less data is available to estimate regional subsidence prior to 1987. Geomatrix (1994) and Geoscience (2002) compared the leveling survey data (post-1987) to elevation data published on USGS 7.5-minute quadrangle maps (1933 and 1967). Geomatrix (1994) estimated as much as 3-4 feet of subsidence from 1967-1993 in some areas shown on Figure 1-2. Geoscience (2002) estimated a maximum of 3.7 feet of subsidence from 1933-1987 at the intersection of Pipeline Avenue and Riverside Drive. These subsidence estimates and their assumptions and limitations are currently being reviewed by Watermaster. If generally accurate, these estimates combined with the post-1987 survey data suggest that as much as 4-5 feet of subsidence has occurred during 1933-1999 in some areas of Chino south of State Highway 60.



Potential Causes of Land Subsidence

The main studies that were commissioned subsequent to the fissuring events in the early 1990s (Kleinfelder, 1993, 1996; Geomatrix, 1994) attributed the subsidence and fissuring phenomenon to the aquitard-drainage model. Watermaster arrived at the same conclusion (WEI, 1999) based on the presence of all requisite elements of the aquitard-drainage model in the southern portion of MZ-1 and other supporting evidence:

- **Presence of aquitards.** Geophysical and lithologic logs from numerous wells in the region indicate that the aquifer-system sediments that underlie the area of subsidence in MZ-1 contain many interbedded aquitard layers, which are susceptible to permanent compaction under reduced piezometric heads. In addition, during the early 1900s, much of the southern part of MZ-1 was an area of flowing-artesian wells (Mendenhall, 1908), indicating the existence of fine-grained confining layers (aquitards) at depth.
- **Reduced pore pressures within the aquifer-system.** The flowing-artesian groundwater conditions in southern MZ-1 also indicate that piezometric heads were at or above the land surface during the early 1900s. Water level histories at numerous relatively shallow wells in the region demonstrate that the piezometric heads (water levels) declined by about 140 feet from about 1940 to 1977, but then recovered by about 40 feet by 1999 (see Figure 1-3).

In addition, the accelerated occurrence of fissuring that commenced in 1991 was preceded by the completion and initial operation of a number of the deep production wells in 1989-1990. These wells are owned by the City of Chino Hills. Water level histories at these wells indicate that drawdowns within the deeper portions of the aquifer system caused by pumping these wells have exceeded 300 feet.

In both the shallow and deep zones of the overall aquifer system, the historical drawdowns were substantially greater than probable maximum value of the virgin threshold of inelastic compaction.

- **Other evidence.** The axis of maximum subsidence along Central Avenue, as delineated by ground level surveys (1987-1999), is aligned with the locations of several deep production wells owned by Chino Hills—suggesting a cause-and-effect relationship.
- **Similarity to other subsidence case studies.** There are numerous examples throughout the western United States where ground fissures have accompanied aquifer-system compaction and land subsidence within alluvial groundwater basins (Holzer, 1984). Geomatrix (1994) studied the ground fissures on CIM property and also reviewed case histories of fissuring throughout the southwestern United States. Their study noted similarities between the physical structure of the CIM fissures and the fissures described in the literature that were associated with areas of subsidence due to groundwater pumping and aquifer-system compaction.

There exist other potential causes of land subsidence that have been documented in other locations worldwide. Most of these causes can be immediately dismissed as explanations for the subsidence observed in Chino Basin, but others can not. Table 1-1 lists all potential causes of land subsidence, and a qualitative description of their applicability to subsidence and fissuring in Chino Basin.

Even though some of these potential subsidence mechanisms cannot be immediately dismissed as contributing to subsidence in Chino Basin, they are not likely. The aquitard-drainage model is based on physical laws of nature—namely, gravity and the compressibility of materials under load. And when the requisite elements of this model are all present (*i.e.* presence of aquitards, piezometric head declines, *etc.*), the question is not whether subsidence occurred, but rather, how much is the inevitable result of the aquitard-drainage mechanism?



By comparison, other potential causes of subsidence were reduced to unlikely and, at the most, minor contributory factors in Chino Basin, and as such, were never directly investigated by Watermaster.

Development of the MZ-1 Interim Monitoring Program

In the Optimum Basin Management Program (OBMP) Phase I Report (WEI, 1999), Watermaster identified the aquitard-drainage model as the most likely cause of the land subsidence and ground fissuring observed in MZ-1. Program Element 4 of the OBMP – *Develop and Implement a Comprehensive Groundwater Management Plan for Management Zone 1* called for the development and implementation of an interim management plan for MZ-1 that would:

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

The main part of the interim management plan was to develop and implement a monitoring and testing program in MZ-1 that would answer certain questions to enable the development of a long-term plan to minimize or abate subsidence and fissuring. These questions included:

1. How much subsidence is currently occurring in MZ-1?
2. How much of the current subsidence is an elastic, reversible process that will restore the land surface to its original elevation if water levels recover to their original values; or, in the alternative phraseology, how much, if any, is irreversible (permanent subsidence)?
3. How much subsidence did historical pumping cause in MZ-1?
4. How much of the historical subsidence was an elastic, reversible process, and how much, if any, was irreversible?
5. These questions give rise to the most critical questions: What was the historical threshold value of head decline at which the deformation of the sedimentary structure would have changed from an elastic compression to inelastic compaction? And additionally, what is that threshold value of head decline today?

In an attempt to minimize subsidence and fissuring in the short-term, the cities of Chino and Chino Hills agreed to jointly reduce groundwater production in MZ-1 by 3,000 acre-feet per year for the duration of the interim management plan. This agreement between the cities was termed the *Forbearance Agreement*.

Formation of the MZ-1 Technical Committee. The MZ-1 Technical Committee was formed to serve as a clearing house for technical information, as well as the source for full professional discussion, input and peer review by its members, for the benefit of Watermaster. The Technical Committee provides comment and assists Watermaster in the development of recommendations for consideration and potential action by Watermaster under the Interim Management Plan. In addition, the Technical Committee provides similar assistance to Watermaster in its effort to develop a long-term plan as provided in Program Element 4. The Technical Committee consists of representatives (and their technical consultants) from those parties to the Judgment that are presently producing groundwater within MZ-1. Each of the following producers is entitled to representation on the Committee: Chino, Chino Hills, Ontario, Upland, Pomona, Monte Vista



Water District, San Antonio Water Company, Southern California Water Company, CIM and the Agricultural Pool. Figure 1-1 shows the locations of wells owned by the producers listed above. The MZ-1 Technical Committee first convened on March 6, 2002, and has continued to meet once every 1-3 months.

Composition of the MZ-1 Interim Monitoring Program. The MZ-1 Technical Committee approved the scope and schedule for the MZ-1 Interim Monitoring Program (IMP) at the January 29, 2003 meeting. The IMP was developed and implemented by Watermaster to collect the information necessary to answer the five questions listed above. The data collected and analyzed as part of this effort are being utilized to develop effective management tools and, ultimately, a long-term management plan that will minimize or completely abate ground fissuring and subsidence in MZ-1.

The IMP is described in detail in the IMP Work Plan dated January 8, 2003 (WEI, 2003), but generally consists of three main elements: benchmark survey, InSAR, and aquifer-system monitoring. The benchmark surveys and the InSAR analyses monitor deformation of the land surface. Aquifer-system monitoring measures the hydraulic and mechanical changes within the aquifer-system that cause the land surface deformation. The methods involved in the implementation of each element are briefly described below:

Methods: Aquifer-System Monitoring. This work involves the measuring of stresses within the aquifer system (water-level changes) that cause land surface deformation as measured by benchmark surveys, InSAR, and the extensometers (described below). The objective is to establish the relationships between water-level changes in the aquifer system (stress) and aquifer-system deformation (strain).

Figure 1-4 shows location of the centerpiece of the aquifer-system monitoring program – the Ayala Park Extensometer – a highly sophisticated monitoring facility consisting of two multi-piezometers and a dual-extensometer. As the aquifer system undergoes various stresses due to groundwater production and recharge, the facility monitors the hydraulic response of the aquifer system at the piezometers and the mechanical response of the aquifer system at the extensometers. The facility is equipped with pressure transducers to measure water levels in the piezometers, linear potentiometers to measure the vertical aquifer-system deformation at the extensometers, and data loggers to record the data at frequent intervals (e.g. 15 minutes).

Piezometer construction and instrumentation was completed in mid-November 2002, at which time collection of piezometric data commenced. Dual-extensometer construction and instrumentation was completed in mid-July 2003, at which time collection of aquifer-system deformation data commenced.

Figure 1-4 also shows the nearby wells owned by CIM and the cities of Chino and Chino Hills that were equipped with pressure transducers and data loggers to record (1) water-level data and (2) the specific timing of pumping cycles at production wells.

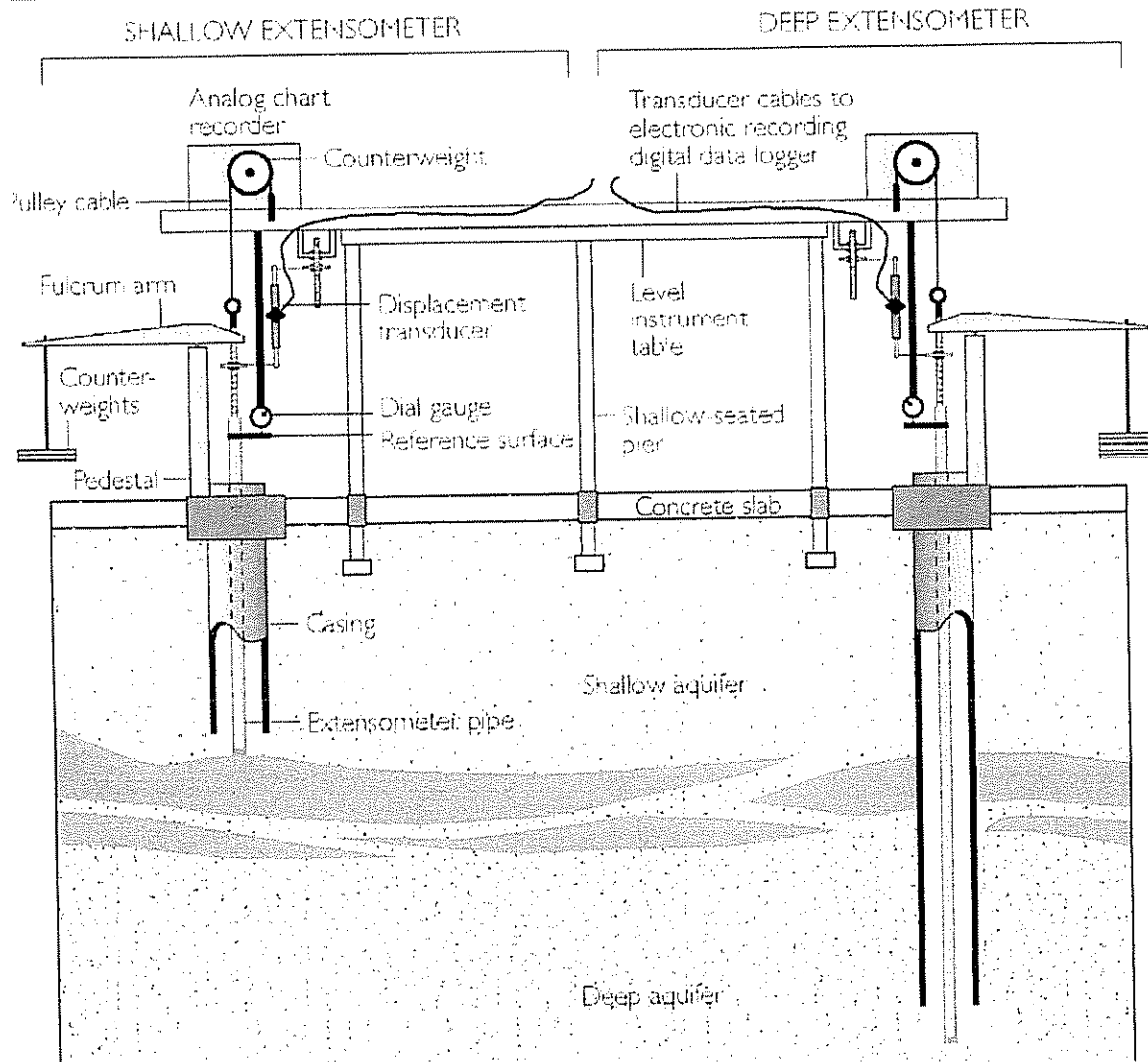
The IMP also called for Watermaster, with the assistance of the well owners, to conduct controlled aquifer stress tests (pumping tests) while monitoring water levels and groundwater production at nearby monitoring wells and production wells, as well as aquifer-system compaction and/or expansion at the dual-extensometer. These tests were performed in fall 2003, spring 2004, and fall 2004.

The data collected from this monitoring effort are being used to: (1) quantify and characterize the current state of aquifer-system deformation (i.e. elastic vs. inelastic), (2) determine the threshold value of head decline at which the deformation of the aquifer-system sediments changes from an elastic compression to



SECTION 1 – BACKGROUND
MZ-1 SUMMARY REPORT

inelastic compaction, (3) estimate aquifer-system parameters, such as the conductive and storage parameters of the aquifer and aquitard sediments, (4) reveal the existence of groundwater barrier(s) within the aquifer sediments, and (5) use all the above data as input to predictive computer models of compaction, subsidence, and groundwater flow to support the development of a long-term management plan.



A conceptual graphic of a dual extensometer, very similar to the facility at Ayala Park in Chino. Extensometers measure vertical deformation within an aquifer system. Typically, they are accompanied by piezometers that measure pore water pressure changes that cause deformation within the aquifer system.



Methods: Ground-Level Surveying. This work involves repeated benchmark surveying to measure vertical (and in some cases horizontal) ground surface deformation along selected profiles within Chino Basin – mainly in MZ-1. The benchmark surveys are being used to (1) establish a datum from which to measure land surface deformation during the IMP period, (2) allow determination of historical subsidence at any historical benchmarks that can be recovered, (3) “ground-truth” the InSAR data, and (4) assist in the development and evaluation of the long-term management plan.

A network of stable benchmark monuments was installed to supplement an existing network of benchmarks that was installed for the City of Chino in 1987. Associated Engineers (AE) completed monument installations (see Figure 1-5) and an initial survey of all monument elevations in April 2003. Repeat surveys are planned for April of each year during the IMP period.

The IMP work plan also called for the deep extensometer at Ayala Park (discussed below), which is anchored in sedimentary bedrock at about 1,400 ft bgs, to be used as the “starting benchmark” for all survey loops. To accomplish this, a Class-A benchmark was constructed outside the extensometer building to serve as the practical (i.e. actual) starting benchmark. To link this benchmark to the deep extensometer pipe, each survey event begins by referencing the benchmark to a marked spot on one of the piers that supports the extensometer instrument platform. These piers and the instrument platform represent a stable ground surface datum that is used to measure relative vertical displacement between the ground surface and the deep extensometer pipe (recorded every 15 minutes). The vertical displacement recorded at the deep extensometer between survey events, in addition to any vertical displacement measured between the starting benchmark and the pier, is then used to calculate the elevation at the starting benchmark outside the extensometer building. Then, relative vertical displacement between benchmarks is measured across the entire network to obtain current elevations.

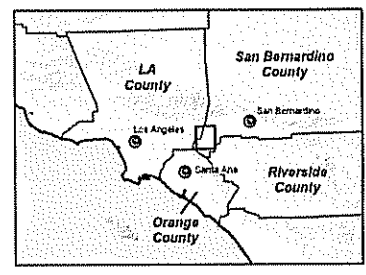
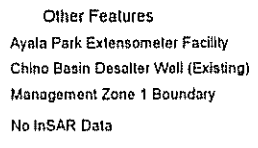
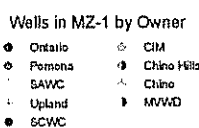
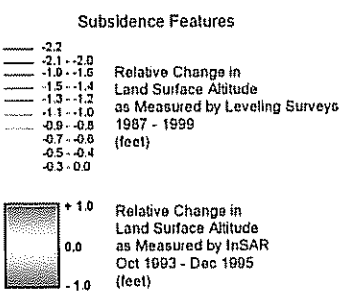
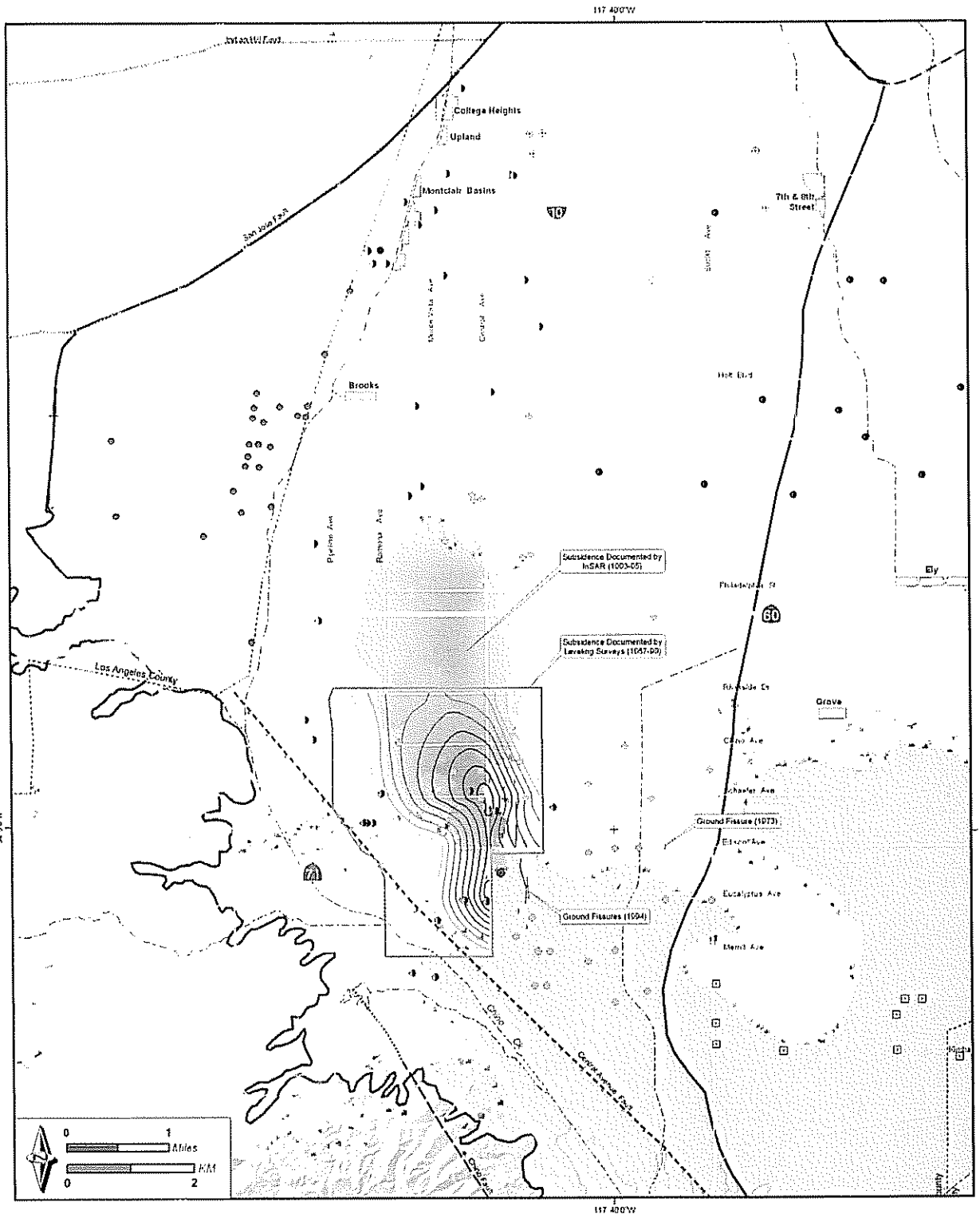
A key element of the MZ-1 benchmark network is the array of closely spaced benchmarks that have been established across the historic fissure zone in the immediate vicinity of the Ayala Park extensometers (Ayala Park Array). At this array, located along Edison and Eucalyptus Avenues, both vertical and horizontal displacements are measured. These horizontal and vertical displacements are defining two-dimensional profiles of land-surface deformation that can be related to the vertical distribution of aquifer-system compaction and expansion that is being recorded continuously at the extensometers. These surveys are being repeated semi-annually during the late spring and early fall periods of highest and lowest water levels in an attempt to monitor fissure movement, if any, that may be associated with elastic and/or inelastic aquifer-system deformation. (Note: the semi-annual survey frequency of the Ayala Park Array monuments is a modification to the IMP work plan, and was agreed upon by the MZ-1 Technical Committee at the September 24, 2003 meeting).

Methods: InSAR Analyses. InSAR is being used to characterize ground surface deformation in Chino Basin. This analysis will be performed for a historical period (1992-2000) and on an on-going basis thereafter. The advantage of InSAR is that it provides an aerially continuous representation of land surface deformation. These data are planned to be used to: (1) characterize the time history of land surface deformation in greater spatial and temporal detail than can be accomplished from the available historical ground-level survey data, (2) calibrate computer simulation models of subsidence and groundwater flow, and (3) assist in the evaluation of the effectiveness of the long-term management plan.




**Table 1-1
Applicability of Potential Causes of Subsidence in Chino Basin**

Potential Cause of Subsidence	Applicability to Chino Subsidence
Collapse of underground caverns	No caverns or soluble rocks are known to underlie the Chino Basin, and the geologic environment and history of the basin make their existence extremely unlikely
Consolidation due to surface loading	No substantial surface loading has been applied, other than the construction of Prado Dam and the occasional short-lived accumulation of flood waters behind it. These are well south of the area of significant subsidence
Consolidation of sediments over geologic time scales	This process is presumably occurring under the gradually increasing load of accumulating alluvial sediments, but at rates much too slow to be readily detectable over a period of decades. Under conditions of subaerial deposition the buildup of surficial sediments far exceeds their compaction at depth
Desiccation and shrinkage of expansive soils	Swell/shrink properties of soils in the subsiding area have not been investigated. However, most of the area has been subject to agricultural and/or residential irrigation and is unlikely to have experienced serious desiccation, despite substantial lowering of the water table
Settlement of soils due to ground shaking	Significant coseismic settlement of unconsolidated soils typically involves temporary liquefaction manifested in localized slumping and sand boils. These phenomena have not been reported during the seismic events of recent decades
Drainage of organic soils	High organic soils do not occur in the subsiding area
Hydrocompaction	Hydrocompaction occurs where thick accumulations of very dry soils are rewetted for the first time since deposition. The very shallow water tables and artesian conditions that historically characterized the area of recent subsidence rule out this phenomenon
Solution of soluble subsurface deposits like salt	There is no evidence for the existence of soluble rocks underlying the Chino Basin
Subsurface extraction of hydrocarbons	Not applicable. There are no known oil or gas extraction wells currently in operation in Chino Basin
Tectonism	While the alluvial basins of California have obviously been subsiding over geologic time relative to their bounding mountain ranges, there is no evidence for a tectonic mechanism that would account for the localized and relatively rapid subsidence observed in the southwestern part of Chino Basin
Thawing permafrost	Not applicable. Permafrost is soil or rock that remains below 0°C throughout the year, and forms when the ground cools sufficiently in winter to produce a frozen layer that persists throughout the following summer. These conditions do not occur in Chino Basin
Aquifer-system compaction	Probable cause



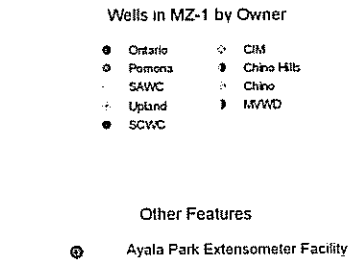
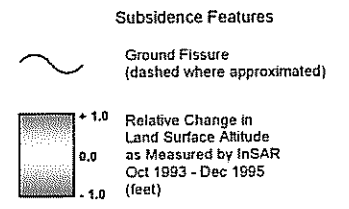
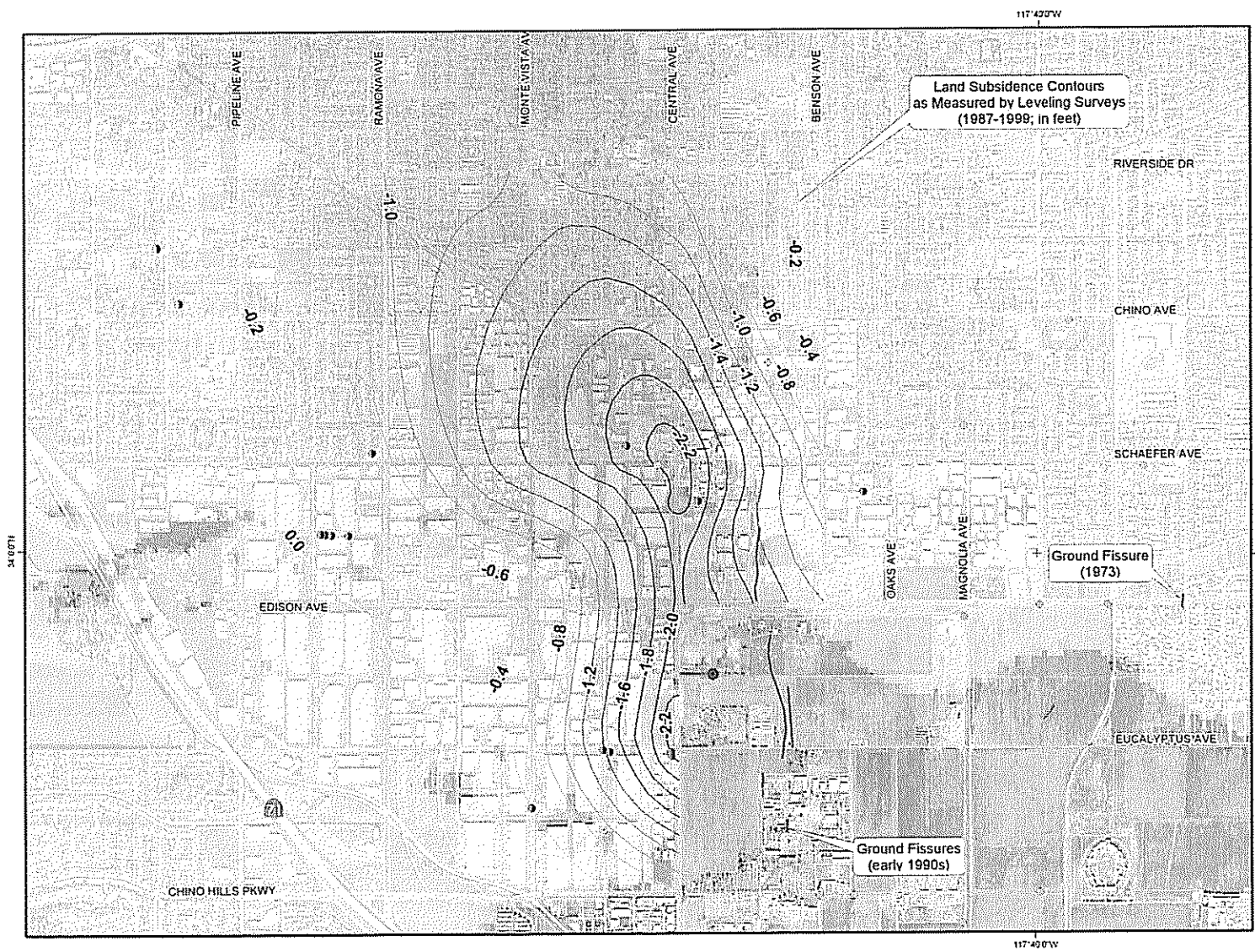
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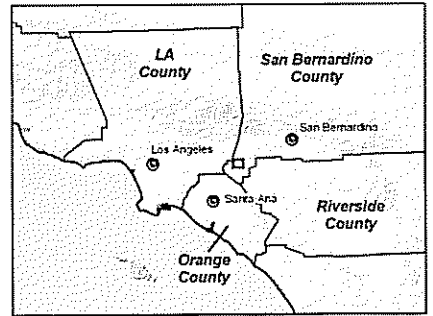
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Land Surface Deformation in Management Zone 1
Leveling Surveys and InSAR

Figure 1-1

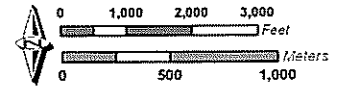


Note: Air photo background flown in April 2004.



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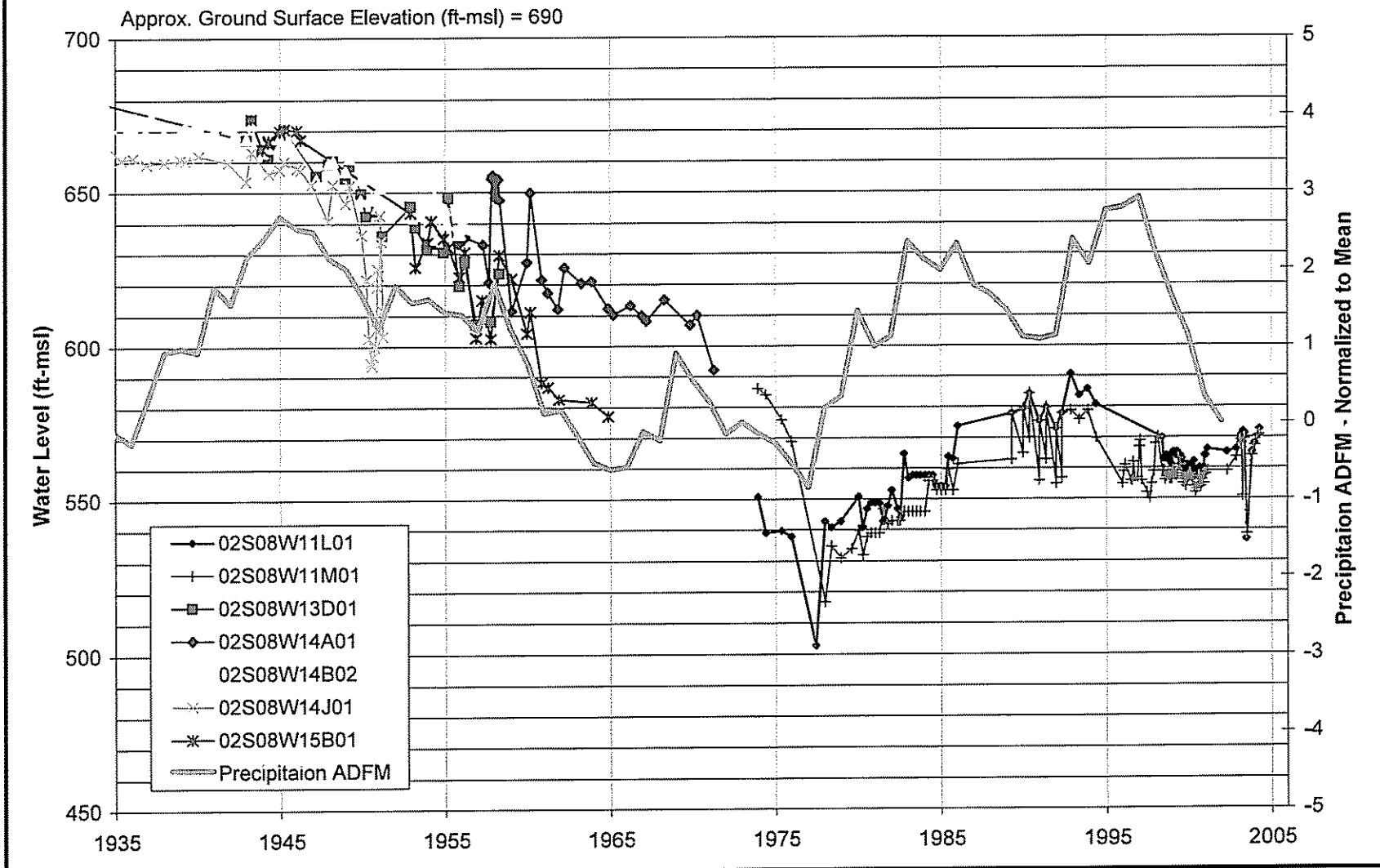


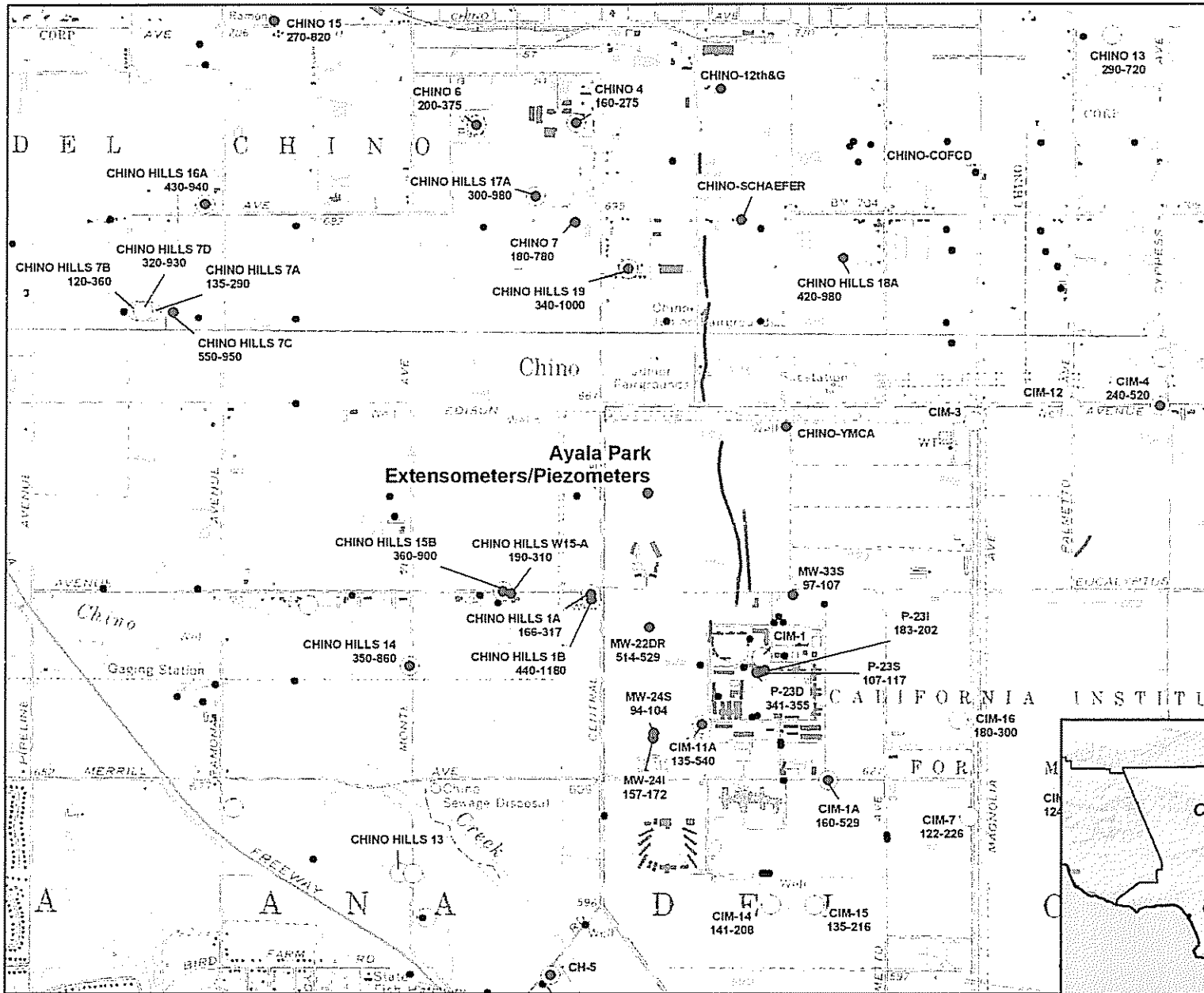
MZ-1 Summary Report
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**Land Surface Deformation
 in Chino, CA**
 Leveling Surveys and InSAR

Figure 1-2

Figure 1-3
Groundwater Level History in Southern MZ-1 (Shallow Wells)





Main Map Features

- MZ-1 Observation Well
{Water level recording transducer installed at each well}

Other Features

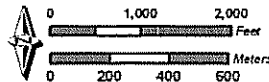
- Active Well
- Inactive or Destroyed Well
- ~ Ground Fissure (early 1990s)

Piezometric Monitoring Network
MZ-1 Interim Monitoring Program



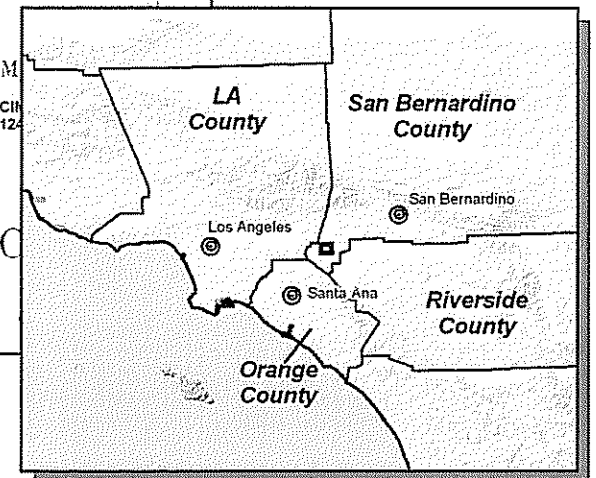
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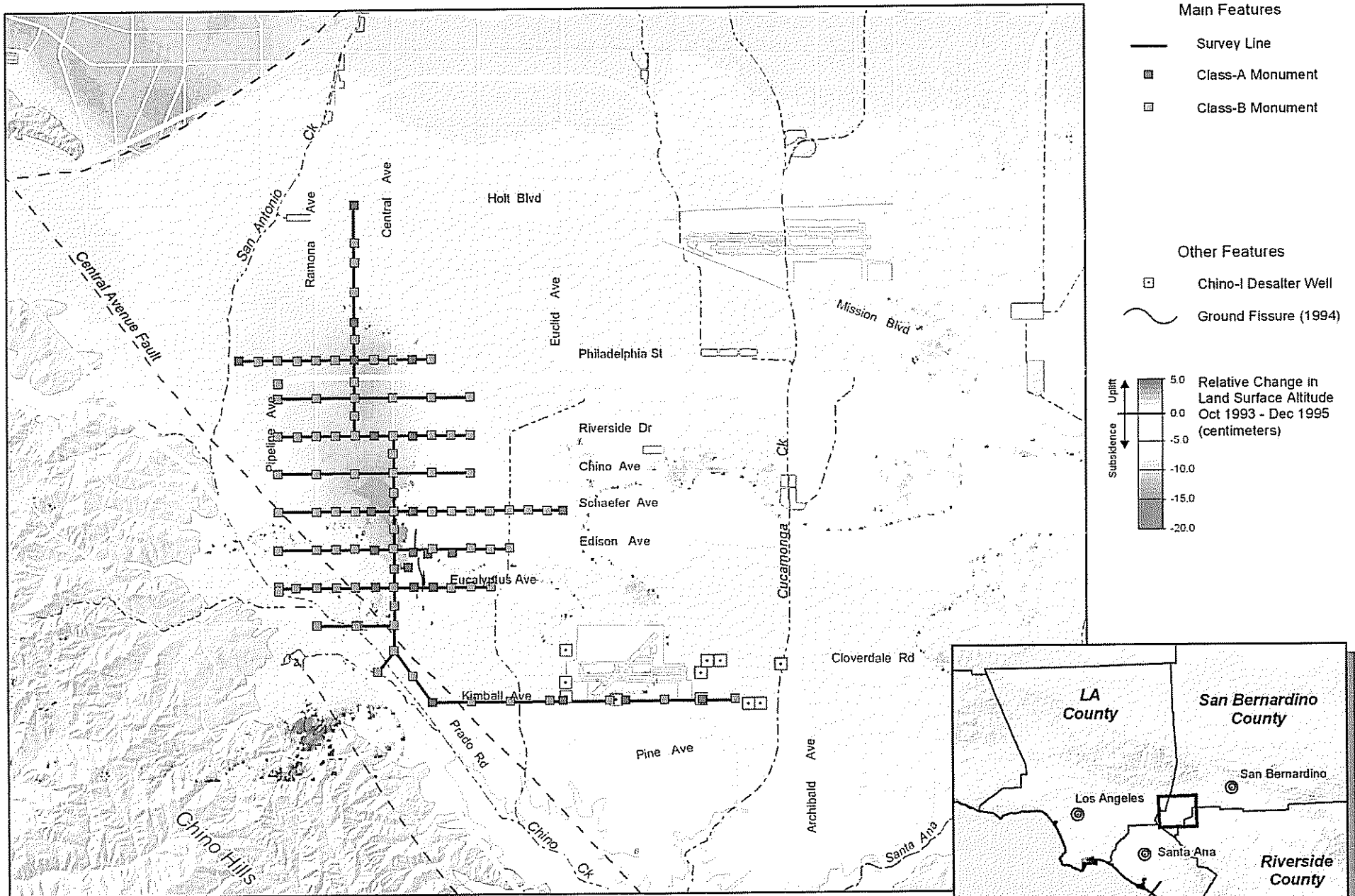
Figure 1-4



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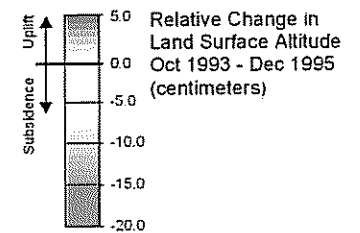


Main Features

- Survey Line
- Class-A Monument
- Class-B Monument

Other Features

- Chino-I Desalter Well
- ~ Ground Fissure (1994)

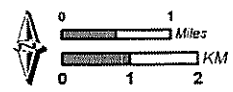


Benchmark Survey Monuments
MZ-1 Interim Monitoring Program



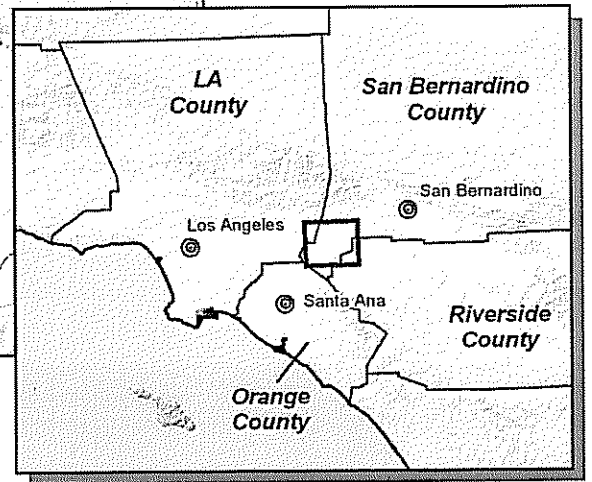
Figure 1-5

MZ-1 Summary Report
Ground Level Monitoring



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2. MZ-1 INTERIM MONITORING PROGRAM

This section describes the results, interpretations, and major conclusions derived from the Interim Monitoring Program (IMP) as of September 19, 2005.

Results and Interpretations

Aquifer-System Monitoring. The controlled testing and comprehensive monitoring of the aquifer-system (see Section 1) and subsequent data analyses has led to a number of key interpretations:

1. There appear to be two distinct aquifer systems in this area – a shallow, un-confined to semi-confined system from about 100-300 ft-bgs and a deep, confined system from about 400-1,200 ft-bgs.
2. Under current conditions of aquifer utilization in MZ-1, the aquifer-system deformation appears to be essentially elastic. At the Ayala Park Extensometer, about 0.14 feet of elastic land subsidence and rebound were observed during the pumping and recovery seasons of 2004-05. Minor amounts (~0.01 feet) of permanent compaction and associated land subsidence apparently occurred over this same period.
3. The relationships between aquifer-system stress (water level changes) and aquifer-system strain (vertical deformation of the sediment matrix) have been established by comparing piezometer data versus extensometer data. These relationships indicate the nature of the aquifer-system deformation (i.e. elastic vs. inelastic) and provide estimates of aquifer-system parameters for later use in aquifer-system models.
4. A deep aquifer-system pumping test in September 2004 appears to have transitioned the system from elastic to inelastic deformation. This provides a “threshold” water level at Ayala Park, below which further drawdown will result in inelastic compaction. The data derived from this test will assist in the creation of management tools for MZ-1 (e.g. groundwater flow and subsidence models).

A technical discussion related to the above interpretations follows:

Figure 2-1 shows the changes in thickness of the aquifer systems as recorded by the deep and shallow extensometers, completed at depths of 1,400 and 550 ft-bgs. It also shows the water-level fluctuations in two piezometers, PA-10 and PA-7, which are representative of the shallow aquifer system and the upper part of the deep aquifer system, respectively.

During periods of water-level decline in PA-7, both extensometers are recording compaction of the sediments. During periods of recovery in PA-7, both extensometers are generally recording elastic expansion. Note that for the data available, almost all of the compaction during the drawdown season is recovered as expansion during the recovery season.

During the late-spring (2004) pumping of the shallow aquifer system, while the deep system not pumped, the shallow extensometer recorded compression while the deep extensometer recorded an overall expansion. Subtracting the shallow record from the deep confirms that the deeper sediments continued a smooth expansion in response to continuing recovery of heads in the deeper parts of the aquifer system, as represented by the data from PA-7, which is screened from 438-448 ft-bgs. The shallow compression is seen to correlate closely with the drawdown recorded by PA-10, screened from 213-233 ft-bgs.

These observations clearly demonstrate the existence of the deep and shallow aquifer-systems in this region of MZ-1. Nearby pumping at wells that are screened in either the deep or shallow aquifer-systems result in distinct hydraulic and mechanical responses that are recorded at the Ayala Park piezometers and extensometers. These observations also demonstrate the importance, for analytical purposes, of



independently stressing the deep and shallow systems by pumping from only one at a time, so that the observed deformation can be more accurately attributed to production from a specific depth interval.

The relationships between water levels and aquifer-system deformation are further depicted in the stress-strain diagrams shown in Figure 2-2. In this diagram, increasing depth to water (drawdown due to pumping) is the measure of decreasing pore pressure and increasing effective intergranular stress. Increasing compression of the sediments is the resulting strain. When pumping diminishes or ceases, pore pressures recover, intergranular stress is reduced, and the aquifer system expands.

Figure 2-2 shows that the full thickness of sediments responds linearly to extended intervals of continuous drawdown or recovery, but with a large seasonal hysteresis attributable to the time lag involved in the delayed vertical propagation of pore pressure changes from the pumped aquifers into adjacent, poorly permeable aquitards. The parallel slopes of the compression and expansion trends represent the overall elasticity of the sedimentary section. Its inverse is the skeletal storativity, in hydrologic terminology.

Brief intervals of recovery during the drawdown season, and of drawdown during the recovery season, produce steeply sloping, more-or-less tight hysteresis loops. Their much steeper slope represents the (inverse) aggregate compressibility of the permeable pumped aquifers. The longer intervals of recovery and drawdown generate the more open hysteresis loops, as the delayed responses of immediately adjacent portions of the aquitards have time to influence the extensometers.

The parallelism of the seasonal drawdown and recovery stress-strain slopes in Figure 2-2 indicates that seasonal drawdown to 250 ft-bgs at this site is producing essentially elastic, recoverable deformation. However, the slope of the drawdown curve in 2004 begins to deviate from its elastic trend when the seasonal drawdown exceeds 250 ft-bgs indicating a transition to inelastic compaction within draining aquitard interbeds. A minor amount of non-recovered compaction is indicated by the offset of the recovery curve in 2005 to the right (direction of compression). On about September 19, 2005 water levels had recovered to the levels of pre-pumping conditions of 2004 (~105 ft-bgs at PA-7), and the offset of the stress-strain curve to the right (direction of compression) confirmed that about 0.01 ft of permanent compaction occurred during the pumping season of 2004.

The pumping and associated drawdown of water levels in 2004 was part of a controlled aquifer system stress test. The primary objective of this test was to transition the deformation of aquifer-system sediments from elastic compression to inelastic compaction. If successful, it would provide “threshold” piezometric heads at the extensometer location that should not be approached in the future if permanent (inelastic) compaction within the aquifer-system is to be avoided. This would also define a key parameter required for estimating the maximum elastic storage capacity of the confined aquifer-system.

For fear of exacerbating the ground fissuring, one limiting condition of the test that was agreed upon by the participating agencies was that pumping cease when inelastic compaction was identified. Although 0.01 feet of permanent compaction is relatively minor deformation, it is measurable and within the detection limits of the extensometer. The stress-strain diagram in Figure 2-2 indicates that at Ayala Park the aquifer-system transitioned from elastic compression to inelastic compaction when the water level in the PA-7 piezometer at Ayala Park fell below about 250 ft-bgs. The applicability of this limit at increasing distances from the piezometer/extensometer facility is dependent on an approximate replication of the tested pumping conditions (i.e. specific wells pumped, pumping rates, and pumping durations). A different areal distribution of pumping might cause localized inelastic compaction away from Ayala Park without drawing PA-7 below 250 feet or recording inelastic effects at the extensometer.



A different vertical distribution of extraction will stress the aquifer system in a different manner, and may result in a different threshold water level in PA-7.

Other objectives of the pumping test that were successfully accomplished were to (1) estimate key aquifer-system parameters that could be used in later modeling efforts, and (2) confirm and elucidate the existence of a groundwater barrier within the sediments below about 300 ft-bgs

Discovery of Groundwater Barrier. Multiple lines of evidence suggest that a previously unknown groundwater barrier exists within the deep aquifer-system in the same location as the fissure zone.

Controlled aquifer-system stress (pumping) tests in October 2003 and April 2004 provided piezometric response data that revealed a potential groundwater barrier within the sediments below about 300 ft-bgs and aligned north-south with the historic fissure zone. Figure 2-3 is a map that shows the locations of a pumping well perforated in the deep aquifer system (CH-19, 340-1,000 ft-bgs) and other surrounding wells that also are perforated exclusively in the deep system. Figure 2-4 shows the water level responses in these wells during various pumping cycles at CH-19. The groundwater barrier is evidenced by a lack of water level response in CH-18 (east of the fissure zone) due to pumping at CH-19 (west of the fissure zone). Image-well analysis of pumping-test responses also indicates that this barrier approximately coincides with the location of the historic zone of ground fissuring.

Ground level survey data (described in detail below) corroborate the water level data – also indicating the existence of the barrier and its coincident location with the fissure zone. Figure 2-6 shows that during the pumping season of 2003 (April to November) vertical displacement of the land surface (i.e. subsidence) was generally greater on the west side of the fissure zone where water-level drawdown was greatest. Figure 2-7 shows that during the recovery season of 2003-04 (November to April) vertical displacement of the land surface (i.e. rebound) was again greater on the west side of the fissure zone where water level recovery was greatest.

In other words, the groundwater barrier in the deep aquifer-system is aligned with the fissure zone and causes greater water level fluctuations on the west side of the barrier where the pumping is concentrated. These greater water level fluctuations on the west side of the barrier, in turn, cause greater deformation of the aquifer-system matrix which, in turn, causes greater vertical land surface deformation on the west side of the barrier. In addition, the pattern of horizontal displacement of benchmarks over the pumping and recovery seasons, as shown in Figures 2-6 and 2-7, likely reflects, in part, the differential compaction of the aquifer system across the fissure zone.

Similarly, the InSAR data in Figures 1-2 and 2-5 also corroborate the existence of the groundwater barrier by showing maximum subsidence west of the barrier and virtually no subsidence east of the barrier.

This spatial coincidence of the groundwater barrier and the historic fissure zone suggests a cause-and-effect relationship: the barrier causes differential water level declines, which cause differential aquifer-system compaction and a steep gradient of subsidence across the barrier, which can and likely has caused ground fissuring above the barrier.

Monitoring of Ground-Surface Deformation—Ground-Level Surveying. In late April 2004, AE performed the annual survey event across the entire network of benchmark monuments, including the measurements of horizontal displacements at the Ayala Park Array of monuments. The results of the ground level surveys were presented to the MZ-1 Technical Committee at its meeting. Also at this



meeting, the project manager from AE made a presentation to describe survey methodologies, accuracy, results, and challenges.

Figure 2-5 displays the vertical displacement at monuments that occurred from April 2003 to April 2004. Comparing monument elevations over the April-to-April period is meant to reveal the inelastic component of compaction, if any, which may be occurring in the region. The assumption here is that in April 2004 water levels in the region have recovered to the April 2003 levels; thus the measured vertical displacement does not include the elastic component of aquifer system deformation. Water levels measured as part of the IMP (in the vicinity of Ayala Park) support this assumption. Examination of Figure 2-5 shows that the monuments near Ayala Park experienced little to no subsidence over this time period. However, the monuments located in the northern portions of the surveyed area showed small but measurable subsidence of the land surface (on average about 0.04 feet). Maximum subsidence of about 0.08 feet was recorded at monuments located along Philadelphia Street between Pipeline and Ramona Avenues. Water level and groundwater production data have not been collected or analyzed as part of the IMP in these northern portions of the survey area; hence, it is not yet possible to classify the nature of the subsidence in this region (*i.e.* elastic vs. inelastic), since it is not known whether water levels in 2004 had recovered to their 2003 levels.

The color-coded background in Figure 2-5 represents the subsidence that occurred in the area over the October 1993 to December 1995 period as measured by InSAR. The subsidence shown by this InSAR data has been interpreted as primarily permanent subsidence caused by inelastic aquifer-system compaction. If so, the survey data in Figure 2-5 are indicating that the distribution of inelastic compaction in 2003-04 is significantly different than the distribution of inelastic compaction that occurred during the early 1990s. In particular, maximum permanent subsidence of about 1 foot in 1993-95 was measured in the vicinity of Ayala Park by InSAR, whereas in 2003-04 the survey data are indicating minimal permanent subsidence, if any, in this same area.

Figures 2-6 and 2-7 display the vertical and horizontal displacement at monuments of the Ayala Park Array that occurred from April 2003 to November 2003 and November 2003 to April 2004, respectively. The determination of horizontal displacement of monuments was accomplished through the processing of distance and angle measurements between adjacent monuments, and is based on the assumption that the southeastern monument was stable over the period of measurement. The methods used to measure the horizontal displacement of monuments at the Ayala Park Array are currently being refined by AE. These figures show:

- significant horizontal displacement of the ground surface over the course of the pumping and recovery seasons in the vicinity of the historic fissure zone
- the elastic nature of the land surface displacement over the course of the pumping and recovery seasons
- the apparent presence of a groundwater barrier within the deep aquifer system (see Section 5.3.4 below).

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



the recovery season of 2003-04 (November to April) vertical displacement of the land surface (i.e. rebound) was again greater on the west side of the fissure zone where water-level recovery was greatest.

In other words, the groundwater barrier in the deep aquifer system aligned with the fissure zone causes greater water-level fluctuations on the west side of the barrier where the pumping is concentrated. These greater water-level fluctuations west of the barrier cause greater deformation of the aquifer-system matrix which, in turn, causes greater vertical land surface deformation on the west side of the barrier. The InSAR data corroborate the existence of the groundwater barrier by showing maximum subsidence west of the barrier (0.2ft) and virtually no subsidence east of the barrier during the course of one pumping season (April-1993 to September 1993). In addition, the pattern of horizontal displacement of benchmarks over the pumping and recovery seasons likely reflects, in part, the differential compaction of the aquifer system across the fissure zone.

In June 2005, the entire network of monuments was surveyed for vertical displacement and, at the Ayala Park array of monuments, for horizontal displacement. The results of this survey are currently being processed.

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

The comprehensive analysis was completed during the first quarter of calendar 2005. However, the usable data in this analysis only spanned the 1992-2000 period. Dr. David Cohen of Vexcel presented the InSAR results by to the MZ-1 Technical Committee in March 2005. Figures 2-8 and 2-9 display the summary results of the InSAR analysis of land subsidence for the periods of 1992-1995 and 1996-2000.

The InSAR results were generally consistent with the ground level survey data collected over a similar period with respect to the areal extent and magnitude of historical subsidence. The InSAR data show that:

- the rate of subsidence in the south area of MZ-1 has declined over time, particularly since about 1995.
- currently, the aquifer system is experiencing mainly elastic compression and expansion in the south area of MZ-1.
- the central area of MZ-1 is displaying greater rates of subsidence than the south area (near Ayala Park). This subsidence is probably due to aquifer system compaction, but pumping and water level data that would define this relationship have not yet been collected and analyzed in the central area of MZ-1.
- a steep gradient of subsidence exists across the fissure zone. The steep gradient extends north of the fissure zone to about Francis Street. In addition, the spatially continuous InSAR data show that the gradient of subsidence is steeper across the fissure zone than is shown by surveys of discrete benchmarks, which further supports the potential link between the subsidence and the fissuring. The existence of this steep gradient across the fissure zone also supports/reveals the existence and extent of the groundwater barrier.

Conclusions



There are five major conclusions that have been derived from the IMP to date:

1. The current state of aquifer-system deformation in south MZ-1 (in the vicinity of Ayala Park) is essentially elastic. Little, if any, inelastic (permanent) compaction is now occurring in this area, which is in contrast to the past when about 2.2 feet of land subsidence occurred, accompanied by ground fissuring, from about 1987-1995.
2. Groundwater production from the deep, confined aquifer system in this area causes the greatest stress to the aquifer system. In other words, pumping of the deep aquifer system causes water-level drawdowns that are much greater in magnitude and lateral extent than drawdowns caused by pumping of the shallow aquifer system.
3. Water-level drawdowns due to pumping of the deep aquifer system can cause inelastic (permanent) compaction of the aquifer-system sediments, which results in permanent land subsidence. The initiation of inelastic compaction within the aquifer system was identified during this investigation when water levels fell below a depth of about 250 feet in the PA-7 piezometer at Ayala Park.
4. Through this study, a previously undetected barrier to groundwater flow was identified. The barrier is located within the deep aquifer system and is aligned with the zone of historical ground fissuring. Pumping from the deep aquifer system is limited to the area west of the barrier, and the resulting drawdowns do not propagate eastward across the barrier. Thus, compaction occurs within the deep system on the west side of the barrier, but not on the east side, which causes concentrated differential subsidence across the barrier and creates the potential for ground fissuring.
5. InSAR and ground-level survey data indicate that permanent subsidence in the central parts of MZ-1 (north of Ayala Park) has occurred in the past and continues to occur today. The InSAR data also indicate that the groundwater barrier extends northward into central MZ-1. These observations suggest that the conditions that very likely caused ground fissuring near Ayala Park in the 1990s are also present in central MZ-1, and should be studied in more detail.



Figure 2-1 - Piezometric and Extensometer Data
Ayala Park Piezometer/Extensometer Facility

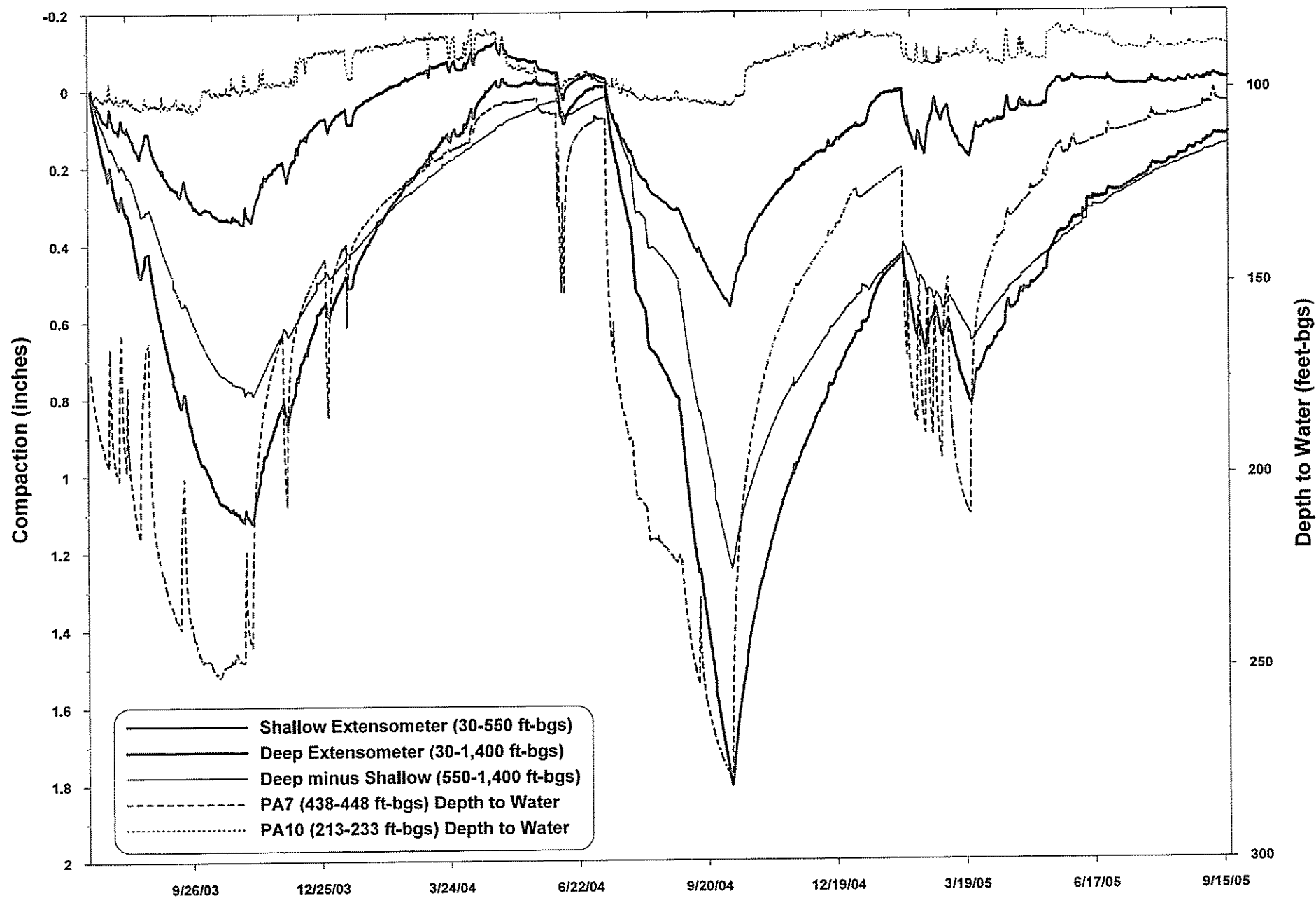
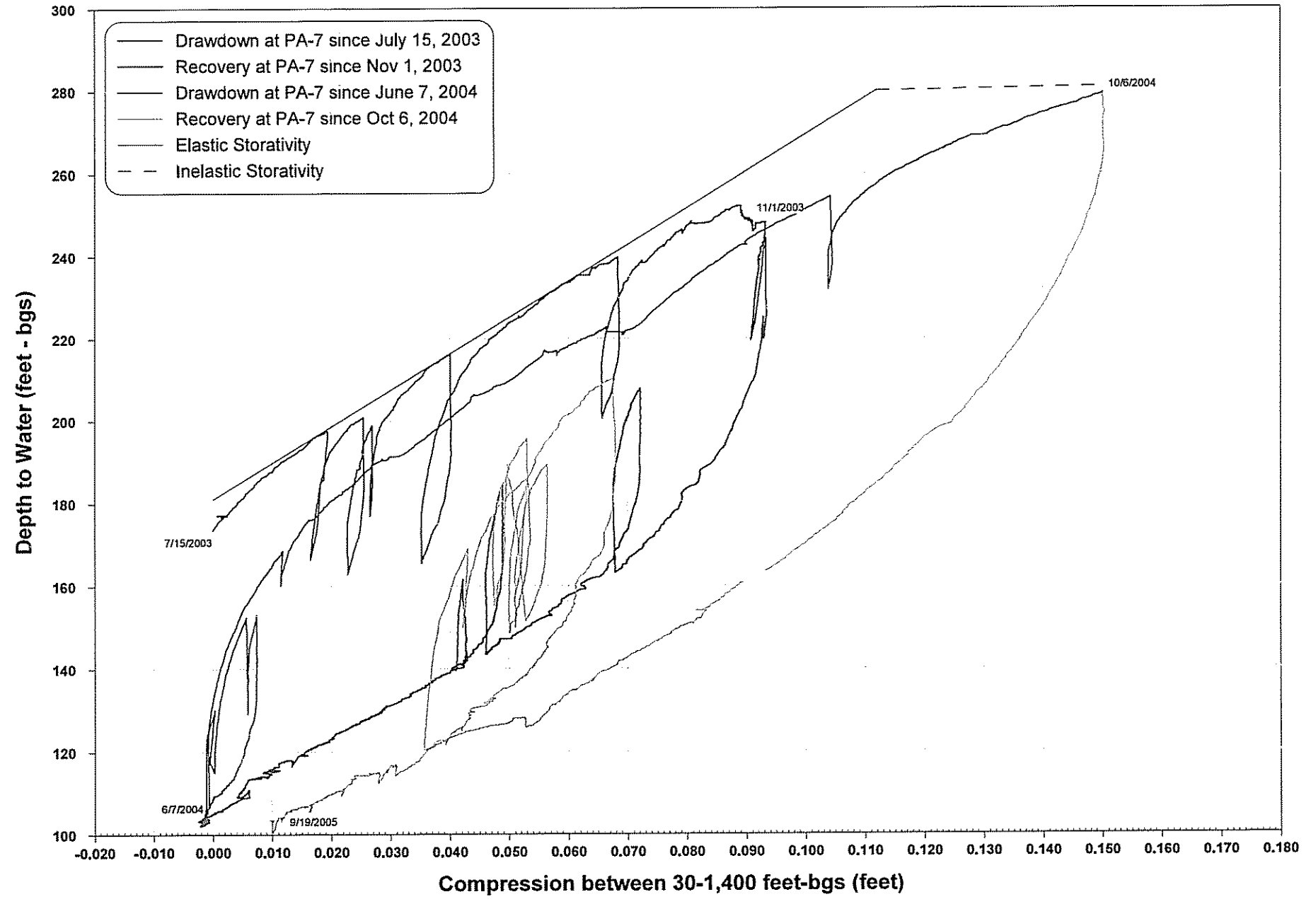
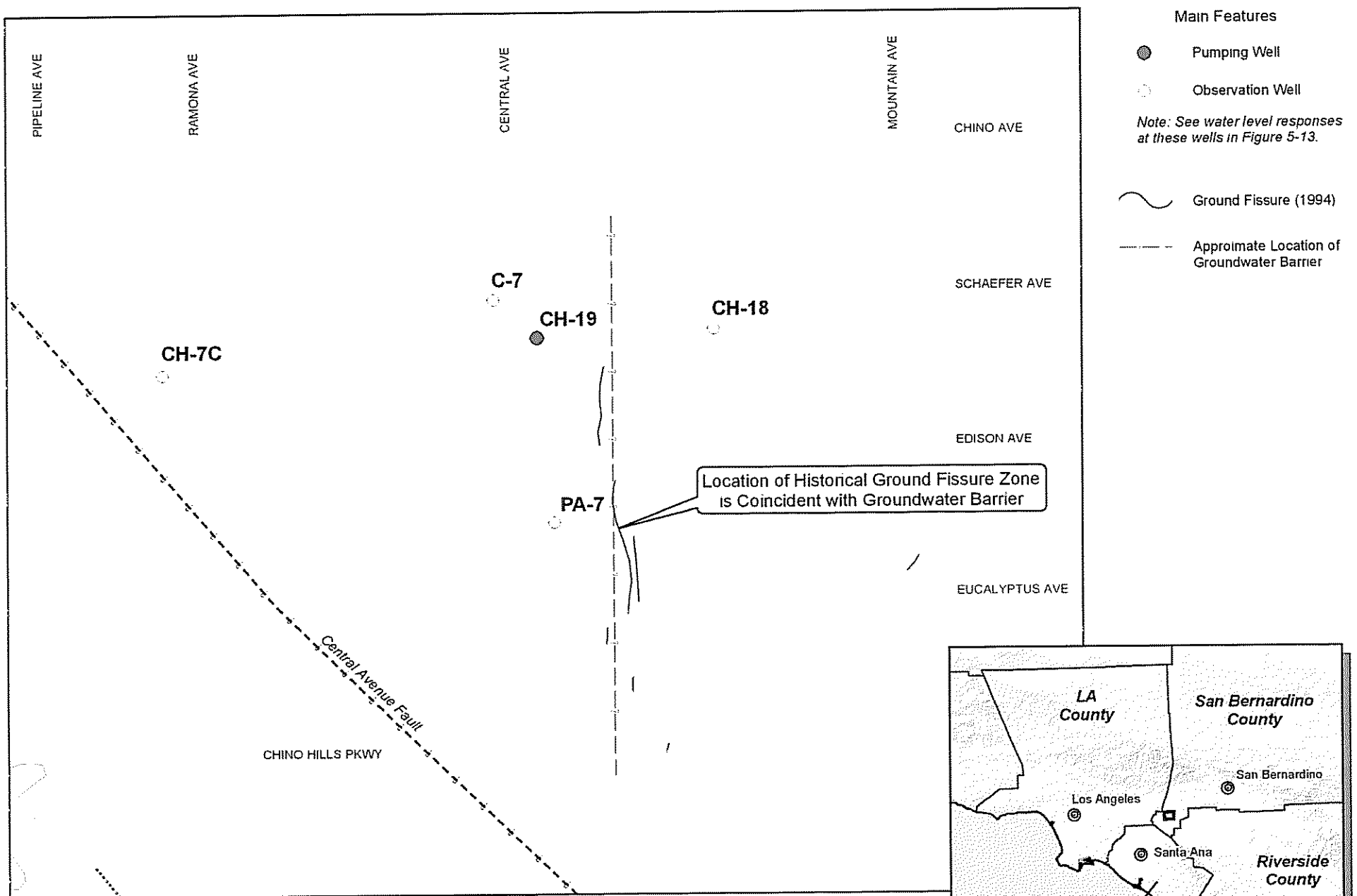


Figure 2-2 -- Stress-Strain Diagram
PA-7 vs. Deep Extensometer



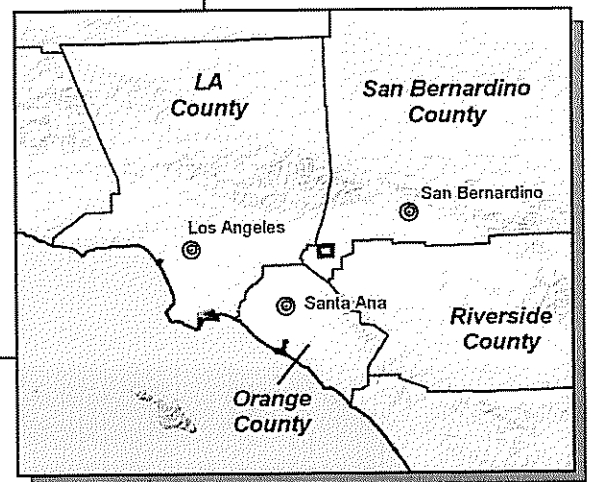


Main Features

- Pumping Well
- Observation Well

Note: See water level responses at these wells in Figure 5-13.

- ~ Ground Fissure (1994)
- - - Approximate Location of Groundwater Barrier

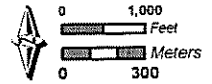


MZ-1 Groundwater Barrier
Evidence from Pumping Test



MZ-1 Summary Report
September 2005

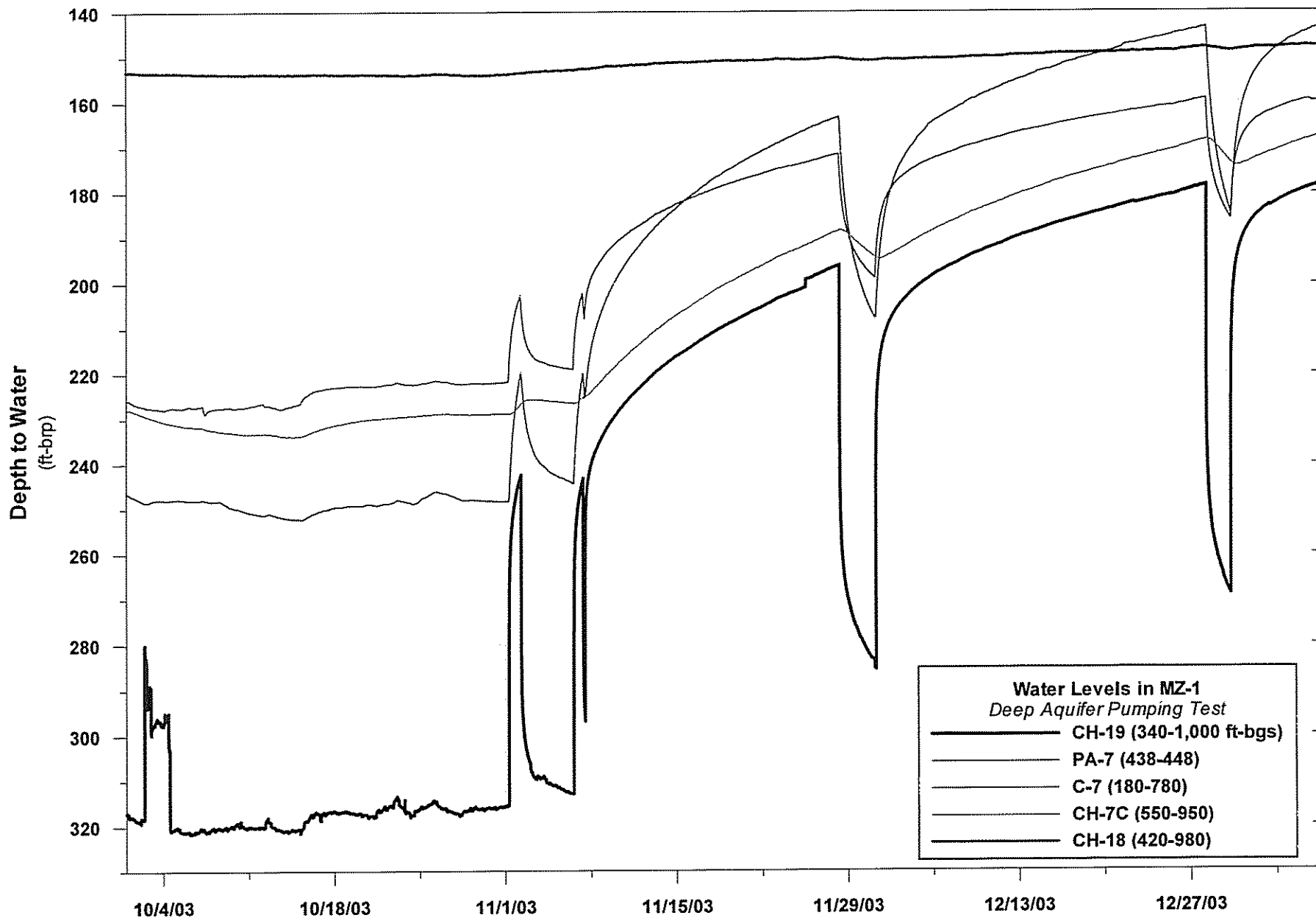
Figure 2-3

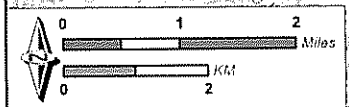
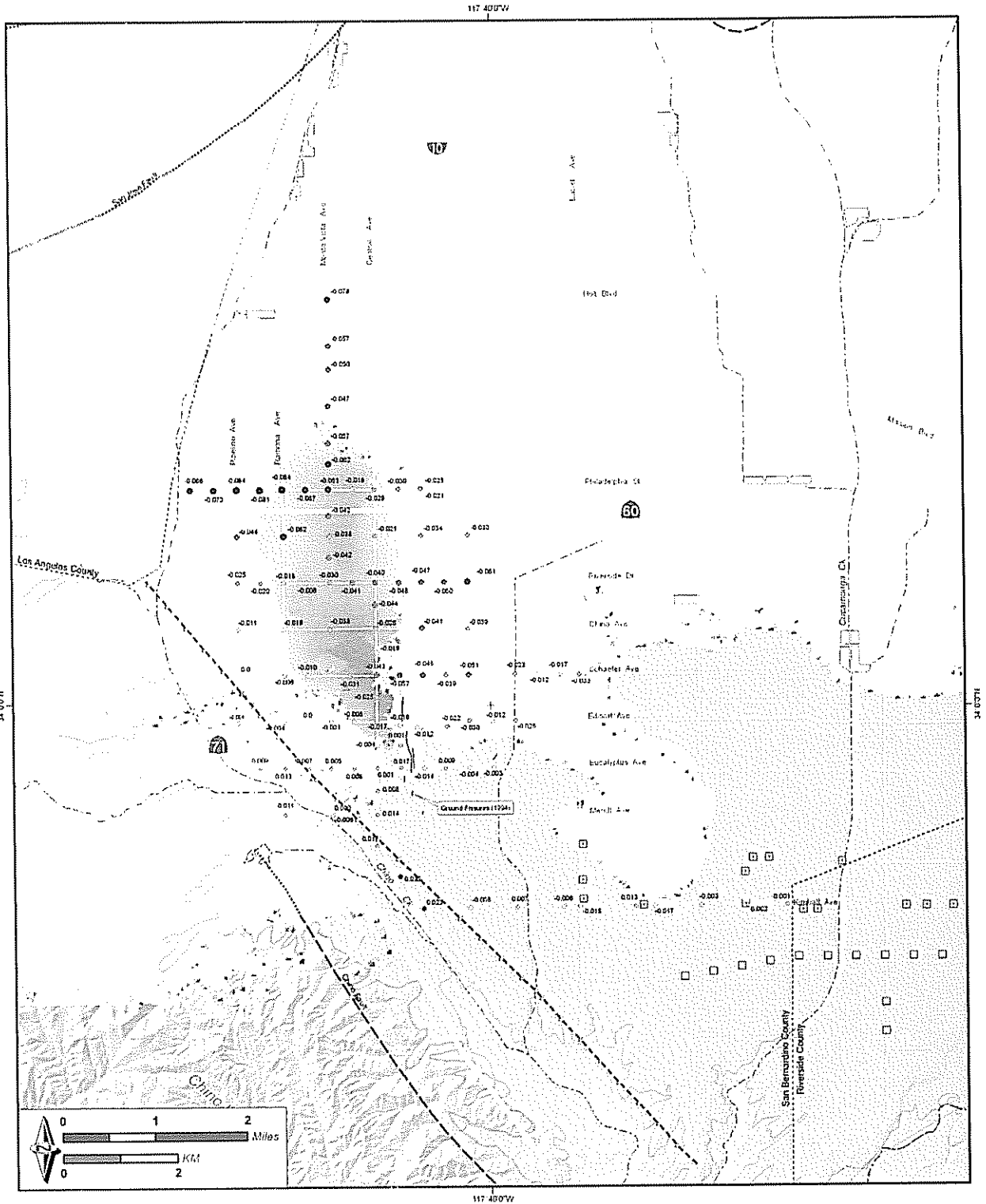


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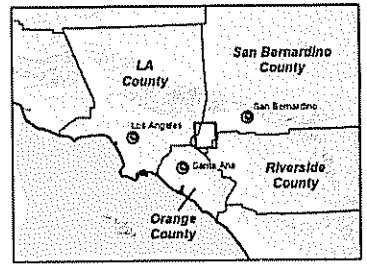
Figure 2-4
Water Level Responses at Nearby Wells to Pumping at CH-19





- Main Features**
- -0.010 to -0.020
 - -0.020 to -0.030
 - -0.030 to -0.040
 - -0.040 to -0.050
 - -0.050 to -0.060
 - -0.060 to -0.070
 - 0.0
 - 0.001 to 0.020
- Relative Change in Land Surface Altitude as Measured by Leveling Surveys April 2003 - April 2004 (feet)
-
-
- Relative Change in Land Surface Altitude as Measured by InSAR Oct 1993 - Dec 1995 (feet)
- + 1.0
 - 0.0
 - 1.0

- Other Features**
- ⊙ Ayala Park Extensometer Facility
 - ⊠ Chino Basin Desalter Well (Existing)
 - Chino Basin Desalter Well (Planned)
 - Chino Basin Hydrologic Boundary
-
- Faults & Groundwater Divides**
- Location Certain
 - - - Location Uncertain
 - · - Location Approximate
 - + — Groundwater Divide
 - · · Location Concealed



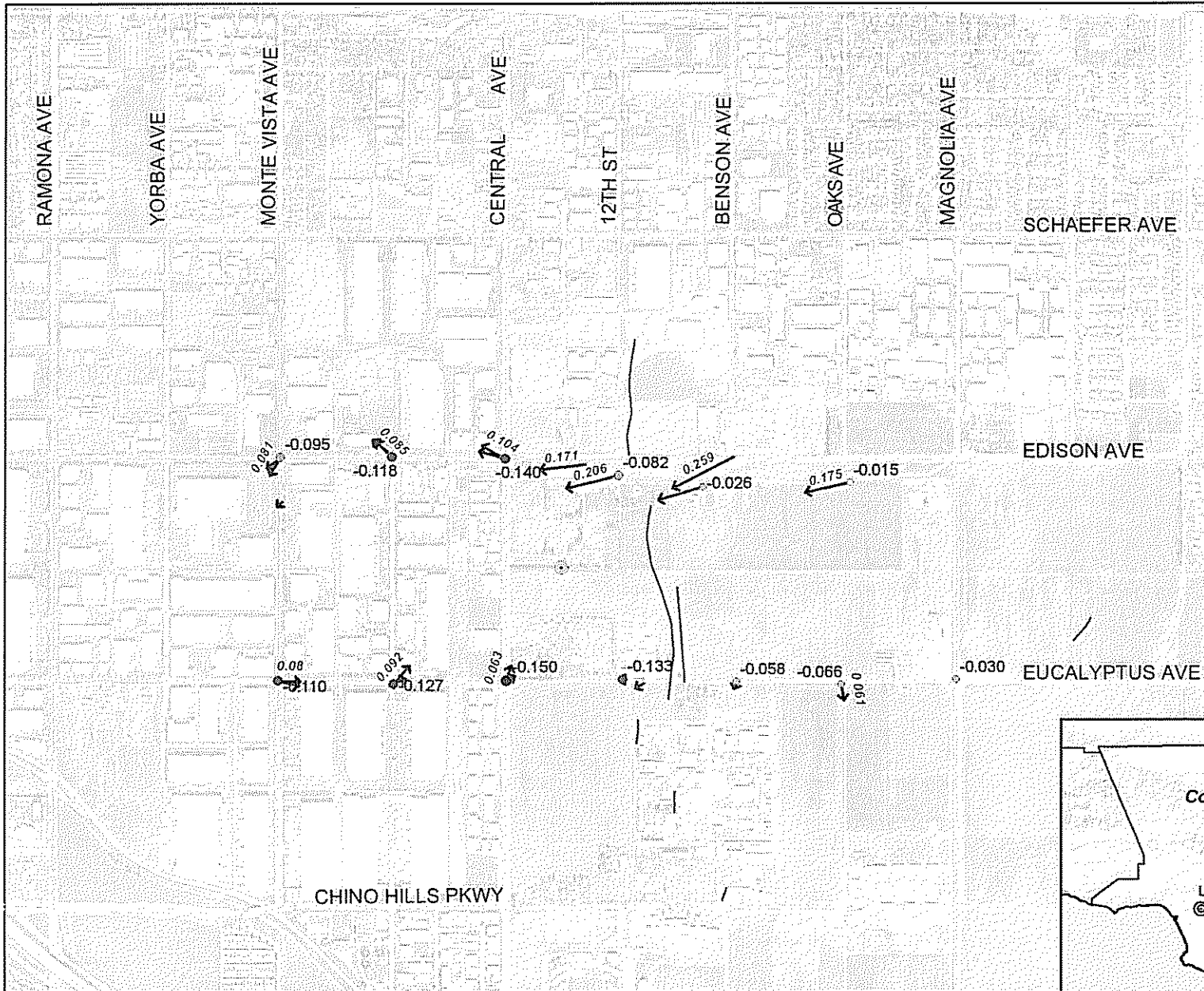
Ground Level Survey Results
April 2003 to April 2004

Prepared by:
WILDERMUTH
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21225 Sycamore Drive
Lake Forest, CA 92550
www.wildermuth.com

MZ-1 Summary Report
September 2005

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Date: 20050927
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Figure 2-5



- Results of Ground Level Surveys**
- -0.12 Vertical Displacement at Monument (ft)
 - ← 0.10 Horizontal Displacement at Monument (ft) Relative to SE Monument
- Other Features**
- ⊙ Ayala Park Extensometer
 - ~ Ground Fissure (early 1990s)

Horizontal Displacement at Ayala Park Array of Monuments
 April 2003 to November 2003



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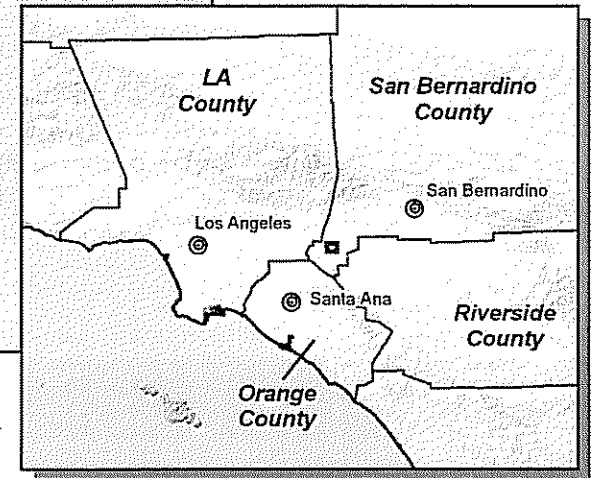
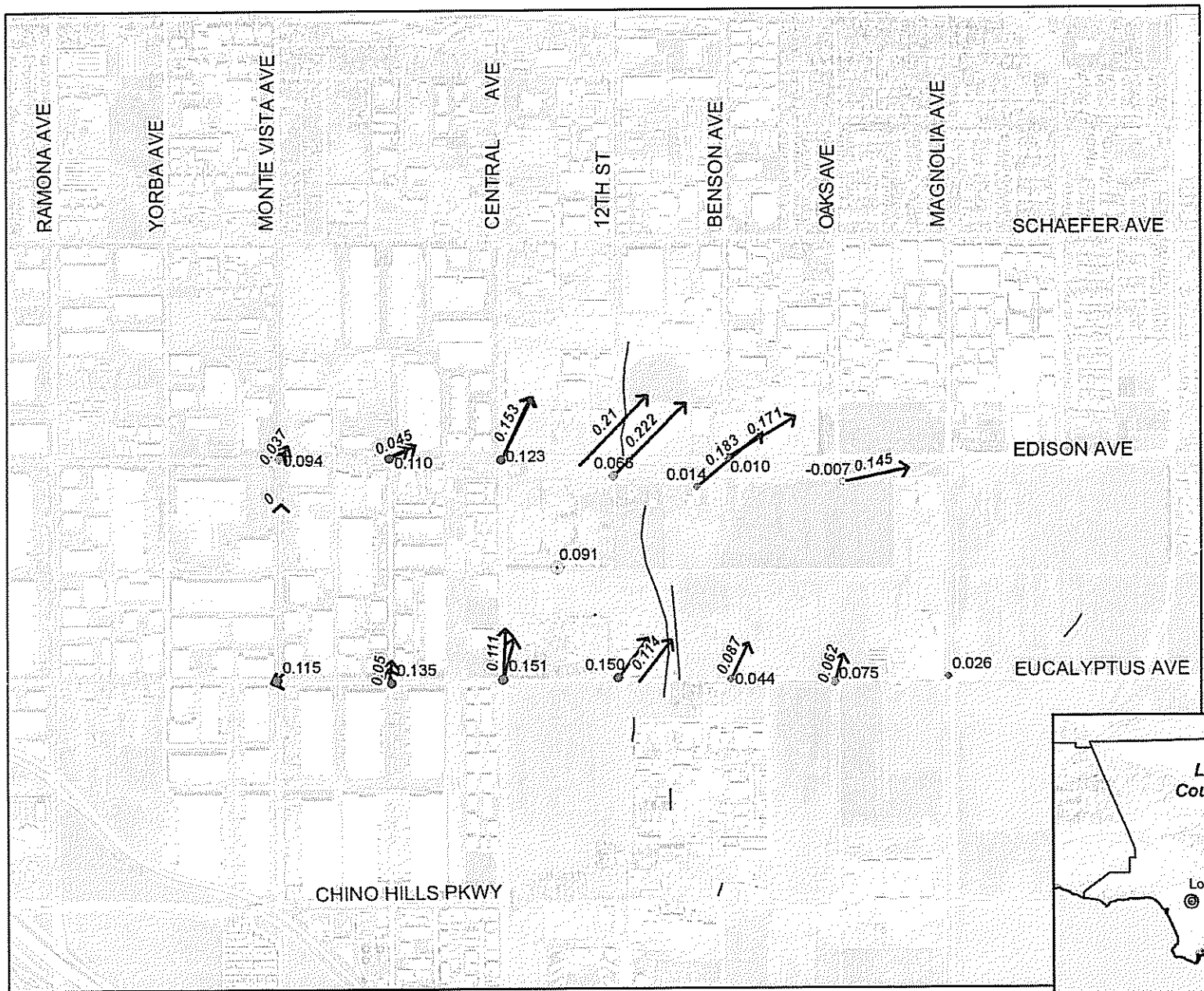
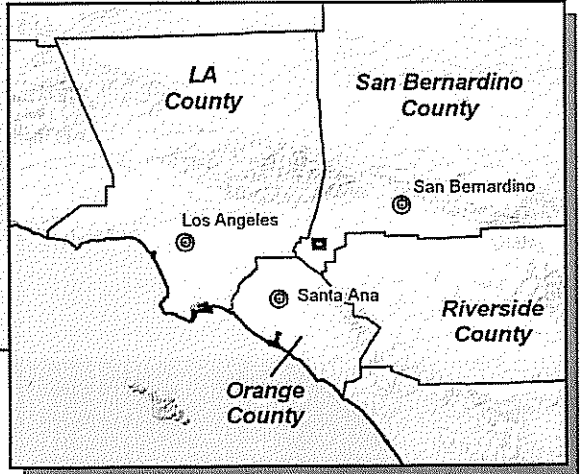


Figure 2-6



- Results of Ground Level Surveys
- 0.15 Vertical Displacement at Monument (ft)
 - 0.10 Horizontal Displacement at Monument (ft) Relative to SE Monument
- Other Features
- Ayla Park Extensometer
 - Ground Fissure (1994)

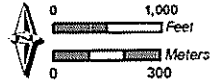


Horizontal Displacement at Ayala Park Array of Monuments
November 2003 to April 2004

Figure 2-7

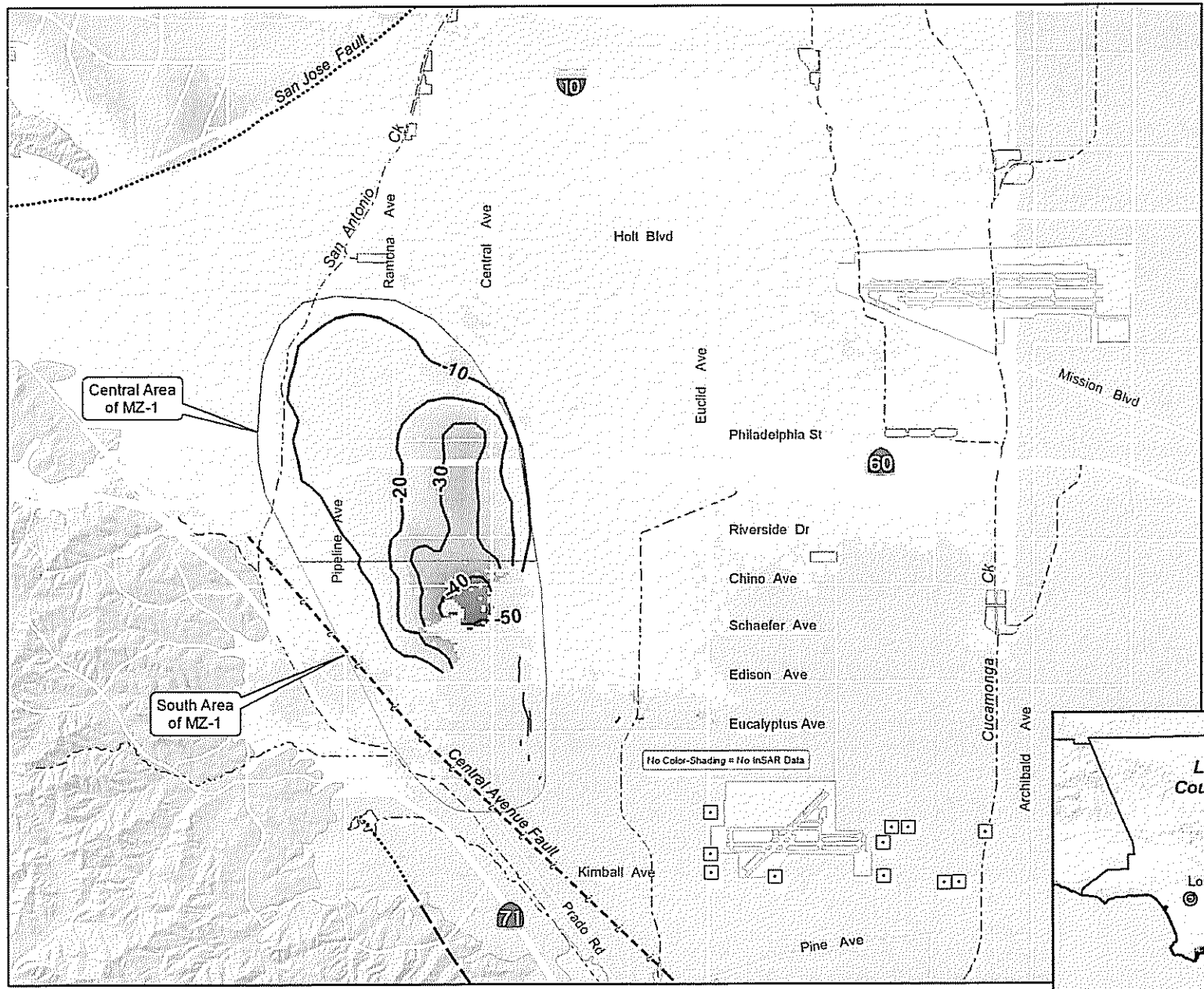


MZ-1 Summary Report
September 2005

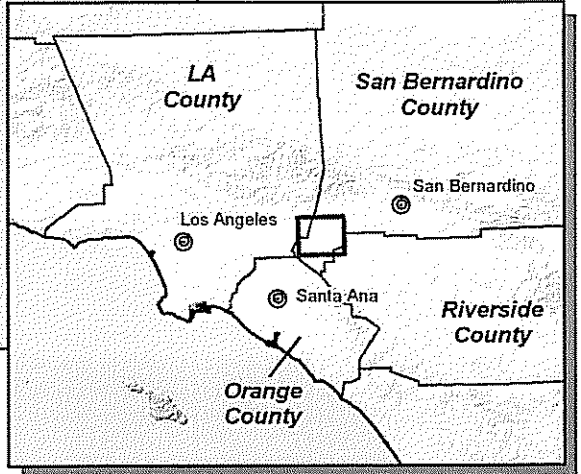


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- Results of InSAR Analysis**
- +50
 - 50
 - Relative Change in Land Surface Altitude Sept 1992 - Dec 1995 (centimeters)
 - 40
 - Subsidence Contour (centimeters)
- Other Features**
- Chino-1 Desalter Well
 - Ground Fissure (early 1990s)
 - Unconsolidated Sediments
 - Sedimentary Bedrock

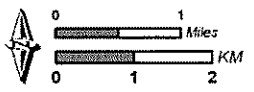


InSAR Analysis of Subsidence
1992 to 1995



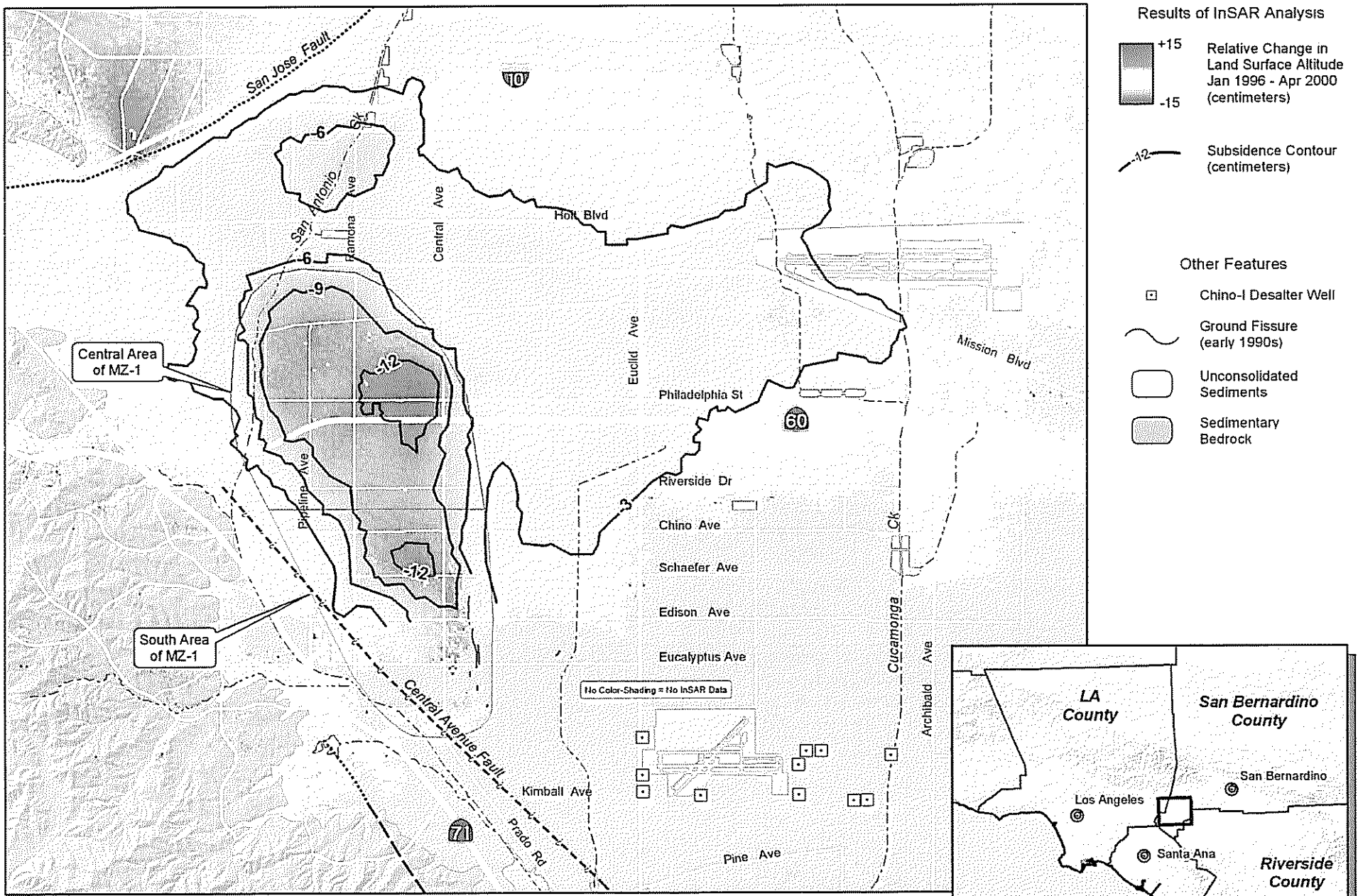
Figure 2-8

MZ-1 Summary Report
September 2005




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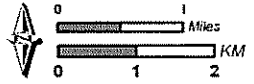
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InSAR Analysis of Subsidence
1996 to 2000

Figure 2-9


MZ-1 Summary Report
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3. ONGOING AND RECOMMENDED WORK

This section describes:

- the ongoing work of the IMP, which includes the continued monitoring of the aquifer system and land surface deformation and the development of analytical and numerical models of groundwater flow and aquifer-system deformation.
- the work that is currently being implemented that was not initially part of the IMP, but has been recommended by MZ-1 Technical Committee and/or Watermaster based on data obtained during the IMP period. This work includes the expanded aquifer-system monitoring in the central area of MZ-1, and the monitoring of horizontal ground surface deformation along Schaefer Avenue.

Continued Monitoring

Aquifer-System Monitoring. Aquifer-system monitoring efforts will continue for the duration of the IMP. The MZ-1 Technical Committee will likely recommend that the aquifer-system monitoring efforts continue, albeit at a reduced scope, as part of the long-term management plan. Electronic data from the Ayala Park Extensometer facility and from water level recording transducers in surrounding wells will be collected and entered into the MZ-1 database once every two months. The purpose of this continued monitoring effort is to (1) continually evaluate the effectiveness of the long-term plan, and (2) verify the accuracy of the groundwater flow and subsidence models that are being used as management tools.

InSAR. The MZ-1 Technical Committee is recommending that on-going InSAR monitoring of land surface deformation be conducted on a semi-annual interval (spring and fall data acquisition and interferometric analysis) for the next two years. This analysis will (1) reveal seasonal and annual ground surface displacement across the entire MZ-1 area, and (2) be compared to ground-level survey data collected at the same interval (see Section 5.4.2 below) to help determine a long-term strategy to monitor ground surface deformation.

Ground Level Surveying. The MZ-1 Technical Committee is recommending that the entire network be surveyed twice per year for the next two years (during the spring and fall of each year). The ground level survey data will be compared against the InSAR data (see above) to help determine a long-term strategy to monitor ground surface deformation.

Development of Analytical and Numerical Models

The objectives of aquifer-system modeling in MZ-1 are:

- To evaluate fluid withdrawal as the mechanism of historical land subsidence and fissuring
- To predict the effects of potential basin management practices on groundwater levels and land subsidence and fissuring (forecasting tool)

In other words, if a model can be constructed that simulates past drawdown and associated land subsidence, then the model represents an additional line of evidence that fluid withdrawal was the mechanism of historical land subsidence. In addition, the model can be used to predict future drawdown and associated land subsidence that would result from potential basin management practices.

Three distinct modeling efforts will take place in sequence:

1. *Inverse analytical modeling.* This type of modeling will use groundwater level and production data collected as part of the aquifer-system stress testing (pumping tests) that were conducted in 2003 and



2004. The objectives are to determine the hydraulic and mechanical parameters of the aquifer-system and reveal XY-anisotropy. The results will be used in subsequent numerical modeling efforts.

2. *One-dimensional compaction modeling.* This type of modeling will use groundwater level and aquifer-system deformation data collected at the Ayala Park Piezometer/Extensometer Facility, as well as historical water level and subsidence data collected near Ayala Park. One objective is to determine the aquitard properties in the vicinity of Ayala Park. Areal extrapolation of aquitard properties will be based on geology and InSAR data, and the results will be used in the three-dimensional numerical modeling efforts (see Section 3). Another objective is to predict aquifer-system deformation due to predicted water level changes that may occur at Ayala Park in the future due to nearby pumping.
3. *Three-dimensional groundwater flow and subsidence modeling.* This type of modeling will use groundwater level and production data at all wells in the area and historical land subsidence data from ground level surveys and InSAR. Again, this model will attempt to match historical water level and subsidence data and, if successful, will serve as a forecasting tool for MZ-1 managers.

It is desirable that the calibration period for future groundwater flow and subsidence modeling begins before significant drawdown in MZ-1 (~1940). The comprehensive set of subsidence data in this region begins in 1987. If subsidence data exists prior to 1987, then it needs to be collected, evaluated, and linked to the post-1987 survey data if it is to be used in model calibration. Associated Engineers is currently investigating the quantity and quality of pre-1987 subsidence data in MZ-1, and will deliver a report containing these data in October 2005.

Expanded Monitoring

One of the key discoveries of the IMP has been the groundwater barrier located beneath the historic fissure zone. However, the northern and southern extent of this barrier is unknown. The MZ-1 Technical Committee is contemplating the expansion of the aquifer-system monitoring network to the north and south of its current extent to better characterize the location and effectiveness of the barrier. Further aquifer-system testing (i.e. pumping test) may be necessary as part of this effort.

The horizontal surveys will also be extended to the north over this two year period to include the benchmarks along Schaefer Avenue. The next survey of the entire monument network is planned for October 2005.



4. DEVELOPMENT OF THE LONG-TERM MANAGEMENT PLAN FOR MZ-1

Recall that the objective of the long-term management plan is to minimize or abate permanent land subsidence and ground fissuring in MZ-1. The modeling efforts described above will be critical to the development of the long-term plan, and the continual evaluation of plan in the future.

A workshop was held May 25, 2005 to update the Special Referee on IMP progress and development of the long-term management plan for MZ-1. The OBMP implementation plan called for the development of the long-term plan by June 2005. Because the modeling efforts were just begun in the summer of 2005, the Special Referee was notified before and during the workshop of the impending delay in the development of the long-term plan.

Subsequent to the workshop, the Special Referee issued a report to the Court (Appendix A). In the report, the Special Referee:

- indicated that the IMP progress and current activities are sufficient to warrant a delay in the development of a long-term plan
- indicated that it was incumbent upon Watermaster to request that the Court extend the period for completion of the long-term plan, and that Watermaster file with the Court a motion for an order to set a new schedule for the completion of the long-term plan
- requested that Watermaster produce a MZ-1 Summary Report (this report) that describes the IMP results and conclusions to date, and addresses outstanding issues such as other potential subsidence mechanisms and historical subsidence that pre-dates the 1990s
- requested that Watermaster provide “guidance criteria” to the MZ-1 producers in an effort to minimize the potential for future subsidence and fissuring until the completion of the long-term plan

Guidance Criteria to Minimize Subsidence and Fissuring

In response, Watermaster produced this summary report, and drafted a set of guidance criteria for MZ-1 producers. Again, the purpose of the guidance criteria is to minimize the risk of permanent subsidence and ground fissuring while the long-term plan is being developed. The guidance criteria are listed in Table 4-1 and below:

1. Table 4-2 lists the existing wells (hereafter the Managed Wells) and their owners (hereafter the Parties) that are the subject of these Guidance Criteria.
2. Figure 4-1 shows the area addressed by these Guidance Criteria (hereafter the Area of Subsidence Management). Within the boundaries of this area, both existing and newly-constructed wells are subject to being classified as Managed Wells. This is based upon the observed and/or predicted effects of pumping on groundwater levels and aquifer-system deformation. Initial Managed Well designations for wells that pumped during the IMP were based on effects measured at the Ayala Park Piezometer/Extensometer Facility. Additional Managed Well designations were made based on analysis of well construction and geology.
3. The Guidance Level is a specified depth to water measured in Watermaster’s PA-7 piezometer at Ayala Park. It is defined as the threshold water level at the onset of inelastic compaction of the aquifer system as recorded by the extensometer, minus 5 feet. The 5-foot reduction is meant to be a safety factor to ensure that inelastic compaction does not occur. The Guidance Level is established by Watermaster based on the periodic review of monitoring data collected by Watermaster. The initial Guidance Level is 245 feet below the top of the PA-7 well casing.



4. If the water level in PA-7 falls below the Guidance Level, Watermaster recommends that the Parties curtail their production from designated Managed Wells as required to maintain the water level in PA-7 above the Guidance Level.
5. Watermaster will provide the Parties with real-time water level data from PA-7.
6. The Parties are requested to maintain and provide to Watermaster accurate records of the operation of the Managed Wells, including production rates and on-off dates and times. The Parties are requested to promptly notify Watermaster of all operational changes made to maintain the water level in PA-7 above the Guidance Level.
7. Watermaster recommends that the Parties allow Watermaster to continue monitoring piezometric levels at their wells.
8. Watermaster will evaluate the data collected as part of the MZ-1 Monitoring Program at the conclusion of each fiscal year (June 30) and determine if modifications, additions, and/or deletions to the Guidance Criteria are necessary. These changes to the Guidance Criteria could include (1) additions or deletions to the list of Managed Wells, (2) re-delineation of the Area of Subsidence Management, (3) raising or lowering of the Guidance Level, or (4) additions and/or deletions to the Guidance Criteria (including the need to have periods of water level recovery).
9. Watermaster cautions that some subsidence and fissuring may occur in the future even if these Guidance Criteria are followed. Watermaster makes no warranties that faithful adherence to these Guidance Criteria will eliminate subsidence or fissuring.

Development and Schedule of the Long-Term Plan

In a sense, the guidance criteria listed above are a *first draft* of the long-term plan. Over the next nine months (October 2005 to June 2006), Watermaster will conduct its modeling exercises and coordinate a series of meetings with MZ-1 producers that will likely lead to revisions of the guidance criteria.

Of particular interest to the affected Parties is the sixth criterion (6) listed above, which limits the timing of production from the Managed Wells to July through September of each year. It may be that the Managed Wells can be pumped at reduced rates over periods longer than three months, and still not cause drawdown below 245 feet at the PA-7 piezometer or inelastic compaction within the aquifer system. Watermaster's groundwater flow and subsidence models will help to address these unknowns prior to pumping by predicting:

- the water level response at PA-7 due to various proposed pumping scenarios, and
- the aquifer-system compaction response due to the water level responses.

In June 2006, after the MZ-1 meetings and modeling exercises, Watermaster will release an expanded *second draft* of the guidance criteria, which will be defined as the official long-term plan for MZ-1. A key element of the long-term plan will be the verification of the model predictions and the protective nature of the guidance criteria as related to permanent land subsidence and ongoing fissuring. This verification will be accomplished through continued monitoring and reporting by Watermaster and revision of the guidance criteria when appropriate (see Criterion 11 above). In this sense, the long-term plan will be adaptive.

The guidance criteria and the long-term plan discussed above relate to the management of pumping-induced subsidence within south MZ-1 (the Area of Subsidence Management in the terminology of the



guidance criteria). Recall that central MZ-1 is currently experiencing measurable land subsidence, and is the focus of an expanded effort to monitor piezometric levels and land surface deformation. An adaptive long-term plan will accommodate the results and modified recommendations that will emerge from the expanded monitoring of central MZ-1.

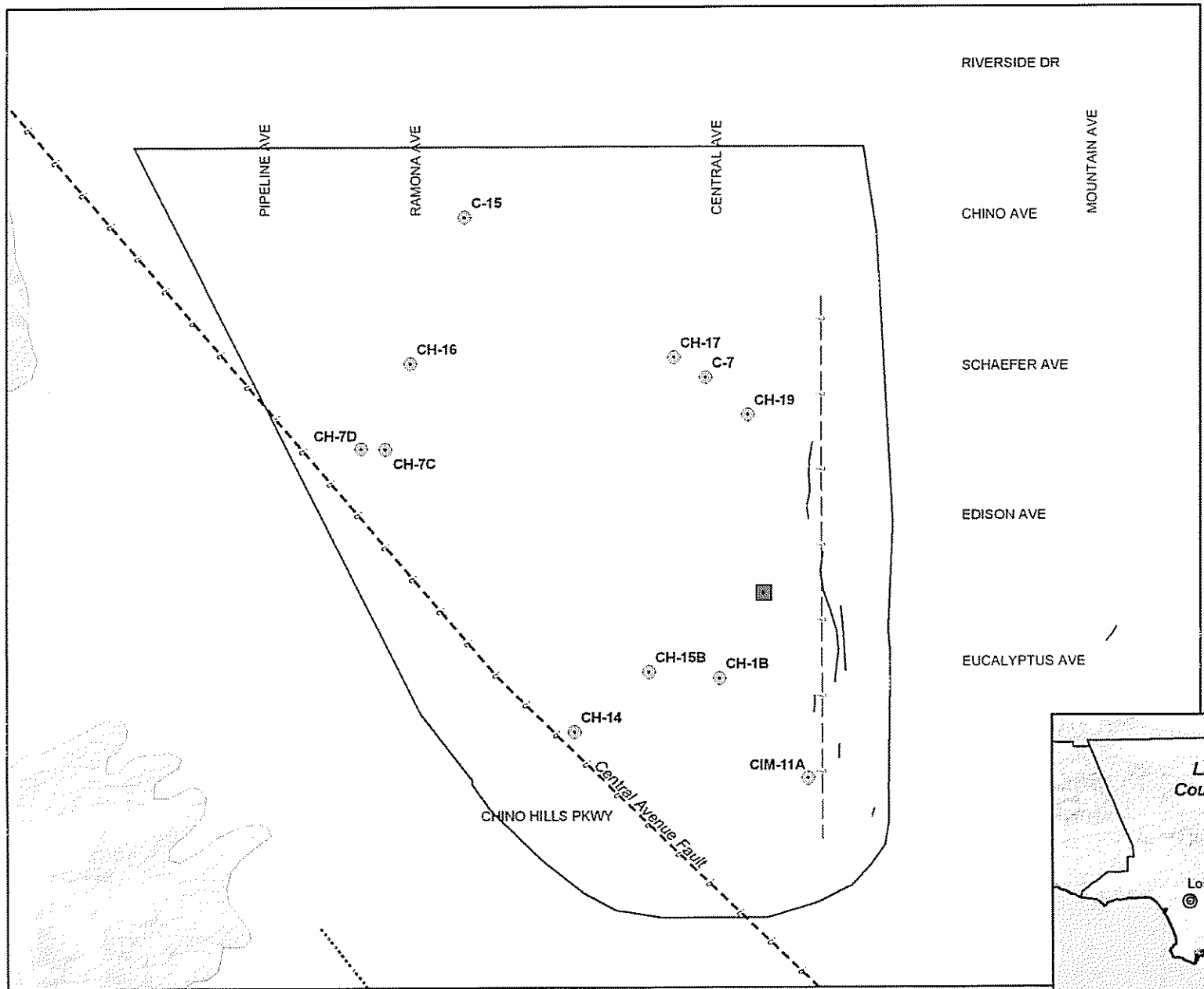


Table 4-1
Guidance Criteria for MZ-1 Producers

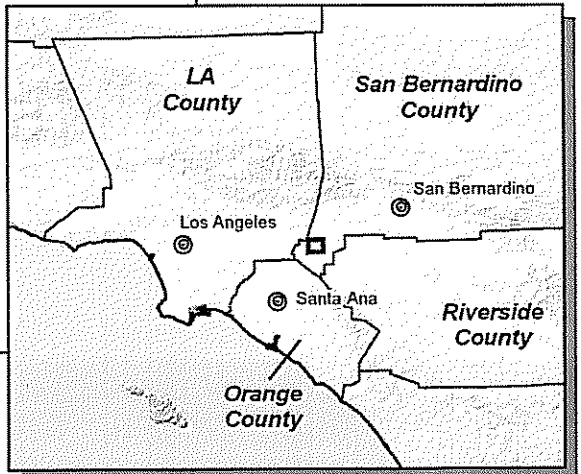
1. Table 4-2 lists the existing wells (hereafter the Managed Wells) and their owners (hereafter the Parties) that are the subject of these Guidance Criteria.
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7. Watermaster recommends that the Parties allow Watermaster to continue monitoring piezometric levels at their wells.
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9. Watermaster cautions that some subsidence and fissuring may occur in the future even if these Guidance Criteria are followed. Watermaster makes no warranties that faithful adherence to these Guidance Criteria will eliminate subsidence or fissuring.

**Table 4-2
MZ-1 Managed Wells**

CBWM_ID	Owner	Well Name	Status	Screened Interval ft-bgs	Capacity gpm
600487	Chino Hills	1B	Inactive	440-470, 490-610, 720-900, 940-1180	up to 1200
600687	Chino Hills	7C	Inactive	550-950	—
600498	Chino Hills	7D	Inactive	320-400, 410-450, 490-810, 850-930	400
600495	Chino Hills	14	Inactive	350-860	300-400
600488	Chino Hills	15B	Active	360-440, 480-900	1500
600489	Chino Hills	16	Inactive	430-940	800
600499	Chino Hills	17	Active	300-460, 500-980	700
600500	Chino Hills	19	Active	340-420, 460-760, 800-1000	1100-1500
3600461	Chino	7	Inactive	180-780	
600670	Chino	15	Inactive	270-400, 626-820	
3602461	CIM	11A	Active	135-148, 174-187, 240-283, 405-465, 484-512, 518-540	500-600



- MZ-1 Managed Well
- Ayala Park Extensometer
- Area of Subsidence Management
- Ground Fissure (1994)
- Approximate Location of Groundwater Barrier

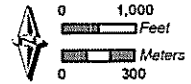


MZ-1 Managed Wells
MZ-1 Long-Term Monitoring Program



Figure 4-1

MZ-1 Monitoring Program
Ground Level Monitoring



Author: AEM
Date: 20060226
File: Figure_4-1.mxd

Produced by:
WILDERMUTH
ENVIRONMENTAL, INC.

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**APPENDIX A – SPECIAL REFEREE’S REPORT ON PROGRESS MADE ON IMPLEMENTATION OF
THE WATERMASTER INTERIM PLAN FOR MANAGEMENT OF SUBSIDENCE**

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4 SPECIAL REFEREE

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SUPERIOR COURT OF THE STATE OF CALIFORNIA

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COUNTY OF SAN BERNARDINO, RANCHO CUCAMONGA DIVISION

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CHINO BASIN MUNICIPAL WATER
DISTRICT,

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Plaintiff,

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v.

14

THE CITY OF CHINO,

15

Defendants.

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17

CASE NO. RCV 51010

Judge: Honorable J. Michael Gunn

Date: TBD

Time:

Dept:

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**SPECIAL REFEREE'S REPORT ON PROGRESS MADE ON
IMPLEMENTATION OF THE WATERMASTER INTERIM PLAN
FOR MANAGEMENT OF SUBSIDENCE**

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9 COUNTY OF SAN BERNARDINO, RANCHO CUCAMONGA DIVISION

10
11 CHINO BASIN MUNICIPAL WATER)
12 DISTRICT,)

13 Plaintiff,)

14 v.)

15 THE CITY OF CHINO,)

16 Defendants.)

CASE NO. RCV 51010

Judge: Honorable J. Michael Gunn

SPECIAL REFEREE'S REPORT ON
PROGRESS MADE ON IMPLEMEN-
TATION OF THE WATERMASTER
INTERIM PLAN FOR MANAGE-
MENT OF SUBSIDENCE

Date: TBD

Time:

Dept:

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19 I. INTRODUCTION

20 A workshop was held May 25, 2005, as a follow-up to the workshop held August 29, 2002.
21 The second workshop was originally scheduled to be held in 2003, pursuant to Court Order
22 Concerning Watermaster's Interim Plan for Management of Subsidence, dated October 17, 2002
23 ("2002 Order"). The second workshop was postponed until substantial data collection and analysis
24 had been completed.

25 The scope of the workshop was limited to presentation of technical data and analysis
26 completed to date related to the Watermaster Interim Plan for Management of Subsidence ("Interim
27 Plan"). The presentation was made by Mr. Malone of Wildermuth Environmental, Inc., Watermaster
28 Engineering Consultant. Mr. Malone, Mr. Wildermuth, and Mr. Riley addressed questions posed

1 by the Special Referee, technical expert Joe Scalmanini, and several others. Consistent with use of
2 a workshop format, cross-examination was not allowed. A transcript of the workshop has been
3 prepared and will be filed with the Court by Watermaster.

4 II. 2002 COURT ORDER

5 In the 2002 Order, Judge Gunn directed Watermaster to:

- 6 (1) Implement the Interim Plan Monitoring Program for subsidence, including all work
7 related to piezometers, extensometers, ground-level monitoring, aquifer testing, and
8 other actions to study, analyze, and interpret subsidence and fissuring in MZ1 and to
9 determine causes in sufficient detail that they can be managed through a long-term
10 plan;
- 11 (2) Continue the MZ1 Technical Committee work and have the Technical Committee
12 serve in an advisory capacity to assist Watermaster in developing a long-term
13 subsidence management plan for MZ1;
- 14 (3) Develop a long-term management plan by fiscal year 2004/2005;
- 15 (4) Submit quarterly reports to the court on all interim and long-term efforts to address
16 MZ1 subsidence and fissuring problems, including documentation of participation,
17 forbearance, impacts, and other "noteworthy details that pertain to the goal of
18 forbearance to minimize subsidence and fissuring";
- 19 (5) Schedule a follow-up workshop for July 17, 2003; and
- 20 (6) File reports at least quarterly to apprise the court of any actions pending that could
21 cause the "jurisdiction issue" to resurface.

22 III. COMPLIANCE WITH 2002 COURT ORDER

23 A. Regular Reports by Watermaster

24 Watermaster has regularly reported to the court, through its status reports, on the progress
25 of all work related to Management Zone 1 ("MZ1") subsidence issues. Watermaster has also
26 reported that it is not aware of any pending legal actions which have raised issues concerning the
27 court's jurisdiction related to subsidence. The City of Chino ("Chino") has annually asked for
28 continuances of its Paragraph 15 Motion. The process has been that Chino requests continuance
after both Chino and the City of Chino Hills ("Chino Hills") have committed to forbear some
pumping. (Our files reflect that Chino requested a continuance to September 1, 2005, but we do not
have a copy of a court order approving that continuance.) Watermaster has reported that the MZ1
Technical Advisory Committee has been actively meeting.

////

1 **B. Pumping Forbearance Agreements**

2 Annual forbearance agreements have been entered into for the past three years by Chino and
3 Chino Hills. On April 28, 2005, Watermaster approved continuation of the forbearance agreements
4 for a fourth year. The fourth year of forbearance will be fiscal year 2005/2006.

5 **C. Court Order and Deadlines**

6 Two of the deadlines set forth in the 2002 Order have not been met. First, a long-term
7 management plan for MZ1 was to have been completed this fiscal year (by July 1, 2005). Second,
8 a follow-up Special Referee workshop was not held in July 2003, but, instead, was postponed in
9 order that a substantial body of work could be completed to study and assess the MZ1 issues.

10 **IV. INTERIM PLAN WORK**

11 **A. Technical Work Completed to Date**

12 The purpose of the second workshop was to hear a description of the work and study that has
13 been done since the MZ1 Interim Plan was begun, to ascertain whether any conclusions have been
14 reached, and to obtain a description of the activities that are being undertaken now and that remain
15 to be done. Mr. Malone's presentation on the technical work and analysis to date formed the bulk
16 of the workshop. He provided a very detailed description of the monitoring and other technical work
17 that has been undertaken. Ongoing efforts have included installation of piezometers and an
18 extensometer, installation of transducers to monitor water levels in a network of wells, and ground-
19 level and InSAR monitoring for subsidence. Mr. Malone reported several discoveries which he
20 characterized as significant, including discovery of a groundwater barrier at depth in a location
21 approximately coincident with the fissuring that has occurred, and that there are two very distinct
22 aquifer systems. (Reporter's Transcription ("RT") at pp. 44-47)

23 Mr. Malone also indicated that all of the potential causes of the subsidence and fissuring
24 which had been previously suggested had been reviewed, but that the Interim Plan work has focused
25 on the hypothesis that the subsidence and fissuring have been caused by subsurface fluid withdrawal:

26 We reviewed all these [other potential causes of subsidence], but what we zeroed in
27 on was the subsurface withdrawal as our hypothesis. That's what we identified as the
28 most likely cause of the subsidence that we had observed in the City of Chino . . . so
our hypothesis was that the groundwater production caused land subsidence and
fissuring in Chino Basin. . . We also noted that it was likely, or that we were

1 hypothesizing that the production from the confined aquifer system was the main
2 cause of this recent episode of subsidence and fissuring that was measured in the
3 early 1990's. So this is what we designed our monitoring program to test, whether
4 or not this hypothesis was correct.

4 (RT at pp. 32-33) There was no further discussion on the record regarding the nature of the review
5 that was done as to other potential causes of the subsidence and fissuring.

6 A primary focus of the technical work has been to determine at what point subsidence creates
7 inelastic compaction versus subsidence which is elastic and can recover. Mr. Malone described the
8 process to identify:

9 . . . the threshold where the deformation process transitions from elastic to inelastic.
10 By doing that, we'd be defining the usable volume of the storage reservoir, under
11 what range of water levels can we operate where we're not causing inelastic
12 compaction. And that would be a very key finding to any long-term management
13 plan that might develop out of this study.

12 (RT at pp. 43-44) The presentation included detailed descriptions of "stress-strain diagrams" which
13 reflect data on the elastic versus inelastic response of the system to pumping. Mr. Malone drew
14 attention to a "key point" that there appears to have been about two one-hundredths of a foot (0.02
15 ft.) of permanent compaction over the 2004 pumping season. (RT at pp. 58-59) He indicated that
16 the ". . . inelastic threshold was crossed at about 250 feet below ground surface during the latter part
17 of the pumping season." (RT at p. 60) Mr. Malone made it very clear that it is necessary to wait for
18 "fully recovered water levels" before drawing any final conclusions that the system transitions from
19 elastic to inelastic compaction when water levels are somewhere below 250 feet below ground
20 surface. (RT at p. 95)

21 In response to questions as to whether there are sufficient data available now to develop a
22 long-term plan, Mr. Malone responded that:

23 . . . When we operate in the forbearance agreement where we pump during the
24 pumping season, but we allow the system to recover during the wintertime months,
25 . . . we've demonstrated that we're operating generally in an elastic range. . . And so
26 to how far we can step out of that same pumping pattern and still operate within the
27 elastic range, we have not determined that yet. But the models hold the promise of
28 determining that.

27 (RT at p. 93)

28 Mr. Malone explained that the next step in the investigation is to create groundwater models

1 to "... simulate the groundwater production's effects on groundwater levels." (RT at p. 91) The
2 model will: "... help us provide that linkage between groundwater production and groundwater
3 levels that would provide a tool to evaluate any management plan that might come out of this." (RT
4 at p. 107)

5 In response to a question, Mr. Malone indicated that there are not plans to do further testing
6 in the southern part of MZ1:

7 We feel like if the stress-strain diagram goes to where it seems to be going, that
8 we've identified this threshold of preconsolidation stress that is the transition
9 between inelastic and elastic compaction. . . I don't think we have any further
10 questions that we're trying to answer in this southern part of Management Zone 1.
11 We're going to be developing the models that will help us provide that linkage
12 between groundwater production and groundwater levels. . .

13 (RT at p. 107)

14 **B. Recommended Additional Technical Work**

15 Mr. Malone recommended that technical work be continued in the southern part of MZ1 and
16 that certain technical work be started in the central MZ1 area to the north. For the southern MZ1
17 area, the recommendation is that monitoring continue (RT at pp. 97-99) and that some of the
18 dedicated piezometers be replaced (RT at pp. 103-104). In addition, numerical models would be
19 developed (a one-dimensional compaction model and a three-dimensional groundwater flow and
20 subsidence model). The three-dimensional model would link:

21 ... the areal and vertical distribution of pumpage to water level fluctuations and then
22 the ultimate deformation that occurs in the aquifer system. . . We've been working
23 mostly on this link between water level fluctuation and deformation. The model will,
24 then, now take us from that to include pumpage, how it affects water level
25 fluctuations, and then how the water level fluctuations affect deformation.

26 (RT at pp. 99-100)

27 Mr. Malone also discussed expanding the investigation of subsidence, initially via
28 monitoring, to the central region of MZ1, including the installation of water level transducers in
existing wells. (RT p. 107) Mr. Malone characterized as speculative the potential need to construct
a new monitoring facility or facilities in the central region, including a multi-piezometer and/or
extensometer. (RT at p. 102) He clarified that ground-level survey data, InSAR data, and water-
level data should be collected in the central MZ1 area before any conclusion would be reached on

1 the need for piezometers or an extensometer. (*Id.*) Expansion of the subsidence investigation into
2 the central region of MZ1 is prompted by the observation of some historical subsidence in the area,
3 confounded to some degree by the lack of any known local pumping in the immediate subsidence
4 area. (RT at pp. 76, 80, 83-84, 87)

5 C. Long-Term Plan Schedule

6 There was not extensive discussion at the workshop on either a long-term plan or a schedule
7 for completion of a plan. Mr. Malone indicated that InSAR surveys and ground surveys will be
8 conducted in both fall 2005 and spring 2006. (RT at p. 104) The modeling would be completed in
9 the spring of 2006, with a modeling report to follow that summer. (*Id.*) Mr. Wildermuth responded
10 to a question regarding scheduling by indicating that several more years of studies and model
11 development and analysis would be required, followed by 12 months to reach an agreement on a
12 long-term plan. (RT at p. 109) This timing is consistent with the discussion in the 2002 workshop.
13 At that workshop, in response to the question of how long it would take to start developing a long-
14 term plan given optimal agreement by all parties, Mr. Wildermuth stated that he thought it would
15 take three to five years (2002 Workshop Transcript at page 101.) Mr. Slater also clarified at the 2002
16 workshop that Mr. Wildermuth's three to five years were for the "data development side" and that
17 "the business deal probably follows soon thereon, and one would expect maybe twelve months to
18 wrap that piece up." (2002 Workshop Transcript at p. 103.)

19 V. RECOMMENDATION OF SPECIAL REFEREE

20 A. Preparation of a Summary Report on MZ1 Technical Work

21 A substantial body of technical work has been completed in the southern MZ1 area.
22 However, conclusions are still preliminary:

23 . . . With our stress-strain diagram . . . we're seeing that these head declines can
24 induce permanent compaction. But again this is a preliminary conclusion because
25 it is still pending fully recovered water levels. We're waiting for those water levels
to be fully recovered to see if any inelastic compaction did occur over the last
pumping season.

26 (RT at p. 95) When sufficient time has elapsed for water levels to have fully recovered, it is our
27 view that a summary report on all of the work presented at the workshop would be extremely helpful.
28 Even though no modeling has been completed, there appear to be sufficient data to conclude that

1 | there is a threshold depth to water that, if crossed, will likely lead to new inelastic compaction and
2 | subsidence and ground fissuring. That information should be made available to the parties in a
3 | summary report as soon as possible. Based on Mr. Malone's presentation, it should be feasible to
4 | prepare such a report by the middle of August. When the three-dimensional model is prepared, a
5 | modeling report will be written. In the meantime, there are important data and preliminary findings
6 | that can be made available very soon that will be of immediate use to the pumpers within MZ1.

7 | A further recommendation related to a summary report is that the summary report should also
8 | address the other potential causes of subsidence and fissuring that have been suggested in the past.
9 | If any of those items cannot be readily addressed, then the summary report should recommend how
10 | they will be addressed. While the detailed monitoring and testing has been substantial, they have
11 | not apparently addressed whether subsidence and fissuring might have been partially the result of
12 | mechanisms other than deep groundwater pumping. The continuing possibility that other
13 | mechanisms may also be responsible for subsidence is a potential impediment to development of the
14 | long-term plan.

15 | As part of this discussion, the summary report should discuss any information related to
16 | whether any significant subsidence predated the notable subsidence and fissuring since the early
17 | 1990's, and should describe the historical surveying investigation commissioned by Watermaster to
18 | address that issue. An important outstanding question is whether any pre-1990's subsidence that
19 | may have occurred correlates with, or can be attributed to, the large historical changes in
20 | groundwater levels that predated the Judgment.

21 | **B. Watermaster Issuance of Guidance Criteria.**

22 | Near the close of the workshop, there was some discussion of what would be included in a
23 | long-term plan, including possibly expanding the study area to include the central MZ1 region. (RT
24 | at pp. 123 *et seq.*) The concept of a long-term MZ1 management plan has been part of the
25 | Watermaster program since it was first articulated in 1999 in the Optimum Basin Management
26 | Program Phase 1 Report. A long-term management plan was to be formulated during the interim
27 | plan period, and would be based on investigations, monitoring programs and data assessment. It
28 | would be adaptive in nature. The workshop discussion noted that the technical work that has been

1 done and that will be done will form the basis for a long-term plan. Mr. Wildermuth indicated that:

2 . . . we haven't felt until very recently, last maybe six or eight months, that we were
3 at a point where we are getting close to coming up with conclusions from which we
4 could build a plan on, pull the parties together and talk about their deal making to
5 implement a plan.

6 (RT at p. 125) As discussed, above, however, development of a long-term plan itself does not appear
7 to be imminent.

8 In response to questions regarding the possibility of phasing the long-term plan, Mr.
9 Wildermuth discussed the option of bifurcating the ". . . southern and central portion, try to get the
10 southern portion going, and then based on the interests of the stakeholders, do something in the
11 central area." (RT at p. 125) Mr. Wildermuth also suggested that Watermaster's long-term plan
12 could range from being "guidance information" to something more aggressive. (RT at p. 108)

13 The concept of providing guidance criteria is a compelling one. It appears, based on the
14 presentation at the workshop, that Watermaster can very soon alert pumpers in the southern MZ1
15 area that there is a substantial risk that lowering water levels to below approximately 250 to 260 feet
16 below ground surface will result in new inelastic compaction and subsidence. This type of
17 information should formally be made available to the parties as soon as possible, presumably as soon
18 as a summary report on the MZ1 technical work is completed. The guidance criteria would be issued
19 by Watermaster in a timely fashion, to be followed by the long-term plan development which
20 necessarily will require a longer period to complete.

21 C. Long-Term Plan and Schedule

22 It is incumbent upon Watermaster now to request that the court extend the period for
23 completion of a long-term plan for MZ1. The overall testimony indicated that several more years
24 of technical and modeling work will be required, followed by approximately a year of negotiations
25 among the parties. The Watermaster should propose a schedule to the court which takes into account
26 the continuation of data collection and modeling work in the main MZ1 area as well as technical
27 work in the central MZ1 area. A date should be established for completion of a long-term plan.

28 Whether the long-term plan is ultimately characterized as a management plan is an issue for
the parties to address. Based on presentation and discussion at the workshop, it is clear that, at the

1 very least, an ongoing monitoring program by Watermaster will be required so that the parties have
2 full and sufficient information available to them to inform their decisions.

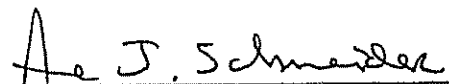
3 **D. Expanded Monitoring in MZ1**

4 The presentation at the workshop, while focused on monitoring and studies in the southern
5 MZ1 area, indicated that some monitoring work can and should be done in the central MZ1 area,
6 including installation of transducers in wells, and ground and InSar ground-level monitoring. More
7 costly and complex efforts involving piezometers and an extensometer would logically be held in
8 abeyance pending assessment of data collected. A phased long-term plan could include provision
9 for central MZ1 monitoring work and studies, with future efforts considered and scheduled on an
10 as-needed basis, while more definitive conclusions are drawn in the southern MZ1 area based on the
11 extensive work already focused in that area. As noted above, the central MZ1 area appears to
12 warrant additional investigation in light of detectable subsidence in spite of no significant pumping
13 stress in the immediate subsidence area. Such additional investigation would also appear important
14 in light of the overall concept of basin reoperation and hydraulic control, which could result in
15 locally lower groundwater levels in parts of the basin.

16 **VI. CONCLUSION**

17 The workshop was very productive. Mr. Malone's presentation was excellent. The
18 Watermaster does not require court approval to direct the preparation of a summary report on the
19 MZ1 technical work or to issue guidance criteria. The Watermaster, however, should file with the
20 court a motion for an order to set a schedule for the completion of a long-term plan.

21 Dated: June 16, 2005

22
23 
24 Anne J. Schneider, Special Referee

CHINO BASIN WATERMASTER
Case No. RCV 51010
Chino Basin Municipal Water District v. The City of Chino

PROOF OF SERVICE

I declare that:

I am employed in the County of San Bernardino, California. I am over the age of 18 years and not a party to the within action. My business address is Chino Basin Watermaster, 9641 San Bernardino Road, Rancho Cucamonga, California 91730; telephone (909) 484-3888.

On June 21, 2005 I served the following:

Special Referee's Report on Progress Mad on Implementation of the Watermaster Interim Plan for Management of Subsidence

BY MAIL: in said cause, by placing a true copy thereof enclosed with postage thereon fully prepaid, for delivery by United States Postal Service mail at Rancho Cucamonga, California, addresses as follows:

See attached service list:
Mailing List 1

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

BY FACSIMILE: I transmitted said document by fax transmission from (909) 484-3890 to the fax number(s) indicated. The transmission was reported as complete on the transmission report, which was properly issued by the transmitting fax machine.

BY ELECTRONIC MAIL: I transmitted notice of availability of electronic documents by electronic transmission to the email address indicated. The transmission was reported as complete on the transmission report, which was properly issued by the transmitting electronic mail device.

I declare under penalty of perjury under the laws of the State of California that the above is true and correct.

Executed on June 21, 2005 in Rancho Cucamonga, California.


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CHINO BASIN WATERMASTER

IV. REPORTS/UPDATES

D. INLAND EMPIRE UTILITIES AGENCY

1. Monthly Water Conservation Programs Report
2. Groundwater Operations Recharge Summary
3. Monthly Imported Water Deliveries Report
4. State and Federal Legislative Reports
5. Community Outreach/Public Relations Report



CHINO BASIN WATERMASTER

ADVISORY COMMITTEE

April 27, 2006

AGENDA

INTERAGENCY WATER MANAGERS' REPORT

Chino Basin Watermaster

9641 San Bernardino Road

Rancho Cucamonga, CA 91730

15-20 Minutes

Discussion Items:

None

Written Updates:

- Monthly Water Conservation Programs Report
- Groundwater Operations Recharge Summary
- Monthly Imported Water Deliveries Report
- State and Federal Legislative Reports
- Community Outreach/Public Relations Report

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Regional Conservation Programs

Monthly Report-March

MWD Activities

- **Azusa Pipeline Agreement**- On February 14, 2006, the MWD Board approved the agreement with Three Valleys Municipal Water District and IEUA to allow emergency interconnections with the Azusa Pipeline to the Cucamonga Valley Water District Lloyd Michaels and WFA filtration plants. This will enhance significantly supply reliability throughout the IEUA service area.
- **California Friendly Marketing Campaign**- The "California Friendly" campaign is an effort by MWD and its member agencies to get people to conserve resources by using water and energy efficient products along with changing to water efficient landscapes. Marketing materials are being developed to carry out the new California Friendly campaign and will kick off on April 15, 2006 with TV advertisements, public service announcements, magazine advertisements, and other materials.
- **Regional Water Supplies**- Based on snow pack levels in the Sierras and the upper Colorado River watershed, MWD has indicated that "surplus" supplies of imported water will be available this year.

Landscape Programs

- **"SmarTimer of Inland Empire" Irrigation Controller Program**- The final application form, product description, advertisement and other materials for the irrigation controllers have been created and were distributed at the January Regional Conservation Partnership Workgroup meeting. Materials are now available on the IEUA web site.
- **Phase II Landscape Audit Program (05/06)** - The RFP for the 05/06 Audit Program will be released in late March, 2006, and the program will commence in late spring.
- **Ontario Cares**- City of Ontario will implement a pilot project to integrate "California Friendly" into the city's program to improve existing neighborhoods. MWD consultant presented "California Friendly" templates to Ontario Cares inspection staff and landscape contractors. MWD will test templates and marketing materials on 4-5 houses and report back with results. The group will finalize materials at the next meeting. Implementation of the "California Friendly" landscape will begin in spring, 2006.
- **Residential Landscape Classes**- Monte Vista District held a PDA class on March 11th, and the City of Upland held a PDA series of four classes on each Saturday in the month of March. SmarTimer Controllers were exchanged at both the MVWD class and the City of Upland classes. Approximately 20 controllers were exchanged. Cucamonga Valley Water District is holding a PDA class on April 8th. SmarTimer controllers will be exchanged at this class as well.
- **Landscape Collaborative**- IEUA staff met with city officials to consider the formation of a landscape task force to coordinate water efficient landscaping throughout the regions programs and policy recommendations.

Commercial/Industrial/Institutional Program

- **(CII SAVE-A-BUCK)**- After Honeywell evaluated their marketing strategies for the MWD service area, they concluded that meeting face to face with commercial customers is much more effective than mass advertising and mailers. For IEUA's service area, Honeywell's new marketing strategies include tailoring existing materials to target our area, new bill inserts, and also by having representatives present at local chamber meetings, agency events and other significant events.
The following is a list of rebate activity for our service area:
 - **High Efficiency Clothes Washers** - There were 10 clothes washer rebates for the month of February. To date 315 commercial high efficiency clothes washers have been installed in our service area since FY 00/01.
 - **Conductivity Controller Cooling Tower** - 1 controller was installed in FY 05/06 bringing the total to 15 conductivity controllers installed through the Save-a-Buck program since FY 00/01.
 - **ULF Toilets** - 234 ULFTs were rebated in February bringing the total to 445 ULFs in our service area since FY 00/01.
 - **Water Broom** - 114 water brooms were rebated in October bringing the total to 693 since FY 00/01.
- **Restaurant Spray Heads**- This program is being implemented by the CUWCC. Phase II was completed in December, 2005 with approximately 861 spray nozzles installed in our service area. To date approximately 1,192 spray heads have been installed. Phase III will begin in March and end in December, 2006.

Residential Programs

- **Single-Family ULF Toilet Exchange Programs**- The Regional Conservation Workgroup decided at their January meeting to discontinue the exchange events with the exception of one local Upland event. The final Upland exchange event will take place April 1st with a return date of April 22nd. The group will re-evaluate the program for FY 07/08. During this time IEUA staff will collect information on HETs and direct install programs to guide the group in exploring alternate single family toilet programs.
- **Multi-Family ULF Toilet Program**- Currently, through the direct install program approximately 4,724 toilets have been installed and 1,161 have been confirmed for installation. The remaining toilets are expected to be installed within the next two months. The next round of the program will be funded by a DWR \$1.6 million grant for 22,000 toilets. The RFP went out in February and the bids are now in review. The program will begin in late spring, 2006.
- **High Efficiency Clothes Washer Rebate**- Approximately 126 rebates were issued during February, bringing the total for the current fiscal year to 901 rebates. This brings the total number of rebates to approximately 5,960 since the rebate program began in 2002.

School Education Programs

- **Garden in Every School**- Irrigation is being completed at the schools. Plantings have taken place at Coyote Canyon in Rancho Cucamonga, Ranch View in Ontario, and Foothill Knolls in Upland. Plantings will take place through April with Dedications in May and June.
- **National Theatre for Children**- The spring schedule has been completed, with performances beginning in late March.
- **Groundwater Model**- Chino Hills' and IEUA staffs are now in the process of learning how to operate the Model. Once this is done meetings to see the model demonstrated will be set up with interested agencies.
- **Solar Cup (2006)** - MWD announced the schedule for the Solar Cup 2006 event. The event will occur May 19th through May 21st, 2006. IEUA (as the member agency) will be represented by three schools: Chino Hills High School and Ayala High School in Chino Hills, and Upland High School.

Outreach

- **Water Fair**- Members of the Conservation Partnership have formed a committee to plan a water fair for the customers within the IEUA service area. The committee has been meeting every month. The fair will provide information on rebates and promote other ways to conserve water. The event is tentatively set for October 14, 2006.
- **Conservation Ads (monthly and special)** - Conservation tips are printed in the Daily Bulletin monthly (on Sundays at the end of each month).
- **Water Education Water Awareness Committee (WEWAC)** - WEWAC participated in the Home and Garden Fair at the Pomona Fairplex on Friday, January 27th-Sunday, January 29th by having a garden exhibit full of drought tolerant plants and water conserving landscaping resources. In April they will discuss new initiatives for the next year.
- **BMP Support Grants**- No new action.

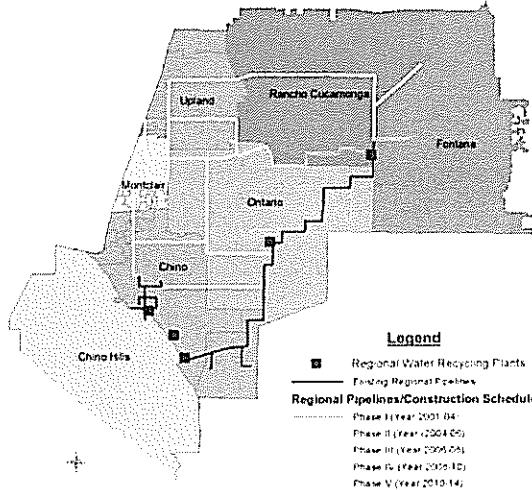
Upcoming Events

CALENDAR

March 30, 2006	CUWCC Landscape Committee Meeting (Sacramento)
April 1, 2006	Local ULF Toilet Distribution (City of Upland)
April 8, 2006	PDA "Water Wise" Gardening MiniClass (Cucamonga Valley Water District)
April 22, 2006	Local ULF Toilet Return (City of Upland)
April 24 th -28 th , 2006	CA-NV AWWA Spring Conference (Burlingame)
April 28 th -30 th , 2006	Lemon Festival (City of Upland)
May 3, 2006	CUWCC Steering Committee Meeting, (San Francisco)
May 9 th -12 th , 2006	ACWA Conference (Monterey)
May 13, 2006	Water Awareness Day (Cucamonga Valley Water District)
May 19 th -21 st , 2006	Solar Cup
June 7, 2006	CUWCC Plenary Session (San Diego)
June 11 th -16 th , 2006	AWWA Annual Conference (San Antonio, TX)

3RD QUARTER FY2005/06 RECYCLED WATER SUMMARY

Capital Projects Summary



PROJECTS COMPLETED

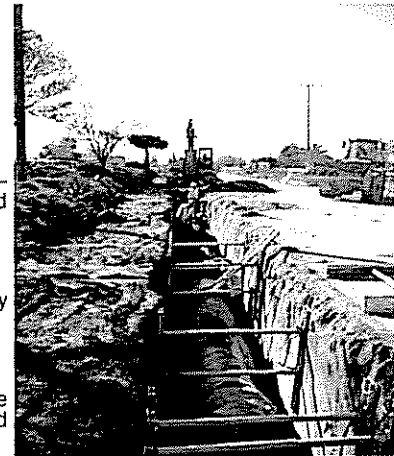
- RP-1/RP-4 Pump Station (Budget \$7,718,000)
- RP-1 Chlorination Tank (Budget \$4,817,200)
- Pine Avenue Intertie (Budget—Phase I & II \$1,066,000)
- Wineville Pipeline (Budget \$2,307,200)
- Reliant Pipeline (Budget \$1,115,476)
- Philadelphia Pipeline (Budget \$3,591,400)
- Whittram Pipeline (Budget \$3,621,000)
- RP-4 West Branch Phase I & II (Budget \$9,688,096)

Total Budget — \$33,954,371

PROJECTS IN DESIGN AND CONSTRUCTION

- RP-4 Area 3 MG Regional Recycled Water Reservoir, Pipeline and Pump Station
On-hold awaiting acquisition of property
- North Etiwanda Regional Water Pipeline and Pump Station
On-hold awaiting acquisition of property
- RP-1 South Recycled Water Pump Station
100% design complete.
- San Antonio Channel Recycled Water Pipeline
There are two design segments; Segment A & B. Segment A—Design complete. Segment B—90% design complete. Segment B will extend through the City of Montclair providing recycled water to Bellevue Cemetery and parks and schools in Montclair.
- Wineville Recycled Water Pipeline Extension
In design. This pipeline will serve major laundry facilities in Ontario as well as serving the City of Fontana.
- 7th & 8th St. Basin Pipeline
100% design complete and a value engineering has been completed as well. This pipeline will bring recycled water to 7th and 8th Street Basins and also will serve a few schools and parks along the way.
- Edison Avenue Pipeline
Construction of Edison-Eucalyptus Regional Recycled Water Transmission Pipeline is underway. This pipeline will interconnect the existing CCWRF and TP-1 Outfall system supplementing additional recycled water supply to meet the growing demand in southern service area serving major agricultural users in Ontario, College Parks in Chino and ultimately many parks and other landscaping customers.

Projected Budget — \$70,300,000



Edison Avenue Pipeline

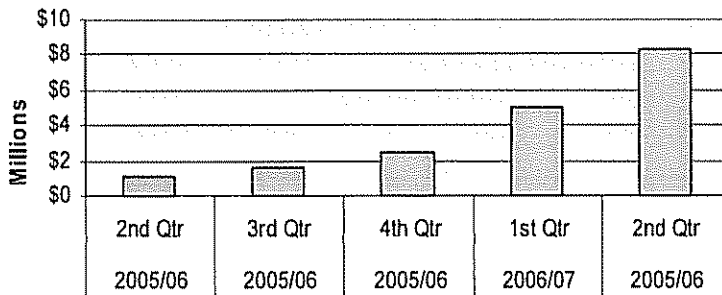
Total Implementation Plan

ID	Task Name	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	
1	Phase I	\$34,000,000.00												
2	Phase II	Complete				\$70,300,000.00								
3	Phase III							\$26,000,000.00						
4	Phase IV									\$23,000,000.00				
5	Phase V											\$22,000,000.00		

Phase II & III Implementation Plan

ID	Task Name	2006												2007											
		Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
1	RP-1 Recycled Water South Pump Station	[Bar chart showing implementation from Apr to Dec 2006]																							
2	San Antonio Channel Recycled Water Pipeline	[Bar chart showing implementation from Apr to Mar 2007]																							
3	Wineville Avenue Pipeline Extension	[Bar chart showing implementation from Apr to Mar 2007]																							
4	7th & 8th Street Basin Pipeline	[Bar chart showing implementation from Apr to Sep 2006]																							
5	Edison Avenue Pipeline	[Bar chart showing implementation from Apr to Sep 2006]																							
6	RP-4 Recycled Water Pipeline, Reservoir & Pump Station	[Bar chart showing implementation from Apr to Dec 2006]												On-Hold											
7	North Etiwanda Recycled Water Pipeline, Reservoir & Pump Station	[Bar chart showing implementation from Apr to Dec 2006]												On-Hold											

Regional Recycled Water Phase II—Projected Cash Flow



Vellano Golf Course Development

TYCIP Projects

- Twelve Significant Projects
- Serves 45,000 AFY
- Capital Cost \$117 million
- Grant Funding \$42.5 million
- State Loan Funds \$66.5 million
- Local Funding \$8 million

Project No.	Project Description	Budgeted Cost	State Grant Funding	Federal Grant Funding	SRF Loan	Total Grant/Loan Funding
1	San Antonio Channel Pipeline	13	3		10	13
2	TP-1 South Zone Pump Station	5	1		4	5
3	RP-4 Reservoir and Pump Station	12		5	7	12
4	Edison Avenue Pipeline	9	7			7
5	Wineville Avenue Pipeline Extension	7	1.5		5.5	7
6	7th and 8th St. Basin Pipeline	3	2			2
7	Etiwanda Ave. Pipeline, Reservoir, Pump Station	21		10	11	21
8	RP-1 Outfall Parallel	10		5	5	10
9	San Sevaine, Etiwanda Basin Pipelines	22	4		18	22
10	Etiwanda Pipeline South	4	2		2	4
11	Chino/Chino Hills Zone 800	11	3		8	11
12	RP-5/2 Recycled Water Pipelines	3.8				
	Land	5				
	Total (\$ Millions)	126	23.5	20	70.5	114

Customer Development

■ Agricultural customers along the TP-1 Outfall line

There are six farm connections that staff is working closely with the Cities of Ontario and Chino to use recycled water. IEUA is providing service laterals to these farmers in order to expedite the conversion. By mid April, these farmers are expected to use recycled water. In addition, farming operation in Chino Airport, additional irrigation in CIM and three other farms in Ontario will be converted to use recycled water within a year. The combined total recycled water usage from these farms could exceed 5,000 AFY.

■ NRW (Non-Reclaimable Water) Customers

IEUA staff working closely with the retail agencies are targeting NRW customers. With passing of new pass through rate, these customers potentially save as much as 40% discount on the wastewater discharge in addition to the water bill by converting to use recycled water for their process and irrigation. Aramark, a commercial laundry, will be using 100% recycled water for their process once the operation begins. Staff is very optimistic that Aramark's use of recycled water would bring other commercial laundries such as Mission Linen, Crothall, and Cintas to use recycled water.

■ Targeted Major Customers in 2006

1. Empire Lakes Golf Course (CVWD)
2. Temple Inland (Ontario)
3. Guasti Park (Ontario)
4. Additional Farms on Outfall (Ontario & Chino)
5. Ontario Center Owners Association (Ontario)
6. California Co-generation (Chino)
7. Vellano Golf Course (Chino Hills)
8. Mission Linen (Chino)
9. Cintas I & II (Ontario)

■ Consulting services for recycled water program management services

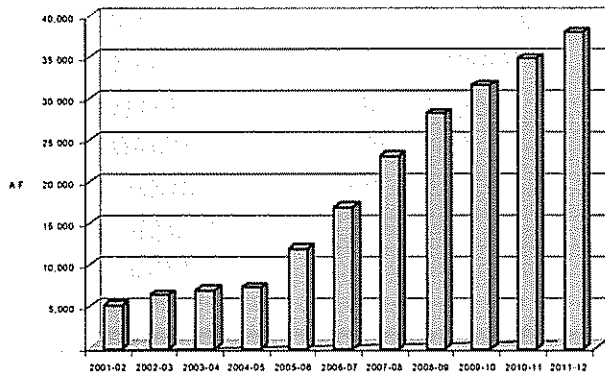
In order to expedite the approval process by DHS, IEUA staff and consultant are assisting the Cities with the Engineer's report as well as drafting a master engineer's report for each of the Cities.



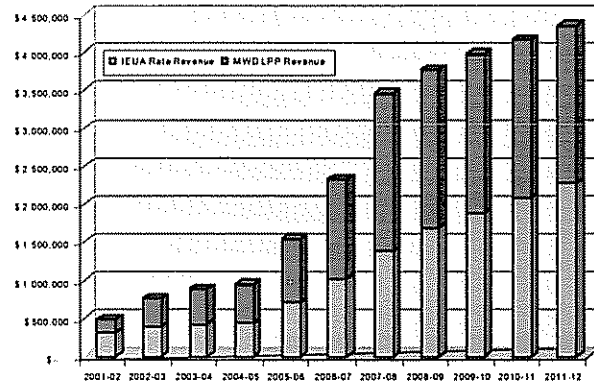
Chaparral Elementary School

Projected Sales & Revenue

Projected Recycled Water Sales



Projected Recycled Water Revenue



Regulatory/Permits

- CEQA—PEIR Certified June, 2002
- CBWM Article X Permit — *Approved* May, 2002
- SARWQCB Basin Plan "Maximum Benefit" — *Approved* January, 2004
- DHS Title 22 Report (Recharge) - *Approved* April, 2005
- SARWQCB Discharge Permit January 2005



CalPoly Pomona Farming in CIM

Activity Summary

New Customers in 2005

■ 8 new recycled water customers were connected:

	Estimated Usage (AFY)
Lewis Homes Phase II (4 connections)	100
Redwood Business Center	10
CalPoly Pomona in CIM	1,000
Chaparral Elementary School	20
Bubalo Construction	20
Campus Owners Corporation	5
Panattoni Construction	5
Ethan Ellen Inc.	10
Total	1,170

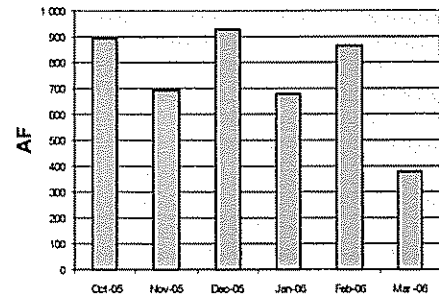
New Customers in 2006

	Expected Connection Date	Expected Usage (AFY)
Chino Hills High School and Wickman elementary school	August	30
Temple Inland	July	1,100
Kaiser Hospital	May	100
Lewis Homes Phase I (6 connections)	On-line	20
Empire Lakes Golf Course	April	800
Irrigation Customer along 6th Street	April-June	25
City Parks in Chino Hills	August	25
Bakken Property	May	2
El Prado Business Park	May	2
Fruit Growers Supply	May	20
Farmers in Ontario (6 connections)	April	2,000
Chad's Farm in Chino	April	150
Monte Vista Farm	April	200
Total		4,474

Potential Customers in 2006

- City of Chino
Mission Linen, OLS Energy and College Park (2,500 homes, 2 schools, extension of Ayala Park over 435 acre)
- City of Chino Hills
Vellano Golf Course and Western Hills Golf Course
- City of Ontario
California Commerce North & South, Blue Beacon, Guasti Park, Bakken Property, Fruit Growers Supply, Longs Drug, Ontario Mills, Carlisle Tire & Wheel, Cintas I & II, Crothall Laundry, Danco Metal Surfacing, Unifirst, and Agricultural customers
- City of Rancho Cucamonga
Metal Coaters of California, Steelscape, Tamco
- City of Fontana
California Steel, California Speedway, Sierra Aluminum, and Pacific Forge

Recycled Water Sales



Delivery Period	2004/05	2005/06
3rd Quarter	736	1,917
Year to Date	736	1,917
FY Total	4,006	7,267
Budget		8,290

Operation & Planning

- On March 13, there was a line break on TP-1 Outfall line at the intersection of Kimball Avenue and Flight Road. The repair was made and the line was back in service on the same day.



Cal Poly Pomona Farming in CIM



Inland Empire
WATER RESOURCES AGENCY

Date: April 19, 2006
To: The Honorable Board of Directors
Through: Public, Legislative Affairs and Water Resources Committee
(4/12/06)
From: Richard W. Atwater
Chief Executive Officer/General Manager
Submitted by: Martha Davis
Executive Manager of Policy Development
Subject: March Legislative Report from Copeland and Associates

RECOMMENDATION

This is an informational item for the Board of Directors to receive and file.

BACKGROUND

Letitia White provides a monthly report on their federal activities on behalf of IEUA

PRIOR BOARD ACTION

None

IMPACT ON BUDGET

None.

RWA:MD:jbs
G:\board-rec\2006\06101 March Leg Report from Copeland and Associates

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Copeland Lowery Jacquez Denton White LLC

Specializing in Government Relations

MEMORANDUM

TO: Rich Atwater and Martha Davis

FROM: Letitia White, Heather McNatt and Susan Carr

RE: March 2006 Legislative Report

DATE: March 28, 2006

IEUA and CLJ have had a busy month advocating for IEUA's Washington legislative agenda. March began with IEUA's visit to Washington in conjunction with the ACWA conference. During that visit, Rich Atwater and/or Martha Davis met with the following Hill offices: Senator Feinstein, Senator Boxer, Chairman Jerry Lewis, Congressman Gary Miller, Congresswoman Grace Napolitano, Congressman David Dreier and Congressman Ken Calvert. In each meeting, we educated Members and staff on IEUA's appropriations requests and asked for support in both the Energy and Water and Agriculture Appropriations bills. CLJ staff followed up with Hill offices to ensure that they had all the necessary information.

CLJ has also arranged a series of meetings with the Natural Resource Conservation Service at the US Department of Agriculture. Through those meetings, we hope to engage the Department on IEUA's Renewable Energy and Dairy Waste Treatment Initiative. On March 9th, Rich Atwater met with Barry Kintzer, the National Environmental Engineer, and George Cleek from USDA's Legislative Affairs Branch. When Rich returned to Washington with the Chino Basin Watermaster in late March, the group met with Tom Christensen, Deputy Chief of Programs, Harry Slawter, Director of the Financial Assistance Programs Division, and Felix Spinelli, Senior Economist at Resource Economics and Social Sciences Division to talk about IEUA's renewable energy efforts, programs, and projects.

Appropriations requests were submitted to the Energy and Water and Agriculture subcommittee on March 16th. Now that we are past the appropriations deadline, we have entered a wait-and-see phase. Over the next few weeks, committees will hold hearings and staff will begin to draft the bills. Our first chance to see the bills will be the subcommittee mark-ups, which should take place in May. CLJ will keep IEUA informed as the bill moves through the process.

Congressional Support for California Levees Funding

On March 8th, the House Appropriations Committee considered the Supplemental Appropriations bill for FY'06. During that mark-up, Rep. John Doolittle offered an amendment to add \$41 million to the bill to speed up work on repairing the Sacramento and Delta levees. While the amendment was opposed for the supplemental spending bill, Chairman Lewis and Chairman Hobson of the Energy and Water Subcommittee agreed to support including the money in the regular FY '07 appropriations bill. The supporters of increased levee funding hope that it will be included when the Supplemental moves through the Senate.

Budget Update

The Senate Budget Committee passed out its FY 07 budget resolution in mid-March by a party line vote of 11-10 after rejecting several Democratic amendments to boost the budget's discretionary spending cap. Some of those amendments involved increasing spending on homeland security, widows and orphans of soldiers, veterans' benefits, and flu pandemic preparations.

The panel did adopt an amendment to restore \$500 million in social services block grant funding that President Bush proposed to cut. In addition, it adopted an amendment by ranking Democrat Kent Conrad (D-ND) to create a \$1.75 billion reserve fund to pay for chronic care management under Medicare. However, his amendment to restore pay-as-you-go budget rules to tax cuts failed on a party-line vote. He plans to offer the amendment again on when the full Senate debates the resolution next week. The budget resolution also includes a provision that would allow drilling in the Arctic National Wildlife Refuge (ANWR). This provision is expected to be one of the most controversial votes when the full Senate debates the resolution.

Another point of controversy is the creation of a budget point of order against Medicare spending, should federal subsidies of the program exceed 45 percent of total program costs. While not constituting an immediate cut, some projections predict the subsidy rate will reach 45 percent within five years.

The full Senate will take up the budget resolution during the week of March 13th. The House Budget Committee has not yet begun markup of its budget resolution. The House leadership has stated that the full House will not begin debate until after the St. Patrick's Day recess. Majority Leader Boehner has said he would like the House to complete its work on the resolution by April 8.

Senate to Open Two Weeks of Immigration Debate

The Senate is scheduled to begin debate on immigration reform legislation on Tuesday, as the Senate Judiciary Committee struggles to complete its markup of proposed legislation prior to that date.

Senate Majority Leader Bill Frist (R-TN) has introduced legislation focused solely on border and immigration enforcement and plans to bring that bill to the Senate floor on Tuesday, regardless of whether the Judiciary Committee has completed its work. When the Committee completes a bill, it will be offered as an amendment to the Frist legislation.

Among the issues remaining to be addressed in the Judiciary Committee are legal penalties for persons assisting undocumented aliens to remain in the country – an issue that has raised grave concerns among social services providers – and the precise structure of a proposed guest worker program.

In total, the Senate expects to devote most of the next two weeks prior to the Easter Recess to immigration reform.

The President continues to push publicly for a bill balanced between border security/immigration enforcement and a guest worker program that would allow some formal immigration status to workers who might otherwise immigrate illegally. The President's Saturday, 3/25, radio address will be devoted to the topic and the White House intends to hold at least one major public event on the subject during the week of March 27.

House Telecommunications Bill Delayed

Negotiations over a possible House Energy and Commerce Committee draft on telecommunications reform collapsed this week, with rank and file Committee Members refusing to endorse a bipartisan bill negotiated by the Committee leadership. The major points of controversy were proposals to 1) require existing cable providers to wait until new competitors had captured 15 percent of the market in a franchise area before they could take advantage of a new, national, franchising mechanism, and 2) bar existing cable providers from dropping their rates in individual neighborhoods until new competitors had reached a 15 percent market penetration. Both of these provisions are likely to be dropped from the Republican bill to be introduced next week. A subcommittee hearing on the legislation is scheduled for Thursday, March 30.

Outlook for the Week of March 27, 2006

The House and Senate will return from the St. Patrick's Day recess for a two week session prior to adjourning again for the Easter recess.

The Senate plans to return to its lobbying reform package on Monday, with a tentative goal of passing the legislation Monday night. Even if the Senate is unable to pass the bill, Majority Leader Frist plans to move to immigration and border security on Tuesday. The Senate is expected to debate its immigration legislation for the two weeks prior to the Easter Recess.

In addition, the Senate Appropriations Committee is expected to mark up its version of the supplemental appropriations bill during the week of April 3.

The House will take up the Higher Education Act authorization when it returns, and will then take up its Fiscal Year 2007 budget resolution and a package of lobbying and ethics reforms. Both the budget and lobbying reform bills will be marked up in committee during the week of March 27.

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Inland Empire
UTILITIES AGENCY

Date: April 19, 2006

To: The Honorable Board of Directors

Through: Public, Legislative Affairs and Water Resources Committee
(4/12/06)

From: Richard W. Atwater
Chief Executive Officer/General Manager

Submitted by: Martha Davis
Executive Manager of Policy Development

Subject: March Legislative Report from Agricultural Resources

RECOMMENDATION

This is an informational item for the Board of Directors to receive and file

BACKGROUND

Dave Weiman provides a monthly report on his federal activities on behalf of IEUA.

PRIOR BOARD ACTION

None

IMPACT ON BUDGET

None

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Agricultural Resources

635 Maryland Avenue, N.E.
Washington, D.C. 20002-5811
(202) 546-5115
(202) 546-4472-fax
agresources@erols.com

March 30, 2006

Legislative Report

TO: Richard W. Atwater
General Manager, Inland Empire Utility Agency

FR: David M. Weiman
Agricultural Resources
LEGISLATIVE REPRESENTATIVE, IEUA

SU: Legislative Report, March 2006

Highlights:

- Senate Energy Committee, Recycling and Desalination Policy, Oversight Hearings
- Meeting, Commissioner Keys, Bureau of Reclamation
- Chino Basin Watermaster DC Meetings
- Interior Submits Draft Legislation, \$100 Million for Water 2025
- Perchlorate – Feinstein and Pombo Introduce Cleanup Legislation
- News and Notes
- IEUA Working Partners

Senate Energy Committee and Water Recycling, Desalination Policy – Policy Oversight Hearings. The Senate Water and Power Subcommittee held its long-awaited Policy Oversight hearing on February 28. The Administration – Commissioner John Keys – testified, as did Rich Atwater and OCWD's Virginia Grebbien. The Library of Congress' Congressional Research Service provided a technical witness and Tom Donnelly, National Water Resources Association also appeared. All were critical of the Bureau's attitude towards Title XVI. Senator Lisa Murkowski, chair, Subcommittee on Water and Power chaired the hearing and was joined by

Senator Feinstein. Both Senators grilled the Commissioner and plainly, were dissatisfied with the responses. Commissioner Keys insisted that water agencies involved with the program had failed to provide environmental documentation and described – in a highly misleading manner – the necessary approval process within the Bureau. Immediately after the hearing, Senator Feinstein realized what happened and has directed her staff to work with the Energy Committee staff to address these matters – so the Energy Committee can then proceed with markup for both Rep. Gary Miller’s recycling bill as well as Rep. David Dreier’s bill.

Meeting, Commissioner John Keys on Title XVI and Southern California

Comprehensive Study. Rich Atwater, Martha Davis and I met with Commissioner Keys, Deputy Assistant Secretary of the Interior, Water and Science, Jason Peltier, and several members of the Commissioner’s staff. It was a contentious meeting. Commissioner Keys and the Department insist that the Southern California water recycling feasibility study was NOT a feasibility study, and, moreover, none of the NEPA documentation has been prepared. The Commissioner and his office were not well informed, and are simply wrong on their facts. This was pointed out.

Chino Basin Watermaster DC Trip Last year, the Chino Basin Watermaster came to DC to make “educational” rounds. I organized the trip and Rich Atwater participated, along with representatives from Cucamonga Valley and Ken Manning from the Watermaster. Meetings were organized with the congressional delegation, the Governor’s DC office, DOD, DOI and USDA. Two issues were highlighted – recycling and perchlorate. At the USDA, the issue of green energy and dairy cleanup were discussed.

Interior Submits Draft \$100 Million Legislation for Water 2025. The Department of the Interior submitted draft legislation to authorize their Water 2025 program. Congress rejected a request for \$30 million last year, reducing it to \$5 million. No one in Congress understands the program or what it contributes that Title XVI doesn’t already do. The draft bill authorizes the program, open-ended, with a \$100 million authority (the very week IEUA was told that funds for Title XVI were non-existent). Interior has criticized Title XVI as having insufficient “criteria” for evaluation, but submitted their own Water 2025 program without “criteria.” The Committees are unimpressed with what Interior is doing, and how they’re going about it.

Perchlorate. Last month, I reported that Senator Feinstein and Chairman Pombo introduced perchlorate cleanup legislation. This bill includes Rep. Joe Baca’s Southern California’s bill previously introduced and passed by the House. It proposes to provide authority and funding for perchlorate cleanup in both Southern California (Santa Ana River Basin Watershed) and Santa Clara Valley. The immediate question – will hearings be held and when.

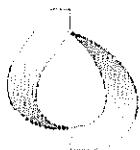
News and Notes. **Commissioner Keys.** The Commissioner, it was announced, is retiring on April 14. **Massachusetts Perchlorate Standard.** MA became the first state to set an MCL and did it at 2ppb. Other states are expected to act in the next several months. **Farm Bill Opportunities.** Discussions are continuing with various groups, committees and interests. NAS

Study on BuRec. National Academy of Sciences Study on Bureau of Reclamation Organization. BuRec requests the NAS study. It is now completed, and will be the subject of a hearing that examines the “future” of the Bureau of Reclamation. Rich Atwater has been asked to testify in early April. **Congressional Earmarks** Discussions about “earmark” reform continue. Different proposals are presently being reviewed. This is the process by which congressional appropriators define funding priorities. There are proposals to limit earmarks and to increase “transparency.” Not clear when or how this will be resolved.

IEUA Continues to Work With Various Partners. On an on-going basis in Washington, IEUA continues to work with:

- a. Metropolitan Water District of Southern California (MWD)
- b. Milk Producer's Council (MPC)
- c. Santa Ana Watershed Project Authority (SAWPA)
- d. Water Environment Federation (WEF)
- e. Association of California Water Agencies (ACWA)
- f. WaterReuse Association
- g. CALStart
- h. Orange County Water District (OCWD)
- i. Cucamonga Valley Water District (CVWD)
- j. Western Municipal Water District
- k. Chino Basin Watermaster

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Inland Empire
WATER RESOURCES ASSOCIATION

Date: April 19, 2006

To: The Honorable Board of Directors

Through: Public. Legislative Affairs and Water Resources Committee
(4/12/06)

From: Richard W. Atwater
Chief Executive Officer/General Manager

Submitted by: Martha Davis
Executive Manager of Policy Development

Subject: March Legislative Report from Dolphin Group

RECOMMENDATION

This is an informational item for the Board of Directors to receive and file.

BACKGROUND

Michael Boccodoro provides a monthly report on his activities on behalf of the Chino Basin/Optimum Basin Management Program Coalition.

PRIOR BOARD ACTION

None

IMPACT ON BUDGET

None.

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Chino Basin / OBMP Coalition

Status Report – March 2006

ENERGY/REGULATORY

Southern California Edison General Rate Case

A tentative settlement has been reached in Southern California Edison's General Rate Case Phase II, which allocates revenues and makes rate design changes among the various customer classes.

As illustrated in the following table, the final settlement would see a 0.2% increase in agricultural and pumping rates, whereas the original settlement proposal from Edison requested a 5.0% increase for these customers. The far right column shows the cumulative effect of rising natural gas prices, Phase II rate changes and other regulatory changes for electric rates effective July 2006 versus electric rates in effect last year.

SCE Electricity Rates

Customer Class	Current Average Rate (¢/kWh)	Phase II Average Rate (¢/kWh)	Percent Change	Original SCE Proposal	July 2006 vs Dec 05
Residential	15.078	15.320	1.6	5.00%	23.3%
Commercial	16.077	15.855	-1.4%	-4.95%	18.6%
GS-1	18.181	17.714	-2.6%	-3.10%	21.9%
TC-1	13.413	12.990	-3.2%	4.88%	21.7%
GS-2	17.075	15.866	-7.1%	-4.04%	8.0%
TOU-GS-2	12.272	14.525	18.4%	25.50%	50.8%
Industrial	12.715	12.620	-0.7%	-0.64%	17.0%
TOU-8 (Sec)	13.965	14.069	0.7%	-1.50%	17.2%
TOU-8 (Pri)	13.225	13.148	-0.6%	-2.45%	17.0%
TOU-8 (Sub)	9.897	9.426	-4.8%	5.00%	16.6%
Water Pumping	10.918	10.941	0.2%	5.00%	22.7%
PA-1	18.135	17.660	-2.6%	5.00%	23.5%
PA-2	13.324	12.827	-3.7%	5.00%	23.3%
TOU-PA	9.534	9.978	4.6%	5.00%	22.2%
TOU-PA-5	9.260	9.123	-1.5%	5.00%	22.5%
Total System	14.727	14.427	0.0%	0.00%	20.3%

Critical Peak Pricing

In February 2005, Southern California Edison, PG&E and customer groups reached a settlement on the implementation of Critical Peak Pricing. The terms of the settlement were as follows:

- CPP would be done on a strictly “opt-in” voluntary basis
- There would be no hedging premium for non-participants
- Participants would receive no participation credit

On March 23rd, the presiding Administrative Law Judge issued a draft decision rejecting the settlement. Instead the ALJ ordered parties to accept an alternative CPP structure for short-term introduction, or require the utilities to implement default CPP rates for all customers with demand over 200 kW in their next General Rate Case filings (2009 for SCE, 2010 for PG&E). Parties were given twenty days to inform the CPUC of their preference, and a conference call has been scheduled for March 30 for parties to consider the options.

The alternative structure for short-term introduction is as follows:

- Default CPP rates for all customers with demand over 200 kW on January 1, 2007
- Bill protection would be offered to all customers to mitigate risk
- Customers may return to normal time-of-use rates on January 1, 2008
- Bill analysis should be provided to all customers illustrating bill impacts achieved by 5%, 10%, and 20% usage reduction during peak times.
- Net metered customers must participate
- Interruptible and DA customers would be exempt

DGI is continuing to monitor this action and will provide updates as appropriate

Energy Efficiency Funds for Water Conservation Efforts

On Thursday, March 30th, DGI will participate in the first meeting in San Francisco relating to expanding the utilities’ Energy Efficiency programs and demand response programs for water conservation efforts, recognizing the link between water and energy. Parties hope to provide recommendations to the CPUC by October 2006

A “spot bill” dealing with this issue has also been introduced in the State Legislature AB 2874 (Benoit).

State Water/Energy Symposium

On March 28th, the California Energy Commission hosted a symposium on the relationship between water and energy, as well as to provide guidance to the CEC and the CPUC on policy needs to promote conservation of both commodities. Central to many of the discussions was the opportunity for energy efficiency savings associated with cold water conservation efforts. The state’s main utilities are very supportive of expanding water/energy conservation programs.

CPUC Commissioner Dian Grueneich indicated that she would soon be the assigned commissioner on a rulemaking at the Commission to consider changes to the utilities’ energy efficiency portfolio, and stated that this issue will be considered within that proceeding in the coming months. Key to this proceeding will be the development of protocols for measuring, verifying and allocating upstream energy savings from water conservation efforts

BOND ACTIVITY

Throughout early March, the Capitol was striving to reach agreement on a series of bond measures aimed at improving California’s infrastructure. Faced with a deadline to submit the bonds in time to be approved for the June Primary Election, the bond measures eventually failed to pass both houses of the Legislature. Legislative leaders of both houses and the Governor failed to reach consensus on a complete package and the whole effort collapsed

Ultimately, the Senate did approve \$1 billion for levee repairs from the state’s reserve fund, but the Assembly has not yet taken action on that measure

All parties have indicated that they wish to continue discussions aimed at placing bonds on the November ballot. Meanwhile, the \$5.38 billion “Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006” infrastructure initiative (so-called “CAVES Initiative) has been approved for circulation and has nearly completed the process of collecting signatures to qualify for the November ballot.

LEGISLATIVE ACTION

Sponsored by Chino Basin Coalition & SAWPA

CA AB 1969	AUTHOR:	Yee [D]
	TITLE:	Public Water Agencies: Renewable Energy
	LOCATION:	Senate Energy, Utilities and Communications Committee
	SUMMARY:	Amends the Public Utilities Code to create a standard tariff (or contract) for renewable energy projects at 1 MW or less at public water and wastewater agencies. Under the 10-20 year contracts the tariffs would provide payment at the renewable market price referent (approximately 7-8 cents/kWh) set by the CPUC.

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Inland Empire
UTILITIES AGENCY

Date: April 19, 2006

To: The Honorable Board of Directors

Through: Public, Legislative Affairs and Water Resources Committee
(4/12/06)

From: Richard W Atwater
Chief Executive Officer/General Manager

Submitted by: Martha Davis
Executive Manager of Policy Development

Subject: March Legislative Report from Geyer and Associates

RECOMMENDATION

This is an informational item for the Board of Directors to receive and file.

BACKGROUND

Bill Geyer and Jennifer West provide a monthly report on their state activities on behalf of IEUA

PRIOR BOARD ACTION

None.

IMPACT ON BUDGET

None.

RWA:MD:jbs
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MEMORANDUM

TO: Rich Atwater and Martha Davis

FROM: Jennifer West

DATE: March 30, 2006

RE: March Legislative Report

Legislature Still May Pass Bond for November

After two months of policy committee hearings and negotiations, the Governor's infrastructure bond proposal for June failed passage earlier this month. There continues to be wide speculation as why and who was *really* to blame. One very apparent problem with the water component of the bond was that the water community could not agree on a set of bond priorities. Legislators were understandably frustrated. There were various efforts to develop such a proposal, including one by IEUA to develop agreement on a set of bond priorities within Southern California. Unfortunately, this and a number of other similar efforts failed. However, IEUA's insistence that recycled water and water use efficiency be included as separately funded programs in the bond seems to have resonated. The final version of the bond that failed in the Senate contained \$200 million for both these programs.

There is still a significant chance that the Legislature will pass a bond that will contain water and habitat funding for the November ballot. IEUA has been working with ACWA, MWD and others to try to develop a united water proposal that will meet with approval by legislators. One of the seemingly intractable problems is that Democratic leadership and Assembly Republicans have fundamentally different views on surface storage. Without surface storage, Assembly Republicans, even in Southern California were not willing to vote for the bond. It is unclear whether this can be overcome.

If the water/habitat component is to be part of the package, the Legislature will likely need to pass the measure by mid-April. That is approximately the time the "Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006" will be qualified for the November ballot. The measure, developed by the proponents of Proposition 50, contains a variety of grant programs, including \$114 million in the IRWM program for the Santa Ana Region and \$45 million for the development of a Santa Ana Parkway.

After this initiative is placed on the ballot, it is likely that the Legislature will decide to focus their bond efforts on education, transportation and housing. However, coming to any agreement, even on these less controversial topics will become more difficult as we move into the election season and the budget negotiations begin to heat up.

Inland Empire Utilities Agency
Positions List
March 30, 2006

	Summary	Status	Position
AB 371 (Goldberg) Recycled Water	Sponsored by WaterReuse. Makes a number of changes recommended by the Water Recycling Task Force. Some water agencies had concerns with the bill and it was stripped of numerous controversial provisions. WaterReuse continues to try to work out the remaining problems with the bill.	Senate Floor	Support
AB 1421 (Laird) Contamination	Sponsor said that they do not intend to pursue the bill in 2006. Would have given a RWQCB the authority to issue a cease and desist order for any degradation of water quality – even if it involved recycled water.	Senate E Q	Oppose unless amended
AB 1969 (Yee) Energy	IEUA sponsored. Helps offset demand while increasing environmentally friendly renewable energy production to meet the state's goals.		Support
AB 2396 (Calderon) Metropolitan Water Districts	States the intent of the Legislature to enact legislation to change the composition of MWD's board of directors and to provide for the direct election of members of the board of directors by voters residing in the service area of a metropolitan water district. Sponsored by AFSCME.		Oppose
AB 2397 (Calderon)	This bill, with a certain exception, would prohibit MWD from entering into a contract for permanent or temporary services, skilled or unskilled, if those services, in the judgment of the district, are of a kind that persons selected through its civil service system could perform adequately and competently. Sponsored by AFSCME.		Oppose
SB 153 (Chesbro) Resources Bond	2006 Park and Water bond measure. Contains \$200 million for the Integrated Regional Water Management Program and other coastal and water quality funding. This will be one of the bond measures under consideration for inclusion in the Governor's resources bond or in Senator Perata's infrastructure bond.	Bond Conference Committee	Support
SB 1317 (Torlakson) Property Tax	Would alter the manner in which certain property tax revenue is allocated within a county. Sponsored by Southern California	Senate Local Government	Recommend Oppose

	Edison. Sponsors of the bill say that it would encourage the development of electric substation and generation facilities by allocating all of the property tax revenue from the property to the county in which the facilities are built. After school entities and county entities receive the amount of property tax they have received in prior years, the remaining tax would be allocated to the city or county (depending upon the location) in which the facility is built. Special districts are left out of the equation.		
SB 1640 (Kuehl) Water	Almost exactly the same as the final version of SB 820 (Kuehl), which IEUA supported last year, but which was vetoed by the Governor because of its groundwater requirement. SB 1640 only has a placeholder for the groundwater reporting provisions. Kuehl has begun working with the agricultural interests to try to resolve their problems with the bill.	Senate Natural Resources 4/25	Recommend Support
Watch List			
Bill #	Summary	Status	
Water Conservation			
AB 1881 (Laird) Landscape Conservation	Spot bill on water conservation in landscaping. This will be the vehicle to implement the recommendations of the water conservation landscape advisory taskforce. IEUA may want to explore the opportunities to encourage the use of compost in this bill as a water saving technique.		
AB 2496 (Laird) Low flush water closets	Requires all new buildings constructed in the state to use urinals and water closets that meet recent performance standards established by the American Society of Mechanical Engineers.		Assembly Housing 4/26
AB 2515 (Ruskin) Water Conservation	Prohibits a water supplier from receiving state bond funds unless it has adopted BMPs in accordance with the MOU regarding urban water conservation or the MOU regarding agriculture water use efficiency. Requires the Energy Commission to establish water efficiency standards for residential and commercial water-using appliances and other products and report to the legislature.		Water Parks and Wildlife 4/25
SB 1608 (Simitian) Water	Requires that any transit district that receives state funds that will be used for landscaping shall design the landscaping using California native plants and other water-saving plants.		Senate Transportation 4/18

Landscape	in consultation with the local native plant society or the Resources Agency.	
SB 1817 (Torlakson) Water Conservation	Spot bill on water conservation	
Groundwater		
SB 1425 (Kuehl) Groundwater	Makes minor changes to the recordation action that applies to five counties in Southern California	Senate Natural Resources
SB 1795 (Machado) Groundwater Recharge	Declares that the recharging of a groundwater basin for the purpose of storage, and related diversions for the purpose, is a beneficial use of water, if the recharge is consistent with management objectives set forth in a local agency's groundwater management plan.	Senate Natural Resources 4/25
Floods and Delta		
AB 2208 (Jones) Delta Levee Fees	Declares legislative intent to impose fees on water users who benefit from the delta levee and conveyance system, and to fund system improvements, in accordance with the "beneficiary pays" principle	
SB 1251 (Alquist) Floods	Requires DWR, not later than 2007, to convene a task force to prepare a comprehensive statewide flood and storm water management plan with prescribed components and a financing strategy for the implementation of the plan.	Senate Natural Resources
SB 1446 (Torlakson) Delta Fees	Legislative intent to authorize the Reclamation Board, in consultation with DWR, to establish a "beneficiary pays system" and to collect user fees and assessments for levee maintenance and other flood control purposes in the Delta	New introduction
SB 1574 (Kuehl) Delta Exports	Current law requires DWR and DFG to determine the principal options for the Delta. This bill would require one of those principal options to be designed to reduce dependence on the delta for water supply through greater investments in local water supplies, water use efficiency, water recycling, demand management programs, and other actions outside the delta. The bill would substantially revise those objectives relating to the delta and Sacramento and San Joaquin river systems. The bill would require the Department of Water Resources and the Department of Fish and Game, on or before July 1, 2007, to provide a draft joint report to the Independent Science Board of the California Bay-Delta Authority, or its successor. The bill would require that board to provide the Department of Water Resources with an independent peer review of the draft report. The bill would require the Department of Water Resources to revise the draft joint report to reflect the comments of the peer review in the joint report.	Senate Natural Resources 4/25

Miscellaneous		
AB 2160 (Lieu) Green Buildings	Intent language to require state agencies to develop voluntary model statewide residential green building guidelines and to provide information to local jurisdictions on how to evaluate and use different green building strategies.	
SB 1242 (Lowenthal) UWMP	Intended to reduce duplicative requirements in the preparation of an UWMP. Allows an urban water supplier to satisfy the requirements of the UWMP law by adopting, by resolution of its governing board, an area wide UWMP. Sponsored by Long Beach Water Department	Senate Natural Resources

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8 SPECIAL REFEREE

9 SUPERIOR COURT OF THE STATE OF CALIFORNIA
10 COUNTY OF SAN BERNARDINO, RANCHO CUCAMONGA DIVISION

11 CHINO BASIN MUNICIPAL WATER)
12 DISTRICT,)

13 Plaintiff,)

14 v.)

15 THE CITY OF CHINO,)

16 Defendants.)

CASE NO. RCV 51010

Judge: Honorable J. Michael Gunn

Date: TBD
Time:
Dept:

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20 SPECIAL REFEREE'S REPORT ON PROGRESS MADE ON
21 IMPLEMENTATION OF THE WATERMASTER INTERIM PLAN
22 FOR MANAGEMENT OF SUBSIDENCE
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COUNTY OF SAN BERNARDINO, RANCHO CUCAMONGA DIVISION

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CHINO BASIN MUNICIPAL WATER
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THE CITY OF CHINO,

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CASE NO. RCV 51010

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SPECIAL REFEREE'S REPORT ON
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I. INTRODUCTION

20

A workshop was held May 25, 2005, as a follow-up to the workshop held August 29, 2002.

21

The second workshop was originally scheduled to be held in 2003, pursuant to Court Order

22

Concerning Watermaster's Interim Plan for Management of Subsidence, dated October 17, 2002

23

("2002 Order"). The second workshop was postponed until substantial data collection and analysis

24

had been completed.

25

The scope of the workshop was limited to presentation of technical data and analysis

26

completed to date related to the Watermaster Interim Plan for Management of Subsidence ("Interim

27

Plan"). The presentation was made by Mr. Malone of Wildermuth Environmental, Inc., Watermaster

28

Engineering Consultant. Mr. Malone, Mr. Wildermuth, and Mr. Riley addressed questions posed

1 by the Special Referee, technical expert Joe Scalmanini, and several others. Consistent with use of
2 a workshop format, cross-examination was not allowed. A transcript of the workshop has been
3 prepared and will be filed with the Court by Watermaster.

4 II. 2002 COURT ORDER

5 In the 2002 Order, Judge Gunn directed Watermaster to:

- 6 (1) Implement the Interim Plan Monitoring Program for subsidence, including all work
7 related to piezometers, extensometers, ground-level monitoring, aquifer testing, and
8 other actions to study, analyze, and interpret subsidence and fissuring in MZ1 and to
9 determine causes in sufficient detail that they can be managed through a long-term
10 plan;
- 11 (2) Continue the MZ1 Technical Committee work and have the Technical Committee
12 serve in an advisory capacity to assist Watermaster in developing a long-term
13 subsidence management plan for MZ1;
- 14 (3) Develop a long-term management plan by fiscal year 2004/2005;
- 15 (4) Submit quarterly reports to the court on all interim and long-term efforts to address
16 MZ1 subsidence and fissuring problems, including documentation of participation,
17 forbearance, impacts, and other "noteworthy details that pertain to the goal of
18 forbearance to minimize subsidence and fissuring";
- 19 (5) Schedule a follow-up workshop for July 17, 2003; and
- 20 (6) File reports at least quarterly to apprise the court of any actions pending that could
21 cause the "jurisdiction issue" to resurface.

22 III. COMPLIANCE WITH 2002 COURT ORDER

23 A. Regular Reports by Watermaster

24 Watermaster has regularly reported to the court, through its status reports, on the progress
25 of all work related to Management Zone 1 ("MZ1") subsidence issues. Watermaster has also
26 reported that it is not aware of any pending legal actions which have raised issues concerning the
27 court's jurisdiction related to subsidence. The City of Chino ("Chino") has annually asked for
28 continuances of its Paragraph 15 Motion. The process has been that Chino requests continuance
after both Chino and the City of Chino Hills ("Chino Hills") have committed to forbear some
pumping. (Our files reflect that Chino requested a continuance to September 1, 2005, but we do not
have a copy of a court order approving that continuance.) Watermaster has reported that the MZ1
Technical Advisory Committee has been actively meeting.

////

1 **B. Pumping Forbearance Agreements**

2 Annual forbearance agreements have been entered into for the past three years by Chino and
3 Chino Hills. On April 28, 2005, Watermaster approved continuation of the forbearance agreements
4 for a fourth year. The fourth year of forbearance will be fiscal year 2005/2006.

5 **C. Court Order and Deadlines**

6 Two of the deadlines set forth in the 2002 Order have not been met. First, a long-term
7 management plan for MZ1 was to have been completed this fiscal year (by July 1, 2005). Second,
8 a follow-up Special Referee workshop was not held in July 2003, but, instead, was postponed in
9 order that a substantial body of work could be completed to study and assess the MZ1 issues.

10 **IV. INTERIM PLAN WORK**

11 **A. Technical Work Completed to Date**

12 The purpose of the second workshop was to hear a description of the work and study that has
13 been done since the MZ1 Interim Plan was begun, to ascertain whether any conclusions have been
14 reached, and to obtain a description of the activities that are being undertaken now and that remain
15 to be done. Mr. Malone's presentation on the technical work and analysis to date formed the bulk
16 of the workshop. He provided a very detailed description of the monitoring and other technical work
17 that has been undertaken. Ongoing efforts have included installation of piezometers and an
18 extensometer, installation of transducers to monitor water levels in a network of wells, and ground-
19 level and InSAR monitoring for subsidence. Mr. Malone reported several discoveries which he
20 characterized as significant, including discovery of a groundwater barrier at depth in a location
21 approximately coincident with the fissuring that has occurred, and that there are two very distinct
22 aquifer systems. (Reporter's Transcription ("RT") at pp. 44-47)

23 Mr. Malone also indicated that all of the potential causes of the subsidence and fissuring
24 which had been previously suggested had been reviewed, but that the Interim Plan work has focused
25 on the hypothesis that the subsidence and fissuring have been caused by subsurface fluid withdrawal:

26 We reviewed all these [other potential causes of subsidence], but what we zeroed in
27 on was the subsurface withdrawal as our hypothesis. That's what we identified as the
28 most likely cause of the subsidence that we had observed in the City of Chino . . . so
our hypothesis was that the groundwater production caused land subsidence and
fissuring in Chino Basin. . . We also noted that it was likely, or that we were

1 hypothesizing that the production from the confined aquifer system was the main
2 cause of this recent episode of subsidence and fissuring that was measured in the
3 early 1990's. So this is what we designed our monitoring program to test, whether
4 or not this hypothesis was correct.

4 (RT at pp. 32-33) There was no further discussion on the record regarding the nature of the review
5 that was done as to other potential causes of the subsidence and fissuring.

6 A primary focus of the technical work has been to determine at what point subsidence creates
7 inelastic compaction versus subsidence which is elastic and can recover. Mr. Malone described the
8 process to identify:

9 . . . the threshold where the deformation process transitions from elastic to inelastic.
10 By doing that, we'd be defining the usable volume of the storage reservoir, under
11 what range of water levels can we operate where we're not causing inelastic
12 compaction. And that would be a very key finding to any long-term management
13 plan that might develop out of this study.

12 (RT at pp. 43-44) The presentation included detailed descriptions of "stress-strain diagrams" which
13 reflect data on the elastic versus inelastic response of the system to pumping. Mr. Malone drew
14 attention to a "key point" that there appears to have been about two one-hundredths of a foot (0.02
15 ft.) of permanent compaction over the 2004 pumping season. (RT at pp. 58-59) He indicated that
16 the ". . . inelastic threshold was crossed at about 250 feet below ground surface during the latter part
17 of the pumping season." (RT at p. 60) Mr. Malone made it very clear that it is necessary to wait for
18 "fully recovered water levels" before drawing any final conclusions that the system transitions from
19 elastic to inelastic compaction when water levels are somewhere below 250 feet below ground
20 surface. (RT at p. 95)

21 In response to questions as to whether there are sufficient data available now to develop a
22 long-term plan, Mr. Malone responded that:

23 . . . When we operate in the forbearance agreement where we pump during the
24 pumping season, but we allow the system to recover during the wintertime months,
25 . . . we've demonstrated that we're operating generally in an elastic range. . . And so
26 to how far we can step out of that same pumping pattern and still operate within the
27 elastic range, we have not determined that yet. But the models hold the promise of
28 determining that.

27 (RT at p. 93)

28 Mr. Malone explained that the next step in the investigation is to create groundwater models

1 to "... simulate the groundwater production's effects on groundwater levels." (RT at p. 91) The
2 model will: "... help us provide that linkage between groundwater production and groundwater
3 levels that would provide a tool to evaluate any management plan that might come out of this." (RT
4 at p. 107)

5 In response to a question, Mr. Malone indicated that there are not plans to do further testing
6 in the southern part of MZ1:

7 We feel like if the stress-strain diagram goes to where it seems to be going, that
8 we've identified this threshold of preconsolidation stress that is the transition
9 between inelastic and elastic compaction. . . I don't think we have any further
10 questions that we're trying to answer in this southern part of Management Zone 1.
11 We're going to be developing the models that will help us provide that linkage
12 between groundwater production and groundwater levels. . .

13 (RT at p. 107)

14 **B. Recommended Additional Technical Work**

15 Mr. Malone recommended that technical work be continued in the southern part of MZ1 and
16 that certain technical work be started in the central MZ1 area to the north. For the southern MZ1
17 area, the recommendation is that monitoring continue (RT at pp. 97-99) and that some of the
18 dedicated piezometers be replaced (RT at pp. 103-104). In addition, numerical models would be
19 developed (a one-dimensional compaction model and a three-dimensional groundwater flow and
20 subsidence model). The three-dimensional model would link:

21 ... the areal and vertical distribution of pumpage to water level fluctuations and then
22 the ultimate deformation that occurs in the aquifer system. . . We've been working
23 mostly on this link between water level fluctuation and deformation. The model will,
24 then, now take us from that to include pumpage, how it affects water level
25 fluctuations, and then how the water level fluctuations affect deformation.

26 (RT at pp. 99-100)

27 Mr. Malone also discussed expanding the investigation of subsidence, initially via
28 monitoring, to the central region of MZ1, including the installation of water level transducers in
existing wells. (RT p. 107) Mr. Malone characterized as speculative the potential need to construct
a new monitoring facility or facilities in the central region, including a multi-piezometer and/or
extensometer. (RT at p. 102) He clarified that ground-level survey data, InSAR data, and water-
level data should be collected in the central MZ1 area before any conclusion would be reached on

1 the need for piezometers or an extensometer. (*Id.*) Expansion of the subsidence investigation into
2 the central region of MZ1 is prompted by the observation of some historical subsidence in the area,
3 confounded to some degree by the lack of any known local pumping in the immediate subsidence
4 area. (RT at pp. 76, 80, 83-84, 87)

5 C. Long-Term Plan Schedule

6 There was not extensive discussion at the workshop on either a long-term plan or a schedule
7 for completion of a plan. Mr. Malone indicated that InSAR surveys and ground surveys will be
8 conducted in both fall 2005 and spring 2006. (RT at p. 104) The modeling would be completed in
9 the spring of 2006, with a modeling report to follow that summer. (*Id.*) Mr. Wildermuth responded
10 to a question regarding scheduling by indicating that several more years of studies and model
11 development and analysis would be required, followed by 12 months to reach an agreement on a
12 long-term plan. (RT at p. 109) This timing is consistent with the discussion in the 2002 workshop.
13 At that workshop, in response to the question of how long it would take to start developing a long-
14 term plan given optimal agreement by all parties, Mr. Wildermuth stated that he thought it would
15 take three to five years (2002 Workshop Transcript at page 101.) Mr. Slater also clarified at the 2002
16 workshop that Mr. Wildermuth's three to five years were for the "data development side" and that
17 "the business deal probably follows soon thereon, and one would expect maybe twelve months to
18 wrap that piece up." (2002 Workshop Transcript at p. 103.)

19 V. RECOMMENDATION OF SPECIAL REFEREE

20 A. Preparation of a Summary Report on MZ1 Technical Work

21 A substantial body of technical work has been completed in the southern MZ1 area.
22 However, conclusions are still preliminary:

23 . . . With our stress-strain diagram . . . we're seeing that these head declines can
24 induce permanent compaction. But again this is a preliminary conclusion because
25 it is still pending fully recovered water levels. We're waiting for those water levels
to be fully recovered to see if any inelastic compaction did occur over the last
pumping season.

26 (RT at p. 95) When sufficient time has elapsed for water levels to have fully recovered, it is our
27 view that a summary report on all of the work presented at the workshop would be extremely helpful.
28 Even though no modeling has been completed, there appear to be sufficient data to conclude that

1 | there is a threshold depth to water that, if crossed, will likely lead to new inelastic compaction and
2 | subsidence and ground fissuring. That information should be made available to the parties in a
3 | summary report as soon as possible. Based on Mr. Malone's presentation, it should be feasible to
4 | prepare such a report by the middle of August. When the three-dimensional model is prepared, a
5 | modeling report will be written. In the meantime, there are important data and preliminary findings
6 | that can be made available very soon that will be of immediate use to the pumpers within MZ1.

7 | A further recommendation related to a summary report is that the summary report should also
8 | address the other potential causes of subsidence and fissuring that have been suggested in the past.
9 | If any of those items cannot be readily addressed, then the summary report should recommend how
10 | they will be addressed. While the detailed monitoring and testing has been substantial, they have
11 | not apparently addressed whether subsidence and fissuring might have been partially the result of
12 | mechanisms other than deep groundwater pumping. The continuing possibility that other
13 | mechanisms may also be responsible for subsidence is a potential impediment to development of the
14 | long-term plan.

15 | As part of this discussion, the summary report should discuss any information related to
16 | whether any significant subsidence predated the notable subsidence and fissuring since the early
17 | 1990's, and should describe the historical surveying investigation commissioned by Watermaster to
18 | address that issue. An important outstanding question is whether any pre-1990's subsidence that
19 | may have occurred correlates with, or can be attributed to, the large historical changes in
20 | groundwater levels that predated the Judgment.

21 | **B. Watermaster Issuance of Guidance Criteria.**

22 | Near the close of the workshop, there was some discussion of what would be included in a
23 | long-term plan, including possibly expanding the study area to include the central MZ1 region. (RT
24 | at pp. 123 *et seq.*) The concept of a long-term MZ1 management plan has been part of the
25 | Watermaster program since it was first articulated in 1999 in the Optimum Basin Management
26 | Program Phase 1 Report. A long-term management plan was to be formulated during the interim
27 | plan period, and would be based on investigations, monitoring programs and data assessment. It
28 | would be adaptive in nature. The workshop discussion noted that the technical work that has been

1 done and that will be done will form the basis for a long-term plan. Mr. Wildermuth indicated that:

2 . . . we haven't felt until very recently, last maybe six or eight months, that we were
3 at a point where we are getting close to coming up with conclusions from which we
4 could build a plan on, pull the parties together and talk about their deal making to
5 implement a plan.

6 (RT at p. 125) As discussed, above, however, development of a long-term plan itself does not appear
7 to be imminent.

8 In response to questions regarding the possibility of phasing the long-term plan, Mr.
9 Wildermuth discussed the option of bifurcating the ". . . southern and central portion, try to get the
10 southern portion going, and then based on the interests of the stakeholders, do something in the
11 central area." (RT at p. 125) Mr. Wildermuth also suggested that Watermaster's long-term plan
12 could range from being "guidance information" to something more aggressive. (RT at p. 108)

13 The concept of providing guidance criteria is a compelling one. It appears, based on the
14 presentation at the workshop, that Watermaster can very soon alert pumpers in the southern MZ1
15 area that there is a substantial risk that lowering water levels to below approximately 250 to 260 feet
16 below ground surface will result in new inelastic compaction and subsidence. This type of
17 information should formally be made available to the parties as soon as possible, presumably as soon
18 as a summary report on the MZ1 technical work is completed. The guidance criteria would be issued
19 by Watermaster in a timely fashion, to be followed by the long-term plan development which
20 necessarily will require a longer period to complete.

21 C. Long-Term Plan and Schedule

22 It is incumbent upon Watermaster now to request that the court extend the period for
23 completion of a long-term plan for MZ1. The overall testimony indicated that several more years
24 of technical and modeling work will be required, followed by approximately a year of negotiations
25 among the parties. The Watermaster should propose a schedule to the court which takes into account
26 the continuation of data collection and modeling work in the main MZ1 area as well as technical
27 work in the central MZ1 area. A date should be established for completion of a long-term plan.

28 Whether the long-term plan is ultimately characterized as a management plan is an issue for
the parties to address. Based on presentation and discussion at the workshop, it is clear that, at the

1 very least, an ongoing monitoring program by Watermaster will be required so that the parties have
2 full and sufficient information available to them to inform their decisions.

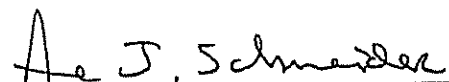
3 **D. Expanded Monitoring in MZ1**

4 The presentation at the workshop, while focused on monitoring and studies in the southern
5 MZ1 area, indicated that some monitoring work can and should be done in the central MZ1 area,
6 including installation of transducers in wells, and ground and InSar ground-level monitoring. More
7 costly and complex efforts involving piezometers and an extensometer would logically be held in
8 abeyance pending assessment of data collected. A phased long-term plan could include provision
9 for central MZ1 monitoring work and studies, with future efforts considered and scheduled on an
10 as-needed basis, while more definitive conclusions are drawn in the southern MZ1 area based on the
11 extensive work already focused in that area. As noted above, the central MZ1 area appears to
12 warrant additional investigation in light of detectable subsidence in spite of no significant pumping
13 stress in the immediate subsidence area. Such additional investigation would also appear important
14 in light of the overall concept of basin reoperation and hydraulic control, which could result in
15 locally lower groundwater levels in parts of the basin.

16 **VI. CONCLUSION**

17 The workshop was very productive. Mr. Malone's presentation was excellent. The
18 Watermaster does not require court approval to direct the preparation of a summary report on the
19 MZ1 technical work or to issue guidance criteria. The Watermaster, however, should file with the
20 court a motion for an order to set a schedule for the completion of a long-term plan.

21 Dated: June 16, 2005

22
23 
24 Anne J. Schneider, Special Referee

CHINO BASIN WATERMASTER
Case No. RCV 51010
Chino Basin Municipal Water District v. The City of Chino

PROOF OF SERVICE

I declare that:

I am employed in the County of San Bernardino, California. I am over the age of 18 years and not a party to the within action. My business address is Chino Basin Watermaster, 9641 San Bernardino Road, Rancho Cucamonga, California 91730; telephone (909) 484-3888.

On June 21, 2005 I served the following:

Special Referee's Report on Progress Mad on Implementation of the Watermaster Interim Plan for Management of Subsidence

BY MAIL: in said cause, by placing a true copy thereof enclosed with postage thereon fully prepaid, for delivery by United States Postal Service mail at Rancho Cucamonga, California, addresses as follows:

See attached service list:
Mailing List 1

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

BY FACSIMILE: I transmitted said document by fax transmission from (909) 484-3890 to the fax number(s) indicated. The transmission was reported as complete on the transmission report, which was properly issued by the transmitting fax machine.

BY ELECTRONIC MAIL: I transmitted notice of availability of electronic documents by electronic transmission to the email address indicated. The transmission was reported as complete on the transmission report, which was properly issued by the transmitting electronic mail device.

I declare under penalty of perjury under the laws of the State of California that the above is true and correct.

Executed on June 21, 2005 in Rancho Cucamonga, California.


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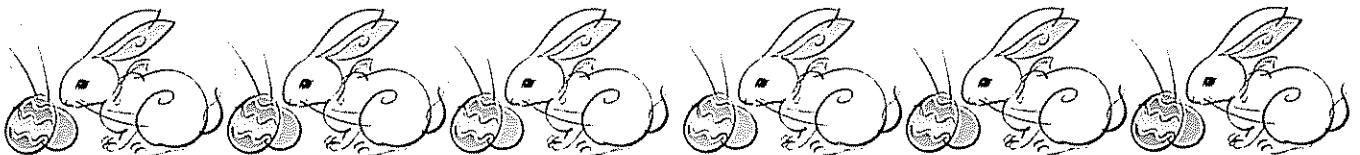


CHINO BASIN WATERMASTER

IV. REPORTS/UPDATES

D. INLAND EMPIRE UTILITIES AGENCY

1. Monthly Water Conservation Programs Report
2. Groundwater Operations Recharge Summary
3. Monthly Imported Water Deliveries Report
4. State and Federal Legislative Reports
5. Community Outreach/Public Relations Report



CHINO BASIN WATERMASTER

ADVISORY COMMITTEE

April 27, 2006

AGENDA

INTERAGENCY WATER MANAGERS' REPORT

Chino Basin Watermaster

9641 San Bernardino Road

Rancho Cucamonga, CA 91730

15-20 Minutes

Discussion Items:

None

Written Updates:

- Monthly Water Conservation Programs Report
- Groundwater Operations Recharge Summary
- Monthly Imported Water Deliveries Report
- State and Federal Legislative Reports
- Community Outreach/Public Relations Report

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Regional Conservation Programs

Monthly Report-March

MWD Activities

- **Azusa Pipeline Agreement**- On February 14, 2006, the MWD Board approved the agreement with Three Valleys Municipal Water District and IEUA to allow emergency interconnections with the Azusa Pipeline to the Cucamonga Valley Water District Lloyd Michaels and WFA filtration plants. This will enhance significantly supply reliability throughout the IEUA service area.
- **California Friendly Marketing Campaign**- The "California Friendly" campaign is an effort by MWD and its member agencies to get people to conserve resources by using water and energy efficient products along with changing to water efficient landscapes. Marketing materials are being developed to carry out the new California Friendly campaign and will kick off on April 15, 2006 with TV advertisements, public service announcements, magazine advertisements, and other materials.
- **Regional Water Supplies**- Based on snow pack levels in the Sierras and the upper Colorado River watershed, MWD has indicated that "surplus" supplies of imported water will be available this year.

Landscape Programs

- **"SmarTimer of Inland Empire" Irrigation Controller Program**- The final application form, product description, advertisement and other materials for the irrigation controllers have been created and were distributed at the January Regional Conservation Partnership Workgroup meeting. Materials are now available on the IEUA web site.
- **Phase II Landscape Audit Program (05/06)** - The RFP for the 05/06 Audit Program will be released in late March, 2006, and the program will commence in late spring.
- **Ontario Cares**- City of Ontario will implement a pilot project to integrate "California Friendly" into the city's program to improve existing neighborhoods. MWD consultant presented "California Friendly" templates to Ontario Cares inspection staff and landscape contractors. MWD will test templates and marketing materials on 4-5 houses and report back with results. The group will finalize materials at the next meeting. Implementation of the "California Friendly" landscape will begin in spring, 2006.
- **Residential Landscape Classes**- Monte Vista District held a PDA class on March 11th, and the City of Upland held a PDA series of four classes on each Saturday in the month of March. SmarTimer Controllers were exchanged at both the MVWD class and the City of Upland classes. Approximately 20 controllers were exchanged. Cucamonga Valley Water District is holding a PDA class on April 8th. SmarTimer controllers will be exchanged at this class as well.
- **Landscape Collaborative**- IEUA staff met with city officials to consider the formation of a landscape task force to coordinate water efficient landscaping throughout the regions programs and policy recommendations.

Commercial/Industrial/Institutional Program

- **CII SAVE-A-BUCK**- After Honeywell evaluated their marketing strategies for the MWD service area, they concluded that meeting face to face with commercial customers is much more effective than mass advertising and mailers. For IEUA's service area, Honeywell's new marketing strategies include tailoring existing materials to target our area, new bill inserts, and also by having representatives present at local chamber meetings, agency events and other significant events.
The following is a list of rebate activity for our service area:
 - **High Efficiency Clothes Washers** – There were 10 clothes washer rebates for the month of February. To date 315 commercial high efficiency clothes washers have been installed in our service area since FY 00/01.
 - **Conductivity Controller Cooling Tower** – 1 controller was installed in FY 05/06 bringing the total to 15 conductivity controllers installed through the Save-a-Buck program since FY 00/01.
 - **ULF Toilets** – 234 ULFTs were rebated in February bringing the total to 445 ULFTs in our service area since FY 00/01.
 - **Water Broom** – 114 water brooms were rebated in October bringing the total to 693 since FY 00/01.
- **Restaurant Spray Heads**- This program is being implemented by the CUWCC. Phase II was completed in December, 2005 with approximately 861 spray nozzles installed in our service area. To date approximately 1,192 spray heads have been installed. Phase III will begin in March and end in December, 2006.

Residential Programs

- **Single-Family ULF Toilet Exchange Programs**- The Regional Conservation Workgroup decided at their January meeting to discontinue the exchange events with the exception of one local Upland event. The final Upland exchange event will take place April 1st with a return date of April 22nd. The group will re-evaluate the program for FY 07/08. During this time IEUA staff will collect information on HETs and direct install programs to guide the group in exploring alternate single family toilet programs.
- **Multi-Family ULF Toilet Program**- Currently, through the direct install program approximately 4,724 toilets have been installed and 1,161 have been confirmed for installation. The remaining toilets are expected to be installed within the next two months. The next round of the program will be funded by a DWR \$1.6 million grant for 22,000 toilets. The RFP went out in February and the bids are now in review. The program will begin in late spring, 2006.
- **High Efficiency Clothes Washer Rebate**- Approximately 126 rebates were issued during February, bringing the total for the current fiscal year to 901 rebates. This brings the total number of rebates to approximately 5,960 since the rebate program began in 2002.

School Education Programs

- **Garden in Every School**- Irrigation is being completed at the schools. Plantings have taken place at Coyote Canyon in Rancho Cucamonga, Ranch View in Ontario, and Foothill Knolls in Upland. Plantings will take place through April with Dedications in May and June.
- **National Theatre for Children**- The spring schedule has been completed, with performances beginning in late March.
- **Groundwater Model**- Chino Hills' and IEUA staffs are now in the process of learning how to operate the Model. Once this is done meetings to see the model demonstrated will be set up with interested agencies.
- **Solar Cup (2006)** - MWD announced the schedule for the Solar Cup 2006 event. The event will occur May 19th through May 21st, 2006. IEUA (as the member agency) will be represented by three schools: Chino Hills High School and Ayala High School in Chino Hills, and Upland High School.

Outreach

- **Water Fair**- Members of the Conservation Partnership have formed a committee to plan a water fair for the customers within the IEUA service area. The committee has been meeting every month. The fair will provide information on rebates and promote other ways to conserve water. The event is tentatively set for October 14, 2006.
- **Conservation Ads (monthly and special)** - Conservation tips are printed in the Daily Bulletin monthly (on Sundays at the end of each month).
- **Water Education Water Awareness Committee (WEWAC)** – WEWAC participated in the Home and Garden Fair at the Pomona Fairplex on Friday, January 27th-Sunday, January 29th by having a garden exhibit full of drought tolerant plants and water conserving landscaping resources. In April they will discuss new initiatives for the next year.
- **BMP Support Grants**- No new action.

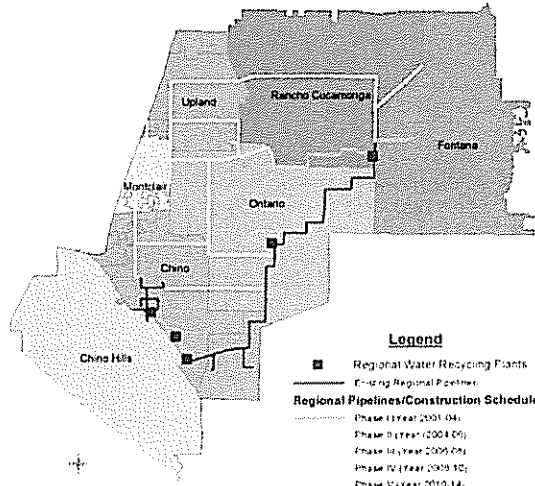
Upcoming Events

CALENDAR

March 30, 2006	CUWCC Landscape Committee Meeting (Sacramento)
April 1, 2006	Local ULF Toilet Distribution (City of Upland)
April 8, 2006	PDA "Water Wise" Gardening MiniClass (Cucamonga Valley Water District)
April 22, 2006	Local ULF Toilet Return (City of Upland)
April 24 th -28 th , 2006	CA-NV AWWA Spring Conference (Burlingame)
April 28 th -30 th , 2006	Lemon Festival (City of Upland)
May 3, 2006	CUWCC Steering Committee Meeting, (San Francisco)
May 9 th -12 th , 2006	ACWA Conference (Monterey)
May 13, 2006	Water Awareness Day (Cucamonga Valley Water District)
May 19 th -21 st , 2006	Solar Cup
June 7, 2006	CUWCC Plenary Session (San Diego)
June 11 th -16 th , 2006	AWWA Annual Conference (San Antonio, TX)

3RD QUARTER FY2005/06 RECYCLED WATER SUMMARY

Capital Projects Summary



PROJECTS COMPLETED

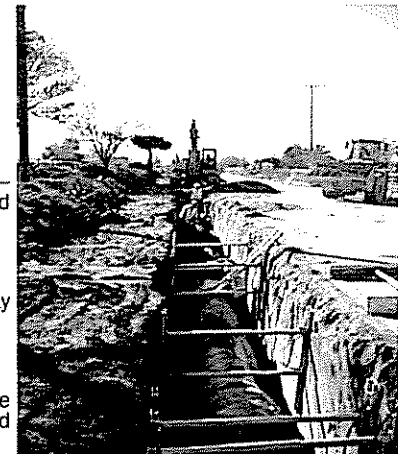
- RP-1/RP-4 Pump Station (Budget \$7,718,000)
- RP-1 Chlorination Tank (Budget \$4,817,200)
- Pine Avenue Intertie (Budget—Phase I & II \$1,066,000)
- Wineville Pipeline (Budget \$2,307,200)
- Reliant Pipeline (Budget \$1,115,476)
- Philadelphia Pipeline (Budget \$3,591,400)
- Whittram Pipeline (Budget \$3,621,000)
- RP-4 West Branch Phase I & II (Budget \$9,688,096)

Total Budget — \$33,954,371

PROJECTS IN DESIGN AND CONSTRUCTION

- RP-4 Area 3 MG Regional Recycled Water Reservoir, Pipeline and Pump Station
On-hold awaiting acquisition of property
- North Etiwanda Regional Water Pipeline and Pump Station
On-hold awaiting acquisition of property
- RP-1 South Recycled Water Pump Station
100% design complete.
- San Antonio Channel Recycled Water Pipeline
There are two design segments; Segment A & B. Segment A—Design complete Segment B—90% design complete. Segment B will extend through the City of Montclair providing recycled water to Bellevue Cemetery and parks and schools in Montclair.
- Wineville Recycled Water Pipeline Extension
In design. This pipeline will serve major laundry facilities in Ontario as well as serving the City of Fontana.
- 7th & 8th St. Basin Pipeline
100% design complete and a value engineering has been completed as well. This pipeline will bring recycled water to 7th and 8th Street Basins and also will serve a few schools and parks along the way.
- Edison Avenue Pipeline
Construction of Edison-Eucalyptus Regional Recycled Water Transmission Pipeline is underway. This pipeline will interconnect the existing CCWRF and TP-1 Outfall system supplementing additional recycled water supply to meet the growing demand in southern service area serving major agricultural users in Ontario, College Parks in Chino and ultimately many parks and other landscaping customers.

Projected Budget — \$70,300,000



Edison Avenue Pipeline

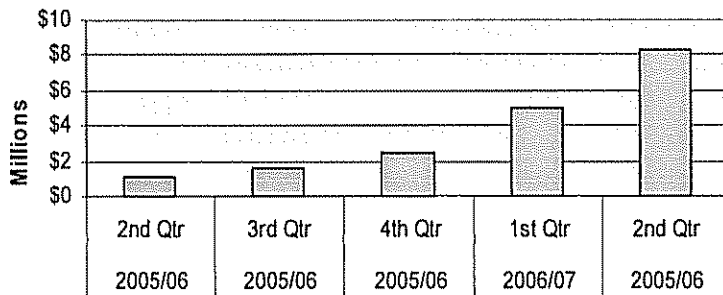
Total Implementation Plan

ID	Task Name	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	
1	Phase I	\$34,000,000.00												
2	Phase II	Complete				\$70,300,000.00								
3	Phase III							\$25,000,000.00						
4	Phase IV									\$23,000,000.00				
5	Phase V										\$22,000,000.00			

Phase II & III Implementation Plan

ID	Task Name	2006												2007											
		Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
1	RP-1 Recycled Water South Pump Station	[Bar]												[Bar]											
2	San Antonio Channel Recycled Water Pipeline	[Bar]												[Bar]											
3	Wineville Avenue Pipeline Extension	[Bar]												[Bar]											
4	7th & 8th Street Basin Pipeline	[Bar]												[Bar]											
5	Edison Avenue Pipeline	[Bar]												[Bar]											
6	RP-4 Recycled Water Pipeline, Reservoir & Pump Station	[Bar]												[Bar] On-Hold											
7	North Etiwanda Recycled Water Pipeline, Reservoir & Pump Station	[Bar]												[Bar] On-Hold											

Regional Recycled Water Phase II—Projected Cash Flow



Vellano Golf Course Development

TYCIP Projects

- Twelve Significant Projects
- Serves 45,000 AFY
- Capital Cost \$117 million
- Grant Funding \$42.5 million
- State Loan Funds \$66.5 million
- Local Funding \$8 million

Project No.	Project Description	Budgeted Cost	State Grant Funding	Federal Grant Funding	SRF Loan	Total Grant/Loan Funding
1	San Antonio Channel Pipeline	13	3		10	13
2	TP-1 South Zone Pump Station	5	1		4	5
3	RP-4 Reservoir and Pump Station	12		5	7	12
4	Edison Avenue Pipeline	9	7			7
5	Wineville Avenue Pipeline Extension	7	1.5		5.5	7
6	7th and 8th St. Basin Pipeline	3	2			2
7	Etiwanda Ave. Pipeline, Reservoir, Pump Station	21		10	11	21
8	RP-1 Outfall Parallel	10		5	5	10
9	San Sevaine, Etiwanda Basin Pipelines	22	4		18	22
10	Etiwanda Pipeline South	4	2		2	4
11	Chino/Chino Hills Zone 800	11	3		8	11
12	RP-5/2 Recycled Water Pipelines	3.8				
	Land	5				
	Total (\$ Millions)	126	23.5	20	70.5	114

Customer Development

■ Agricultural customers along the TP-1 Outfall line

There are six farm connections that staff is working closely with the Cities of Ontario and Chino to use recycled water. IEUA is providing service laterals to these farmers in order to expedite the conversion. By mid April, these farmers are expected to use recycled water. In addition, farming operation in Chino Airport, additional irrigation in CIM and three other farms in Ontario will be converted to use recycled water within a year. The combined total recycled water usage from these farms could exceed 5,000 AFY.

■ NRW (Non-Reclaimable Water) Customers

IEUA staff working closely with the retail agencies are targeting NRW customers. With passing of new pass through rate, these customers potentially save as much as 40% discount on the wastewater discharge in addition to the water bill by converting to use recycled water for their process and irrigation. Aramark, a commercial laundry, will be using 100% recycled water for their process once the operation begins. Staff is very optimistic that Aramark's use of recycled water would bring other commercial laundries such as Mission Linen, Crothall, and Cintas to use recycled water.

■ Targeted Major Customers in 2006

1. Empire Lakes Golf Course (CVWD)
2. Temple Inland (Ontario)
3. Guasti Park (Ontario)
4. Additional Farms on Outfall (Ontario & Chino)
5. Ontario Center Owners Association (Ontario)
6. California Co-generation (Chino)
7. Vellano Golf Course (Chino Hills)
8. Mission Linen (Chino)
9. Cintas I & II (Ontario)

■ Consulting services for recycled water program management services

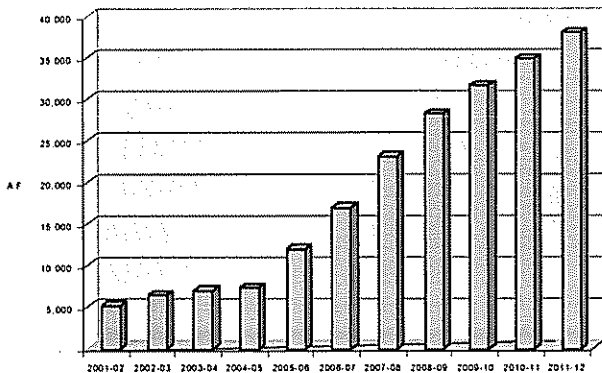
In order to expedite the approval process by DHS, IEUA staff and consultant are assisting the Cities with the Engineer's report as well as drafting a master engineer's report for each of the Cities.



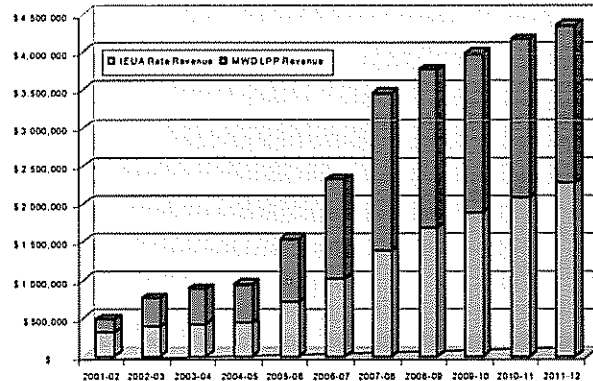
Chaparral Elementary School

Projected Sales & Revenue

Projected Recycled Water Sales



Projected Recycled Water Revenue



Regulatory/Permits

- CEQA—PEIR Certified June, 2002
- CBWM Article X Permit — *Approved* May, 2002
- SARWQCB Basin Plan "Maximum Benefit" — *Approved* January, 2004
- DHS Title 22 Report (Recharge) - *Approved* April, 2005
- SARWQCB Discharge Permit January 2005



CalPoly Pomona Farming in CIM

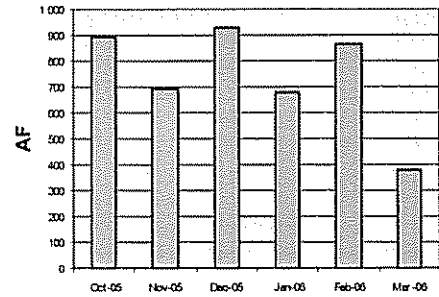
Activity Summary

New Customers in 2005

■ 8 new recycled water customers were connected:

	Estimated Usage (AFY)
Lewis Homes Phase II (4 connections)	100
Redwood Business Center	10
CalPoly Pomona in CIM	1,000
Chaparral Elementary School	20
Bubalo Construction	20
Campus Owners Corporation	5
Panattoni Construction	5
Ethan Ellen Inc.	10
Total	1,170

Recycled Water Sales



New Customers in 2006

	Expected Connection Date	Expected Usage (AFY)
Chino Hills High School and Wickman elementary school	August	30
Temple Inland	July	1,100
Kaiser Hospital	May	100
Lewis Homes Phase I (6 connections)	On-line	20
Empire Lakes Golf Course	April	800
Irrigation Customer along 6th Street	April-June	25
City Parks in Chino Hills	August	25
Bakken Property	May	2
El Prado Business Park	May	2
Fruit Growers Supply	May	20
Farmers in Ontario (6 connections)	April	2,000
Chad's Farm in Chino	April	150
Monte Vista Farm	April	200
Total		4,474

Delivery Period	2004/05	2005/06
3rd Quarter	736	1,917
Year to Date	736	1,917
FY Total	4,006	7,267
Budget		8,290

Operation & Planning

- On March 13, there was a line break on TP-1 Outfall line at the intersection of Kimball Avenue and Flight Road. The repair was made and the line was back in service on the same day.

Potential Customers in 2006

- City of Chino
Mission Linen, OLS Energy and College Park (2,500 homes, 2 schools, extension of Ayala Park over 435 acre)
- City of Chino Hills
Vellano Golf Course and Western Hills Golf Course
- City of Ontario
California Commerce North & South, Blue Beacon, Guasti Park, Bakken Property, Fruit Growers Supply, Longs Drug, Ontario Mills, Carlisle Tire & Wheel, Cintas I & II, Crothall Laundry, Danco Metal Surfacing, Unifirst, and Agricultural customers
- City of Rancho Cucamonga
Metal Coaters of California, Steelscape, Tamco
- City of Fontana
California Steel, California Speedway, Sierra Aluminum, and Pacific Forge



Cal Poly Pomona Farming in CIM



Inland Empire
UTILITY SERVICES

Date: April 19, 2006
To: The Honorable Board of Directors
Through: Public, Legislative Affairs and Water Resources Committee
(4/12/06)
From: Richard W. Atwater
Chief Executive Officer/General Manager
Submitted by: Martha Davis
Executive Manager of Policy Development
Subject: March Legislative Report from Copeland and Associates

RECOMMENDATION

This is an informational item for the Board of Directors to receive and file.

BACKGROUND

Letitia White provides a monthly report on their federal activities on behalf of IEUA.

PRIOR BOARD ACTION

None.

IMPACT ON BUDGET

None.

RWA:MD:jbs
G:\board-rec\2006\06101 March Leg Report from Copeland and Associates

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Copeland Lowery Jacquez Denton White LLC

Specializing in Government Relations

MEMORANDUM

TO: Rich Atwater and Martha Davis

FROM: Letitia White, Heather McNatt and Susan Carr

RE: March 2006 Legislative Report

DATE: March 28, 2006

IEUA and CLJ have had a busy month advocating for IEUA's Washington legislative agenda. March began with IEUA's visit to Washington in conjunction with the ACWA conference. During that visit, Rich Atwater and/or Martha Davis met with the following Hill offices: Senator Feinstein, Senator Boxer, Chairman Jerry Lewis, Congressman Gary Miller, Congresswoman Grace Napolitano, Congressman David Dreier and Congressman Ken Calvert. In each meeting, we educated Members and staff on IEUA's appropriations requests and asked for support in both the Energy and Water and Agriculture Appropriations bills. CLJ staff followed up with Hill offices to ensure that they had all the necessary information.

CLJ has also arranged a series of meetings with the Natural Resource Conservation Service at the US Department of Agriculture. Through those meetings, we hope to engage the Department on IEUA's Renewable Energy and Dairy Waste Treatment Initiative. On March 9th, Rich Atwater met with Barry Kintzer, the National Environmental Engineer, and George Cleek from USDA's Legislative Affairs Branch. When Rich returned to Washington with the Chino Basin Watermaster in late March, the group met with Tom Christensen, Deputy Chief of Programs, Harry Slawter, Director of the Financial Assistance Programs Division, and Felix Spinelli, Senior Economist at Resource Economics and Social Sciences Division to talk about IEUA's renewable energy efforts, programs, and projects.

Appropriations requests were submitted to the Energy and Water and Agriculture subcommittee on March 16th. Now that we are past the appropriations deadline, we have entered a wait-and-see phase. Over the next few weeks, committees will hold hearings and staff will begin to draft the bills. Our first chance to see the bills will be the subcommittee mark-ups, which should take place in May. CLJ will keep IEUA informed as the bill moves through the process.

Congressional Support for California Levees Funding

On March 8th, the House Appropriations Committee considered the Supplemental Appropriations bill for FY'06. During that mark-up, Rep. John Doolittle offered an amendment to add \$41 million to the bill to speed up work on repairing the Sacramento and Delta levees. While the amendment was opposed for the supplemental spending bill, Chairman Lewis and Chairman Hobson of the Energy and Water Subcommittee agreed to support including the money in the regular FY '07 appropriations bill. The supporters of increased levee funding hope that it will be included when the Supplemental moves through the Senate.

Budget Update

The Senate Budget Committee passed out its FY 07 budget resolution in mid-March by a party line vote of 11-10 after rejecting several Democratic amendments to boost the budget's discretionary spending cap. Some of those amendments involved increasing spending on homeland security, widows and orphans of soldiers, veterans' benefits, and flu pandemic preparations.

The panel did adopt an amendment to restore \$500 million in social services block grant funding that President Bush proposed to cut. In addition, it adopted an amendment by ranking Democrat Kent Conrad (D-ND) to create a \$1.75 billion reserve fund to pay for chronic care management under Medicare. However, his amendment to restore pay-as-you-go budget rules to tax cuts failed on a party-line vote. He plans to offer the amendment again on when the full Senate debates the resolution next week. The budget resolution also includes a provision that would allow drilling in the Arctic National Wildlife Refuge (ANWR). This provision is expected to be one of the most controversial votes when the full Senate debates the resolution.

Another point of controversy is the creation of a budget point of order against Medicare spending, should federal subsidies of the program exceed 45 percent of total program costs. While not constituting an immediate cut, some projections predict the subsidy rate will reach 45 percent within five years.

The full Senate will take up the budget resolution during the week of March 13th. The House Budget Committee has not yet begun markup of its budget resolution. The House leadership has stated that the full House will not begin debate until after the St. Patrick's Day recess. Majority Leader Boehner has said he would like the House to complete its work on the resolution by April 8.

Senate to Open Two Weeks of Immigration Debate

The Senate is scheduled to begin debate on immigration reform legislation on Tuesday, as the Senate Judiciary Committee struggles to complete its markup of proposed legislation prior to that date.

Senate Majority Leader Bill Frist (R-TN) has introduced legislation focused solely on border and immigration enforcement and plans to bring that bill to the Senate floor on Tuesday, regardless of whether the Judiciary Committee has completed its work. When the Committee completes a bill, it will be offered as an amendment to the Frist legislation.

Among the issues remaining to be addressed in the Judiciary Committee are legal penalties for persons assisting undocumented aliens to remain in the country – an issue that has raised grave concerns among social services providers – and the precise structure of a proposed guest worker program.

In total, the Senate expects to devote most of the next two weeks prior to the Easter Recess to immigration reform.

The President continues to push publicly for a bill balanced between border security/immigration enforcement and a guest worker program that would allow some formal immigration status to workers who might otherwise immigrate illegally. The President's Saturday, 3/25, radio address will be devoted to the topic and the White House intends to hold at least one major public event on the subject during the week of March 27.

House Telecommunications Bill Delayed

Negotiations over a possible House Energy and Commerce Committee draft on telecommunications reform collapsed this week, with rank and file Committee Members refusing to endorse a bipartisan bill negotiated by the Committee leadership. The major points of controversy were proposals to 1) require existing cable providers to wait until new competitors had captured 15 percent of the market in a franchise area before they could take advantage of a new, national, franchising mechanism, and 2) bar existing cable providers from dropping their rates in individual neighborhoods until new competitors had reached a 15 percent market penetration. Both of these provisions are likely to be dropped from the Republican bill to be introduced next week. A subcommittee hearing on the legislation is scheduled for Thursday, March 30.

Outlook for the Week of March 27, 2006

The House and Senate will return from the St. Patrick's Day recess for a two week session prior to adjourning again for the Easter recess.

The Senate plans to return to its lobbying reform package on Monday, with a tentative goal of passing the legislation Monday night. Even if the Senate is unable to pass the bill, Majority Leader Frist plans to move to immigration and border security on Tuesday. The Senate is expected to debate its immigration legislation for the two weeks prior to the Easter Recess.

In addition, the Senate Appropriations Committee is expected to mark up its version of the supplemental appropriations bill during the week of April 3.

The House will take up the Higher Education Act authorization when it returns, and will then take up its Fiscal Year 2007 budget resolution and a package of lobbying and ethics reforms. Both the budget and lobbying reform bills will be marked up in committee during the week of March 27.

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Inland Empire
UTAH'S WATER

Date: April 19, 2006
To: The Honorable Board of Directors
Through: Public, Legislative Affairs and Water Resources Committee
(4/12/06)
From: Richard W. Atwater
Chief Executive Officer/General Manager
Submitted by: Martha Davis
Executive Manager of Policy Development
Subject: March Legislative Report from Agricultural Resources

RECOMMENDATION

This is an informational item for the Board of Directors to receive and file.

BACKGROUND

Dave Weiman provides a monthly report on his federal activities on behalf of IEUA

PRIOR BOARD ACTION

None

IMPACT ON BUDGET

None.

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Agricultural Resources

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Washington, D.C. 20002-5811
(202) 546-5115
(202) 546-4472-fax
agresources@erols.com

March 30, 2006

Legislative Report

TO: Richard W. Atwater
General Manager, Inland Empire Utility Agency

FR: David M. Weiman
Agricultural Resources
LEGISLATIVE REPRESENTATIVE, IEUA

SU: Legislative Report, March 2006

Highlights:

- Senate Energy Committee, Recycling and Desalination Policy, Oversight Hearings
- Meeting, Commissioner Keys, Bureau of Reclamation
- Chino Basin Watermaster DC Meetings
- Interior Submits Draft Legislation, \$100 Million for Water 2025
- Perchlorate – Feinstein and Pombo Introduce Cleanup Legislation
- News and Notes
- IEUA Working Partners

Senate Energy Committee and Water Recycling, Desalination Policy – Policy Oversight Hearings. The Senate Water and Power Subcommittee held its long-awaited Policy Oversight hearing on February 28. The Administration – Commissioner John Keys – testified, as did Rich Atwater and OCWD’s Virginia Grebbien. The Library of Congress’ Congressional Research Service provided a technical witness and Tom Donnelly, National Water Resources Association also appeared. All were critical of the Bureau’s attitude towards Title XVI. Senator Lisa Murkowski, chair, Subcommittee on Water and Power chaired the hearing and was joined by

Senator Feinstein. Both Senators grilled the Commissioner and plainly, were dissatisfied with the responses. Commissioner Keys insisted that water agencies involved with the program had failed to provide environmental documentation and described – in a highly misleading manner – the necessary approval process within the Bureau. Immediately after the hearing, Senator Feinstein realized what happened and has directed her staff to work with the Energy Committee staff to address these matters – so the Energy Committee can then proceed with markup for both Rep. Gary Miller’s recycling bill as well as Rep. David Dreier’s bill

Meeting, Commissioner John Keys on Title XVI and Southern California

Comprehensive Study. Rich Atwater, Martha Davis and I met with Commissioner Keys, Deputy Assistant Secretary of the Interior, Water and Science, Jason Peltier, and several members of the Commissioner’s staff. It was a contentious meeting. Commissioner Keys and the Department insist that the Southern California water recycling feasibility study was NOT a feasibility study, and, moreover, none of the NEPA documentation has been prepared. The Commissioner and his office were not well informed, and are simply wrong on their facts. This was pointed out.

Chino Basin Watermaster DC Trip. Last year, the Chino Basin Watermaster came to DC to make “educational” rounds. I organized the trip and Rich Atwater participated, along with representatives from Cucamonga Valley and Ken Manning from the Watermaster. Meetings were organized with the congressional delegation, the Governor’s DC office, DOD, DOI and USDA. Two issues were highlighted – recycling and perchlorate. At the USDA, the issue of green energy and dairy cleanup were discussed.

Interior Submits Draft \$100 Million Legislation for Water 2025. The Department of the Interior submitted draft legislation to authorize their Water 2025 program. Congress rejected a request for \$30 million last year, reducing it to \$5 million. No one in Congress understands the program or what it contributes that Title XVI doesn’t already do. The draft bill authorizes the program, open-ended, with a \$100 million authority (the very week IEUA was told that funds for Title XVI were non-existent). Interior has criticized Title XVI as having insufficient “criteria” for evaluation, but submitted their own Water 2025 program without “criteria.” The Committees are unimpressed with what Interior is doing, and how they’re going about it.

Perchlorate. Last month, I reported that Senator Feinstein and Chairman Pombo introduced perchlorate cleanup legislation. This bill includes Rep. Joe Baca’s Southern California’s bill previously introduced and passed by the House. It proposes to provide authority and funding for perchlorate cleanup in both Southern California (Santa Ana River Basin Watershed) and Santa Clara Valley. The immediate question – will hearings be held and when.

News and Notes. **Commissioner Keys.** The Commissioner, it was announced, is retiring on April 14. **Massachusetts Perchlorate Standard.** MA became the first state to set an MCL and did it at 2ppb. Other states are expected to act in the next several months. **Farm Bill Opportunities.** Discussions are continuing with various groups, committees and interests. NAS

Study on BuRec. National Academy of Sciences Study on Bureau of Reclamation Organization. BuRec requests the NAS study. It is now completed, and will be the subject of a hearing that examines the “future” of the Bureau of Reclamation. Rich Atwater has been asked to testify in early April. **Congressional Earmarks.** Discussions about “earmark” reform continue. Different proposals are presently being reviewed. This is the process by which congressional appropriators define funding priorities. There are proposals to limit earmarks and to increase “transparency.” Not clear when or how this will be resolved.

IEUA Continues to Work With Various Partners. On an on-going basis in Washington, IEUA continues to work with:

- a. Metropolitan Water District of Southern California (MWD)
- b. Milk Producer's Council (MPC)
- c. Santa Ana Watershed Project Authority (SAWPA)
- d. Water Environment Federation (WEF)
- e. Association of California Water Agencies (ACWA)
- f. WateReuse Association
- g. CALStart
- h. Orange County Water District (OCWD)
- i. Cucamonga Valley Water District (CVWD)
- j. Western Municipal Water District
- k. Chino Basin Watermaster

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Inland Empire
WATER AGENCY

Date: April 19, 2006

To: The Honorable Board of Directors

Through: Public, Legislative Affairs and Water Resources Committee
(4/12/06)

From: Richard W. Atwater
Chief Executive Officer/General Manager

Submitted by: Martha Davis
Executive Manager of Policy Development

Subject: March Legislative Report from Dolphin Group

RECOMMENDATION

This is an informational item for the Board of Directors to receive and file.

BACKGROUND

Michael Boccodoro provides a monthly report on his activities on behalf of the Chino Basin/Optimum Basin Management Program Coalition.

PRIOR BOARD ACTION

None.

IMPACT ON BUDGET

None

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Chino Basin / OBMP Coalition

Status Report – March 2006

ENERGY/REGULATORY

Southern California Edison General Rate Case

A tentative settlement has been reached in Southern California Edison's General Rate Case Phase II, which allocates revenues and makes rate design changes among the various customer classes.

As illustrated in the following table, the final settlement would see a 0.2% increase in agricultural and pumping rates, whereas the original settlement proposal from Edison requested a 5.0% increase for these customers. The far right column shows the cumulative effect of rising natural gas prices, Phase II rate changes and other regulatory changes for electric rates effective July 2006 versus electric rates in effect last year.

SCE Electricity Rates

Customer Class	Current Average Rate (c/kWh)	Phase II Average Rate (c/kWh)	Percent Change	Original SCE Proposal	July 2006 vs Dec 05
Residential	15.078	15.320	1.6	5.00%	23.3%
Commercial	16.077	15.855	-1.4%	-4.95%	18.6%
GS-1	18.181	17.714	-2.6%	-3.10%	21.9%
TC-1	13.413	12.990	-3.2%	4.88%	21.7%
GS-2	17.075	15.866	-7.1%	-4.04%	8.0%
TOU-GS-2	12.272	14.525	18.4%	25.50%	50.8%
Industrial	12.715	12.620	-0.7%	-0.64%	17.0%
TOU-8 (Sec)	13.965	14.069	0.7%	-1.50%	17.2%
TOU-8 (Pri)	13.225	13.148	-0.6%	-2.45%	17.0%
TOU-8 (Sub)	9.897	9.426	-4.8%	5.00%	16.6%
Water Pumping	10.918	10.941	0.2%	5.00%	22.7%
PA-1	18.135	17.660	-2.6%	5.00%	23.5%
PA-2	13.324	12.827	-3.7%	5.00%	23.3%
TOU-PA	9.534	9.978	4.6%	5.00%	22.2%
TOU-PA-5	9.260	9.123	-1.5%	5.00%	22.5%
Total System	14.727	14.427	0.0%	0.00%	20.3%

Critical Peak Pricing

In February 2005, Southern California Edison, PG&E and customer groups reached a settlement on the implementation of Critical Peak Pricing. The terms of the settlement were as follows:

- CPP would be done on a strictly “opt-in” voluntary basis
- There would be no hedging premium for non-participants
- Participants would receive no participation credit

On March 23rd, the presiding Administrative Law Judge issued a draft decision rejecting the settlement. Instead the ALJ ordered parties to accept an alternative CPP structure for short-term introduction, or require the utilities to implement default CPP rates for all customers with demand over 200 kW in their next General Rate Case filings (2009 for SCE, 2010 for PG&E). Parties were given twenty days to inform the CPUC of their preference, and a conference call has been scheduled for March 30 for parties to consider the options.

The alternative structure for short-term introduction is as follows:

- Default CPP rates for all customers with demand over 200 kW on January 1, 2007
- Bill protection would be offered to all customers to mitigate risk
- Customers may return to normal time-of-use rates on January 1, 2008.
- Bill analysis should be provided to all customers illustrating bill impacts achieved by 5%, 10%, and 20% usage reduction during peak times.
- Net metered customers must participate
- Interruptible and DA customers would be exempt

DGI is continuing to monitor this action and will provide updates as appropriate.

Energy Efficiency Funds for Water Conservation Efforts

On Thursday, March 30th, DGI will participate in the first meeting in San Francisco relating to expanding the utilities’ Energy Efficiency programs and demand response programs for water conservation efforts, recognizing the link between water and energy. Parties hope to provide recommendations to the CPUC by October 2006.

A “spot bill” dealing with this issue has also been introduced in the State Legislature AB 2874 (Benoit)

State Water/Energy Symposium

On March 28th, the California Energy Commission hosted a symposium on the relationship between water and energy, as well as to provide guidance to the CEC and the CPUC on policy needs to promote conservation of both commodities. Central to many of the discussions was the opportunity for energy efficiency savings associated with cold water conservation efforts. The state's main utilities are very supportive of expanding water/energy conservation programs.

CPUC Commissioner Dian Grueneich indicated that she would soon be the assigned commissioner on a rulemaking at the Commission to consider changes to the utilities' energy efficiency portfolio, and stated that this issue will be considered within that proceeding in the coming months. Key to this proceeding will be the development of protocols for measuring, verifying and allocating upstream energy savings from water conservation efforts.

BOND ACTIVITY

Throughout early March, the Capitol was striving to reach agreement on a series of bond measures aimed at improving California's infrastructure. Faced with a deadline to submit the bonds in time to be approved for the June Primary Election, the bond measures eventually failed to pass both houses of the Legislature. Legislative leaders of both houses and the Governor failed to reach consensus on a complete package and the whole effort collapsed.

Ultimately, the Senate did approve \$1 billion for levee repairs from the state's reserve fund, but the Assembly has not yet taken action on that measure.

All parties have indicated that they wish to continue discussions aimed at placing bonds on the November ballot. Meanwhile, the \$5.38 billion "Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006" infrastructure initiative (so-called "CAVES Initiative") has been approved for circulation and has nearly completed the process of collecting signatures to qualify for the November ballot.

LEGISLATIVE ACTION

Sponsored by Chino Basin Coalition & SAWPA

CA AB 1969	AUTHOR:	Yee [D]
	TITLE:	Public Water Agencies: Renewable Energy
	LOCATION:	Senate Energy, Utilities and Communications Committee
	SUMMARY:	Amends the Public Utilities Code to create a standard tariff (or contract) for renewable energy projects at 1 MW or less at public water and wastewater agencies. Under the 10-20 year contracts the tariffs would provide payment at the renewable market price referent (approximately 7-8 cents/kWh) set by the CPUC.

CA AB 2874 **AUTHOR:** Benoit [R]
TITLE: Renewables Portfolio Standard
LOCATION: ASSEMBLY
SUMMARY:
States the intent of the Legislature to establish a program to encourage water and wastewater agencies to develop renewable energy resources to help retail sellers of electricity meet the State's renewables portfolio standard. (This measure is currently a "spot bill", with no specific enabling language. It was introduced on behalf of CBC as a placeholder for potential use related to the utilization of energy public goods charge funds for water and energy conservation programs.)

Other Legislation

CA AB 2315 **AUTHOR:** McCarthy [R]
TITLE: Renewable Energy Technologies
LOCATION: ASSEMBLY
SUMMARY:
State that it is the intent of the Legislature to enact legislation to establish the Climate Neutral Combustion power Generation Program in order to complement the Renewable Energy resources Program administered by the State Energy Resources Conservation and Development Commission and to supplement the Renewables Portfolio Standard Program.

CA SB 1727 **AUTHOR:** Kehoe [D]
TITLE: Public Utilities: Electrical Corporations
LOCATION: Senate Energy, Utilities and Communications
 Committee
SUMMARY:
Creates an exception from the definition of an electrical corporation where electricity is generated on private real property and privately distributed across a highway to an immediately adjacent private real property owned or otherwise controlled by the corporation or person, solely for its own use or the use of its tenants and not for sale or transmission to others make conforming changes to specific exceptions for certain persons or corporations using co generation technology.

CA AB 2062 **AUTHOR:** Richman [R]
TITLE: Electricity: Core, Noncore and Core-Elect Market
COMMITTEE: Assembly Utilities and Commerce Committee
HEARING: 04/03/2006 3:00 pm
SUMMARY:
Relates to reformation of electrical restructuring in order to implement a core, noncore and core-elect market structure. Requires adoption of rules under which noncore customers must elect whether to procure the electricity they consume from an electric service provider, elect to receive commodity service from the electrical corporation under a procurement plan for a minimum period of 3 years or receive default commodity service from the corporation.

CA SB 1368

AUTHOR: Perata [D]
TITLE: Electricity: Emissions of Greenhouse Gases
COMMITTEE: Senate Energy, Utilities and Communications
Committee
HEARING: 04/04/2006 9:30 am

SUMMARY:

Prohibits any load serving entity, including electrical corporations, community choice aggregators, electric service providers, and local publicly owned electric utilities, from entering into, and the PUC from approving, a long-term financial commitment for baseload generation, unless that baseload generation complies with a greenhouse gases emission performance standard established by the State Energy Resources Conservation and Development Commission.

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Inland Empire
UTILITIES AGENCY

Date: April 19, 2006

To: The Honorable Board of Directors

Through: Public, Legislative Affairs and Water Resources Committee
(4/12/06)

From: Richard W Atwater
Chief Executive Officer/General Manager

Submitted by: Martha Davis
Executive Manager of Policy Development

Subject: March Legislative Report from Geyer and Associates

RECOMMENDATION

This is an informational item for the Board of Directors to receive and file.

BACKGROUND

Bill Geyer and Jennifer West provide a monthly report on their state activities on behalf of IEUA.

PRIOR BOARD ACTION

None.

IMPACT ON BUDGET

None.

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MEMORANDUM

TO: Rich Atwater and Martha Davis

FROM: Jennifer West

DATE: March 30, 2006

RE: March Legislative Report

Legislature Still May Pass Bond for November

After two months of policy committee hearings and negotiations, the Governor's infrastructure bond proposal for June failed passage earlier this month. There continues to be wide speculation as why and who was *really* to blame. One very apparent problem with the water component of the bond was that the water community could not agree on a set of bond priorities. Legislators were understandably frustrated. There were various efforts to develop such a proposal, including one by IEUA to develop agreement on a set of bond priorities within Southern California. Unfortunately, this and a number of other similar efforts failed. However, IEUA's insistence that recycled water and water use efficiency be included as separately funded programs in the bond seems to have resonated. The final version of the bond that failed in the Senate contained \$200 million for both these programs.

There is still a significant chance that the Legislature will pass a bond that will contain water and habitat funding for the November ballot. IEUA has been working with ACWA, MWD and others to try to develop a united water proposal that will meet with approval by legislators. One of the seemingly intractable problems is that Democratic leadership and Assembly Republicans have fundamentally different views on surface storage. Without surface storage, Assembly Republicans, even in Southern California were not willing to vote for the bond. It is unclear whether this can be overcome.

If the water/habitat component is to be part of the package, the Legislature will likely need to pass the measure by mid-April. That is approximately the time the "Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006" will be qualified for the November ballot. The measure, developed by the proponents of Proposition 50, contains a variety of grant programs, including \$114 million in the IRWM program for the Santa Ana Region and \$45 million for the development of a Santa Ana Parkway.

After this initiative is placed on the ballot, it is likely that the Legislature will decide to focus their bond efforts on education, transportation and housing. However, coming to any agreement, even on these less controversial topics will become more difficult as we move into the election season and the budget negotiations begin to heat up.

Inland Empire Utilities Agency

Positions List

March 30, 2006

	Summary	Status	Position
AB 371 (Goldberg) Recycled Water	Sponsored by WaterReuse. Makes a number of changes recommended by the Water Recycling Task Force. Some water agencies had concerns with the bill and it was stripped of numerous controversial provisions. WaterReuse continues to try to work out the remaining problems with the bill.	Senate Floor	Support
AB 1421 (Laird) Contamination	Sponsor said that they do not intend to pursue the bill in 2006. Would have given a RWQCB the authority to issue a cease and desist order for any degradation of water quality – even if it involved recycled water.	Senate E Q	Oppose unless amended
AB 1969 (Yee) Energy	IEUA sponsored. Helps offset demand while increasing environmentally friendly renewable energy production to meet the state's goals.		Support
AB 2396 (Calderon) Metropolitan Water Districts	States the intent of the Legislature to enact legislation to change the composition of MWD's board of directors and to provide for the direct election of members of the board of directors by voters residing in the service area of a metropolitan water district. Sponsored by AFSCME.		Oppose
AB 2397 (Calderon)	This bill, with a certain exception, would prohibit MWD from entering into a contract for permanent or temporary services, skilled or unskilled, if those services, in the judgment of the district, are of a kind that persons selected through its civil service system could perform adequately and competently. Sponsored by AFSCME.		Oppose
SB 153 (Chesbro) Resources Bond	2006 Park and Water bond measure. Contains \$200 million for the Integrated Regional Water Management Program and other coastal and water quality funding. This will be one of the bond measures under consideration for inclusion in the Governor's resources bond or in Senator Perata's infrastructure bond.	Bond Conference Committee	Support
SB 1317 (Torlakson) Property Tax	Would alter the manner in which certain property tax revenue is allocated within a county. Sponsored by Southern California	Senate Local Government	Recommend Oppose

	Edison. Sponsors of the bill say that it would encourage the development of electric substation and generation facilities by allocating all of the property tax revenue from the property to the county in which the facilities are built. After school entities and county entities receive the amount of property tax they have received in prior years, the remaining tax would be allocated to the city or county (depending upon the location) in which the facility is built. Special districts are left out of the equation.		
SB 1640 (Kuehl) Water	Almost exactly the same as the final version of SB 820 (Kuehl), which IEUA supported last year, but which was vetoed by the Governor because of its groundwater requirement. SB 1640 only has a placeholder for the groundwater reporting provisions. Kuehl has begun working with the agricultural interests to try to resolve their problems with the bill.	Senate Natural Resources 4/25	Recommend Support

Watch List

Bill #	Summary	Status
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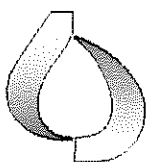
Water Conservation

AB 1881 (Laird) Landscape Conservation	Spot bill on water conservation in landscaping. This will be the vehicle to implement the recommendations of the water conservation landscape advisory taskforce. IEUA may want to explore the opportunities to encourage the use of compost in this bill as a water saving technique.	
AB 2496 (Laird) Low flush water closets	Requires all new buildings constructed in the state to use urinals and water closets that meet recent performance standards established by the American Society of Mechanical Engineers.	Assembly Housing 4/26
AB 2515 (Ruskin) Water Conservation	Prohibits a water supplier from receiving state bond funds unless it has adopted BMPs in accordance with the MOU regarding urban water conservation or the MOU regarding agriculture water use efficiency. Requires the Energy Commission to establish water efficiency standards for residential and commercial water-using appliances and other products and report to the legislature.	Water Parks and Wildlife 4/25
SB 1608 (Simitian) Water	Requires that any transit district that receives state funds that will be used for landscaping shall design the landscaping using California native plants and other water-saving plants.	Senate Transportation 4/18

Landscape	in consultation with the local native plant society or the Resources Agency	
SB 1817 (Torlakson) Water Conservation	Spot bill on water conservation.	
Groundwater		
SB 1425 (Kuehl) Groundwater	Makes minor changes to the recordation action that applies to five counties in Southern California.	Senate Natural Resources
SB 1795 (Machado) Groundwater Recharge	Declares that the recharging of a groundwater basin for the purpose of storage, and related diversions for the purpose, is a beneficial use of water, if the recharge is consistent with management objectives set forth in a local agency's groundwater management plan.	Senate Natural Resources 4/25
Floods and Delta		
AB 2208 (Jones) Delta Levee Fees	Declares legislative intent to impose fees on water users who benefit from the delta levee and conveyance system, and to fund system improvements, in accordance with the "beneficiary pays" principle.	
SB 1251 (Alquist) Floods	Requires DWR, not later than 2007, to convene a task force to prepare a comprehensive statewide flood and storm water management plan with prescribed components and a financing strategy for the implementation of the plan.	Senate Natural Resources
SB 1446 (Torlakson) Delta Fees	Legislative intent to authorize the Reclamation Board, in consultation with DWR, to establish a "beneficiary pays system" and to collect user fees and assessments for levee maintenance and other flood control purposes in the Delta	New introduction
SB 1574 (Kuehl) Delta Exports	Current law requires DWR and DFG to determine the principal options for the Delta. This bill would require one of those principal options to be designed to reduce dependence on the delta for water supply through greater investments in local water supplies, water use efficiency, water recycling, demand management programs, and other actions outside the delta. The bill would substantially revise those objectives relating to the delta and Sacramento and San Joaquin river systems. The bill would require the Department of Water Resources and the Department of Fish and Game, on or before July 1, 2007, to provide a draft joint report to the Independent Science Board of the California Bay-Delta Authority, or its successor. The bill would require that board to provide the Department of Water Resources with an independent peer review of the draft report. The bill would require the Department of Water Resources to revise the draft joint report to reflect the comments of the peer review in the joint report.	Senate Natural Resources 4/25

Miscellaneous		
AB 2160 (Lieu) Green Buildings	Intent language to require state agencies to develop voluntary model statewide residential green building guidelines and to provide information to local jurisdictions on how to evaluate and use different green building strategies.	
SB 1242 (Lowenthal) UWMP	Intended to reduce duplicative requirements in the preparation of an UWMP. Allows an urban water supplier to satisfy the requirements of the UWMP law by adopting, by resolution of its governing board, an area wide UWMP. Sponsored by Long Beach Water Department	Senate Natural Resources

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Date: April 19, 2006

To: The Honorable Board of Directors

Through: Public, Legislative Affairs and Water Resources Committee
(4/12/06)

From: Richard W. Atwater
Chief Executive Officer/General Manager

Submitted by: Sondra Elrod
Public Information Officer

Subject: Public Outreach and Communications

RECOMMENDATION

This is an informational item for the Board of Directors to receive and file.

BACKGROUND

Outreach/Tours

None.

Calendar of Upcoming Events

- April 12, 2006, State of the County Address, 11am Ontario Convention Center
- April 13, 2006, MWD's legislative briefing breakfast with Senator Dutton and Assembly Member Emmerson at the DoubleTree Hotel, Ontario, 7:30am
- April 19, 2006, Reception for MWD General Manager Jeff Kightlinger, 3pm South Coast Winery Resort and Spa, Temecula
- April 20, 2006, DHS Public Hearing Recycled Water Recharge project, 9:30am to 11:30am, Chino Basin Watermaster
- May 13, 2006, Cucamonga Valley Water Awareness Day, 11am to 2pm
- May 17, 2006, League of California Cities Legislative Dinner, Chops Restaurant, Sacramento, beginning at 7:30pm
- May 30, 2006, Service Awards lunch following board meeting

Outreach/Educational Inland Valley Daily Bulletin Newspaper Campaign

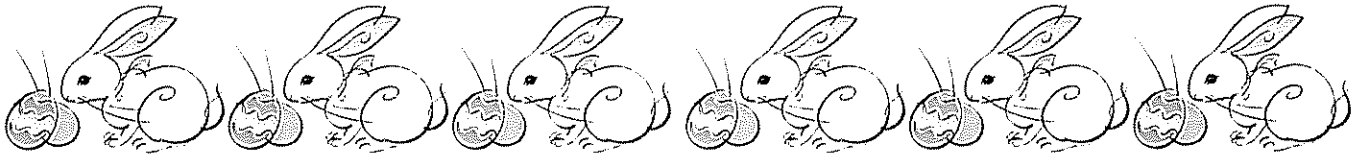
- February 28, 2006, eight page piece to showcase IEUA, CBWM, CBWCD, 3 Valleys MWD and Western MWD
- March 31, 2006, two page Civic Leadership ad
- April 2006, two page Earth Day ad
- May 2006, two page Water Awareness Month ad
- May 2006, four page Living Here Magazine ad

PRIOR BOARD ACTION

None.

IMPACT ON BUDGET

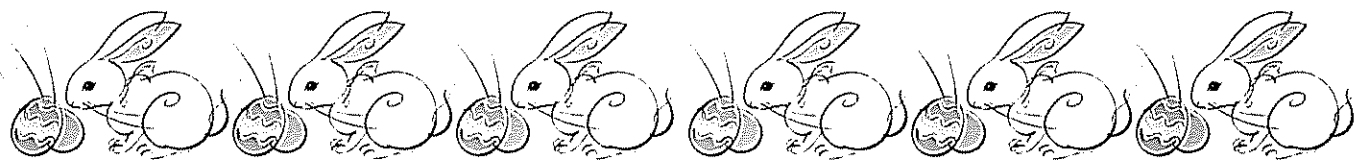
None.



CHINO BASIN WATERMASTER

V. INFORMATION

1. Newspaper Articles





The Sacramento Bee

This story is taken from News at sacbee.com.

Valley levees remain in peril

A storm expected to drench the San Joaquin River system shifts south instead, but the danger won't end when the rain stops.

By Deb Kollars -- Bee Staff Writer

Published 2:15 am PDT Monday, April 10, 2006

Worries about levee breaks along the San Joaquin River system will linger for weeks, if not months, as a filled-to-the-brim flood control system faces not only the likelihood of more rain but also runoff from a whopper of a snowpack in the mountains.

"The water will be on those levees for a long time to come," said Gary Bardini, chief of hydrology and flood operations for the state Department of Water Resources.

State flood control officials and crews continued their vigil on the San Joaquin River system Sunday. Crews monitored weak spots on the levees, piling up sandbags, stretching out tarps, and putting in emergency seepage berms to keep the swelling waterway from flooding.

Sunday brought a bit of good news in the ongoing San Joaquin Valley flood battle.

The National Weather Service announced that the massive storm system that had been expected to bring heavy rain to the San Joaquin system had shifted course and now is expected to hit much farther south when it moves inland late in the week.

"Mother Nature has backed off," Elizabeth Morse, meteorologist in charge at the National Weather Service in Sacramento, said Sunday. "We are looking at slightly better conditions in the forecast."

The large, moisture-laden storm, which is drifting over the Pacific, is expected to hit coastal areas of Central and Southern California by late Tuesday at the earliest. It likely will move inland by Friday and bring significant rainfall to Southern California, Morse said.

Some moisture from the system will reach the Sacramento region Tuesday or Wednesday, with heavy rain likely. Sacramento's flood control system is expected to be able to handle the extra rainfall.

"This will be mostly a Southern California event," Morse said. "It is still a very wet storm. It is still a very dangerous storm."

The storm, originally predicted to sweep across the San Joaquin Valley this week, had state

flood control officials bracing for possible levee breaks.

Filled from recent storms and flows from numerous tributaries, the San Joaquin River's water levels were approaching those reached in 1997, when multiple levee breaks occurred in the region.

The San Joaquin system has smaller reservoirs and channels than the Sacramento River system to the north and cannot handle as much water. A flood surge from recent rains slowly has been making its way toward the Delta.

In a major pre-emptive effort, crews have been working round-the-clock since late last week, using some of the money Gov. Arnold Schwarzenegger recently allocated - under an emergency declaration - for repairs on 24 critically eroded Central Valley levees.

On Sunday, the Department of Water Resources announced that flood control operators had managed, through a careful dance of reservoir releases, to bring down slightly the high water flows on the San Joaquin River.

At Vernalis, a farming community and key measuring point south of Tracy and Manteca, the surge of flood-threatening waters is expected to hit the "danger" stage of 29.5 feet Tuesday morning, then either level off or possibly rise another few inches and peak on Thursday. Danger stage is generally about a foot above flood stage and is greater than the maximum design capacity of the channel.

"We have bought a foot or more at Vernalis," Bardini said. "We hopefully can pass this flood wave without significant property damage."

Late Friday, the flood surge caused levees to breach at Newman on the west side of Stanislaus County, flooding agricultural lands.

Residents of two low-lying trailer parks had to evacuate, one in Mossdale and one near the Twin Rivers Road area west of Manteca.

No heavily populated areas have flooded.

The San Joaquin River, which runs south to north, continued to flow at extremely high levels Sunday, and water officials cautioned that levee breaks still were possible.

The heavy strain on the levees will create a risk for many weeks ahead, as an unusually high mountain snowpack - now more than 150 percent of normal - starts to melt, said Arthur Hinojosa, chief of Water Resources' hydrology branch.

"Spring flooding is a real possibility," agreed Sue Sims, public affairs director of the department.

State and local emergency officials continued their recommendation that people living in flood-prone areas of the San Joaquin Valley be prepared with extra food and water, safety supplies and an evacuation plan in case of a sudden levee break.

On Sunday, crews worked to shore up vulnerable spots on the system in sparsely populated locations, including Vernalis, the small community of Firebaugh in Fresno County, the Twin Rivers area near Manteca, and Mossdale, Sims said.

To the north, the flood control system in the Sacramento area was operating smoothly Sunday.

The forecast for the Sacramento region calls for cloudy skies and a chance of rain today "possibly enough to spoil the mud on your windshield," said National Weather Service forecaster Don Noxon.

There is also a chance of scattered thunderstorms today. If they materialize, they could bring one-tenth to 1 inch of rain in localized spots, Noxon said.

By Tuesday, heavier rain - possibly 1 to 2 inches - is likely for the Sacramento area from the big storm system currently drifting over the ocean.

Clouds and a chance of light rain are in the forecast for the remainder of the week, Noxon said. "I wish I could give you a sunshine story, but at this point it doesn't look like it," he said.

About the writer:

- The Associated Press contributed to this report. The Bee's Deb Kollars can be reached at (916) 321-1090 or dkollars@sacbee.com.

[Go to: Sacbee / Back to story](#)

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Article Launched: 4/08/2006 12:00 AM

MWD workers weigh strike over 'take-backs'

By Shirley Hsu Staff Writer
Pasadena Star-News

Angry over what they say are "take-backs" in worker rights and healthcare benefits, employees of the Metropolitan Water District, which supplies much of the Pasadena area, are moving toward their first-ever strike against the agency.

MWD imports water from the Colorado River and Northern California, and provides 60 percent of Pasadena's annual supply. The rest comes from local groundwater supplies.

Local water suppliers say plans are in place to ensure water service would not be interrupted in case of a strike at the 78-year-old agency.

"The MWD has informed us they will try to keep their system running even if there is a strike," said Shan Kwan, water division director of Pasadena Water and Power.

On a normal day, the agency has a three-day supply of water on hand, but because of the cool weather, there may be four days' worth, Kwan said. In addition, the agency doesn't use its wells to full capacity because it only has rights to pump a certain amount of water each year. But in case of emergency, it can pump more to meet short-term demands and balance the remaining amount later, he said.

MWD's employee union, Local 1902 of the American Federation of State, County and Municipal Employees, AFL-CIO, has been bargaining with the district for almost 10 months over a new contract. Union members voted Monday to reject a mediator's proposal.

Union leaders said a 50-percent increase in employee-paid premiums for the preferred provider organization, PersCare, would add \$100 a month to the \$200 employees pay, based on current rates. About 150 employees are enrolled in that plan, they said.

Union officials said the changes are motivated by anti-union sentiment in the district's board, not by fiscal need.

"If MWD was facing financial downturns, we would all be doing whatever we could to make it work. The real story is that this is an agency that is very stable financially - one of the most stable in the state," said Michelle Haight, executive vice president of the union.

About 1,600 employees are union members, she said. The district has 1,840 active employees, according to Gilbert Ivey, MWD Chief Administrative Officer.

Ivey said the district would continue to pay 90 percent of the PPO for the next two years, and would still be paying 85 percent in the third year, he said. The agreement would mean no change for 87 percent of members who choose either healthcare option, he said.

"We're disappointed to hear the union failed to ratify the compromise suggested by the mediator," he said. "We believe it is a very solid package."

Union representatives said MWD has spent more money fighting the issue than it would cost to keep the current benefits. They also disagree with contract changes that would make it easier for employees to be relocated and for the agency to hire employees externally rather than promote from within, Haight said.

"They've made it clear they are trying to set the stage for more and more takeaways," she said.

Union representatives will meet with MWD officials once more next week.

Those threatening to strike include both blue- and white-collar workers: welders, machinists, chemists, microbiologists and

"everyone that's not in management or a supervisor," said Robert Reeves, president of Local 1902, who said the 15-year-old union has never been this close to a strike.

Still, Reeves said a strike was a last resort.

Ivey said MWD in February settled with management employees with a similar package.

Kwan said there is no need to stock up on bottled water, although people should keep emergency supplies of water on hand anyway in case of disasters.

"We should not have to worry," he said.

Pasadena's water division serves about 165,000 customers in Pasadena and surrounding unincorporated areas, he added.

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YUMA AND REGION

NASA scientists say wet weather likely next winter

ASSOCIATED PRESS

ALBUQUERQUE — One of the country's leading climate scientists is using a powerful warming in the Pacific Ocean as an indicator the Southwest will have a wet winter.

NASA researcher James Hansen said there's a good chance this year for a "super El Nino," the Albuquerque Journal

reported Saturday.

In a draft paper circulated to colleagues, Hansen argued that ocean conditions now, including a significant warming off the coast of Peru, are similar to those that preceded the extreme El Nino in the winter of 1997-1998.

In the U.S., California felt the brunt of El Nino's wrath, suffering massive flooding. New

Mexico received above-average precipitation.

Hansen, head of NASA's Goddard Institute for Space Studies in New York City, blames global warming for increasing the chance of an extreme El Nino.

Scientists questioned Hansen's global warming link, noting researchers' predictions on the subject vary widely.

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DailyBreeze.com **PRINTTHIS**

Today is Monday, March 20, 2006

Originally published Sunday, March 19, 2006

Updated Sunday, March 19, 2006

Late-season storms leave California's water tank full

By The Associated Press

SAN FRANCISCO -- A series of late winter storms that blanketed the Sierra Nevada with snow has left California flush with water for the foreseeable future, according to meteorologists and hydrologists.

The Sierra Nevada snowpack, which serves as a holding tank for California, contains more water than last year, which also saw above-average snowfall.

Donner Summit, for example, has seen 390 inches of snow, compared with an average of 313 inches for this time of year, according to data compiled by Randall Osterhauber, a research scientist for the University of California, Berkeley.

Donner has 120 inches of snow on the ground, compared with 71 at this time last year, according to Osterhauber's statistics.

"If it stopped right now, we would have enough water in storage for two years of drought," said Mike Pechner, staff meteorologist for KCBS Radio. "They have already had an entire season's worth of accumulated rain and snow."

The situation has surprised many hydrologists and meteorologists who didn't expect such a flush year after the New Year got off to a balmy start. More rain than snow fell during the Christmas and New Year's storms, followed by a warm, dry February.

Almost all the major snowfall has come since March 1.

"As long as I've been keeping records, we haven't had a similar cold snap this late in the season," Pechner said. "The snowpack in the Sierra more than doubled in 17 days."

Most reservoirs are so full that officials are releasing water to make room for the snowmelt.

"We've got good reservoir storage and good snowpack," said Frank Gehrke, chief of snow surveys for the California Department of Water Resources.

Find this article at:<http://www.dailybreeze.com/news/regstate/articles/2489301.html>

Chino
Champion

Van Dam takes over milk panel

By Melodie Henderson

The director of the Chino based Milk Producers Council left his recently acquired position on Wednesday to pursue other projects. He has been replaced on an interim basis by Bill Van Dam, who began his dairy career in Southern California and now commutes from Meridian, Idaho.

Nathan DeBoom, 29, stepped into the manager's position when Bob Feenstra resigned in October 2005, after a 38-year career with the council. Mr. DeBoom plans to take on some short-term programs in environmental permitting, working out of his home in Brea.

"I've been with the council for 7½ years, and I'm fairly mobile right now. I want to take advantage of some opportunities that have been offered to me, and try some new things," Mr. DeBoom said.

Mr. Van Dam, 62, began a six-month interim stint as manager of the council on Monday. During the week he stays at his brother's dairy in Chino, which was recently sold.

"My brother has relocated to New Mexico, but the house is still here until October, so I'm with the family," Mr. Van Dam said.

"The dairy industry is moving north," he said. "Many dairies are also heading to Texas and New Mexico, too. They are looking for space that they don't have in Chino."

Mr. Van Dam said, in Chino, the dairy industries are approaching the end of an era.

"It's time for the organization to do some soul searching," he said.

The uncertainty of the council may be the reason for Mr. Van Dam's short contract.

"At this point, the council wasn't willing to commit to a longer contract, and it fit my schedule nicely," he said.

Ontario councilman dies



Bois

Gerald DuBois, 57, stood firm in his vision for community, government

By Mason Stockstill
Staff Writer

ONTARIO — Councilman Gerald DuBois, who served on the Ontario City Council for nine years, died

Tuesday morning from complications of a genetic disorder. He was 57.

The veteran councilman was described by many as a champion of Ontario's historic homes and other buildings and as a man who stood up

for his own vision of how the city should be run.

"Jerry was extremely loved by those in the community," Mayor Paul Leon said. "He loved Ontario with all his soul. He was entrenched in our city."

DuBois, who also owned DuBois Advertising Agency in Ontario, had worked on City Council campaigns and served on the Planning Com-

INSIDE

Reflections: Columnist David Allen shares thoughts and memories of Gerald DuBois Page A3

Rancho Cucamonga: Former councilman Richard M. Dahl died Sunday Page A3

mission before he was appointed to the City Council in 1997. He was

elected the following year and re-elected in 2002.

During his time on the council, he was active in efforts to increase business opportunities for Ontario, including traveling to China on the city's trade missions. He also served on the board of directors of Ontario Heritage, a neighborhood group

See DUBOIS / page A6

DuBois

continued from page A1

focused on historic preservation.

Councilwoman Sheila Mautz, who was involved in the Ontario Kiwanis and Planning Commission with DuBois, said she was relieved the Tuesday night council meeting had been canceled, because it would have been painful for her to sit next to DuBois' empty chair.

The councilman appeared to have been in ill health in recent weeks, Mautz said, but he hadn't said anything to other council members about his condition.

"I can tell you I will miss him sorely," she said. "He loved the city passionately."

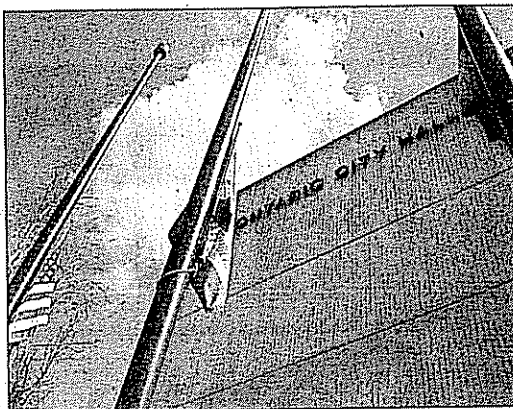
DuBois suffered from hemochromatosis, an inherited disease in which the body absorbs too much iron, causing organ damage, said his brother, Joe DuBois. He had been diagnosed with the illness in January and was hospitalized before dying Tuesday.

Born in North Carolina, DuBois moved to Ontario with his mother when he was 7 years old and lived with his aunt and uncle. He attended schools in Ontario and went to Chaffey College and San Diego State University.

As a business owner, he was involved with the Downtown Revitalization Association and the Downtown Business and Professional Association, and was integral to an effort to build a bandstand in the median of Euclid Avenue.

The structure was dedicated in 1997, after DuBois had been appointed to the council to fill the term of his mentor, Ray Wiltsey, who also died while in office.

"Jerry had always been known as an in-house historian," said



Therese Tran/Staff photographer

Flags outside Ontario City Hall fly at half-staff Tuesday in honor of Councilman Gerald DuBois, who died Tuesday morning from complications of a genetic disorder. He was 67.

was on the council for DuBois' entire nine years. "He knew the history of every single building in the city. And not just with buildings, but with people in the city as well."

He also played a strong role in building Ontario's image, said Councilman Jason Anderson. As an intelligent business owner, DuBois brought a level of professionalism to the council while avoiding drawing attention to himself, he said.

"He was really involved in a lot more than people might know about," Anderson said, citing examples such as supporting the renovation of the Gardiner Spring Auditorium at Chaffey High School. "He wasn't a grandstanding type of guy. He did things and let his actions speak for themselves, which was refreshing."

Many recalled DuBois' spirited efforts to support Ontario's history, both before he became a member of the City Council and after.

San Bernardino County Su-

on the council with DuBois, lauded his colleague's drive to "safeguard Ontario's history and the historical perspective of the downtown area."

Gino Filippi of the Joseph Filippi Winery in Rancho Cucamonga also said DuBois would be remembered for his work to preserve historic resources in the region.

Leon recalled DuBois as a force to be reckoned with: "He was the first guy to get in your face, and the first guy to run to your rescue."

DuBois' term would have ended in November, so the City Council will decide whether to appoint someone to fill the remainder of his term or leave it open until the election.

In addition to his brother, DuBois is survived by his wife, Sue, and their sons, Jared and Steven. Funeral arrangements were pending.

Mason Stockstill can be reached by e-mail at mason.stockstill@dailybulletin.com, or by phone

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Water anyone? Agreement on perchlorate cleanup near

By Andrew Silva, Staff Writer
Inland Valley Daily Bulletin

Stop it from spreading; clean up what's there; make sure there's plenty of water for everybody.

That's the gist of a \$106 million plan to clean a rocket fuel ingredient from the groundwater in Rialto, Colton and Fontana.

"We got all the engineers together and decided if we're going to clean this up, how would we do it," said Peter Wulfman, manager of the county's solid waste division.

With five different agencies involved, getting all of them to agree on a common strategy for addressing the problem is a major step.

Paying for it is the tricky part, but the deal should make it easier to lobby for money, officials said.

"The word from legislators was, come to us with a collective effort and you have a better chance of receiving support," said Eric Fraser, Colton's director of water and wastewater.

Colton has had three wells contaminated by perchlorate, but all three have wellhead treatment facilities to remove the contaminant before it's delivered to customers.

North Rialto is the source of a plume of underground contamination that has spread about six miles to the southeast, affecting 22 wells, and could lead to water shortages unless the mess is cleaned up.

Perchlorate can limit thyroid function and is thought to be potentially dangerous to developing fetuses and small children. The salt is used in rocket fuel, fireworks, flares and certain munitions, all of which have been stored or manufactured by numerous businesses in north Rialto.

Nine of those 22 wells already have wellhead treatment facilities to remove the perchlorate and the others remain out of service. No residents are being served water with perchlorate in it.

The county waste division is involved because when it bought land to expand the Mid-Valley Landfill in Rialto, the land was right on top of one of the heaviest concentrations of perchlorate.

The county Board of Supervisors and the Rialto and Colton city councils are scheduled to vote today on an agreement tied to the plan.

The agreement, which also must be signed by the West Valley Water District and the Fontana Water Co., says the five agencies agree on the cleanup plan and will seek federal money to help pay for it.

The federal government has kicked in several million dollars toward the cleanup, and Goodrich Corp., which once operated in the area, paid \$4 million to the affected agencies a few years ago and plans to spend up to \$10 million more.

The county is almost ready to start up a new treatment plant near Rialto Municipal Airport that will treat water with the heaviest concentrations of perchlorate, Wulfman said.

Eventually, a "picket fence" of wells will intercept the contamination before it can spread farther, he said.

At the same time, the remaining production wells need to get treatment facilities on them to ensure a steady water supply.

The estimated cost for 10 wellhead treatment systems plus five years of maintenance and operations is \$45.2 million.

Five years of operation and maintenance, plus the cost of installation, on the existing treatment facilities is tagged at \$28.8 million.

The cost for the wells designed to intercept the contamination is estimated at \$32.2 million.

Sen. Dianne Feinstein has introduced a bill that would provide \$50 million for cleaning up perchlorate.

Rialto and Colton have also sued the Department of Defense and numerous businesses that operated in the areas in an attempt to recover the cleanup costs.