Notice and Agenda of a Meeting of the Beaumont Basin Watermaster

Wednesday, October 3, 2012 at 10:00 a.m.

Meeting Location:

Beaumont Cherry Valley Water District
560 Magnolia Avenue
Beaumont, California 92223
(951) 845-9581

Watermaster Members:

City of Banning
City of Beaumont
Beaumont Cherry Valley Water District
South Mesa Water Company
Yucaipa Valley Water District

I. Call to Order

II. Roll Call

City of Banning: Duane Burk (Alternate: Arturo Vela)

City of Beaumont: Dave Dillon (Alternate: Kyle Warsinski)

Beaumont Cherry Valley Water District: Eric Fraser (Alternate: Tony Lara)

South Mesa Water Company: George Jorritsma (Alternate: Dave Armstrong)

Yucaipa Valley Water District: Joseph Zoba (Alternate: Jack Nelson)

III. Pledge of Allegiance

IV. Public Comments At this time, members of the public may address the Beaumont Basin Watermaster on matters within its jurisdiction; however, no action or discussion may take place on any item not on the agenda. To provide comments on specific agenda items, please complete a Request to Speak form and provide that form to the Secretary prior to the commencement of the meeting.

V. Consent Calendar

A. Approval of Meeting Minutes for June 6, 2012

B. Approval of Meeting Minutes for July 18, 2012

C. Approval of Meeting Minutes for August 1, 2012

VI. Reports

A. Report from Engineering Consultant - Anibal Blandon, ALDA Engineering

B. Report from Legal Counsel - Keith McCullough, Alvarado Smith

VII. Discussion Items

A. Review of the Draft Annual Report for Calendar Year 2011 [Memorandum No. 12-13, Page 11 of 132]

Recommendation: None

B. Review of the Draft Beaumont Basin Watermaster Engineer's Report No. 3 (2008-2011) [Memorandum No. 12-14, Page 88 of 132]

Recommendation: None

VIII. Topics for Future Meetings

A. Financial Audit for Fiscal Year Ending June 30, 2012

B. Adoption of the 2011 Annual Report of the Beaumont Basin Watermaster

C. Adoption of the Beaumont Basin Watermaster Engineering Report No. 3

D. Other Topics

IX. Comments from the Members of the Watermaster Committee

X. Adjourn to Beaumont Basin Watermaster Workshop and Study Session

CONSENT CALENDAR

Record of the Minutes of the
Beaumont Basin Watermaster
June 6, 2012

Meeting Location:

Beaumont-Cherry Valley Water District
560 Magnolia Avenue
Beaumont, CA 92223

I. Call to Order

Chairman Duane Burk called the meeting to order at 10:11 a.m.

II. Roll Call

City of Banning	Duane Burk	Present
City of Beaumont	Dave Dillon	Absent
Beaumont-Cherry Valley Water District	Eric Fraser	Present
South Mesa Water Company	George Jorritsma	Absent
Yucaipa Valley Water District	Joe Zoba	Present

Kyle Warsinski was present as the alternate representing the City of Beaumont in the absence of Member Dave Dillon.

Also present was Keith McCullough, representing Alvarado Smith, legal counsel for the Watermaster.

Members of the public who registered their attendance were: John Halliwill, Nancy Gall, Flan Flanders, Hal Flanders, Hannibal Blandon, Bob Bowcock, and Patsy Reeley.

III. Pledge of Allegiance

Member Eric Fraser led the pledge of allegiance.

IV. Public Comments

Judy Bingham introduced Nancy Gall, City of Beaumont Council Member, to the Watermaster Committee.

V. Consent Calendar

A. Approval of Meeting Minutes for May 2, 2012

B. Approval of Meeting Minutes for May 16, 2012

Member Joe Zoba motioned to approve the minutes with a change of the spelling of the name "Halliwill". Member Eric Fraser seconded the motion. The motion passed 4-0.

VI. Discussion Items

A. Draft Budget for Fiscal Year 2013

Recommendation: That the Watermaster Committee approve the draft budget for Fiscal Year 2013.

Member Joe Zoba discussed the need to bill the Watermaster member agencies in order to cover the costs for an engineering report and legal expenses that will exceed carryover of funds from the prior fiscal year.

Member Kyle Warsinski motioned to approve the budget. Member Duane Burk seconded the motion. The motion passed 4-0.

B. Review of the 7th and 8th Year Annual Report

Recommendation: That the Watermaster Committee schedules a meeting for Wednesday, July 18, 2012 to review and discuss the 7th and 8th Year Annual Report.

Member Joe Zoba discussed the initial review of the reports that were done in November 2011. Samantha Adams with Wildermuth Environmental, Inc. would be available to come back and discuss the reports on July 18, 2012 at 10am with the Watermaster Committee. Members Duane Burk and Eric Fraser indicated that they would be available on that date, and Member Kyle Warsinksi stated that while he would not be available, however Member Dave Dillon would be available in his absence. Copies of a packet of tables from Wildermuth Environmental were distributed and Member Joe Zoba asked the members of the Committee to review the production data. Chairman Duane Burk noted the tables as received and filed.

VII. Watermaster Committee Member Comments

Member Joe Zoba discussed that on September 21, 2011, the Watermaster Committee tabled an item in regards to the San Gorgonio Pass Water Agency and the basin accounting agreement. It was proposed to reschedule this in the August meeting as a prudent follow up.

In addition, Member Joe Zoba stated representatives from Alda, Inc. were here with some data questions as they prepare the 9th Annual Report, if the members were available after the meeting.

Chairman Duane Burk asked the representatives from Alda to introduce themselves. Hannibal Blandon, the principal engineer, and Tom Harder, the principal geologist, were introduced.

VIII. Adjournment

Chairman Duane Burk adjourned the meeting at 10:51 a.m.

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Duane Burk, Chairman
Beaumont Basin Watermaster

Record of the Minutes of the
Beaumont Basin Watermaster
July 18, 2012

Meeting Location:

Beaumont-Cherry Valley Water District
560 Magnolia Avenue
Beaumont, CA 92223

I. Call to Order

Chairman Duane Burk called the meeting to order at 10:00 a.m.

II. Roll Call

City of Banning	Duane Burk	Present
City of Beaumont	Dave Dillon	Present
Beaumont-Cherry Valley Water District	Eric Fraser	Present
South Mesa Water Company	George Jorritsma	Present
Yucaipa Valley Water District	Joe Zoba	Present

Also present was a representative from Alvarado Smith, legal counsel for the Watermaster.

Members of the public who registered their attendance were: Samantha Adams, Kenneth Ross, Alan Pace, John Guldseth, Patsy Reeley, John Covington, Tom Harder, and Fran Flanders.

III. Pledge of Allegiance

Member George Jorritsma led the pledge of allegiance.

IV. Public Comments

Judy Bingham has asked when the Watermaster plans on appointing a General Manager to report to the courts.

Niki Magee has asked where it states that the right to use the water is also the right to use the land vacated by the water.

V. Discussion Items

A. Review of the 7th and 8th Year Annual Report

Recommendation: That the Watermaster Committee provides final comments on the 7th and 8th Year Annual Report.

Samantha Adams from Wildermuth Environmental, Inc. addressed the Watermaster Committee to give a recap of the presentation made at the November 2011 meeting. There were only a few minor edits to grammar or for clarification that have been made. The changes were presented in a redline format for the Watermaster Committee. Ms. Adams went over the report with the Watermaster Committee. Samantha Adams also went over the

recommendations for changes of rules and regulations that were found to be in conflict, also included at the end of the report. Members of the Watermaster Committee discussed with Ms. Adams several items in regards to the report.

Member Eric Fraser motioned to approve exclusion of the items on incidental recharge and the San Gorgonio Pass Agency recharge from the Annual Report, with those items being added to the recommendations on the report to be looked at further in the future. Member Joe Zoba seconded the motion. The motion passed 5-0.

Member Joe Zoba indicated that the revised report will be brought back to the Watermaster Committee in August 2012 for formal approval and adoption of the report.

VI. Watermaster Committee Member Comments

Member Joe Zoba has requested legal counsel prepare a response for both of the public comments.

VII. Adjournment

Chairman Duane Burk adjourned the meeting at 11:08 a.m.

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Duane Burk, Chairman
Beaumont Basin Watermaster

Record of the Minutes of the
Beaumont Basin Watermaster
August 1, 2012

Meeting Location:

Beaumont-Cherry Valley Water District
560 Magnolia Avenue
Beaumont, CA 92223

I. Call to Order

Chairman Duane Burk called the meeting to order at 10:00 a.m.

II. Roll Call

City of Banning	Duane Burk	Present
City of Beaumont	Dave Dillon	Absent
Beaumont-Cherry Valley Water District	Eric Fraser	Present
South Mesa Water Company	George Jorritsma	Present
Yucaipa Valley Water District	Joe Zoba	Present

Kyle Warsinski was present as the alternate representing the City of Beaumont in the absence of Member Dave Dillon.

Also present was Thierry Montoya, a representative from Alvarado Smith, legal counsel for the Watermaster.

Members of the public who registered their attendance were: Samantha Adams, Judy Bingham, John Halliwill, Luwana Ryan, Patsy Reeley, and Fran Flanders.

III. Pledge of Allegiance

Member George Jorritsma led the pledge of allegiance.

IV. Public Comments

Fran Flanders has asked that the Watermaster to continue to follow the past rules of the Brown Act even though it is no longer required.

Judy Bingham has asked if legal counsel has responded to the previous request about naming a general manager for the Watermaster for the courts. Mr. Montoya stated that there is no requirement for the Watermaster to appoint a general manager.

Pasty Reeley expressed her concern on the preparation of timely minutes.

Luwana Ryan discussed unused overlyer rights and stated that the appropriator who is impacted should be the one getting the overlyer rights and it should not be divided among all the overlyers.

V. Reports

A. Report from Engineering Consultant – Hannibal Blandon, Alda Inc.

Mr. Blandon reported that they are working on two reports, the 2011 Annual Report and the Bi-Annual Report. The draft of the 2011 Annual Report should be available before the October 2012 meeting. Mr. Blandon has proposed a workshop immediately after, or as part of the regular meeting, held in October, in order to discuss specific issues relating to the management of the basin.

B. Report from Legal Counsel – Thierry Montoya, Alvarado Smith

Thierry Montoya reported on AB1464 and the Brown Act, including the 72 hour notice requirement.

VI. Discussion Items

A. Adoption of the 7th and 8th Year Annual Report

Recommendation: That the Watermaster Committee receive and file the combined 7th and 8th Annual Report document.

Samantha Adams noted that pursuant to the direction of the Watermaster Committee changes were made to the Annual Report, noting changes that occurred in Section 3, related to the recharge section of the Report.

Public Comment: John Halliwill commented that as a resident of Beaumont he would like to see the Watermaster Committee take action on the recommendations that were made in the Report. Mr. Halliwill also commented on using figures for recharge when there is question as to what is actually being recharged into the basin.

Motion was made by Member George Jorritsma to receive and file the Report. Motion was seconded by Member Duane Burk. Motion passed 5-0.

B. Review of the Draft Basin Accounting Agreement Between the Beaumont Basin Watermaster and the San Gorgonio Pass Water Agency

Recommendation: None

Member Joe Zoba provided the members of the Watermaster Committee with a brief history of the Agreement. The members of the Committee discussed various aspects of the Agreement. Legal counsel and the Watermaster Engineer also commented on the Agreement.

Member Joe Zoba motioned to reject the Agreement. Member Eric Fraser seconded the motion, noting that the Agency is welcome to resubmit an application. Motion passed 5-0.

VII. Topics for Future Meetings

A. Financial Audit for Fiscal Year Ending June 30, 2012

B. Draft 2011 Annual Report of the Beaumont Basin Watermaster

C. Draft Beaumont Basin Watermaster Engineering Report No. 3

D. Other Topics

Chairman Duane Burk requested that the recommendations in the Annual Report be added to this list.

VIII. Watermaster Committee Member Comments

None

IX. Adjournment

Chairman Duane Burk adjourned the meeting at 11:01 a.m.

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Duane Burk, Chairman
Beaumont Basin Watermaster

DISCUSSION ITEMS

BEAUMONT BASIN WATERMASTER
MEMORANDUM NO. 12-13

Date: **October 3, 2012**

From: **Joseph Zoba, Treasurer**

Subject: **Review of the Draft Annual Report for Calendar Year 2011**

Recommendation: **None.**

The purpose of this agenda item is to discuss the attached Draft Annual Report for Calendar Year 2011.

ALDA Inc.
5928 Vineyard Avenue
Alta Loma, CA 91701
Tel: (909) 587-9916
Fax: (909) 498-0423

September 26, 2012

Duane Burk, Chairman
Beaumont Basin Watermaster
560 Magnolia Avenue
Beaumont, CA 92223

Subject: **Beaumont Basin Watermaster**
Draft Annual Report for Calendar Year 2011

Dear Mr. Burk:

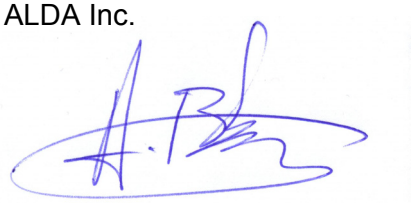
ALDA Inc., in association with Thomas Harder & Co. is pleased to submit to you, as Chairman of the Beaumont Basin Watermaster, the Beaumont Basin Watermaster Annual Report for Calendar Year 2011. This draft report summarizes all production, spreading, and storage activities that took place during calendar year 2011. Further, the report documents changes in water levels and storage conditions as well as an estimate of the Basin Operating Safe Yield for 2011.

We will make a formal presentation to the Board of Directors during the upcoming Board meeting on October 3rd, 2012. We welcome your review and comments on this report and look forward to answering any questions you may have.

Should you have any questions on this matter, please contact us at 909-587-9916 during normal business hours.

Very truly yours

ALDA Inc.



F. Anibal Blandon, P.E.
Principal

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Abbreviations

ac-ft	*acre-feet*
ac-ft/yr	*acre-feet per year*
Banning	*City of Banning*
Basin	*Beaumont Basin*
BCVWD	*Beaumont-Cherry Valley Water District*
Beaumont	*City of Beaumont*
CY	*calendar year*
du	*dwelling unit*
FY	*fiscal year*
IRWMP	*Integrated Regional Water Management Program*
Pass Agency	*San Gorgonio Pass Water Agency*
SMWC	*South Mesa Water Company*
STWMA	*San Timoteo Watershed Management Authority*
STWMP	*San Timoteo Watershed Management Program*
SWP	*State Water Project*
Watermaster	*Beaumont Basin Watermaster*
WEI	*Wildermuth Environmental, Inc.*
YVWD	*Yucaipa Valley Water District*

Section 1
Background

The Ninth Annual Report of the Beaumont Basin Watermaster (Watermaster) summarizes the activities and operations of Watermaster for Calendar Year (CY) 2011.

1.1 History of the Beaumont Basin Stipulated Judgment

In January 2001, the City of Beaumont (Beaumont), the Beaumont-Cherry Valley Water District (BCVWD), the South Mesa Water Company (SMWC), and the Yucaipa Valley Water District (YVWD) formed the San Timoteo Watershed Management Authority (STWMA). One of the initial tasks of STWMA was to develop a watershed-wide program to develop and implement a comprehensive management program for the San Timoteo watershed.

Phase I of the management program, documented in the San Timoteo Watershed Management Program, Phase I Report (WEI, 2002), included the following goals:

- Enhancing water supplies
- Protecting and enhancing water quality
- Optimizing the management of STWMA area groundwater basins
- Protecting riparian habitat in San Timoteo Creek and protecting/enhancing habitat in the STWMA area
- Equitably distributing the benefits and costs of developing the Integrated Regional Watershed Management Program for the San Timoteo watershed

One of the elements identified in the management plan to achieve the listed goals consisted in the establishment of a groundwater management entity for the Beaumont Basin. As a result of this initiative, two groups representing overlying users and water agencies with interest in this basin began negotiations in May 2002.

Over the next 18 months of negotiations, a Stipulated Agreement was developed and submitted to the Court. Honorable Judge Gary Tranbarger of the Superior Court of the State of California for the County of Riverside signed the Agreement, titled “San Timoteo Watershed Management Authority, vs. City of Banning, et al.” (Case No. RIC 389197), on February 4, 2004 (the Judgment).

Pursuant to the Judgment, the Court appointed a five-member Watermaster committee, consisting of representatives from each of the Appropriator parties: the City of Banning, Beaumont, BCVWD, SMWC, and YVWD. The effective date of the Judgment for accounting purposes was retroactively established to July 1, 2003.

The Court gave the responsibility of managing the Basin to the Watermaster by approving the Stipulated Agreement but retained continuing jurisdiction should there be any future need to resolve difficult questions among the Parties.

1.2 Essential Elements of the Judgment

Elements of the 2004 Judgment are as follows:

- All producers shall be allowed to pump sufficient water from the Basin to meet their respective requirements.
- The Safe Yield of the Basin was established at 8,650 ac-ft/yr to be distributed among the Overlying Producers. The Safe Yield of the Basin is to be re-evaluated every 10 years, at a minimum.
- The Overlying Parties can extract a combined total of 8,650 ac-ft/yr. with individual rights set for each Overlying Producer. If an Overlying Party pumps more than five times its share of the operating safe yield in any five consecutive years, the overlying producer shall provide Watermaster with sufficient funds to replace the overproduction.
- A controlled overdraft of the basin is allowed to create enough additional storage capacity to prevent the waste of water. This controlled overdraft, also known as Temporary Surplus, allows Appropriators to extract up to 160,000 ac-ft of water from the basin over the 10-year period immediately following the Judgment inception. The Temporary Surplus will cease after the initial 10 years of operations.
- During the first ten years after adoption of the Judgment, the Appropriators have the right to extract, as a whole, a maximum of 16,000 ac-ft/yr not including storage credits from spreading supplemental water or transfers from Overlying Parties. The Temporary Surplus has been divided among the Appropriators as follows:

  - ✓ Beaumont Cherry Valley WD 42.51% or 6,802 ac-ft/yr
  - ✓ City of Banning 31.43% or 5,029 ac-ft/yr
  - ✓ South Mesa Water Company 12.48% or 1.997 ac-ft/yr
  - ✓ Yucaipa Valley Water District 13.58% or 2,173 ac-ft/yr

- After the first 10 years of operation, Appropriators can extract only the amount each has in storage or credited to them. An Appropriator shall provide Watermaster with sufficient funds to replace any amount of overproduction that may have occurred over a five-year consecutive period.
- If any Overlying Party produces less than five times the share of the safe yield assigned to it during any five year period, the unused portion shall be apportioned to the Appropriators based on the percentages earlier described herein on a five-year rotating basis starting with Fiscal Year 2008/09.
- Any Appropriator may transfer all or any portion of its Production Right or Temporary Surplus to another Appropriator.
- The Watermaster has the authority to enter into Groundwater Storage Agreements with producers for the storage of supplemental water, wellhead protection and recharge, well abandonment, well construction, monitoring, replenishment, mitigation of overdraft, and collection of assessments.

- Supplemental replenishment water can be in the form of recycled water, imported State Project Water, or other imported water. Replenishment can be accomplished by spreading and percolation, injection, or in-lieu use of surface water or imported water.
- A minimum of 200,000 ac-ft of groundwater storage capacity shall be reserved for conjunctive use. Any person, party to the Judgment can make reasonable beneficial use of the groundwater storage capacity for storage of supplemental water provided that it is in accordance with a storage agreement with Watermaster.
- Minimal producers, those producing less than 10 ac-ft/yr from the basin and not listed in the Judgment, are exempt from the provisions of the Judgment.

1.3 Watermaster Responsibilities

Under the Judgment, the Watermaster is granted discretionary powers to develop and implement a groundwater management plan for the Beaumont Basin, including water quality and quantity considerations and being reflective of the provisions of the Judgment.

In carrying out its duties, Watermaster is responsible for providing the legal and practical means of ensuring that the waters of the Basin are put to maximum beneficial use. Specific responsibilities are summarized below.

1.- Administer the Beaumont Basin Judgment. Watermaster operates under the Judgment and the Rules and Regulations, which were originally adopted June 8, 2004, and subsequently amended in 2006 and 2008. The Judgment and the Rules and Regulations establish the procedures by which Watermaster accounts for the water resources of the Basin. Watermaster has the power to collect administrative assessments from all Appropriators and replenishment assessments from those parties (Appropriative and Overlying) pumping in excess of their pumping right to fund its operations. Each year, Watermaster publishes an Annual Report, which documents production and recharge activities in the Beaumont Basin.

2.- Approve Producer Activities. All producers must notify and obtain approval, as necessary, from Watermaster for activities, such as recharging water, transferring or exchanging water, storing local water, and storing or recovering supplemental water.

3.- Maintain and Improve Water Supply. On an annual basis, Watermaster determines the amount of groundwater that each producer is entitled to pump from the Basin without incurring a replenishment obligation. Further, Watermaster is responsible for facilitating and coordinating the acquisition, recharge, and storage of imported water or other local supplemental water to replenish and/or conjunctively manage the Basin to increase local supplies.

4.- Monitor and Understand the Basin. Watermaster is responsible for collecting information from producers, and other cooperating agencies, in order to enhance its knowledge of how the Basin works and manage it more effectively. Information collected by the Watermaster includes:

- Water production, water level, and water quality information from the Appropriator Parties.
- Water production and water level information from the Overlying Parties.

- Water level and water quality data from the City of Beaumont, collected by the city as part of their Maximum Benefit and Monitoring Program.
- Ground surface elevations from periodic surveys conducted to determine whether ground subsidence may be occurring as a result of over pumping from the basin.

5.- Maintain and Improve Water Quality. Watermaster coordinates and participates in local efforts to preserve and/or enhance the quality of groundwater in the Basin. It assists and encourages regulatory agencies to enforce water quality regulations that may have an effect on the Basin groundwater sources and its surrounding resources. One of these programs is the Maximum Benefit Monitoring Program of the Beaumont Management Zone.

6.- Develop and Administer a Well Policy. Watermaster is responsible for developing a policy on the proper construction and abandonment of wells in the Basin. Through the adoption of Resolution 2004-04, the Watermaster adopted minimum standards for the construction, repair, abandonment and destruction of groundwater extraction wells in the Beaumont Basin. As part of this resolution, Watermaster adopted Riverside County Ordinance No. 682.3 and expanded it to require the installation of a sounding tube in order to facilitate the measurement of water levels on all future wells.

7.- Develop Contracts for Beneficial Programs and Services. Watermaster is responsible for developing and entering into contracts for programs and services that are beneficial to the Basin on behalf of the Parties to the Judgment. This includes programs for conjunctively utilizing the Basin for the storage of supplemental water with other agencies and programs to implement and expand the direct or indirect use of recycled water.

8.- Provide Cooperative Leadership. Watermaster may act jointly or cooperate with other local, state, and/or federal agencies to develop and implement regional scale programs for the management of the Basin and its surrounding resources.

1.3 Watermaster Address

For the purposes of conducting Watermaster business and maintaining records, Watermaster's official address remains as follows:

Office of the Watermaster Secretary
C/O Beaumont-Cherry Valley Water District
560 Magnolia Avenue
Beaumont, CA 92223

1.4 Watermaster Website

Watermaster website address is www.beaumontbasinwatermaster.org. This website is maintained by the YVWD and it is used by the Watermaster to communicate its activities to the Parties and the public. The website contains copies of the Judgment, the Rules and Regulations, Annual Reports, and Engineer's Reports. In addition, it contains meeting minutes, meeting agendas, and other documents of interest.

1.5 Mission Statement

Watermaster adopted the following mission statement in October 2004:

> *"Watermaster's mission is to manage the yield of and storage within the Beaumont Basin to provide maximum benefit to the people dependent on it."*

Section 2
Watermaster Activities

2.1 Makeup of the Board

During the September 21, 2011 regular meeting of the Beaumont Basin Watermaster, elections were held; the following officers to the Watermaster Committee were appointed:

- Mr. Duane Burk – Chairman
- Mr. George Jorritsma – Vice Chairman
- Mr. Eric Fraser – Secretary
- Mr. Joe Zoba – Treasurer

The Committee Representatives serving each Appropriator Party during CY 2011 were as follows:

- City of Banning - Duane Burk, Director of Public Works
- City of Beaumont - Dave Dillon, Economic Development Director
- Beaumont-Cherry Valley Water District – Eric Fraser, General Manager
- South Mesa Water Company - George Jorritsma, General Manager
- Yucaipa Valley Water District - Joseph B. Zoba, General Manager

Legal counsel during CY 2011 was provided by Mr. Joseph S. Aklufi while Engineering Services were provided by Wildermuth Environmental Inc. (WEI).

2.2 Watermaster Accomplishments and Activities During 2011

2.2.1 Watermaster Meetings

A total of four meetings were held during CY 2011 on the following dates:

- April 7, 2011
- September 21, 2011
- October 26, 2011
- December 7, 2011

Agendas and approved minutes from each of the above meetings can be viewed at and/or downloaded from Watermaster's website or by making a request to the Watermaster Secretary. Pursuant to Resolution 2009-001, all of Watermaster's public records are open for inspection during office hours, provided that a written request to inspect said records has been submitted. It should be noted that the minutes for the October 26, 2011 meeting are not currently posted at the Watermaster's website.

2.2.2 Board Resolutions

Resolution No. 2011-01 was adopted during the September 21, 2011 regular board meeting. Through this resolution, the Watermaster amended Rule 2.12 of the Beaumont Basin Watermaster Rules and Regulations to change the annual reporting of Watermaster activities from a fiscal year basis to a calendar year basis starting in CY 2011.

The adopted resolution reads as follows:

> "**2.12 Annual Report.** A draft annual report shall be prepared by May and final report shall be prepared by July of each year. At a minimum, the annual report will describe Watermaster's operations, assessments and expenditures, and a review of Watermaster activities. The annual report shall also include a summary report describing and updating any basin condition information collected or analyzed and a current active party list."

2.2.3 Items Discussed in 2011

The following items were discussed during the four meetings held during CY 2011 along with their resulting outcome.

Items Discussed During April 7, 2011 Regular Board Meeting

- Presentation of Resolution No. 2011-01, A Resolution of the Beaumont Basin Watermaster Adopting an Amendment to Rule 2.12 "Annual Report" of the Rules and Regulations of the Watermaster. Mr. Zoba recommended to table this item as legal counsel needs to clarify some of the dates of completion of the reports mentioned in the resolution.

- Budget Proposal to Prepare the Beaumont Basin Watermaster Annual Report covering FY 2009-10 and FY 2010-11. The proposed budget was adopted.

Items Discussed During September 21, 2011 Regular Board Meeting

- Reorganization of the Beaumont Basin Watermaster Committee Appointment of Officers. The newly appointed members of the Committee are listed earlier in this section.

- Presentation of Draft Budget for Fiscal Year 2011-12. A proposed budget for FY 2012 was proposed in the amount of $40,430.25; this amount was approximately 10 percent lower than the approved budget for FY 2011 of $44,659.00. A more detailed breakdown of the proposed budget for FY 2012 is presented under Section 2.3. The proposed budget was adopted.

- Review of Draft Basin Accounting Agreement between Beaumont Basin Watermaster and San Gorgonio Pass Water Agency. Action on this item was postponed.

- Adoption of Resolution No. 2011-01 to amend Rule 2.12 "Annual Report" of the Rules and Regulations of the Watermaster. This resolution was previously discussed in this section. Resolution was adopted as presented.

- Preparation of a Request for Proposals for Annual Reporting Services. Mr. Zoba offered to take the lead in preparing a draft RFP to be presented at the next board meeting.

- Overview of legal Services for the Beaumont Basin Watermaster. A recommendation to hire independent legal services was provided. Mr. Fraser was directed to prepare RFP for legal services.

Items Discussed During October 26, 2011 Regular Board Meeting

- Minutes for this meeting are not currently posted to the website (May be included in final report).

Items Discussed During December 7, 2011 Regular Board Meeting

- Presentation of the Draft Combined 7th and 8th Annual Report of the Beaumont Basin Watermaster. After much discussion and due to several items requiring additional explanations and research, the Committee recommended scheduling a workshop to further discuss this item.

2.3 Storage Applications and Agreements

The first applications to use the Basin for storage purposes were approved in FY 2005-06 when Watermaster approved applications by Banning, BCVWD, SMWC, and YVWD to store up to 135,000 ac-ft of water in the Basin. Beaumont's application to store water was approved by Watermaster in FY 2007-08 bringing the total storage allocation to 157,000 ac-ft. In FY 2009-10, Watermaster approved applications by Banning, BCVWD, Beaumont, and YVWD to increase the total storage allowed to 260,000 ac-ft. It is our understanding that Watermaster has not yet amended the Storage Agreements to reflect the current storage limits. No additional applications to increase the storage limits were received in CY 2011; however, the Pass Agency notified Watermaster of their interest to submit an application for consideration by the Watermaster. As of December 31, 2011, the total storage allowed stands at 260,000 ac-ft; storage limits by agency are as follows:

- City of Banning 80,000 ac-ft
- City of Beaumont 30,000 ac-ft
- Beaumont Cherry Valley WD 80,000 ac-ft
- South Mesa Water Company 20,000 ac-ft
- Yucaipa Valley Water District 50,000 ac-ft

2.4 Rules and Regulations

The original Rules and Regulations of the Watermaster were adopted on June 8, 2004. The Judgment provides for their periodic update as deemed necessary by the Watermaster. No changes to the Rules and Regulations were made during CY 2011.

2.5 Active Party List

Part VII, Paragraph 1 of the Judgment, indicates that Watermaster shall maintain an updated list of parties to whom notices are to be sent for the purpose of service. Said list should include names, addresses for the Parties or their successors. A copy of the list has been included with this annual report as Appendix B.

2.6 Financial Management

The Watermaster must develop and administer a budget for all administrative, operational, and capital costs it incurs. The following discussion summarizes the budget established for the FY 2012 operations.

2.6.1 Budget

The FY 2012 Budget was approved for $40,430.25. This budget is $4,228.75 lower than the approved budget for FY 2011 of $44,659.00. The majority of the proposed budget was funded from the Watermaster's operating fund, which had a balance of $40,430.25 at the beginning of the fiscal year. The proposed budget did not require any contributions from member agencies; however, unforeseen events will have to be funded through individual contributions by member agencies.

The following table presents a comparison between the approved budget for FY 2011 and the proposed budget for FY 2012.

Operating Expense	*FY 2011 Approved Budget*	*FY 2012 Proposed Budget*
Bank Fees and Interest	$ 350.00	$ 500.00
Miscellaneous and Meetings	$ 5,000.00	$ 1,000.00
Acquisition/computation & Annual Report	$17,500.00	$35,000.00
Annual Audit	$ 2,200.00	$ 2,200.00
General Engineering	$ 5,000.00	$ 0.00
Groundwater Level Monitoring Program	$10,000.00	$ 0.00
Legal Expenses	$ 3,500.00	$ 1,000.00
Reserve Funding	$ 1,109.00	$ 730.25
Total Operating Expense	**$44,659.00**	**$40,430.25**

2.6.2 Financial Audit

The Beaumont Basin Watermaster has a financial audit performed on annually on a fiscal year basis. The audit assists in properly accounting for the revenues and expenses of the Watermaster and tracking the financial resources of the agency. The detailed audit report for FY 2010 was prepared by Siebert Botkin Hickey & Associates and is included under Appendix A.

Their independent auditors' report of the Watermaster's financial statements is that they fairly present the organization's financial position in all material aspects and its operations were conducted in conformity with generally accepted accounting principles. No recommendations were provided as part of this audit; the results of the audit disclosed no instances of non-compliance or other matters that are required to be reported under Government Auditing Standards.

Section 3
Administration of the Judgment

The Beaumont Basin Watermaster is responsible for the accounting of groundwater production, recharge of supplemental water, groundwater transfers and storage activities. Since the inception of the Judgment accounting has been conducted on a fiscal year basis starting on July 1st, 2003.

Through the adoption of Resolution No. 2011-01, on September 21, 2011, Watermaster changed the accounting from a fiscal year basis to a calendar year basis starting in CY 2011. This annual report is the first to document the accounting of groundwater production, recharge, and transfers on a calendar year basis. To properly account for all activities in 2011, it was necessary to incorporate transfers of Unused Overlying Water from CY 2006 to make a proper determination of production rights and storage conditions at the end of 2011. Accounting for the transfers required a monthly analysis of Overlyer Production during the second half of FY 2005-06, and the first half of FY 2006-07.

In order to account for Unused Overlyer pumping transfers and revisions to production quantities in previous annual reports, it was necessary to convert all historical accounting from fiscal year to calendar year starting in July 2003.

3.1 Production

The Beaumont Basin Watermaster is responsible for the tracking and accounting of groundwater production by all producers named in the Judgment regardless of the amount of groundwater produced. Other producers, not listed in the Judgment, and pumping less than 10 ac-ft /yr., also known as minimal producers, are exempt from the provisions of the Judgment. Figure 3-1 illustrates the location of all production wells that belong to the Appropriators and Overlying parties of the Judgment.

3.1.1 Appropriative Party Production

There are five Appropriative Producers; namely, Banning, Beaumont, the BCVWD, the SMWC, and the YVWD. The amount that each appropriator produces in any given year, without incurring a replenishment obligation, varies from year to year and results from a combination of:

- Their share of the Operating Yield, based on the Temporary Surplus of 16,000 ac-ft/yr for all Appropriators,
- Transfers from other Appropriators,
- Transfers of unused production from Overlying Producers,
- Water withdrawn from their storage account, and
- New yield created by the Appropriator.

Monthly and annual production by well for each of the five Appropriative Parties since 2003 are presented in a series of tables starting with Table 3-1A for CY 2003 and continuing on an annual

basis through Table 3-1I for CY 2011. These tables also include the overall Temporary Surplus Allocation and the amount of unused production that is eligible for storage for each Appropriator. It should be noted that all production by Appropriators is currently being metered; no information is available as to the accuracy of existing meters.

During CY 2011, Appropriators pumped a combined amount of 11,727 ac-ft of groundwater from the Beaumont Basin. This level of production is less than one percent higher than the 11,641 ac-ft pumped in CY 2010 (See Table 3-1H), but more than 10 percent lower than the 13,115 pumped during CY 2009 (See Table 3-1G). With the exception of BCVWD, all Appropriators pumped less than their share of the Operating Yield in CY 2011 (See Table 3-1I) thus resulting in the addition of 6,902 ac-ft of water to their storage accounts.

3.1.2 Overlying Party Production

Overlying Parties are defined in the Judgment as persons, or their assignees, that are part of the Judgment and who are owners of land which overlies the Beaumont Basin and have exercised Overlying Water Rights to pump therefrom. Overlying Parties include successors in interest and assignees. Overlying Producers were assigned a share of the Basin's Safe Yield, estimated at 8,650 ac-ft/yr, and it may not pump more than five times this amount in any five-year consecutive period without incurring a replenishment obligation.

Currently, there are a total of 17 Overlying Producers in the Basin pumping from 22 groundwater wells. The majority of the larger wells are metered; however, there is no information as to the accuracy of these meters. The remaining wells do not have meters at this time and their production is estimated using the water duty method. This method was initially proposed by Wildermuth Environmental Inc. (WEI), during the preparation of the 2005-06 Annual Report. After being accepted by the Watermaster, an updated water duty method was developed by WEI and it has been used since. The estimate of unmetered production for the CY 2011 Annual Report uses the updated method developed by WEI as detailed in Appendix C.

During CY 2011, nine of the 17 Overlying Parties to the Judgment metered their wells and reported their monthly or annual groundwater production to the Watermaster. However, it should be noted that information was mostly available for the first half of the calendar year. Monthly production for the second half of the year was based on the average production over the last two years. This information will be updated once actual production information becomes available.

Similar to the production reported for the Appropriators, a series of tables was developed to report monthly and annual production from the Overlying Producers on a calendar year basis. Starting with Table 3-2A for CY 2003 and continuing on an annual basis through Table 2-I for CY 2011, these tables show the actual or estimated production by well and by user. In addition, their share of the safe yield and the amount of unused water for each Overlying Producer is shown.

During CY 2011, Overlying Producers produced an estimated 2,278 ac-ft; this level of production is less than one percent lower than the 2,292 ac-ft pumped in CY 2010 (See Table 3-2H), but close to 20 percent lower than the 2,824 ac-ft pumped in CY 2009 (See Table 3-2G). The

amount of groundwater produced by Overlying Producers in CY 2011 (See Table 3-2l) represents approximately 26.3 percent of the safe yield of the basin initially estimated at 8,650 ac-ft/yr. All Overlying Producers pumped less than their respective share of the safe yield.

3.1.3 2003-2011 Annual Production Summary

The annual production on a calendar year basis for all Appropriators and Overlying users is shown in Table 3-3. It should be noted that production in 2003 only includes the second half of the year. Since July 2003, a total of 137,930 ac-ft have been pumped from the Beaumont Basin; approximately 81 percent of this total has been pumped by Appropriators. The percentage of groundwater production from Appropriators has steadily increased since the Judgment inception from a low of 74 percent registered in CY 2003 to a high of 84 percent in CY 2008, 2010, and 2011.

Groundwater production peaked in CY 2007 when close to 20,000 ac-ft were pumped from the basin; since, it has declined steadily to approximately 14,000 ac-ft. and averaged 16,054 ac-ft/yr for the 2004-11 period. Production from 2003 was excluded as it only represents the second half of that year. In CY 2011, a combined total of 14,005 ac-ft were pumped from the basin; of this total, 11,727 ac-ft, or approximately 84 percent, were pumped by Appropriators. Production for each of the Appropriators and for the Overlying Producers combined is depicted in Figure 3-2.

3.2 Groundwater Recharge

The Watermaster is responsible for maintaining an annual account of all water artificially recharged in the Beaumont Basin and any losses of water supplies or Safe Yield resulting from such recharge water. Sources of groundwater recharge include imported water from the State Water Project (SWP), recycled water, and new yield sources developed in the basin since the Judgment inception in July 2003. The Watermaster has maintained the accounting of groundwater recharge; however, losses from the basin, if any, have not been estimated. Table 3-4 presents a summary of the annual groundwater recharge in the Beaumont Basin since 2003 on a calendar year basis.

3.2.1 State Water Project Water Recharge

BCVWD's Noble Creek spreading facility, located in the vicinity of Beaumont Avenue and Cherry Valley Boulevard, is the only facility in the Beaumont Basin where deliveries of imported water can be used to recharge the groundwater basin. The location of this spreading facility is depicted in Figure 3-1. Deliveries of imported water are conducted through the San Gorgonio Pass Water Agency, which is the State Water Contractor for this area.

The BCVWD began taking deliveries of imported water for groundwater recharge in the Fall of 2006 when close to 3,500 ac-ft were spread pursuant to the storage and recharge agreement on file with Watermaster. Deliveries of imported water for BCVWD have steadily increased over the years; in CY 2011 over 8,300 ac-ft of imported water were delivered. An overall total of 28,893 ac-ft of imported water have been spread by the BCVWD since 2006. It should be noted that delivery records provided by the SGPWA are different than those

obtained from the Watermaster's. This item will be further discussed at the Watermaster workshop on October 3, 2012 and its results incorporated into the final annual report.

The City of Banning began purchasing imported water for recharge at the BCVWD's Noble Creek facility in July 2008 and has since recharged 4,400 ac-ft. According to Watermaster's records, Banning took delivery of 1,200 ac-ft/yr of imported water from 2008 through 2010; deliveries in CY 2011 decreased to 800 ac-ft. It should be noted that Banning has a storage agreement on file with Watermaster; however, as of June 30, 2011, it had not submitted an application for recharge with Watermaster.

In addition to imported water deliveries to BCVWD's Noble Creek facility, SGPWA has also delivered significant quantities of imported water at the Little San Gorgonio Creek Spreading Ponds. These spreading ponds are located outside the adjudicated boundary of the Beaumont Basin and to the north of the Banning Fault, as shown in Figure 3-1. Spreading of imported water at these spreading ponds may be a source of subsurface recharge to the Beaumont Basin; however, Watermaster has not adopted this finding. Consequently, imported water recharge at this location would not be considered as water in the Basin until a hydrogeologic investigation is conducted to evaluate whether a portion or all of this water recharges the Beaumont Basin. Deliveries of imported water by the SGPWA to the Little San Gorgonio Creek Spreading Ponds began in August 2003; the agency has since recharged a total of 7,755 ac-ft. Deliveries of imported water in CY 2011 were 1,842 ac-ft. At the present time, the SGPWA is in the process of negotiating a spreading and storage agreement with Watermaster.

3.2.2 Recycled Water Recharge

Prior to March 2010, Beaumont's recycled water from Wastewater Treatment Plant No. 1 was discharged at Discharge Point No. 1 (DP-001) in Cooper's Creek where it infiltrates into the San Timoteo Management Zone and outside the Beaumont Basin. In March 2010, Beaumont began deliveries of recycled water to Discharge Point No. 7 (DP-007), located along an unnamed tributary of Marshall Creek, as shown in Figure 3-1. It is believed that a portion of the recycled water discharged at this location reaches and recharges the Beaumont Basin; in which case, this would be considered a new source of supplemental water for which Beaumont should receive credit pursuant to the storage agreement with the Watermaster and Section 5.4 of the Rules and Regulations. Technical documentation of the amount of recycled water that reaches and recharges the Beaumont Basin would need to be prepared by Beaumont and considered and accepted by Watermaster.

3.2.3 New Yield Stormwater Recharge

Before accounting for any new yield resulting from the recharge of local surface water, not initially considered as part of the Basin Safe Yield, Watermaster needs to develop a methodology to quantify and credit the New Yield to the party that creates the new recharge. According to Part VI Paragraph 5.V of the Judgment, Watermaster shall make an independent scientific assessment of the estimated new yield created by each proposed project. It is our understanding that Beaumont has been recharging local waters at various locations in the Basin and would like to receive credit for the New Yield developed. For

Beaumont to receive credit however, Watermaster will need to develop the methodology to compute and credit the New Yield dating back to February 20, 2003.

3.3 Water Transfers and Adjustments of Rights

Section 7 of the Watermaster Rules and Regulations provides for the adjustment of rights by and between Appropriators and Overlying Parties. This section indicates that Watermaster shall maintain an accounting for all transfers and include said transfers in the Annual Report or other relevant document. There are three types of transfers that Watermaster accounts for: a) transfer of water rights and/or water in storage between Appropriator Producers, b) transfer of water rights from Overlying Producers to an Appropriator Producer in exchange for water service, and c) the allocation of unused Overlying Water to the Appropriator Parties based on their share of the Operating Safe Yield.

3.3.1 Transfers between Appropriators

According to Section 7.3 of the Rules and Regulations, an Appropriator may transfer all or a portion of its production right or water in storage that exceeds its supply needs to another Appropriator. In January 2008, the SMWC and the BCVWD entered into a transfer agreement that allows BCVWD the option to purchase all water that SMWC determines to be available for transfer from their storage account. As part of the agreement, each year the SMWC estimates the amount of water available for transfer and offers it to the BCVWD for purchase prior to offering it to other Appropriators. Since the beginning of the agreement, SMWC has transferred 9,500 ac-ft of water to BCVWD with 3,500 ac-ft transferred in CY 2011. SMWC has also transferred 1,500 ac-ft of water to Banning. It is our understanding that the purchase agreement and recorded transfers are on file with Watermaster.

3.3.2 Transfers of Overlying Rights for Service by an Appropriator

The Judgment, under Part III, Paragraph 3, provides that to the extent an Overlying Party request water service from an Appropriator Party, and uses its adjudicated water rights to obtain said service; an equivalent volume of groundwater shall be reserved for the Appropriator Party providing the service to the Overlying Party. Further, Section 7 of the Rules and Regulations indicates that both the Overlying and Appropriator will file a Notice of Adjustments of Rights with Watermaster within 30 days after entering a service agreement.

The BCVWD has given verbal notification to Watermaster that is providing potable service to certain Overlying Parties; however, formal notification by either party for the adjustment of water rights has not been received by Watermaster. A formal notification will be required to complete the transfer of water rights from one or more Overlying Producers to BCVWD; the notification should be retroactive to the time service began. Upon formal completion of the transfer, Watermaster will be required to recalculate the allocation of unused Overlying Water to the Appropriators, as documented in Section 7 of the Rules and Regulations.

3.3.3 Allocation of Unused Overlying Water

Section 7.8 of the Rules and Regulations, adopted on September 9, 2009, by Watermaster, outlines the process for distributing the volume of adjudicated water not produced by the

Overlying Parties to the Appropriators. Under this section, if an Overlying Party produces less than five times of their share of the safe yield in any five-year period, the quantity of groundwater not produced by that Overlying Party shall be made available for allocation to the Appropriators. Transferring of unused production from Overlying Users does not diminish their legal right to produce in subsequent years.

Since the inception of the Judgment, transfers of unused production by Overlying Users has been made on a fiscal year basis coinciding with the preparation of the annual report. Preparing the annual report on a calendar year basis requires that the transfers of unused production also be made on the same basis. Based on the five-year format used in the Rules and Regulations, transfers to the Appropriator Parties for CY 2011 were based on unused production from Overlying Users in CY 2006. This required the recalculation of Overlying Users production, back to July 2003, on a calendar year basis. Under this format, unused production from the second half of 2003, with adjusted water rights for half of the year, was transferred to Appropriators for CY 2008. Table 3-5 summarizes the volume of unused Overlying water for CY 2003 through CY 2011. The volume of unused production has grown steadily since CY 2004, when just over 5,000 ac-ft were made available for transfer to CY 2011 when 6,372 ac-ft were reported available for transfer. This represents an increase of 26 percent over this eight year period.

Table 3-6 presents the allocation of unused Overlying water to each Appropriator based on their shares of the safe yield and the schedule set forth under Section 7.8 of the Rules and Regulations. It should be noted that this schedule has been modified to reflect a calendar year basis for allocation; under the modified schedule, unused production in CY 2011 will be allocated to Appropriators during CY 2016.

3.4 Storage Accounting

Section 6.7 of the Watermaster Rules and Regulations indicates that Watermaster shall calculate additions, extractions, and losses of all water stored and any losses of water supplies or Safe Yield resulting from such water stored. This section further indicates that Watermaster shall keep and maintain for public record an annual accounting thereof. While additions (spreading) and extractions (pumping) are easily quantifiable, Watermaster is yet to develop a methodology for estimating losses from storage in the Basin.

3.4.1 Annual Storage Consolidation

Previous annual reports have shown the consolidation of water storage in the basin for each of the Appropriators on a fiscal year basis, the new format for the annual report requires that all production, spreading, and transfers be converted to a calendar year basis. Table 3-7 represents the consolidation of each Appropriator's storage account from CY 2003 through CY 2011. This table includes annual production by Appropriator, their share of Temporary Surplus, supplemental water recharge in its various forms, transfers between Appropriators, and transfers of unused water from Overlying Users. At the end of 2010, an overall total of 56,592 ac-ft of water were stored in the Basin; this amount increased by 18,617 ac-ft in CY 2011 to a cumulative total of 75,209 ac-ft. As of the end of CY 2011, the City of Banning has the largest share (46.1 percent of total storage) of water in storage with 34,659 ac-ft.

3.4.2 Reconciliation between Fiscal Year and Calendar Year Reporting

Table 3-8 presents a comparison of the storage balance presented in Table 3-7 of the Combined 7th and 8th Annual Report of the Beaumont Basin Watermaster, which was calculated on a fiscal year basis with the changes in storage calculated in this report using a calendar year basis. The difference for all Appropriators combined was estimated as 109.2 ac-ft higher using the calendar year basis or approximately 0.15 percent of the calculated total of 75,209 ac-ft. On an individual basis, storage accounts for Banning, SMWC, and YVWD increased slightly while BCVWD decreased slightly. The reasons for the discrepancies are related to the following:

- Inconsistencies between production documented in previous reports and production records obtained from Appendix C of the 7th and 8th Annual Reports.
- Lower production levels assigned to certain Overlying Users in 2003 and 2004.
- Inconsistencies on estimated groundwater production using the Water Duty method

3.5 Changes in Groundwater Levels in the Beaumont Basin

3.5.1 Analysis of Groundwater Level Changes

Groundwater contour maps were generated for Fall 2010 and Fall 2011 in order to evaluate changes in groundwater flow patterns and basin-wide changes in the groundwater levels. Groundwater level data for the contour maps were obtained from Wildermuth Environmental Inc. Groundwater levels were selected from wells with available data in the October to December period (i.e. Fall) of each year. For wells with available data, the groundwater level record for the target time period was evaluated to distinguish static groundwater levels from pumping groundwater levels. Only static groundwater levels were used for developing contour maps. The resulting maps for 2010 and 2011 are shown on Figures 3-3 and 3-4, respectively.

Groundwater flow within the Beaumont Basin generally depends on location with respect to a groundwater flow divide which occurs in the center of the basin approximately coincident with the Noble Creek drainage (see Figures 3-3 and 3-4). West of the Noble Creek drainage, groundwater generally flows to the northwest and ultimately towards San Timoteo Wash. East of the Noble Creek drainage, groundwater flows to the southeast towards the City of Banning. The groundwater flow directions did not change significantly between 2010 and 2011.

Basin-wide groundwater level trends in the Beaumont Basin were evaluated based on hydrographs from eight key wells and the groundwater level change map developed by subtracting the 2010 groundwater surface from the 2011 groundwater surface (see Figures 3-5 and 3-6). In the northwest portion of the basin, groundwater levels have been relatively stable with the exception of Well SMOA 2 where groundwater levels continued to decline through 2011. In the north central portion of the basin (TW-1), groundwater levels are rising

in response to artificial recharge at the Noble Creek Recharge Facility. In the south-central portion of the basin, groundwater levels at Oak Valley No. 1 have risen in 2011 although they had been declining prior to this time. At BCVWD Well No. 2, groundwater levels fluctuated throughout the year but generally increased. At Banning Well C-4 (southeast Beaumont Basin), groundwater levels showed a slight decline in 2011.

3.5.2 Analysis of Change in Groundwater Storage

Basin-wide change in groundwater storage between Fall 2010 and Fall 2011 was analyzed as a function of the difference in groundwater levels across the basin and the specific yield of the aquifer sediments. Groundwater level change across the basin was analyzed using the following procedure:

1. The Fall 2010 and Fall 2011 groundwater contour maps were each converted into three-dimensional raster surfaces.
2. The basin was discretized into 75-ft by 75-ft grid cells.
3. Attributes were assigned to each grid cell including groundwater level change and specific yield.
4. The resulting attribute table was processed in a Geographic Information System (GIS) for calculating the change in storage.

The specific yield distribution used for the analysis was based on Figure 3-6 in the First Biennial Engineers Report (WEI, 2007).

Results of the analysis show a basin-wide increase in groundwater storage of approximately 2,560 acre-ft between Fall 2010 and Fall 2011. It is noted that, as with previous estimates of change in storage, the northwest portion of the basin was not used in the analysis because there are little groundwater level data in this area.

3.6 Operating Safe Yield

For purposes of this annual report, the annual operating safe yield (OSY) describes the sustainable supply of groundwater in the basin for any given year. It is noted that the OSY is different than the Operating Yield, which is a function of the unused overlyer production (Appropriative Water) and Temporary Surplus, as described in the Beaumont Basin Judgment (San Timoteo Management Authority v. Banning et al., 2004).

Operating safe yield is estimated based on the following equation:

$$OSY = \frac{\Sigma P + \Delta S - \Sigma AR}{\Delta T}$$

where: ΣP = The sum of groundwater production (ac-ft)

ΔS = The change in groundwater storage (ac-ft)

ΣAR = The sum of groundwater recharge (ac-ft)

ΔT = The time over which the OSY is estimated (years)

Total Beaumont Basin groundwater production in CY 2011 was 14,005 acre-ft (see Table 3-1l). Total artificial recharge in CY 2011 was 9,116 acre-ft (see Table 3-4). It is noted that only the Noble Creek Recharge Facility recharge was used in the analysis of OSY. The change in groundwater storage estimate is based on the analysis of groundwater levels described in Section 3.5.2. The period of time over which the OSY is evaluated is one year. The resulting OSY is estimated as:

$$OSY = \frac{14{,}005 + 2{,}560 - 9{,}116}{1} = 7{,}449 \text{ ac-ft}$$

It is emphasized that the OSY, as presented herein, is based on one year of data. When evaluated on a long-term basis, this methodology can be used to estimate the long-term Safe Yield of the basin, as defined in the Beaumont Basin Judgment. As required by the Judgment, the Safe Yield of the basin will need to be reevaluated in 2013.

3.7 Recommendations

The Rules and Regulations, initially adopted in June 2004, were developed with the understanding that they should be revisited and/or revised from time to time to make sure they were consistent with the provisions of the Judgment. Revisions to the Rules and Regulations have been made over the years with the latest revision changing the reporting of Watermaster activities from a fiscal year basis to a calendar year basis.

In preparing this annual report and through the review of previous annual reports, we have identified a number of issues/activities that should be considered by the Watermaster to ensure accurate accounting of production, transfers, recharge, and storage. It should be noted that many of the recommendations provided in this section have been previously documented in prior annual reports by WEI. Our recommendations are as follows:

- Consider adopting additional resolutions to address other accounting aspects related to the conversion of annual reporting from a fiscal year basis to a calendar year basis. The following issues should be reported on a calendar year basis:
  - ✓ Water transfers between Appropriators
  - ✓ Transfers of unused production from Overlying Parties to Appropriators
  - ✓ Spreading of imported water, recycled water, and new yield developed
  - ✓ General accounting and auditing of Watermaster financial activities
- Develop a protocol to increase the accuracy and consistency of data reported to the Watermaster. Watermaster should identify a person and/or entity to be the central repository for data collection, transfer, and exchange. This person/entity shall be

responsible for the collection and distribution of all groundwater production, water level, groundwater recharge, and water quality information. Quality control of the data in its various forms including checks for errors, omissions, and inconsistencies between the reporting agencies and/or parties should be part of this process.

- Develop a formal policy to properly account for groundwater recharge to the Basin including imported water, recycled water and new yield from capturing local stormwater. Section 5 of the Rules and Regulations provides the initial guidelines to conduct recharge activities in the Basin; however, it should be amended to clarify the following: a) responsibility for preparing documentation, b) type of documentation or process necessary to demonstrate the amount of groundwater recharge, c) review process by Watermaster, and d) schedule for completion so that proper recharge credits can be given and documented in the annual report.
- Develop a policy to account for transfers of water that may result when an Appropriator provides water service to an Overlying Party. Section 7 of the Rules and Regulations, Adjustments for Rights, provides initial guidelines to execute this transfer; however, it needs to be enhanced in the following areas: a) data requirements to complete the transfer, b) review process by Watermaster, c) schedule for completion so that proper accounting of transfers can be given and documented in the annual report.

As indicated earlier, Watermaster should revisit the Rules and Regulations to ensure that its activities are consistent with the requirements of the Judgment. The following inconsistencies between guidelines provided in this document and current Watermaster activities were identified:

- Watermaster has not conducted a meter maintenance program, as required under Section 3.1 of the Rules and Regulations, to make sure groundwater production is reported accurately.
- Watermaster has not enforced the guidelines for reporting groundwater production from all producers. Under Section 3.2 of the Rules and Regulations, producers producing in excess of 10 ac-ft/yr. should report on a monthly basis by the 15th day of the ensuing month while those producing less should file on an annual basis by the 15th of July. In addition, this section indicates that proper supporting information should be provided. We believe that the guidelines are correct, but need to be enforced on a consistent basis.
- Watermaster has not develop a methodology for estimating New Yield recharges to the Basin that could result from increase capture of local runoff as described under Section 4.2 of the Rules and Regulations.
- Watermaster has not develop a methodology for estimating losses of water in storage from the Basin, as described under Sections 4.3 and 6.7 of the Rules and Regulations. Under these sections, Watermaster is responsible for determining how much water is being lost from the Basin.

- Watermaster has not enforced the procedures identified under Section 5 of the Rules and Regulations pertaining to the submittal of applications to recharge supplemental or new yield water in the Basin.
- Watermaster has not developed and executed Groundwater Storage Agreements per the criteria defined in Section 6.4 of the Rules and Regulations.
- Watermaster has not enforced the submittal of applications for the recapture of water in storage by Appropriators as defined in Sections 6.1 and 6.3 of the Rules and Regulations.
- Watermaster has not enforced the submittal of notices of transfers prior to accounting for said transfers as defined in Sections 7.1 through 7.5 of the Rules and Regulations.
- Watermaster has not filed its annual reports with the Court. The Watermaster Board should make a formal determination as to whether the annual reports should be filed with the Court.

Table 3-1A
Appropriator Producer Summary of Production for Calendar Year 2003 (ac-ft)

Owner & Well Name	Water Production by Appropriator (ac-ft)						Total Production	Temp Surplus Allocation[3]	Eligible for Storage
	Jul	Aug	Sep	Oct	Nov	Dec			
Banning, City of									
Well C2-A	107.5	99.1	118.7	108.5	82.9	102.5	619.2		
Well C3	112.9	100.9	103.1	88.1	36.6	76.1	517.7		
Well C4	102.1	111.0	74.0	77.6	64.9	18.7	448.3		
Well M3	76.4	162.1	129.8	146.7	10.7	0.0	525.7		
Well M9	62.2	1.1	0.0	0.0	0.0	0.0	63.3		
From BCVWD[2]	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Subtotal	**461.1**	**474.2**	**425.6**	**420.9**	**195.1**	**197.3**	**2,174.2**	**2,514.5**	**340.3**
Beaumont-Cherry Valley Water District									
Well 1	0.0	0.0	0.0	0.0	0.6	5.3	5.9		
Well 2	167.9	181.2	193.8	151.1	115.0	151.2	960.2		
Well 3	152.7	163.6	173.0	118.0	43.6	24.2	675.1		
Well 16	108.3	110.9	114.5	94.0	59.0	67.9	554.6		
Well 21	201.0	209.3	218.0	172.6	31.9	0.0	832.8		
Well 22	152.7	110.9	50.3	135.9	33.5	0.0	483.3		
To Banning[2]	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Subtotal	**782.6**	**775.9**	**749.6**	**671.6**	**283.6**	**248.6**	**3,511.9**	**3,401.0**	**0.0**
South Mesa Water Company									
3rd No. 4 Well	65.2	47.0	51.3	25.5	18.0	16.2	223.2		
Subtotal	**65.2**	**47.0**	**51.3**	**25.5**	**18.0**	**16.2**	**223.2**	**998.0**	**774.8**
Yucaipa Valley Water District									
Well 35	25.3	18.8	10.4	1.9	0.7	1.8	58.9		
Well 48	234.5	239.1	220.9	164.3	123.8	120.9	1,103.5		
Subtotal	**259.8**	**257.9**	**231.3**	**166.2**	**124.5**	**122.7**	**1,162.4**	**1,086.5**	**0.0**
Total	**1,568.7**	**1,555.0**	**1,457.8**	**1,284.2**	**621.2**	**584.8**	**7,071.7**	**8,000.0**	**1,115.1**

1 - All values rounded and subject to revision based on receipt of more accurate information

2 - Pursuant to Part I, Paragraph 3 B of the Judgment, and a separate Agreement (a copy of which is on file with the Watermaster).

3.- Temporary surplus based on 8,000 ac-ft or half of the 16,000 ac-ft/yr allocated

Table 3-1B
Appropriator Producer Summary of Production for Calendar Year 2004 (ac-ft)

Owner & Well Name	Water Production by Appropriator (ac-ft)[1]												Total Production	Temp Surplus Allocation[3]	Eligible for Storage
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
Banning, City of															
Well C2-A	95.4	88.6	51.3	72.8	40.6	50.3	86.2	69.6	73.1	36.3	22.6	23.9	710.7		
Well C3	101.0	88.5	101.4	48.7	67.8	75.2	120.4	117.4	106.0	89.3	53.0	57.9	1,026.6		
Well C4	38.5	19.5	85.8	74.4	91.2	69.4	136.8	157.7	154.8	135.2	91.2	81.2	1,135.7		
Well M3	0.0	0.0	0.0	0.0	50.9	118.9	0.0	0.0	0.0	0.0	0.0	0.0	169.8		
Well M9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
From BCVWD[2]	0.0	0.0	67.7	102.6	127.4	49.0	0.0	0.0	7.8	0.0	0.0	0.0	354.5		
Subtotal	**234.9**	**196.6**	**306.3**	**298.5**	**377.9**	**362.8**	**343.4**	**344.6**	**341.7**	**260.7**	**166.7**	**163.1**	**3,397.3**	**5,029.0**	**1,631.7**
Beaumont-Cherry Valley Water District															
Well 1	0.0	0.0	33.5	118.1	180.0	175.7	156.6	134.4	130.7	9.3	0.0	40.0	978.3		
Well 2	143.0	135.1	203.1	192.1	183.4	124.5	144.6	138.1	141.8	101.1	57.4	64.1	1,628.2		
Well 3	0.0	0.0	0.0	0.0	153.6	189.4	145.8	164.1	117.0	84.1	47.6	34.4	936.0		
Well 16	64.2	49.7	88.2	112.3	137.0	132.9	133.8	113.5	86.2	54.3	54.5	77.0	1,103.7		
Well 21	0.0	0.0	0.1	0.0	0.4	2.9	211.7	259.9	268.0	195.6	163.8	150.0	1,252.5		
Well 22	64.3	54.0	101.9	111.5	140.8	147.4	151.3	151.1	126.9	69.0	4.2	2.8	1,125.3		
Well 23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	41.9	85.1	55.7	17.9	3.7	204.3		
To Banning[2]	0.0	0.0	-67.7	-102.6	-127.4	-49.0	0.0	0.0	-7.8	0.0	0.0	0.0	-354.5		
Subtotal	**271.5**	**238.9**	**359.2**	**431.4**	**667.8**	**723.8**	**943.9**	**1,003.0**	**948.0**	**569.1**	**345.4**	**372.0**	**6,873.9**	**6,802.0**	**0.0**
South Mesa Water Company															
3rd No. 4 Well	15.7	13.1	30.5	45.3	53.1	39.0	51.6	82.4	74.2	54.7	12.1	10.9	482.5		
Subtotal	**15.7**	**13.1**	**30.5**	**45.3**	**53.1**	**39.0**	**51.6**	**82.4**	**74.2**	**54.7**	**12.1**	**10.9**	**482.5**	**1,996.0**	**1,513.5**
Yucaipa Valley Water District															
Well 35	1.1	0.8	4.4	0.6	0.8	3.4	63.9	76.8	70.9	1.4	1.4	0.8	226.5		
Well 48	121.4	107.2	133.3	136.4	170.9	162.3	177.9	218.9	186.5	123.8	18.9	20.6	1,578.2		
Subtotal	**122.5**	**108.0**	**137.7**	**137.1**	**171.7**	**165.7**	**241.9**	**295.6**	**257.5**	**125.2**	**20.3**	**21.4**	**1,804.7**	**2,173.0**	**368.3**
Total	**644.5**	**556.6**	**833.7**	**912.2**	**1,270.5**	**1,291.3**	**1,580.7**	**1,725.7**	**1,621.4**	**1,009.8**	**544.5**	**567.4**	**12,558.3**	**16,000.0**	**3,513.6**

1 - All values rounded and subject to revision based on receipt of more accurate information

2 - Pursuant to Part I, Paragraph 3 B of the Judgment, and a separate Agreement (a copy of which is on file with the Watermaster).

3.- Temporary surplus based on 16,000 ac-ft/yr allocated

Table 3-1C
Appropriator Producer Summary of Production for Calendar Year 2005 (ac-ft)

Owner & Well Name	Water Production by Appropriator (ac-ft)[1]												Total Production	Temp Surplus Allocation[3]	Eligible for Storage
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
Banning, City of															
Well C2-A	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4		
Well C3	45.0	57.1	10.3	48.2	46.7	40.0	74.8	103.3	57.1	34.4	3.6	0.7	521.2		
Well C4	89.6	7.5	6.1	28.8	8.5	20.9	60.0	50.1	54.0	32.1	1.9	28.3	387.8		
Well M3	0.0	0.0	0.0	0.0	34.8	39.8	102.4	125.8	103.3	81.4	37.7	7.7	532.8		
Well M9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
From BCVWD[2]	0.0	0.0	0.0	0.0	37.8	87.6	55.4	34.9	0.0	0.0	33.0	117.7	366.4		
Subtotal	**135.0**	**64.6**	**16.4**	**76.9**	**127.8**	**188.3**	**292.6**	**314.1**	**214.3**	**147.8**	**76.2**	**154.5**	**1,808.6**	**5,029.0**	**3,220.4**
Beaumont-Cherry Valley Water District															
Well 1	15.2	10.1	19.3	67.9	122.2	164.2	165.6	144.7	100.8	103.7	157.1	173.4	1,244.2		
Well 2	44.6	36.1	36.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	117.6		
Well 3	37.3	30.7	40.7	79.7	30.7	135.0	168.0	141.5	97.5	37.0	43.5	0.0	841.6		
Well 16	9.9	0.0	0.0	40.2	60.2	110.8	91.3	98.1	92.5	64.8	80.8	87.0	735.6		
Well 21	78.0	104.1	106.8	181.5	154.7	224.7	291.8	278.2	214.1	160.4	240.8	264.5	2,299.5		
Well 22	0.0	5.8	13.7	57.9	73.0	69.0	47.4	0.0	0.0	0.0	14.7	124.1	405.7		
Well 23	56.5	25.0	29.5	63.9	58.5	126.6	337.0	350.7	331.6	269.0	66.0	33.5	1,747.9		
Well 24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
To Banning[2]	0.0	0.0	0.0	0.0	-37.8	-87.6	-55.4	-34.9	0.0	0.0	-33.0	-117.7	-366.4		
Subtotal	**241.5**	**211.8**	**247.0**	**491.2**	**461.4**	**742.8**	**1,045.7**	**978.3**	**836.5**	**634.8**	**569.8**	**564.8**	**7,025.6**	**6,802.0**	**0.0**
South Mesa Water Company															
3rd No. 4 Well	29.7	16.7	39.2	51.3	65.4	70.0	70.0	82.3	76.7	63.1	52.7	46.3	663.2		
Subtotal	**29.7**	**16.7**	**39.2**	**51.3**	**65.4**	**70.0**	**70.0**	**82.3**	**76.7**	**63.1**	**52.7**	**46.3**	**663.2**	**1,996.0**	**1,332.8**
Yucaipa Valley Water District															
Well 35	0.2	0.7	0.7	24.7	30.1	0.6	21.3	14.2	13.2	2.8	1.1	0.9	110.6		
Well 48	13.6	11.4	21.2	14.8	51.9	152.6	251.5	248.9	201.7	120.0	47.2	29.0	1,163.7		
Subtotal	**13.8**	**12.1**	**21.9**	**39.5**	**82.0**	**153.1**	**272.9**	**263.1**	**214.9**	**122.8**	**48.3**	**29.9**	**1,274.3**	**2,173.0**	**898.7**
Total	**420.0**	**305.1**	**324.5**	**659.0**	**736.6**	**1,154.2**	**1,681.1**	**1,637.8**	**1,342.4**	**968.5**	**747.0**	**795.5**	**10,771.7**	**16,000.0**	**5,451.9**

1 - All values rounded and subject to revision based on receipt of more accurate information

2 - Pursuant to Part I, Paragraph 3 B of the Judgment, and a separate Agreement (a copy of which is on file with the Watermaster).

3.- Temporary surplus based on 16,000 ac-ft/yr allocated

Table 3-1D
Appropriator Producer Summary of Production for Calendar Year 2006 (ac-ft)

Owner & Well Name	Water Production by Appropriator (ac-ft)[1]												Total Production	Temp Surplus Allocation[3]	Eligible for Storage
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
Banning, City of															
Well C2-A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.6	0.0	0.0	2.1	6.8		
Well C3	2.0	0.1	0.9	2.6	34.8	10.5	36.4	44.7	61.1	26.5	6.1	9.7	235.3		
Well C4	6.6	40.4	1.4	19.1	11.4	12.6	61.4	32.3	50.5	11.2	19.9	10.0	276.8		
Well M3	43.8	9.9	20.4	34.1	65.8	65.5	84.8	82.2	88.2	74.9	69.7	32.6	671.9		
Well M9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
From BCVWD[2]	1.1	28.4	0.0	0.0	74.3	111.2	104.4	105.3	105.6	61.6	44.8	0.0	636.7		
Subtotal	**53.4**	**78.8**	**22.7**	**55.8**	**186.4**	**199.8**	**287.0**	**264.5**	**310.0**	**174.2**	**140.5**	**54.6**	**1,827.5**	**5,029.0**	**3,201.5**
Beaumont-Cherry Valley Water District															
Well 1	51.7	0.3	1.5	0.0	105.2	215.6	186.4	169.6	141.3	92.6	137.8	47.2	1,149.1		
Well 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Well 3	0.0	0.0	0.0	0.0	83.1	194.2	190.9	51.0	6.3	4.6	163.4	56.1	749.7		
Well 16	28.7	51.3	47.6	1.9	0.0	61.7	119.6	113.6	101.4	12.0	0.0	0.0	537.7		
Well 21	176.7	132.6	8.5	1.5	28.4	360.0	320.3	306.4	263.1	120.3	196.2	82.3	1,996.3		
Well 22	60.2	65.7	35.1	1.5	45.2	140.6	176.4	159.7	139.6	77.3	100.7	60.6	1,062.6		
Well 23	0.8	9.1	6.1	0.1	41.6	305.7	699.4	0.0	304.0	191.4	295.2	110.4	1,963.9		
Well 24	33.4	235.3	212.4	165.6	68.0	204.5	276.6	247.8	298.6	172.9	211.0	105.6	2,231.7		
To Banning[2]	-1.1	-28.4	0.0	0.0	-74.3	-111.2	-104.4	-105.3	-105.6	-61.6	-44.8	0.0	-636.7		
Subtotal	**350.4**	**465.9**	**311.3**	**170.5**	**297.2**	**1,371.0**	**1,865.2**	**942.7**	**1,148.7**	**609.4**	**1,059.5**	**462.2**	**9,054.1**	**6,802.0**	**0.0**
South Mesa Water Company															
3rd No. 4 Well	42.8	38.6	42.8	29.4	31.6	56.2	81.3	76.5	65.1	55.9	53.7	42.1	616.0		
Subtotal	**42.8**	**38.6**	**42.8**	**29.4**	**31.6**	**56.2**	**81.3**	**76.5**	**65.1**	**55.9**	**53.7**	**42.1**	**616.0**	**1,996.0**	**1,380.0**
Yucaipa Valley Water District															
Well 35	1.4	1.6	1.4	0.6	15.9	39.9	47.5	40.1	34.1	20.1	15.0	2.4	220.0		
Well 48	22.9	56.5	19.0	31.9	157.9	228.7	244.3	240.0	227.9	229.1	227.8	121.2	1,807.2		
Subtotal	**24.3**	**58.1**	**20.5**	**32.5**	**173.8**	**268.6**	**291.8**	**280.2**	**262.0**	**249.2**	**242.8**	**123.5**	**2,027.3**	**2,173.0**	**145.7**
Total	**471.0**	**641.4**	**397.2**	**288.2**	**689.1**	**1,895.6**	**2,525.3**	**1,563.9**	**1,785.8**	**1,088.7**	**1,496.4**	**682.3**	**13,524.9**	**16,000.0**	**4,727.2**

1 - All values rounded and subject to revision based on receipt of more accurate information

2 - Pursuant to Part I, Paragraph 3 B of the Judgment, and a separate Agreement (a copy of which is on file with the Watermaster).

3.- Temporary surplus based on 16,000 ac-ft/yr allocated

Table 3-1E
Appropriator Producer Summary of Production for Calendar Year 2007 (ac-ft)

Owner & Well Name	Water Production by Appropriator (ac-ft)[1]												Total Production	Temp Surplus Allocation[3]	Eligible for Storage
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
Banning, City of															
Well C2-A	0.6	0.4	0.7	0.5	0.0	30.3	86.2	87.9	58.6	20.3	0.4	2.2	288.1		
Well C3	3.7	0.1	9.2	17.9	48.1	59.3	80.6	74.3	47.8	100.2	59.0	11.4	511.6		
Well C4	13.2	5.1	2.0	10.8	61.3	156.3	100.8	98.7	106.3	99.9	17.5	2.1	673.9		
Well M3	40.3	12.8	23.8	23.7	23.8	42.7	115.2	113.9	104.1	64.8	108.9	52.0	726.0		
Well M9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
From BCVWD[2]	0.0	0.0	43.3	55.4	71.3	59.0	43.0	56.0	55.0	62.0	63.0	65.0	572.9		
Subtotal	**57.8**	**18.4**	**79.0**	**108.3**	**204.5**	**347.6**	**425.8**	**430.8**	**371.8**	**347.2**	**248.8**	**132.7**	**2,772.6**	**5,029.0**	**2,256.4**
Beaumont-Cherry Valley Water District															
Well 1	74.5	53.6	116.0	13.3	82.5	130.6	134.9	179.8	212.5	128.5	101.6	55.9	1,283.8		
Well 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Well 3	80.7	55.1	42.8	82.4	86.0	148.2	154.1	205.6	270.5	176.5	55.4	0.0	1,357.3		
Well 16	0.0	0.1	17.4	0.0	0.0	12.3	68.4	103.8	117.6	14.7	1.5	12.6	348.3		
Well 21	190.1	98.6	91.8	114.9	183.8	214.8	215.5	306.3	392.5	285.0	205.2	126.2	2,424.7		
Well 22	43.0	21.2	60.5	47.4	97.1	127.6	125.4	161.7	197.8	92.3	59.3	23.5	1,056.8		
Well 23	187.4	53.8	167.8	190.3	274.2	272.8	272.4	419.4	523.9	314.2	257.5	84.6	3,018.3		
Well 24	78.8	280.5	186.4	173.2	208.6	236.7	130.1	274.6	360.7	282.1	166.6	88.9	2,467.1		
To Banning[2]	0.0	0.0	-43.3	-55.4	-71.3	-59.0	-43.0	-56.0	-55.0	-62.0	-63.0	-65.0	-572.9		
Subtotal	**654.5**	**562.8**	**639.3**	**566.1**	**860.9**	**1,084.0**	**1,057.8**	**1,595.2**	**2,020.5**	**1,231.3**	**784.1**	**326.7**	**11,383.3**	**6,802.0**	**0.0**
South Mesa Water Company															
3rd No. 4 Well	42.5	32.6	48.6	53.1	69.4	70.7	82.1	76.6	60.1	58.7	55.3	16.1	665.8		
Subtotal	**42.5**	**32.6**	**48.6**	**53.1**	**69.4**	**70.7**	**82.1**	**76.6**	**60.1**	**58.7**	**55.3**	**16.1**	**665.8**	**1,996.0**	**1,330.2**
Yucaipa Valley Water District															
Well 35	1.4	0.0	4.4	1.5	27.7	46.9	39.0	28.0	5.5	8.3	0.5	0.7	163.8		
Well 48	53.2	18.3	130.5	122.1	222.4	230.9	232.4	183.3	126.7	132.5	47.4	19.4	1,519.1		
Subtotal	**54.6**	**18.3**	**134.9**	**123.6**	**250.1**	**277.8**	**271.4**	**211.3**	**132.2**	**140.8**	**47.9**	**20.1**	**1,682.9**	**2,173.0**	**490.1**
Total	**809.4**	**632.0**	**901.8**	**851.1**	**1,384.9**	**1,780.0**	**1,837.1**	**2,313.9**	**2,584.6**	**1,778.0**	**1,136.1**	**495.6**	**16,504.6**	**16,000.0**	**4,076.7**

1 - All values rounded and subject to revision based on receipt of more accurate information

2 - Pursuant to Part I, Paragraph 3 B of the Judgment, and a separate Agreement (a copy of which is on file with the Watermaster).

3.- Temporary surplus based on 16,000 ac-ft/yr allocated

Table 3-1F
Appropriator Producer Summary of Production for Calendar Year 2008 (ac-ft)

Owner & Well Name	Water Production by Appropriator (ac-ft)[1]												Total Production	Temp Surplus Allocation[3]	Eligible for Storage
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
Banning, City of															
Well C2-A	0.2	0.4	42.0	83.7	39.5	2.6	26.6	63.5	64.9	54.1	4.4	0.4	382.3		
Well C3	42.4	16.4	88.9	69.6	62.9	105.0	36.6	2.7	4.0	50.3	63.3	10.4	552.5		
Well C4	5.0	13.6	1.6	10.6	42.3	88.3	148.6	160.2	150.1	43.0	0.4	0.6	664.3		
Well M3	66.6	69.7	84.9	67.6	100.6	101.9	35.2	12.8	3.0	39.4	1.3	0.3	583.3		
Well M9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
From BCVWD[2]	64.0	59.0	62.0	59.0	60.0	57.0	69.2	72.2	65.9	63.0	59.0	61.0	751.3		
Subtotal	**178.2**	**159.1**	**279.4**	**290.5**	**305.3**	**354.8**	**316.2**	**311.3**	**287.9**	**249.7**	**128.4**	**72.8**	**2,933.6**	**5,029.0**	**2,095.4**
Beaumont-Cherry Valley Water District															
Well 1	53.7	17.0	40.6	78.3	102.5	111.7	123.3	80.8	113.9	95.1	98.9	61.1	976.9		
Well 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Well 3	41.6	26.6	69.0	117.7	117.6	161.2	94.3	177.8	156.9	133.2	136.0	78.3	1,310.2		
Well 16	8.6	25.7	18.2	24.1	27.4	71.9	78.5	80.4	58.2	15.2	2.6	4.2	414.9		
Well 21	197.9	154.5	212.6	216.0	212.4	204.6	287.5	266.5	221.9	177.9	196.9	97.4	2,446.1		
Well 22	2.4	49.8	83.2	94.0	111.8	133.1	128.2	119.0	111.7	94.2	113.4	64.4	1,105.3		
Well 23	51.1	3.1	142.7	200.2	260.7	277.9	415.0	367.0	305.2	224.4	141.5	103.0	2,491.7		
Well 24	143.3	121.3	140.4	207.9	214.5	226.1	241.4	243.3	226.2	195.8	70.1	62.8	2,093.1		
Well 25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	41.0	76.7	9.9	127.6		
Well 26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	143.1	139.5	138.2	75.1	495.9		
To Banning[2]	-64.0	-59.0	-62.0	-59.0	-60.0	-57.0	-69.2	-72.2	-65.9	-63.0	-59.0	-61.0	-751.3		
Subtotal	**434.6**	**339.0**	**644.7**	**879.2**	**986.9**	**1,129.5**	**1,298.9**	**1,262.7**	**1,271.3**	**1,053.2**	**915.2**	**495.2**	**10,710.5**	**6,802.0**	**0.0**
South Mesa Water Company															
3rd No. 4 Well	19.3	26.1	34.3	38.1	59.3	50.9	56.0	58.7	49.7	38.8	26.0	13.6	470.9		
Subtotal	**19.3**	**26.1**	**34.3**	**38.1**	**59.3**	**50.9**	**56.0**	**58.7**	**49.7**	**38.8**	**26.0**	**13.6**	**470.9**	**1,996.0**	**1,525.2**
Yucaipa Valley Water District															
Well 35	0.6	0.2	0.0	0.0	0.0	0.0	2.4	0.0	0.0	0.0	0.0	0.0	3.2		
Well 48	16.9	4.6	1.8	18.5	58.2	122.1	126.8	59.7	57.7	60.0	26.9	16.9	570.2		
Subtotal	**17.5**	**4.8**	**1.8**	**18.5**	**58.2**	**122.1**	**129.2**	**59.7**	**57.7**	**60.0**	**26.9**	**16.9**	**573.4**	**2,173.0**	**1,599.6**
Total	**649.6**	**529.0**	**960.2**	**1,226.3**	**1,409.7**	**1,657.3**	**1,800.4**	**1,692.4**	**1,666.6**	**1,401.7**	**1,096.6**	**598.6**	**14,688.4**	**16,000.0**	**5,220.1**

1 - All values rounded and subject to revision based on receipt of more accurate information

2 - Pursuant to Part I, Paragraph 3 B of the Judgment, and a separate Agreement (a copy of which is on file with the Watermaster).

3.- Temporary surplus based on 16,000 ac-ft/yr allocated

Table 3-1G
Appropriator Producer Summary of Production for Calendar Year 2009 (ac-ft)

Owner & Well Name	Water Production by Appropriator (ac-ft)[1]												Total Production	Temp Surplus Allocation[3]	Eligible for Storage
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
Banning, City of															
Well C2-A	0.5	0.7	0.7	1.0	24.2	18.7	31.3	3.0	36.8	0.5	0.7	1.7	119.8		
Well C3	30.6	4.0	31.1	69.1	106.3	73.5	107.4	90.7	66.0	51.8	61.0	41.6	733.0		
Well C4	1.0	1.1	1.0	1.2	1.6	41.0	156.1	156.2	96.4	9.3	1.5	6.4	472.6		
Well M3	0.3	0.9	1.0	0.9	90.4	32.4	10.5	73.5	77.0	2.0	2.7	3.3	294.8		
Well M9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
From BCVWD[2]	24.2	0.0	0.0	0.0	0.0	61.6	61.6	66.2	64.1	66.8	63.7	66.6	474.8		
Subtotal	**56.6**	**6.6**	**33.8**	**72.1**	**222.5**	**227.3**	**366.9**	**389.7**	**340.2**	**130.3**	**129.6**	**119.6**	**2,095.0**	**5,029.0**	**2,934.0**
Beaumont-Cherry Valley Water District															
Well 1	49.5	46.6	66.1	98.8	73.5	93.1	123.8	105.8	93.6	68.1	45.5	29.9	894.1		
Well 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Well 3	57.9	53.6	71.8	111.6	81.4	112.9	165.7	159.5	133.4	94.0	59.6	38.1	1,139.5		
Well 16	4.7	1.8	7.5	21.8	1.9	27.9	103.9	103.2	100.8	59.8	18.7	0.0	452.0		
Well 21	127.4	90.1	76.5	112.1	158.6	191.6	253.2	208.7	200.5	163.2	113.8	88.4	1,784.1		
Well 22	40.9	6.9	25.8	48.7	16.5	0.0	0.0	0.0	0.0	13.9	50.3	62.2	265.1		
Well 23	149.6	63.9	142.1	246.8	182.6	87.3	0.1	0.0	0.0	0.0	21.6	88.8	982.7		
Well 24	137.3	105.8	119.9	152.2	176.5	174.6	228.5	233.0	221.4	190.4	178.5	127.2	2,045.4		
Well 25	0.0	0.0	0.0	11.8	90.1	199.9	249.1	32.6	17.5	217.5	217.2	25.2	1,060.7		
Well 26	20.2	3.6	53.2	68.6	130.1	127.8	171.9	168.2	162.4	126.2	135.0	20.7	1,187.9		
Well 29	0.0	1.3	0.0	0.0	89.0	89.5	126.8	132.3	117.2	97.1	92.6	51.5	797.1		
To Banning[2]	-24.2	0.0	0.0	0.0	0.0	-61.6	-61.6	-66.2	-64.1	-66.8	-63.7	-66.6	-474.8		
Subtotal	**563.3**	**373.5**	**562.9**	**872.4**	**1,000.1**	**1,043.0**	**1,361.4**	**1,076.9**	**982.8**	**963.4**	**869.0**	**465.3**	**10,133.9**	**6,802.0**	**0.0**
South Mesa Water Company															
3rd No. 4 Well	9.7	11.3	34.8	51.8	40.6	19.8	36.8	39.2	46.4	42.6	28.8	20.4	382.2		
Subtotal	**9.7**	**11.3**	**34.8**	**51.8**	**40.6**	**19.8**	**36.8**	**39.2**	**46.4**	**42.6**	**28.8**	**20.4**	**382.2**	**1,996.0**	**1,613.8**
Yucaipa Valley Water District															
Well 35	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Well 48	42.6	1.3	3.1	18.5	68.3	43.0	89.3	67.3	76.0	50.6	34.5	10.1	504.4		
Subtotal	**42.6**	**1.3**	**3.1**	**18.5**	**68.3**	**43.0**	**89.3**	**67.3**	**76.0**	**50.6**	**34.5**	**10.1**	**504.4**	**2,173.0**	**1,668.6**
Total	**672.1**	**392.8**	**634.5**	**1,014.8**	**1,331.4**	**1,333.0**	**1,854.3**	**1,573.1**	**1,445.4**	**1,186.9**	**1,061.9**	**615.4**	**13,115.6**	**16,000.0**	**6,216.4**

1 - All values rounded and subject to revision based on receipt of more accurate information

2 - Pursuant to Part I, Paragraph 3 B of the Judgment, and a separate Agreement (a copy of which is on file with the Watermaster).

3.- Temporary surplus based on 16,000 ac-ft/yr allocated

Table 3-1H
Appropriator Producer Summary of Production for Calendar Year 2010 (ac-ft)

Owner & Well Name	Water Production by Appropriator (ac-ft)[1]												Total Production	Temp Surplus Allocation[3]	Eligible for Storage
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
Banning, City of															
Well C2-A	0.5	0.0	2.6	0.3	0.4	0.3	1.6	1.3	9.6	8.4	0.9	1.0	26.8		
Well C3	35.4	12.7	8.9	49.4	119.2	107.0	113.8	120.6	114.8	47.1	76.1	38.1	843.0		
Well C4	3.4	0.4	2.9	0.6	0.5	0.6	3.5	22.3	14.3	0.3	1.6	1.1	51.4		
Well M3	1.1	0.2	7.3	0.3	0.2	11.4	30.5	21.4	1.9	3.5	0.4	1.8	80.0		
Well M9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
From BCVWD[2]	65.8	59.3	17.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	142.5		
Subtotal	**106.3**	**72.6**	**39.0**	**50.6**	**120.2**	**119.3**	**149.3**	**165.6**	**140.5**	**59.3**	**78.9**	**42.0**	**1,143.6**	**5,029.0**	**3,885.4**
Beaumont-Cherry Valley Water District															
Well 1	36.7	50.6	53.3	48.2	73.9	98.7	115.0	87.5	116.1	68.5	46.3	14.3	809.1		
Well 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Well 3	44.3	60.7	57.3	57.2	91.1	116.5	155.6	119.1	73.7	0.0	0.0	0.0	775.6		
Well 16	0.3	1.2	0.5	2.6	0.0	0.6	2.5	0.5	0.7	1.5	0.7	0.9	11.9		
Well 21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.2	0.0	1.5	0.0	8.7		
Well 22	52.4	43.0	41.6	20.0	6.4	11.3	69.1	42.5	80.4	9.0	4.6	1.4	381.7		
Well 23	96.5	45.7	106.0	156.3	182.2	203.0	271.3	217.3	296.4	146.1	101.6	108.1	1,930.4		
Well 24	110.2	293.4	148.8	166.2	226.2	219.2	243.5	178.7	255.7	88.3	128.1	141.4	2,199.6		
Well 25	12.5	0.0	25.2	44.1	155.0	191.8	250.0	209.1	196.7	138.3	66.8	11.0	1,300.4		
Well 26	85.9	59.3	69.7	97.2	150.6	144.3	159.9	124.0	167.1	66.6	96.8	90.8	1,312.2		
Well 29	39.1	0.0	0.0	0.0	0.5	89.6	165.8	131.7	177.9	92.7	86.9	50.2	834.4		
To Banning[2]	-65.8	-59.3	-17.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-142.5		
Subtotal	**412.0**	**494.6**	**485.1**	**591.8**	**885.9**	**1,075.0**	**1,432.7**	**1,110.3**	**1,371.8**	**611.0**	**533.1**	**418.1**	**9,421.3**	**6,802.0**	**0.0**
South Mesa Water Company															
3rd No. 4 Well	18.1	14.9	16.6	23.0	32.1	52.4	53.8	58.2	56.5	32.5	32.4	14.5	405.0		
Subtotal	**18.1**	**14.9**	**16.6**	**23.0**	**32.1**	**52.4**	**53.8**	**58.2**	**56.5**	**32.5**	**32.4**	**14.5**	**405.0**	**1,996.0**	**1,591.1**
Yucaipa Valley Water District															
Well 35	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Well 48	6.4	0.9	21.5	18.0	59.6	84.2	127.4	115.6	137.3	43.3	33.6	23.6	671.5		
Subtotal	**6.4**	**0.9**	**21.5**	**18.0**	**59.6**	**84.2**	**127.4**	**115.6**	**137.3**	**43.3**	**33.6**	**23.6**	**671.5**	**2,173.0**	**1,501.6**
Total	**542.7**	**583.0**	**562.1**	**683.3**	**1,097.9**	**1,331.0**	**1,763.2**	**1,449.8**	**1,706.1**	**746.1**	**678.0**	**498.2**	**11,641.3**	**16,000.0**	**6,978.0**

1 - All values rounded and subject to revision based on receipt of more accurate information

2 - Pursuant to Part I, Paragraph 3 B of the Judgment, and a separate Agreement (a copy of which is on file with the Watermaster).

3.- Temporary surplus based on 16,000 ac-ft/yr allocated

Table 3-1I
Appropriator Producer Summary of Production for Calendar Year 2011 (ac-ft)

Owner & Well Name	Water Production by Appropriator (ac-ft)[1]												Total Production	Temp Surplus Allocation[3]	Eligible for Storage
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
Banning, City of															
Well C2-A	0.4	0.6	1.2	0.3	0.3	12.5	10.4	1.3	0.9	1.2	0.4	3.2	32.5		
Well C3	24.5	24.7	41.9	59.0	107.5	111.8	95.6	45.5	45.9	80.3	52.8	87.1	776.6		
Well C4	0.9	0.9	1.4	1.2	1.0	3.5	95.5	82.3	7.6	2.2	0.5	0.6	197.5		
Well M3	0.5	0.3	0.4	0.3	0.6	10.7	91.6	109.8	99.7	19.2	0.8	1.2	335.1		
Well M9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
From BCVWD[2]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Subtotal	**26.3**	**26.5**	**45.0**	**60.7**	**109.5**	**138.4**	**293.1**	**239.0**	**154.0**	**103.0**	**54.4**	**92.0**	**1,341.7**	**5,029.0**	**3,687.3**
Beaumont-Cherry Valley Water District															
Well 1	7.1	0.5	20.5	20.8	66.4	75.7	79.1	87.5	65.0	31.3	4.8	2.9	461.7		
Well 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Well 3	0.0	6.6	19.6	12.0	70.0	83.6	92.0	105.7	80.0	34.9	27.2	4.0	535.6		
Well 16	1.7	0.0	0.0	0.0	1.3	1.7	2.1	15.5	58.2	37.2	20.4	15.6	153.8		
Well 21	0.0	0.0	0.0	0.0	105.7	159.8	218.3	218.0	205.1	190.5	156.5	219.3	1,473.3		
Well 22	2.8	0.0	0.0	2.8	5.8	0.0	0.0	21.8	58.0	3.9	0.0	0.0	95.1		
Well 23	84.6	78.2	43.8	6.1	130.7	172.0	247.9	205.7	0.0	0.0	0.0	13.1	982.1		
Well 24	206.4	161.6	116.5	167.6	139.2	163.7	235.8	229.9	210.9	156.5	94.9	162.7	2,045.7		
Well 25	0.3	2.7	10.0	116.2	136.1	30.8	82.6	184.6	245.8	208.4	80.4	90.8	1,188.6		
Well 26	127.4	113.1	77.8	108.8	119.7	111.9	158.4	154.1	136.2	124.9	98.9	104.3	1,435.3		
Well 29	0.0	6.8	65.8	91.0	109.9	132.6	165.4	165.4	150.5	112.8	56.8	3.5	1,060.3		
To Banning[2]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Subtotal	**430.1**	**369.5**	**354.0**	**525.2**	**884.7**	**931.7**	**1,281.8**	**1,388.3**	**1,209.7**	**900.4**	**540.0**	**616.0**	**9,431.3**	**6,802.0**	**0.0**
South Mesa Water Company															
3rd No. 4 Well	18.3	16.8	19.9	20.7	30.2	50.9	52.9	56.8	52.3	45.2	30.3	25.5	419.9		
Subtotal	**18.3**	**16.8**	**19.9**	**20.7**	**30.2**	**50.9**	**52.9**	**56.8**	**52.3**	**45.2**	**30.3**	**25.5**	**419.9**	**1,996.0**	**1,576.1**
Yucaipa Valley Water District															
Well 35	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Well 48	27.37	23.43	22.25	33.71	50.16	67.00	84.85	82.47	76.06	46.97	12.18	7.69	534.1		
Subtotal	**27.4**	**23.4**	**22.3**	**33.7**	**50.2**	**67.0**	**84.9**	**82.5**	**76.1**	**47.0**	**12.2**	**7.7**	**534.1**	**2,173.0**	**1,638.9**
Total	**502.1**	**436.2**	**441.2**	**640.3**	**1,074.6**	**1,188.1**	**1,712.6**	**1,766.5**	**1,492.1**	**1,095.5**	**636.8**	**741.1**	**11,727.1**	**16,000.0**	**6,902.3**

1 - All values rounded and subject to revision based on receipt of more accurate information

2 - Pursuant to Part I, Paragraph 3 B of the Judgment, and a separate Agreement (a copy of which is on file with the Watermaster).

3.- Temporary surplus based on 16,000 ac-ft/yr allocated

Table 3-2A
Overlying Producer Summary of Production for Calendar Year 2003 (ac-ft)

Owner and Well Name	Metered	Monthly Water Production by Overlying Producers[1]						Total[2] Production (Jul-Dec)		Overlying Water Right FY 03/04	Overlying Water Right (Jul-Dec) 2003	Unused Overlying Allocation in 2003
		Jul	Aug	Sep	Oct	Nov	Dec					
Beckman, Walter M.	No							**16.20**	(6)	**75.00**	**37.50**	**21.30**
California Oak Valley Golf and Resort LLC[3]												
Oak Valley #1	Yes											
Oak Valley #2	Yes											
Subtotal								**736.20**	(6)	**950.00**	**475.00**	**0.00**
Merlin Properties	No							**3.60**	(6)	**550.00**	**275.00**	**271.40**
Oak Valley Partners, LP[4]												
Haskell Ranch-Main	N/A							29.40				
Singleton Ranch #5	No							180.00				
Singleton Ranch #7	Yes							85.80				
Irrigation Stokes	No							6.00				
Subtotal								**301.20**	(6)	**1,806.00**	**903.00**	**601.80**
Plantation on the Lake LLC	Yes	26.80	38.00	38.10	31.60	25.50	18.60	**178.60**		**581.00**	**290.50**	**111.90**
Rancho Calimesa Mobile Home Park	No							**35.40**	(6)	**150.00**	**75.00**	**39.60**
Roman Catholic Bishop of San Bernardino	No							**46.80**	(6)	**154.00**	**77.00**	**30.20**
Sharondale Mesa Owners Association												
Well No.1	Yes	24.20	20.90	27.30	15.60	5.10	5.50	98.60				
Well No.2	Yes	0.00	0.00	0.00	0.00	0.00	5.70	5.70				
Subtotal		**24.20**	**20.90**	**27.30**	**15.60**	**5.10**	**11.20**	**104.30**		**200.00**	**100.00**	**0.00**
So Calif Section of the PGA of America[5]												
Well A	Yes	35.80	38.60	25.80	6.00	7.70	4.60	118.50				
Well B	No	From 2006/07 Annual Report - Ammended Tables for 2003/04						0.00				
Well C	Yes							0.00				
Well D	Yes	174.70	158.80	133.70	115.30	43.80	34.30	660.60				
Subtotal		**210.50**	**197.40**	**159.50**	**121.30**	**51.50**	**38.90**	**779.10**		**2,200.00**	**1,100.00**	**320.90**
Stearns, Leonard M. and Dorothy D.	No							**1.05**		**200.00**	**100.00**	**98.95**
Sunny-Cal Egg and Poultry Company								**226.00**	(7)	**1,784.00**	**892.00**	**666.00**
TOTAL								**2,428.45**		**8,650.00**	**4,325.00**	**2,162.05**

1.- All values rounded and subject to revision based on receipt of more accurate information

2.- Total production is estimated for Overlying parties with un-metered wells.

3.- Metering began in late 2004 and was not reported monthly. One total production value for each well was reported to Watermaster for FY 2003/04 . For the conversion to CY accounting, it was assumed that CY 2004 production for this entity was equal to FY 2003/04 production (1,227.4 acre-ft).

4.- Provided copies of state filing with annual calendar year totals for each well. Production values for Singleton Ranch #5 and Irrigation Stokes are estimated by Oak Valley Partners.

5.- Provided copies of state filing with annual calendar year totals for each well. The wells were metered, but PGA only provided meter reads for January through June 2004. Used state filing with annual calendar year totals for conversion from FY to CY accounting.

6.- Production for the Jul-Dec 2003 period estimated as 60 percent of the annual production. This is based on average production for the Jul-Dec period for similar users.

7.- Production for the Jul-Dec 2003 period was based on 1,200,000 chickens and 66.4 irrigated acres, similar to 2004 quantities.

Table 3-2B
Overlying Producer Summary of Production for Calendar Year 2004 (ac-ft)

Owner and Well Name	Metered	Monthly Water Production by Overlying Producer[1]												Total[2] Production	Overlying Water Right	Unused Overlying Allocation in 2004
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
Beckman, Walter M.	No													**27.00**	**75.00**	**48.00**
California Oak Valley Golf and Resort LLC[3]																
Oak Valley #1	Yes															
Oak Valley #2	Yes															
Subtotal														**728.64**	**950.00**	**221.36**
Merlin Properties	No	Water Duty Method Used to Estimate Annual Production												**1.58**	**550.00**	**548.42**
Oak Valley Partners, LP[4]																
Haskell Ranch-Main	N/A													19.60		
Singleton Ranch #5	No													300.00		
Singleton Ranch #7	Yes													111.08		
Irrigation Stokes	No													10.00		
Subtotal														**440.68**	**1,806.00**	**1,365.32**
Plantation on the Lake LLC	Yes	18.3	21.7	13.2	24.1	30.3	35.1	35.9	41.4	40.7	37.8	21.8	20.5	**340.88**	**581.00**	**240.12**
Rancho Calimesa Mobile Home Park	No	Water Duty Method Used to Estimate Annual Production												**68.25**	**150.00**	**81.75**
Roman Catholic Bishop of San Bernardino	No	Water Duty Method Used to Estimate Annual Production												**59.06**	**154.00**	**94.94**
Sharondale Mesa Owners Association																
Well No.1	Yes	5.0	3.4	5.9	7.4	10.0	14.4	19.4	12.0	9.2	8.0	8.5	7.9	111.00		
Well No.2	Yes				1.7	12.0	5.2	7.7	9.6	6.5	4.2	0.0	0.0	47.02		
Subtotal		**5.0**	**3.4**	**5.9**	**9.1**	**22.0**	**19.6**	**27.1**	**21.6**	**15.8**	**12.3**	**8.5**	**7.9**	**158.02**	**200.00**	**41.98**
So Calif Section of the PGA of America[5]																
Well A	Yes	6.40	0.70	35.90	25.60	43.10	45.30							196.26		
Well B	No															
Well C	Yes													62.38		
Well D	Yes	36.50	14.10	56.40	64.90	113.70	148.00							1,110.31		
Subtotal		**42.90**	**14.80**	**92.30**	**90.50**	**156.80**	**193.30**							**1,368.95**	**2,200.00**	**831.05**
Stearns, Leonard M. and Dorothy D.	No	Water Duty Method Used to Estimate Annual Production												**1.05**	**200.00**	**198.95**
Sunny-Cal Egg and Poultry Company	N/A	Water Duty Method Used to Estimate Annual Production												**404.42**	**1,784.00**	**1,379.58**
TOTAL														**3,598.53**	**8,650.00**	**5,051.47**

1.- All values rounded and subject to revision based on receipt of more accurate information

2.- Total production is estimated for Overlying parties with un-metered wells.

3.- Metering began in late 2004 and was not reported monthly. One total production value for each well was reported to Watermaster for FY 2003/04 . For the conversion to CY accounting, it was assumed that CY 2004 production for this entity was equal to FY 2003/04 production (1,227.4 acre-ft).

4.- Provided copies of state filing with annual calendar year totals for each well. Production values for Singleton Ranch #5 and Irrigation Stokes are estimated by Oak Valley Partners.

5.- Provided copies of state filing with annual calendar year totals for each well. The wells were metered, but PGA only provided meter reads for January through June 2004. Used state filing with annual calendar year totals for conversion from FY to CY accounting.

Table 3-2C
Overlying Producer Summary of Production for Calendar Year 2005 (ac-ft)

Owner and Well Name	Metered	Monthly Water Production by Overlying Producer[1]												Total[2] Production	Overlying Water Right	Unused Overlying Allocation in 2004
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
Beckman, Walter M.	No													**22.40**	**75.00**	**52.60**
California Oak Valley Golf and Resort LLC[3]																
Oak Valley #1	Yes	41.15		6.10			150.20	92.90		29.13	122.63	81.07		523.18		
Oak Valley #2	Yes			18.70			82.20	39.30		13.10	27.40	0.00	0.00	180.70		
Subtotal		**41.15**	**0.00**	**24.80**	**0.00**	**0.00**	**232.40**	**132.20**	**0.00**	**42.23**	**150.03**	**81.07**	**0.00**	**703.88**	**950.00**	**246.12**
Merlin Properties	No	Water Duty Method Used to Estimate Annual Production												**1.55**	**550.00**	**548.45**
Oak Valley Partners, LP[4]																
Singleton Ranch #5	No													300.00		
Singleton Ranch #7	Yes													40.22		
Irrigation Stokes	No													10.00		
Subtotal														**350.22**	**1,806.00**	**1,455.78**
Plantation on the Lake LLC	Yes	23.00	11.94	8.27	16.80	20.21	34.28	35.25	35.85	42.90	32.56	25.39	23.73	**310.19**	**581.00**	**270.81**
Rancho Calimesa Mobile Home Park	No	Water Duty Method Used to Estimate Annual Production												**68.25**	**150.00**	**81.75**
Roman Catholic Bishop of San Bernardino	No	Water Duty Method Used to Estimate Annual Production												**55.60**	**154.00**	**98.40**
Sharondale Mesa Owners Association																
Well No.1	Yes	5.24	5.90	2.54	8.75	9.20	13.28	7.00	12.81	13.87	9.56	4.43	5.81	98.39		
Well No.2	Yes	0.00	0.00	4.30	5.15	7.22	8.13	15.97	12.64	7.18	6.76	9.56	5.65	82.56		
Subtotal		**5.24**	**5.90**	**6.84**	**13.90**	**16.42**	**21.41**	**22.97**	**25.45**	**21.05**	**16.32**	**13.99**	**11.46**	**180.95**	**200.00**	**19.05**
So Calif Section of the PGA of America[5]																
Well A	Yes															
Well C	Yes															
Well D	Yes															
Subtotal														**1,227.00**	**2,200.00**	**973.00**
Stearns, Leonard M. and Dorothy D.	No	Water Duty Method Used to Estimate Annual Production												**1.05**	**200.00**	**198.95**
Sunny-Cal Egg and Poultry Company	No	Water Duty Method Used to Estimate Annual Production												**385.44**	**1,784.00**	**1,398.56**
TOTAL														**3,306.52**	**8,650.00**	**5,343.48**

1.- All values rounded and subject to revision based on receipt of more accurate information

2.- Total production is estimated for Overlying parties with un-metered wells.

3.- Initially, production not reported monthly. Blank values indicate no report in that month. Production reported for January 2005 was 164.6 acre-ft, but represented four months of production (October 2004 through January 2005). To estimate January value of 41.15 acre-ft, the total production was assumed to be equal across all four months.

4.- Provided copies of state filing with annual calendar year totals for each well. Production values for Singleton Ranch #5 and Irrigation Stokes are estimated by Oak Valley Partners. Meter reads were provided to the Watermaster, but due to inconsitent reporting, annual state recordation data was used.

5.- Watermaster does not have copies of the 2005 state filing. Used production reported in the San Gorgonio Pass Water Angency's Annual Report for CY 2005 total annual production.

Table 3-2D
Overlying Producer Summary of Production for Calendar Year 2006 (ac-ft)

Owner and Well Name	Metered	Monthly Water Production by Overlying Producer[1]												Total[2] Production	Overlying Water Right	Unused Overlying Allocation in 2004
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
Beckman, Walter M.	Yes	0.73	0.33	0.62	0.06	0.41	2.01	1.88	1.99	1.51	0.71	1.06	0.18	**11.49**	**75.00**	**63.51**
California Oak Valley Golf and Resort LLC[3]																
Oak Valley #1	Yes	73.32	31.97	34.00	0.00	44.60	166.10	33.38	53.63	16.07	0.00	0.50	0.00	453.58		
Oak Valley #2	Yes	0.00	0.00	0.10	0.00	6.10	11.40	90.90	47.10	84.40	43.00	66.80	28.10	377.90		
Subtotal		**73.32**	**31.97**	**34.10**	**0.00**	**50.70**	**177.50**	**124.28**	**100.73**	**100.47**	**43.00**	**67.30**	**28.10**	**831.48**	**950.00**	**118.53**
Merlin Properties	No	Water Duty Method Used to Estimate Annual Production												**1.58**	**550.00**	**548.42**
Oak Valley Partners, LP[4]																
Singleton Ranch #5	No													300.00		
Singleton Ranch #7	Yes													2.14		
Irrigation Stokes	No													10.00		
Subtotal														**312.14**	**1,806.00**	**1,493.86**
Plantation on the Lake LLC	Yes	27.64	21.64	20.66	12.03	20.37	28.76	39.65	41.53	40.76	35.49	32.04	29.51	**350.09**	**581.00**	**230.91**
Rancho Calimesa Mobile Home Park	No	Water Duty Method Used to Estimate Annual Production												**68.25**	**150.00**	**81.75**
Roman Catholic Bishop of San Bernardino	No	Water Duty Method Used to Estimate Annual Production												**58.97**	**154.00**	**95.03**
Sharondale Mesa Owners Association																
Well No.1	Yes	5.07	6.63	2.10	4.31	8.67	14.21	5.54	11.63	12.56	10.24	9.08	6.98	97.02		
Well No.2	Yes	4.81	3.42	4.04	4.67	7.67	8.95	22.35	13.08	10.69	7.01	3.48	1.43	91.60		
Subtotal		**9.88**	**10.05**	**6.14**	**8.98**	**16.34**	**23.16**	**27.89**	**24.71**	**23.25**	**17.25**	**12.56**	**8.41**	**188.62**	**200.00**	**11.38**
So Calif Section of the PGA of America																
Well A	Yes	8.36	5.70	3.10	14.33	0.60	2.90	2.65	3.13	6.71	6.99	19.52	92.20	166.19		
Well C	Yes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Well D	Yes	75.57	15.00	10.00	147.13	169.90	218.20	196.30	164.70	212.90	92.10	29.10	81.90	1,412.80		
Subtotal		**83.93**	**20.70**	**13.10**	**161.46**	**170.50**	**221.10**	**198.95**	**167.83**	**219.61**	**99.09**	**48.62**	**174.10**	**1,578.99**	**2,200.00**	**621.01**
Stearns, Leonard M. and Dorothy D.	No	Water Duty Method Used to Estimate Annual Production												**1.05**	**200.00**	**198.95**
Sunny-Cal Egg and Poultry Company	No	Water Duty Method Used to Estimate Annual Production												**2.63**	**1,439.50**	**1,436.87**
Sunny-Cal North - Manheim, Manheim & Berman	No	Water Duty Method Used to Estimate Annual Production												**13.22**	**300.00**	**286.78**
Nikodinov, Nick	No	Water Duty Method Used to Estimate Annual Production												**0.74**	**20.00**	**19.26**
McAmis, Ronald L.	No	Water Duty Method Used to Estimate Annual Production												**0.54**	**5.00**	**4.46**
Aldama, Nicolas and Amalia	No	Water Duty Method Used to Estimate Annual Production												**0.83**	**7.00**	**6.17**
Gutierrez, Hector, et al.	No	Water Duty Method Used to Estimate Annual Production												**1.37**	**10.00**	**8.63**
Darmont, Boris and Miriam	No	Water Duty Method Used to Estimate Annual Production												**0.35**	**2.50**	**2.15**
TOTAL														**3,422.3**	**8,650.0**	**5,227.7**

1.- All values rounded and subject to revision based on receipt of more accurate information

2.- Total production is estimated for Overlying parties with un-metered wells.

3.- Production reported for January 2006 includes production from December 2005.

4.- Provided copies of state filing with annual calendar year totals for each well. Production values for Singleton Ranch #5 and Irrigation Stokes are estimated by Oak Valley Partners. Meter reads were provided to the Watermaster, but due to inconsitent reporting, annual state recordation data was used.

Table 3-2E
Overlying Producer Summary of Production for Calendar Year 2007 (ac-ft)

Owner and Well Name	Metered	Monthly Water Production by Overlying Producer[1]												Total[2] Production	Overlying Water Right	Unused Overlying Allocation in 2004
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
Beckman, Walter M.	Yes	0.30	0.17	0.24	0.31	0.41	0.51	0.53	0.87	2.19	1.48	0.99	0.31	**8.31**	**75.00**	**66.69**
California Oak Valley Golf and Resort LLC																
Oak Valley #1	Yes	0.00	0.00	0.00	20.08	16.61	0.00	0.00	0.00	26.00	41.00	58.00	20.00	181.68		
Oak Valley #2	Yes	35.60	20.70	46.60	21.90	56.70	85.80	89.00	109.00	90.00	42.00	0.00	0.00	597.30		
Subtotal		**35.60**	**20.70**	**46.60**	**41.98**	**73.31**	**85.80**	**89.00**	**109.00**	**116.00**	**83.00**	**58.00**	**20.00**	**778.98**	**950.00**	**171.02**
Merlin Properties	No	Water Duty Method Used to Estimate Annual Production												**1.59**	**550.00**	**548.41**
Oak Valley Partners, LP[3]																
Singleton Ranch #5	No													300.00		
Singleton Ranch #7	Yes	0.16	0.10	0.10	0.12	0.03	0.00	0.55	0.27	0.30	0.17	0.18	0.12	2.10		
Irrigation Stokes	No													10.00		
Subtotal														**312.10**	**1,806.00**	**1,493.90**
Plantation on the Lake LLC	Yes	21.63	21.14	16.88	31.72	23.72	38.11	44.40	39.10	45.60	30.90	2.20	28.80	**344.19**	**581.00**	**236.81**
Rancho Calimesa Mobile Home Park	No	Water Duty Method Used to Estimate Annual Production												**69.30**	**150.00**	**80.70**
Roman Catholic Bishop of San Bernardino	No	Water Duty Method Used to Estimate Annual Production												**0.70**	**154.00**	**153.30**
Sharondale Mesa Owners Association																
Well No.1	Yes	5.05	7.25	12.44	13.70	2.87	14.15	15.00	26.80	12.40	2.90	13.20	4.30	130.06		
Well No.2	Yes	1.89	0.00	0.00	0.00	17.79	5.60	6.00	0.00	7.00	14.00	0.00	0.00	52.28		
Subtotal		**6.94**	**7.25**	**12.44**	**13.70**	**20.66**	**19.75**	**21.00**	**26.80**	**19.40**	**16.90**	**13.20**	**4.30**	**182.34**	**200.00**	**17.66**
So Calif Section of the PGA of America																
Well A	Yes	17.10	79.50	60.00	75.00	52.50	51.40	0.40	1.20	3.00	2.95	0.69	1.17	344.91		
Well C	Yes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Well D	Yes	79.50	37.00	95.80	106.50	112.10	89.50	163.00	149.00	133.00	98.87	72.73	33.03	1,170.03		
Subtotal		**96.60**	**116.50**	**155.80**	**181.50**	**164.60**	**140.90**	**163.40**	**150.20**	**136.00**	**101.82**	**73.42**	**34.20**	**1,514.94**	**2,200.00**	**685.06**
Stearns, Leonard M. and Dorothy D.	No	Water Duty Method Used to Estimate Annual Production												**1.05**	**200.00**	**198.95**
Sunny-Cal Egg and Poultry Company	No	Water Duty Method Used to Estimate Annual Production												**2.68**	**1,439.50**	**1,436.82**
Albor Properties III, LP[4]	No	Water Duty Method Used to Estimate Annual Production												**2.33**	**300.00**	**297.67**
Nikodinov, Nick	No	Water Duty Method Used to Estimate Annual Production												**0.75**	**20.00**	**19.25**
McAmis, Ronald L.	No	Water Duty Method Used to Estimate Annual Production												**0.55**	**5.00**	**4.45**
Aldama, Nicolas and Amalia	No	Water Duty Method Used to Estimate Annual Production												**0.84**	**7.00**	**6.16**
Gutierrez, Hector, et al.	No	Water Duty Method Used to Estimate Annual Production												**1.39**	**10.00**	**8.61**
Darmont, Boris and Miriam	No	Water Duty Method Used to Estimate Annual Production												**0.35**	**2.50**	**2.15**
TOTAL														**3,222.4**	**8,650.0**	**5,427.6**

1.- All values rounded and subject to revision based on receipt of more accurate information

2.- Total production is estimated for Overlying parties with un-metered wells.

3.- As reported to state as annual totals. Production values for Singleton Ranch #5 and Irrigation Stokes are estimated by Oak Valley Partners.

4.- Formerly Sunny-Can North - Manheim, Manheim & Burman

Table 3-2F
Overlying Producer Summary of Production for Calendar Year 2008 (ac-ft)

Owner and Well Name	Metered	Monthly Water Production by Overlying Producer[1]												Total[2] Production	Overlying Water Right	Unused Overlying Allocation in 2004
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
Beckman, Walter M.	Yes	0.21	0.31	0.43	1.43	0.72	1.66	1.9	1.7	1.7	0.9	1.3	0.4	**12.69**	**75.00**	**62.31**
California Oak Valley Golf and Resort LLC																
Oak Valley #1	Yes	8.00	15.00	45.00	87.00	52.00	96.00	117.5	68.4	77.0	31.1	0.0	0.0	596.93		
Oak Valley #2	Yes	0.00	0.00	0.00	0.00	0.00	0.00	0.2	30.3	27.0	58.8	54.5	12.7	183.50		
Subtotal		**8.00**	**15.00**	**45.00**	**87.00**	**52.00**	**96.00**	**117.7**	**98.7**	**104.0**	**89.9**	**54.5**	**12.7**	**780.43**	**950.00**	**169.57**
Merlin Properties	No	Water Duty Method Used to Estimate Annual Production												**1.60**	**550.00**	**548.40**
Oak Valley Partners, LP[3]																
Singleton Ranch #5	No													300.00		
Singleton Ranch #7	Yes	0.04	0.03	0.01	0.04	0.03	0.07	0.1	0.0	0.0	0.1	0.1	0.1	0.51		
Irrigation Stokes	No													10.00		
Subtotal														**310.51**	**1,806.00**	**1,495.49**
Plantation on the Lake LLC	Yes	15.80	18.20	17.70	23.50	30.70	35.40	38.7	43.5	40.8	34.9	32.1	22.8	**354.04**	**581.00**	**226.96**
Rancho Calimesa Mobile Home Park	No	Water Duty Method Used to Estimate Annual Production												**69.30**	**150.00**	**80.70**
Roman Catholic Bishop of San Bernardino	No	Water Duty Method Used to Estimate Annual Production												**0.70**	**154.00**	**153.30**
Sharondale Mesa Owners Association																
Well No.1	Yes	0.24	5.70	5.17	9.77	17.56	0.00	12.6	12.2	17.6	9.6	7.9	4.6	102.91		
Well No.2	Yes	3.00	0.00	4.00	3.00	0.00	21.00	14.4	10.3	15.0	7.9	7.4	4.3	90.39		
Subtotal		**3.24**	**5.70**	**9.17**	**12.77**	**17.56**	**21.00**	**27.0**	**22.5**	**32.6**	**17.6**	**15.3**	**8.9**	**193.30**	**200.00**	**6.70**
East Valley Golf Club[4]																
Well A	Yes	1.00	1.40	2.06	1.60	1.95	1.85	2.0	0.6	0.4	0.4	1.0	0.0	14.28		
Well C	Yes	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00		
Well D	Yes	19.08	21.40	78.84	90.98	134.14	128.78	220.2	181.6	59.3	85.3	117.0	70.0	1,206.67		
Subtotal		**20.08**	**22.80**	**80.90**	**92.58**	**136.09**	**130.63**	**222.1**	**182.3**	**59.8**	**85.7**	**118.0**	**70.0**	**1,220.95**	**2,200.00**	**979.05**
Stearns, Leonard M. and Dorothy D.	No	Water Duty Method Used to Estimate Annual Production												**1.05**	**200.00**	**198.95**
Sunny-Cal Egg and Poultry Company	No	Water Duty Method Used to Estimate Annual Production												**4.19**	**1,439.50**	**1,435.31**
Albor Properties III, LP[5]	No	Water Duty Method Used to Estimate Annual Production												**2.34**	**300.00**	**297.66**
Nikodinov, Nick	No	Water Duty Method Used to Estimate Annual Production												**0.75**	**20.00**	**19.25**
McAmis, Ronald L.	No	Water Duty Method Used to Estimate Annual Production												**0.55**	**5.00**	**4.45**
Aldama, Nicolas and Amalia	No	Water Duty Method Used to Estimate Annual Production												**0.85**	**7.00**	**6.15**
Gutierrez, Hector, et al.	No	Water Duty Method Used to Estimate Annual Production												**1.40**	**10.00**	**8.60**
Darmont, Boris and Miriam	No	Water Duty Method Used to Estimate Annual Production												**0.35**	**2.50**	**2.15**
TOTAL														**2,955.0**	**8,650.0**	**5,695.0**

1.- All values rounded and subject to revision based on receipt of more accurate information

2.- Total production is estimated for Overlying parties with un-metered wells.

3.- As reported to state as annual totals. Production values for Singleton Ranch #5 and Irrigation Stokes are estimated by Oak Valley Partners.

4.- Formerly the So Calif Section of the PGA of America

5.- Formerly Sunny-Can North - Manheim, Manheim & Burman

Table 3-2G
Overlying Producer Summary of Production for Calendar Year 2009 (ac-ft)

Owner and Well Name	Metered	Monthly Water Production by Overlying Producer[1]												Total[2] Production	Overlying Water Right	Unused Overlying Allocation in 2004
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
Beckman, Walter M.	Yes	0.66	0.29	0.34	1.28	1.28	1.37	1.79	2.21	1.93	0.75	0.84	0.14	**12.88**	**75.00**	**62.12**
California Oak Valley Golf and Resort LLC																
Oak Valley #1	Yes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	76.77	9.57	49.35	0.00	135.69		
Oak Valley #2	Yes	32.50	25.70	27.50	86.10	77.00	66.30	108.10	104.67	42.73	43.92	8.05	8.41	630.98		
Subtotal		**32.50**	**25.70**	**27.50**	**86.10**	**77.00**	**66.30**	**108.10**	**104.67**	**119.50**	**53.49**	**57.40**	**8.41**	**766.67**	**950.00**	**183.33**
Merlin Properties	No	Water Duty Method Used to Estimate Annual Production												**1.58**	**550.00**	**548.42**
Oak Valley Partners, LP[3]																
Singleton Ranch #5	No													300.00		
Singleton Ranch #7	Yes	0.01	0.02	0.03	0.02	0.04	0.10	0.11	0.08	0.06	0.04			0.51		
Irrigation Stokes	No													10.00		
Subtotal														**310.51**	**1,806.00**	**1,495.49**
Plantation on the Lake LLC	Yes	15.51	17.41	13.52	26.58	37.84	34.79	36.78	33.98	33.98	33.98	33.98	33.98	**352.31**	**581.00**	**228.70**
Rancho Calimesa Mobile Home Park	No	Water Duty Method Used to Estimate Annual Production												**69.30**	**150.00**	**80.70**
Roman Catholic Bishop of San Bernardino	No	Water Duty Method Used to Estimate Annual Production												**0.70**	**154.00**	**153.30**
Sharondale Mesa Owners Association																
Well No.1	Yes	4.46	2.73	5.04	6.76	7.75	7.73	8.79	10.23	9.70	8.35	7.02	1.74	80.30		
Well No.2	Yes	4.11	2.77	4.81	6.21	6.84	6.81	7.75	8.26	8.49	7.36	6.02	4.55	73.98		
Subtotal		**8.57**	**5.50**	**9.85**	**12.97**	**14.59**	**14.54**	**16.54**	**18.49**	**18.19**	**15.71**	**13.04**	**6.29**	**154.28**	**200.00**	**45.72**
East Valley Golf Club[4]																
Well A	Yes	2.00	19.00	3.00	9.00	16.00	8.00	13.00	45.00	32.00	24.00	6.00	2.00	179.00		
Well C	Yes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Well D	Yes	18.00	49.00	15.00	81.00	90.00	114.00	83.00	155.00	110.00	125.00	69.00	56.00	965.00		
Subtotal		**20.00**	**68.00**	**18.00**	**90.00**	**106.00**	**122.00**	**96.00**	**200.00**	**142.00**	**149.00**	**75.00**	**58.00**	**1,144.00**	**2,200.00**	**1,056.00**
Stearns, Leonard M. and Dorothy D.	No	Water Duty Method Used to Estimate Annual Production												**1.05**	**200.00**	**198.95**
Sunny-Cal Egg and Poultry Company	No	Water Duty Method Used to Estimate Annual Production												**4.19**	**1,439.50**	**1,435.31**
Albor Properties III, LP[5]	No	Water Duty Method Used to Estimate Annual Production												**2.27**	**300.00**	**297.73**
Nikodinov, Nick	No	Water Duty Method Used to Estimate Annual Production												**0.73**	**20.00**	**19.27**
McAmis, Ronald L.	No	Water Duty Method Used to Estimate Annual Production												**0.54**	**5.00**	**4.46**
Aldama, Nicolas and Amalia	No	Water Duty Method Used to Estimate Annual Production												**0.83**	**7.00**	**6.17**
Gutierrez, Hector, et al.	No	Water Duty Method Used to Estimate Annual Production												**1.37**	**10.00**	**8.63**
Darmont, Boris and Miriam	No	Water Duty Method Used to Estimate Annual Production												**0.35**	**2.50**	**2.15**
TOTAL														**2,823.56**	**8,650.0**	**5,826.4**

1.- All values rounded and subject to revision based on receipt of more accurate information

2.- Total production is estimated for Overlying parties with un-metered wells.

3.- Oak Valley Partners has not submitted data to the Watermaster since October 2009. Assumed annual production for Singleton Ranch #5 and Irrigaition Stokes was the same as reported for 2004 through 2008.

4.- Formerly the So Calif Section of the PGA of America

5.- Formerly Sunny-Can North - Manheim, Manheim & Burman

Table 3-2H
Overlying Producer Summary of Production for Calendar Year 2010 (ac-ft)

Owner and Well Name	Metered	Monthly Water Production by Overlying Producer[1]												Total[2] Production	Overlying Water Right	Unused Overlying Allocation in 2004
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
Beckman, Walter M.	Yes	0.45	0.06	0.30	0.18	0.91	0.61	1.09	0.81	1.22	0.24	0.30	0.20	**6.37**	**75.00**	**68.63**
California Oak Valley Golf and Resort LLC																
Oak Valley #1	Yes	5.18	7.81	9.45	6.14	57.30	24.61	45.63	24.61	94.27	25.28	3.95	0.00	304.23		
Oak Valley #2	Yes	13.48	0.00	24.04	15.30	36.52	26.93	41.38	59.10	4.38	0.13	30.39	9.24	260.89		
Subtotal		**18.66**	**7.81**	**33.49**	**21.44**	**93.82**	**51.54**	**87.01**	**83.71**	**98.65**	**25.41**	**34.34**	**9.24**	**565.12**	**950.00**	**384.88**
Merlin Properties	No	Water Duty Method Used to Estimate Annual Production												**1.54**	**550.00**	**548.46**
Oak Valley Partners, LP[3]																
Singleton Ranch #5	No													300.00		
Singleton Ranch #7	Yes													1.05		
Irrigation Stokes	No													10.00		
Subtotal														**311.05**	**1,806.00**	**1,494.95**
Plantation on the Lake LLC	Yes	33.98	12.40	12.43	24.33	25.59	33.23	33.15	39.52	20.33	49.86	28.86	23.51	**337.19**	**581.00**	**243.82**
Rancho Calimesa Mobile Home Park	No	Water Duty Method Used to Estimate Annual Production												**69.30**	**150.00**	**80.70**
Roman Catholic Bishop of San Bernardino	No	Water Duty Method Used to Estimate Annual Production												**0.00**	**154.00**	**154.00**
Sharondale Mesa Owners Association																
Well No.1	Yes	0.14	1.52	2.96	3.10	7.36	9.80	9.11	10.37	9.70	5.22	4.81	3.60	67.69		
Well No.2	Yes	5.13	1.53	2.85	4.89	6.33	7.79	7.77	8.60	8.14	4.30	4.47	2.84	64.64		
Subtotal		**5.27**	**3.05**	**5.81**	**7.99**	**13.69**	**17.59**	**16.88**	**18.97**	**17.84**	**9.52**	**9.28**	**6.44**	**132.33**	**200.00**	**67.67**
So Calif Section of the PGA of America																
Well A	Yes	23.00	7.00	1.00	3.00	3.00	16.00	20.00	14.00	28.00	12.00	11.00	3.00	141.00		
Well C	Yes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Well D	Yes	7.00	16.00	14.00	59.00	55.00	6.00	222.00	72.00	98.00	112.00	32.00	25.00	718.00		
Subtotal		**30.00**	**23.00**	**15.00**	**62.00**	**58.00**	**22.00**	**242.00**	**86.00**	**126.00**	**124.00**	**43.00**	**28.00**	**859.00**	**2,200.00**	**1,341.00**
Stearns, Leonard M. and Dorothy D.	No	Water Duty Method Used to Estimate Annual Production												**0.70**	**200.00**	**199.30**
East Valley Golf Club[4]	No	Water Duty Method Used to Estimate Annual Production												**3.80**	**1,439.50**	**1,435.70**
Albor Properties III, LP[5]	No	Water Duty Method Used to Estimate Annual Production												**2.12**	**300.00**	**297.88**
Nikodinov, Nick	No	Water Duty Method Used to Estimate Annual Production												**0.70**	**20.00**	**19.30**
McAmis, Ronald L.	No	Water Duty Method Used to Estimate Annual Production												**0.53**	**5.00**	**4.47**
Aldama, Nicolas and Amalia	No	Water Duty Method Used to Estimate Annual Production												**0.79**	**7.00**	**6.21**
Gutierrez, Hector, et al.	No	Water Duty Method Used to Estimate Annual Production												**1.32**	**10.00**	**8.68**
Darmont, Boris and Miriam	No	Water Duty Method Used to Estimate Annual Production												**0.35**	**2.50**	**2.15**
TOTAL														**2,292.2**	**8,650.0**	**6,357.8**

1.- All values rounded and subject to revision based on receipt of more accurate information

2.- Total production is estimated for Overlying parties with un-metered wells.

3.- Oak Valley Partners has not submitted data to the Watermaster since October 2009. Assumed annual production for Singleton Ranch #5 and Irrigaition Stokes was the same as reported for 2004 through 2008. Assumed production for Singleton Ranch #7 was equal to the average of the last four years of reported (2006-2009) production.

4.- Formerly the So Calif Section of the PGA of America

5.- Formerly Sunny-Can North - Manheim, Manheim & Burman

Table 3-2I
Overlying Producer Summary of Production for Calendar Year 2011 (ac-ft)

Owner and Well Name	Metered	Monthly Water Production by Overlying Producer[1]												Total[2] Production	Overlying Water Right	Unused Overlying Allocation in 2004
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
Beckman, Walter M.[3]	Yes	0.20	0.20	0.17	0.17	0.17	0.40	1.79	2.21	1.93	0.75	0.84	0.14	**8.98**	**75.00**	**66.02**
California Oak Valley Golf and Resort LLC[3]																
Oak Valley #1	Yes	10.65	1.00	0.23	0.00	0.00	0.00									
Oak Valley #2	Yes	0.30	9.55	0.56	15.36	72.15	12.58									
Subtotal		**10.95**	**10.55**	**0.79**	**15.36**	**72.15**	**12.58**	**97.56**	**94.19**	**109.08**	**39.45**	**45.87**	**8.83**	**517.35**	**950.00**	**432.66**
Merlin Properties	No	Water Duty Method Used to Estimate Annual Production												**1.59**	**550.00**	**548.41**
Oak Valley Partners, LP[3]																
Singleton Ranch #5	No													300.00		
Singleton Ranch #7	Yes													0.00		
Irrigation Stokes	No													10.00		
Subtotal														**310.00**	**1,806.00**	**1,496.00**
Plantation on the Lake LLC[3]	Yes	16.09	23.37	15.94	20.68	24.09	34.30	35.24	45.73	27.15	41.92	31.42	28.74	**344.67**	**581.00**	**236.33**
Rancho Calimesa Mobile Home Park	No	Water Duty Method Used to Estimate Annual Production												**69.30**	**150.00**	**80.70**
Roman Catholic Bishop of San Bernardino	No	Water Duty Method Used to Estimate Annual Production												**0.00**	**154.00**	**154.00**
Sharondale Mesa Owners Association[3]																
Well No.1	Yes	3.36	2.69	2.78	4.14	5.71	8.03	11.31	9.61							
Well No.2	Yes	3.25	2.58	2.54	4.12	6.16	6.45	6.60	8.81							
Subtotal		**6.61**	**5.27**	**5.32**	**8.26**	**11.87**	**14.48**	**17.91**	**18.42**	**9.70**	**6.79**	**5.92**	**2.67**	**113.21**	**200.00**	**86.79**
So Calif Section of the PGA of America[3]																
Well A	Yes	3.00	4.00	0.00	17.00	5.00	20.00									
Well C	Yes	0.00	0.00	0.00	0.00	0.00	0.00									
Well D	Yes	23.00	40.00	18.00	26.00	45.00	16.00									
Subtotal		**26.00**	**44.00**	**18.00**	**43.00**	**50.00**	**36.00**	**169.00**	**143.00**	**134.00**	**136.50**	**59.00**	**43.00**	**901.50**	**2,200.00**	**1,298.50**
Stearns, Leonard M. and Dorothy D.	No	Water Duty Method Used to Estimate Annual Production						0.42						**0.70**	**200.00**	**199.30**
Sunny-Cal Egg and Poultry Company	No	Water Duty Method Used to Estimate Annual Production						2.50						**4.17**	**1,439.50**	**1,435.33**
Albor Properties III, LP	No	Water Duty Method Used to Estimate Annual Production						1.40						**2.33**	**300.00**	**297.67**
Nikodinov, Nick	No	Water Duty Method Used to Estimate Annual Production						0.45						**0.75**	**20.00**	**19.25**
McAmis, Ronald L.	No	Water Duty Method Used to Estimate Annual Production						0.33						**0.55**	**5.00**	**4.45**
Aldama, Nicolas and Amalia	No	Water Duty Method Used to Estimate Annual Production						0.51						**0.85**	**7.00**	**6.15**
Gutierrez, Hector, et al.	No	Water Duty Method Used to Estimate Annual Production						0.83						**1.39**	**10.00**	**8.61**
Darmont, Boris and Miriam	No	Water Duty Method Used to Estimate Annual Production						0.21						**0.35**	**2.50**	**2.15**
TOTAL														**2,277.7**	**8,650.0**	**6,372.3**

1.- All values rounded and subject to revision based on receipt of more accurate information

2.- Total production is estimated for Overlying parties with un-metered wells.

3.- Production estimated for the Jul-Dec period based on the last two years of reported production.

Table 3-3
Production Summary for Appropriator and Overlying Producers in the Beaumont Basin
Calendar Year Accounting (ac-ft)

	Annual Production (ac-ft)									Total Production
	2003[1]	2004	2005	2006	2007	2008	2009	2010	2011	
Appropriator Parties										
Banning, City of	2,174.2	3,397.3	1,808.6	1,827.5	2,772.6	2,933.6	2,095.0	1,143.6	1,341.7	19,494.1
Beaumont-Cherry Valley Water District	3,511.9	6,873.9	7,025.6	9,054.1	11,383.3	10,710.5	10,133.9	9,421.3	9,431.3	77,545.8
South Mesa Water Company	223.2	482.5	663.2	616.0	665.8	470.9	382.2	405.0	419.9	4,328.6
Yucaipa Valley Water District	1,162.4	1,804.7	1,274.3	2,027.3	1,682.9	573.4	504.4	671.5	534.1	10,234.9
Subtotal	**7,071.7**	**12,558.3**	**10,771.7**	**13,524.9**	**16,504.6**	**14,688.4**	**13,115.6**	**11,641.3**	**11,727.1**	**111,603.5**
Overlying Parties										
Beckman, Walter M	16.2	27.0	22.4	11.5	8.3	12.7	12.9	6.4	9.0	126.3
California Oak Valley Golf and Resort LLC	736.2	728.6	703.9	831.5	779.0	780.4	766.7	565.1	517.3	6,408.7
Merlin Properties	3.6	1.6	1.6	1.6	1.6	1.6	1.6	1.5	1.6	16.2
Oak Valley Partners, LP	301.2	440.7	350.2	312.1	312.1	310.5	310.5	311.1	310.0	2,958.4
Plantation on the Lake LLC	178.6	340.9	310.2	350.1	344.2	354.0	352.3	337.2	344.7	2,912.1
Rancho Calimesa Mobile Home Park	35.4	68.3	68.3	68.3	69.3	69.3	69.3	69.3	69.3	586.7
Roman Catholic Bishop of San Bernardino	46.8	59.1	55.6	59.0	0.7	0.7	0.7	0.0	0.0	222.5
Sharondale Mesa Owners Association	104.3	158.0	181.0	188.6	182.3	193.3	154.3	132.3	113.2	1,407.4
East Valley Golf Club[2]	779.1	1,369.0	1,227.0	1,579.0	1,514.9	1,221.0	1,144.0	859.0	901.5	10,594.4
Stearns, Leonard M. and Dorothy D.	1.1	1.1	1.1	1.1	1.1	1.1	1.1	0.7	0.7	8.8
Sunny-Cal Egg and Poultry Company	226.0	404.4	385.4	2.6	2.7	4.2	4.2	3.8	4.2	1,037.5
Albor Properties III, LP[3]				13.2	2.3	2.3	2.3	2.1	2.3	24.6
Nikodinov, Nick				0.7	0.8	0.8	0.7	0.7	0.8	4.4
McAmis, Ronald L.				0.5	0.6	0.6	0.5	0.5	0.6	3.3
Aldama, Nicolas and Amalia				0.8	0.8	0.9	0.8	0.8	0.9	5.0
Gutierrez, Hector, et. al.				1.4	1.4	1.4	1.4	1.3	1.4	8.2
Darmont, Boris and Miriam				0.4	0.4	0.4	0.4	0.4	0.4	2.1
Subtotal	**2,428.5**	**3,598.5**	**3,306.5**	**3,422.3**	**3,222.4**	**2,955.0**	**2,823.6**	**2,292.2**	**2,277.7**	**26,326.7**
Total	**9,500.2**	**16,156.8**	**14,078.2**	**16,947.3**	**19,726.9**	**17,643.4**	**15,939.1**	**13,933.5**	**14,004.7**	**137,930.1**

1.- 2003 groundwater production only includes Jul-Dec time period.

2.- Formerly the Southern California Section of the PGA of America.

3.- Formerly Sunny Cal North - Manheim, Manheim & Berman.

Table 3-4
Annual Supplemental Recharge to the Beaumont Basin -- Calendar Year Accounting

Year	Supplemental Recharge (ac-ft)				
	Banning[1]	Beaumont[2]	BCVWD[1]	Pass Agency[3]	Total
2003	-	-	-	-	-
2004	-	-	-	813.8	813.8
2005	-	-	-	687.4	687.4
2006	-	-	3,498.1	777.7	4,275.8
2007	-	-	4,274.0	541.3	4,815.3
2008	1,200.0	-	2,654.5	1,047.4	4,901.9
2009	1,200.0	-	4,362.3	823.4	6,385.7
2010	1,200.0	-	5,788.3	1,222.3	8,210.6
2011	800.0	-	8,316.0	1,842.0	10,958.0
Totals	**4,400.0**	**-**	**28,893.2**	**7,755.3**	**41,048.5**

1.- SWP water recharged in the BCVWD Noble Creek Recharge Facility

2.- The City of Beaumont is seeking credit for recycled water recharge in the Beaumont Basin from DP-007 in an unnamed tributary to Marshall Creek. A technical demonstration of the estimated amount of recharge in the Beaumont Basin is pending.

3.- SWP water recharged in the Pass Agency's Little San Gorgonio Creek Spreading Ponds

Table 3-5
Summary of Unused Overlying Water -- Calendar Year Accounting (ac-ft)

Watermaster Accounting Year	2003	2004	2005	2006	2007	2008	2009	2010	2011
Annual Overlying Water Right	4,325.0	8,650.0	8,650.0	8,650.0	8,650.0	8,650.0	8,650.0	8,650.0	8,650.0
Annual Overlying Production	2,428.5	3,598.5	3,306.5	3,422.3	3,222.4	2,955.0	2,823.6	2,292.2	2,277.7
Unused Overlying Water Right	**1,896.6**	**5,051.5**	**5,343.5**	**5,227.7**	**5,427.6**	**5,695.0**	**5,826.4**	**6,357.8**	**6,372.3**

Table 3-6
Allocation of Unused Overlying Water -- Calendar Year Accounting (ac-ft)

Appropriator Party	Share of Safe Yield	2008	2009	2010	2011	2012	2013	2014	2015	2016
Banning, City of	31.43%	596.1	1,587.7	1,679.5	1,643.1	1,705.9	1,789.9	1,831.3	1,998.3	2,002.8
Beaumont, City of	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Beaumont Cherry Valley Water District	42.51%	806.2	2,147.4	2,271.5	2,222.3	2,307.3	2,420.9	2,476.8	2,702.7	2,708.9
South Mesa Water Company	12.48%	236.7	630.4	666.9	652.4	677.4	710.7	727.1	793.5	795.3
Yucaipa Valley Water District	13.58%	257.6	686.0	725.6	709.9	737.1	773.4	791.2	863.4	865.4
Total	**100.00%**	**1,896.6**	**5,051.5**	**5,343.5**	**5,227.7**	**5,427.6**	**5,695.0**	**5,826.4**	**6,357.8**	**6,372.3**

Table 3-7
Consolidation of Appropriator Production and Storage Accounts
Calendar Year Accounting (ac-ft)

Calendar Year	Storage Account Balance at Beginning of CY	Share of Surplus Water	Groundwater Production for CY	Additions to Storage Account							Ending Account Balance
				Under Production[1]	Unused Overlying Production Allocation	Transfers Among Appropriators	Supplemental Water		Local Recharge	Total Additions to Storage Account	
							SWP Water Recharge	Recycled Water Recharge			
City of Banning - Authorized Storage Account: 80,000 ac-ft											
2003	0.0	2,514.5	2,174.2	340.3	0.0	0.0	0.0	0.0	0.0	340.3	340.3
2004	340.3	5,029.0	3,397.3	1,631.7	0.0	0.0	0.0	0.0	0.0	1,631.7	1,972.0
2005	1,972.0	5,029.0	1,808.6	3,220.4	0.0	0.0	0.0	0.0	0.0	3,220.4	5,192.5
2006	5,192.5	5,029.0	1,827.5	3,201.5	0.0	0.0	0.0	0.0	0.0	3,201.5	8,393.9
2007	8,393.9	5,029.0	2,772.6	2,256.4	0.0	1,500.0	0.0	0.0	0.0	3,756.4	12,150.3
2008	12,150.3	5,029.0	2,933.6	2,095.4	596.1	0.0	1,200.0	0.0	0.0	3,891.5	16,041.8
2009	16,041.8	5,029.0	2,095.0	2,934.0	1,587.7	0.0	1,200.0	0.0	0.0	5,721.6	21,763.4
2010	21,763.4	5,029.0	1,143.6	3,885.4	1,679.5	0.0	1,200.0	0.0	0.0	6,764.8	28,528.3
2011	28,528.3	5,029.0	1,341.7	3,687.3	1,643.1	0.0	800.0	0.0	0.0	6,130.4	34,658.7
Beaumont Cherry Valley Water District - Authorized Storage Account: 80,000 ac-ft											
2003	0.0	3,401.0	3,511.9	-110.9	0.0	0.0	0.0	0.0	0.0	-110.9	-110.9
2004	-110.9	6,802.0	6,873.9	-71.9	0.0	0.0	0.0	0.0	0.0	-71.9	-182.8
2005	-182.8	6,802.0	7,025.6	-223.6	0.0	0.0	0.0	0.0	0.0	-223.6	-406.4
2006	-406.4	6,802.0	9,054.1	-2,252.1	0.0	0.0	3,498.1	0.0	0.0	1,246.0	839.6
2007	839.6	6,802.0	11,383.3	-4,581.3	0.0	1,500.0	4,274.0	0.0	0.0	1,192.7	2,032.3
2008	2,032.3	6,802.0	10,710.5	-3,908.5	806.2	2,500.0	2,654.5	0.0	0.0	2,052.2	4,084.5
2009	4,084.5	6,802.0	10,133.9	-3,331.9	2,147.4	2,000.0	4,362.3	0.0	0.0	5,177.8	9,262.3
2010	9,262.3	6,802.0	9,421.3	-2,619.3	2,271.5	0.0	5,788.3	0.0	0.0	5,440.5	14,702.8
2011	14,702.8	6,802.0	9,431.3	-2,629.3	2,222.3	3,500.0	8,316.0	0.0	0.0	11,409.0	26,111.8
City of Beaumont - Authorized Storage Account: 30,000 ac-ft											
2003	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2004	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2005	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2006	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2007	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2008	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2009	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2010	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2011	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

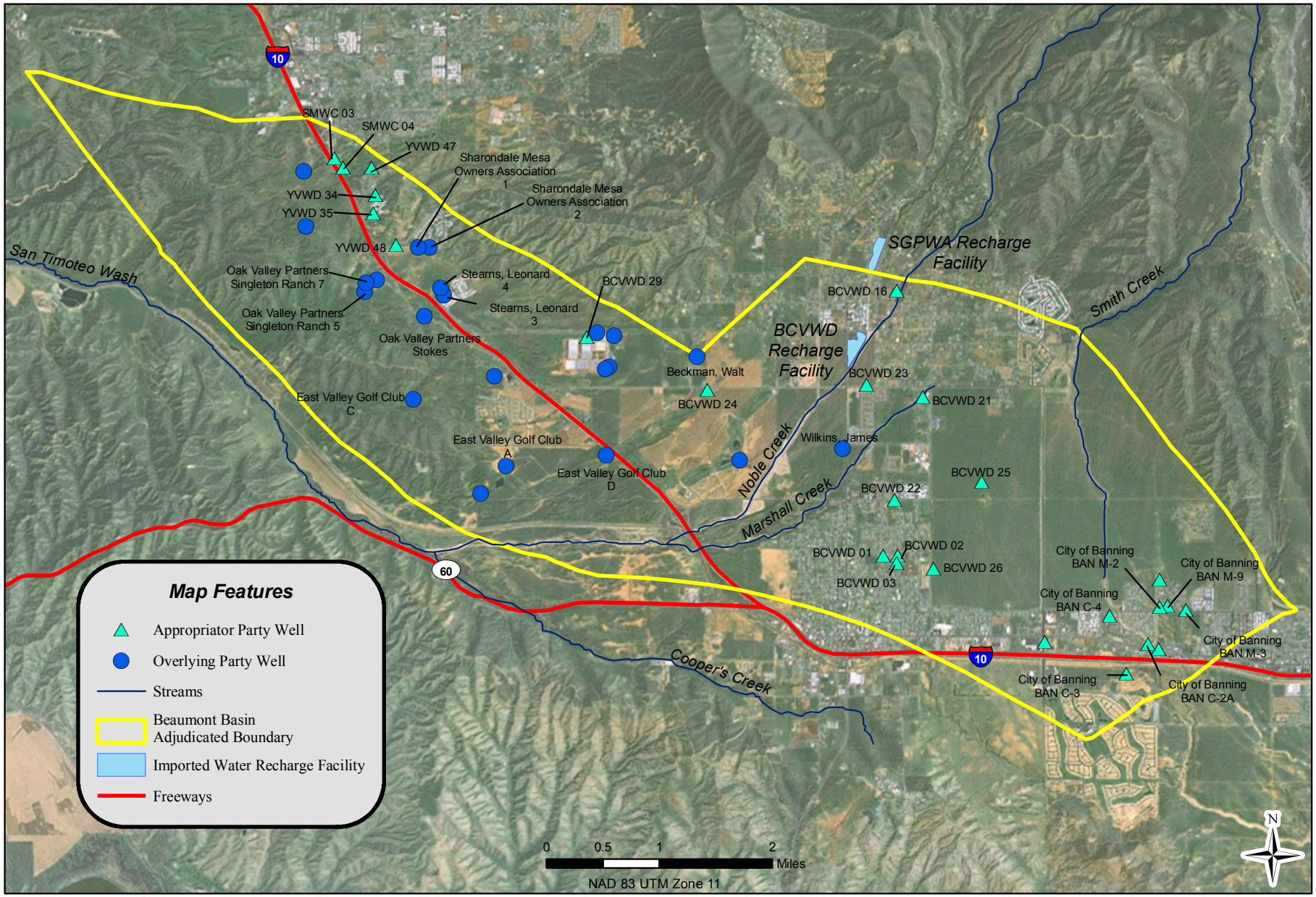
Table 3-7
Consolidation of Appropriator Production and Storage Accounts
Calendar Year Accounting (ac-ft)

Calendar Year	Storage Account Balance at Beginning of CY	Share of Surplus Water	Groundwater Production for CY	Additions to Storage Account							Ending Account Balance
				Under Production[1]	Unused Overlying Production Allocation	Transfers Among Appropriators	Supplemental Water		Local Recharge	Total Additions to Storage Account	
							SWP Water Recharge	Recycled Water Recharge			
South Mesa Water Company - Authorized Storage Account: 20,000 ac-ft											
2003	0.0	998.0	223.2	774.8	0.0	0.0	0.0	0.0	0.0	774.8	774.8
2004	774.8	1,996.0	482.5	1,513.5	0.0	0.0	0.0	0.0	0.0	1,513.5	2,288.3
2005	2,288.3	1,996.0	663.2	1,332.8	0.0	0.0	0.0	0.0	0.0	1,332.8	3,621.1
2006	3,621.1	1,996.0	616.0	1,380.0	0.0	0.0	0.0	0.0	0.0	1,380.0	5,001.1
2007	5,001.1	1,996.0	665.8	1,330.2	0.0	-3,000.0	0.0	0.0	0.0	-1,669.8	3,331.3
2008	3,331.3	1,996.0	470.9	1,525.2	236.7	-2,500.0	0.0	0.0	0.0	-738.2	2,593.2
2009	2,593.2	1,996.0	382.2	1,613.8	630.4	-2,000.0	0.0	0.0	0.0	244.2	2,837.4
2010	2,837.4	1,996.0	405.0	1,591.1	666.9	0.0	0.0	0.0	0.0	2,257.9	5,095.3
2011	5,095.3	1,996.0	419.9	1,576.1	652.4	-3,500.0	0.0	0.0	0.0	-1,271.5	3,823.8
Yucaipa Valley Water District - Authorized Storage Account: 50,000 ac-ft											
2003	0.0	1,086.5	1,162.4	-75.9	0.0	0.0	0.0	0.0	0.0	-75.9	-75.9
2004	-75.9	2,173.0	1,804.7	368.3	0.0	0.0	0.0	0.0	0.0	368.3	292.4
2005	292.4	2,173.0	1,274.3	898.7	0.0	0.0	0.0	0.0	0.0	898.7	1,191.2
2006	1,191.2	2,173.0	2,027.3	145.7	0.0	0.0	0.0	0.0	0.0	145.7	1,336.9
2007	1,336.9	2,173.0	1,682.9	490.1	0.0	0.0	0.0	0.0	0.0	490.1	1,827.0
2008	1,827.0	2,173.0	573.4	1,599.6	257.6	0.0	0.0	0.0	0.0	1,857.2	3,684.1
2009	3,684.1	2,173.0	504.4	1,668.6	686.0	0.0	0.0	0.0	0.0	2,354.6	6,038.7
2010	6,038.7	2,173.0	671.5	1,501.6	725.6	0.0	0.0	0.0	0.0	2,227.2	8,265.9
2011	8,265.9	2,173.0	534.1	1,638.9	709.9	0.0	0.0	0.0	0.0	2,348.8	10,614.7
Totals											
2003	0.0	8,000.0	7,071.7	928.3	0.0	0.0	0.0	0.0	0.0	928.3	928.3
2004	928.3	16,000.0	12,558.3	3,441.7	0.0	0.0	0.0	0.0	0.0	3,441.7	4,370.0
2005	4,370.0	16,000.0	10,771.7	5,228.3	0.0	0.0	0.0	0.0	0.0	5,228.3	9,598.3
2006	9,598.3	16,000.0	13,524.9	2,475.1	0.0	0.0	3,498.1	0.0	0.0	5,973.2	15,571.5
2007	15,571.5	16,000.0	16,504.6	-504.6	0.0	0.0	4,274.0	0.0	0.0	3,769.4	19,340.9
2008	19,340.9	16,000.0	14,688.4	1,311.6	1,896.6	0.0	3,854.5	0.0	0.0	7,062.7	26,403.6
2009	26,403.6	16,000.0	13,115.6	2,884.4	5,051.5	0.0	5,562.3	0.0	0.0	13,498.2	39,901.8
2010	39,901.8	16,000.0	11,641.3	4,358.7	5,343.5	0.0	6,988.3	0.0	0.0	16,690.5	56,592.3
2011	56,592.3	16,000.0	11,727.1	4,272.9	5,227.7	0.0	9,116.0	0.0	0.0	18,616.6	75,208.9

1 -- Negative values of under production indicate that the appropriator pumped more than its share of the operating yield.

Table 3-8
Storage Balance Reconciliation - Fiscal Year vs. Calendar Year Analysis

	City of Banning	Beaumont Cherry Valley WD	South Mesa Water Company	Yucaipa Valley Water District	Combined Total
Account Balance based on Jul/2012 8th Annual Report	31,320.0	23,503.0	2,781.0	9,494.0	67,098.0
Share of Temporary Surplus Water for Jul-Dec 2011	2,514.5	3,401.0	998.0	1,086.5	8,000.0
Groundwater Production Jul-Dec 2011	935.3	5,936.1	263.0	310.2	7,444.6
Spreading	800.0	4,423.0	-	-	5,223.0
Transfers from Jul-Dec 2006 from Overlying Users	698.8	945.1	277.5	301.9	2,223.3
Projected Balance Using CY Basis	**34,398.0**	**26,336.0**	**3,793.5**	**10,572.2**	**75,099.7**
Balance CY 2011 - Current Study	**34,658.7**	**26,111.8**	**3,823.8**	**10,614.7**	**75,208.9**
Difference	260.7	(224.2)	30.3	42.5	109.2
Difference in Percentages	0.75%	-0.86%	0.79%	0.40%	0.15%



Alda, Inc. *in association with*
Thomas Harder & Co.
Groundwater Consulting

Well Locations in the Beaumont Basin

Figure 3-1

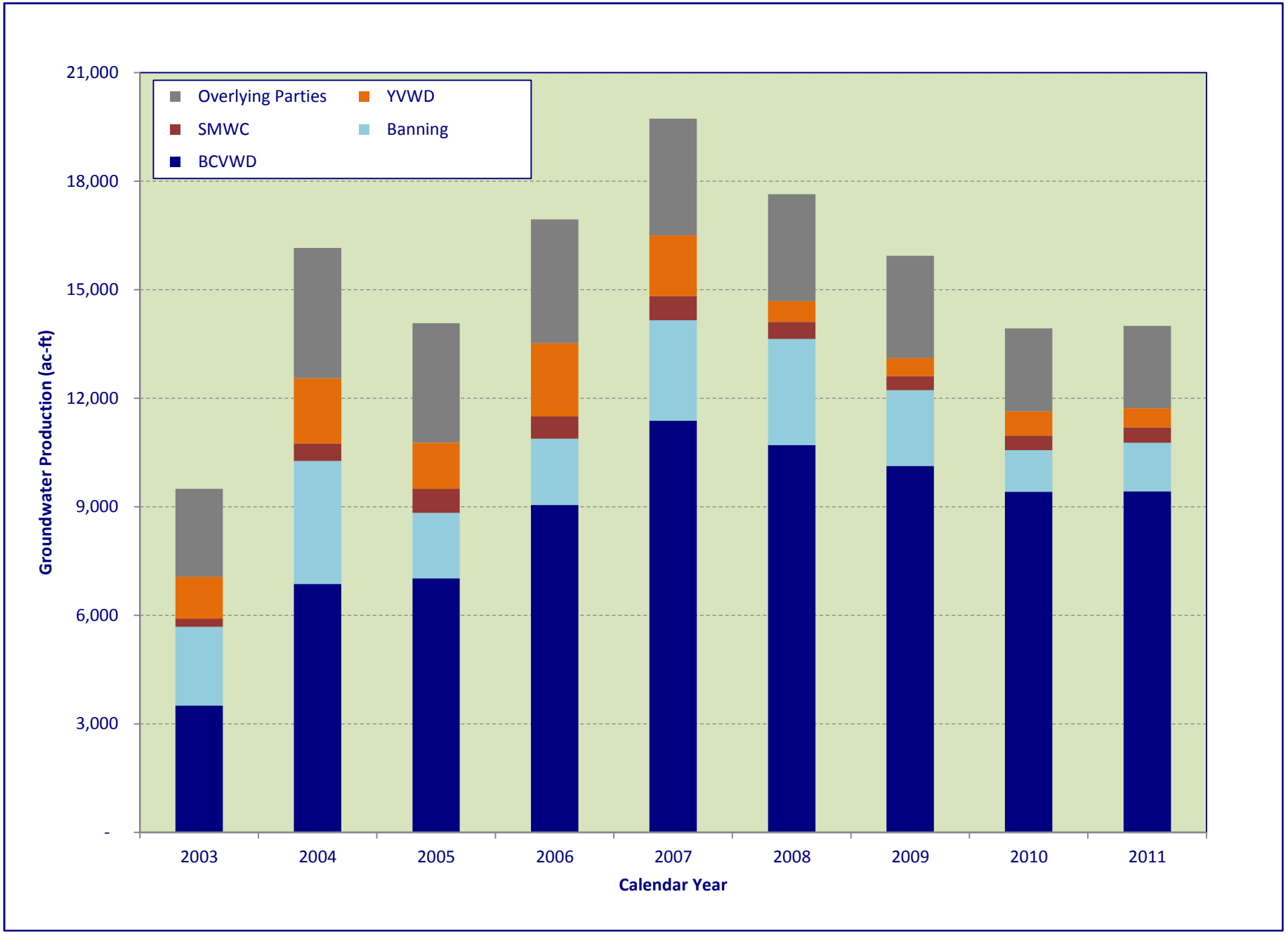
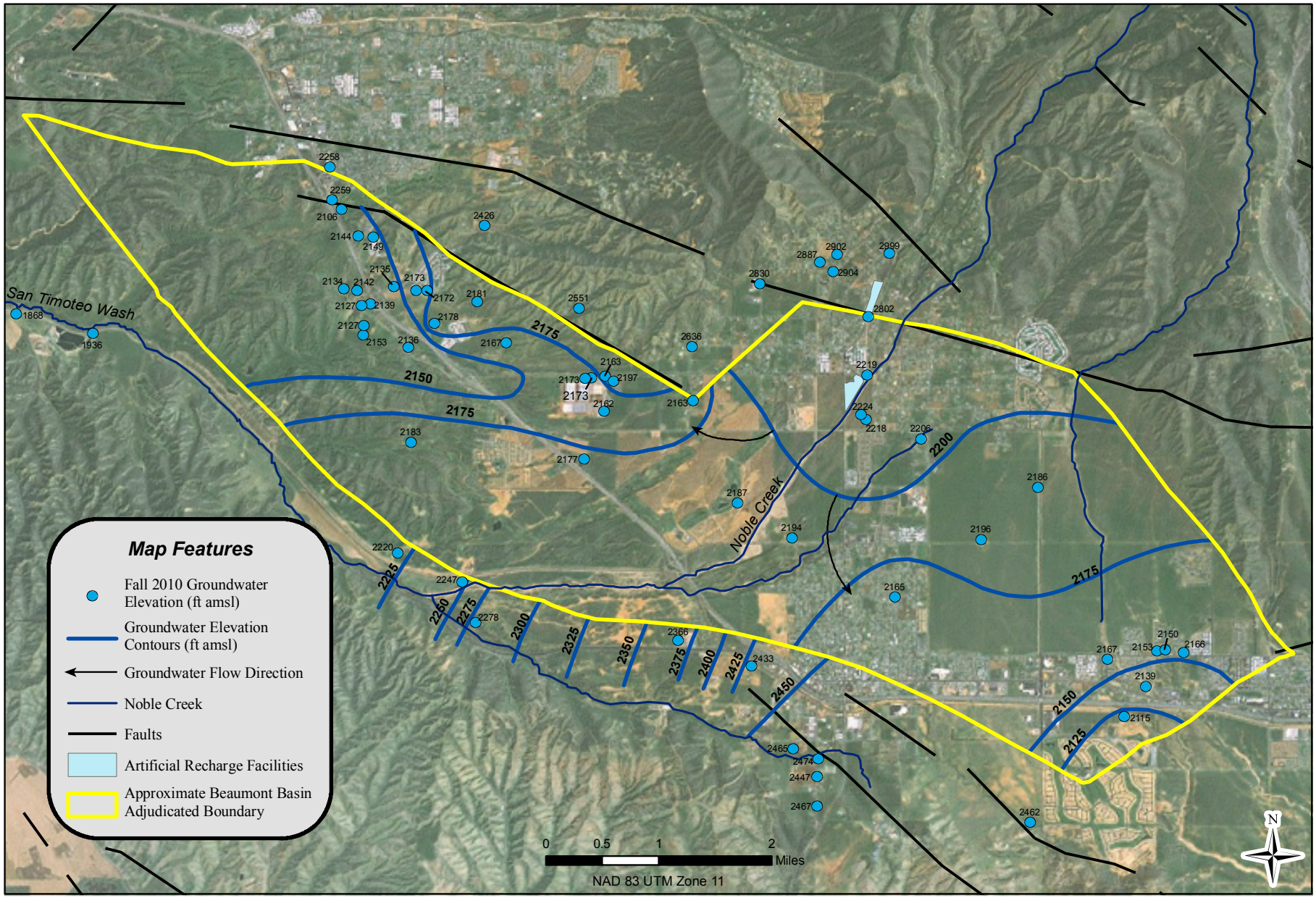


Figure 3-2
Annual Production by Appropriator and Overalying Users (2003-11)



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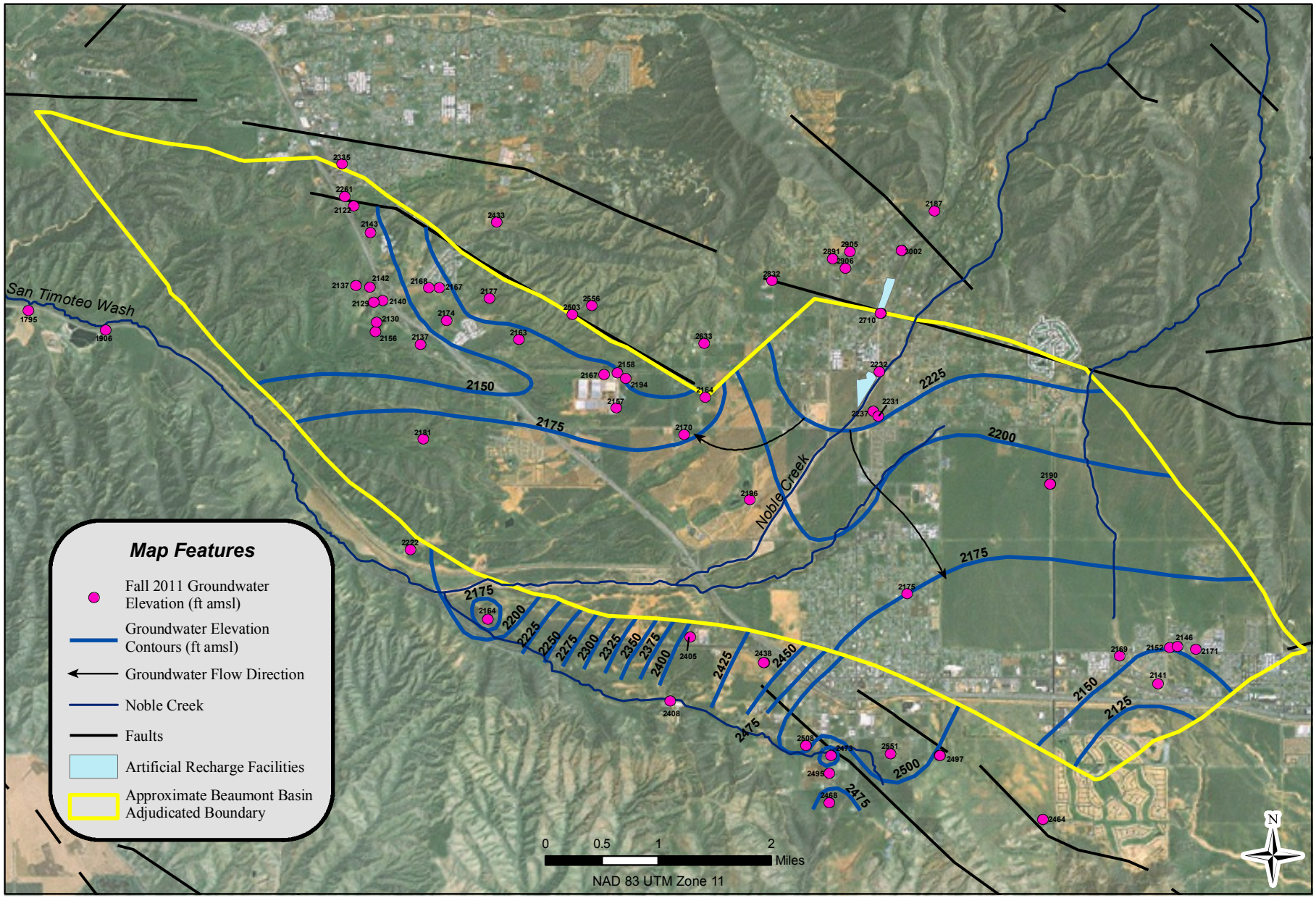
Thomas Harder & Co.
Groundwater Consulting

Groundwater Contours Fall 2010

Figure 3-3



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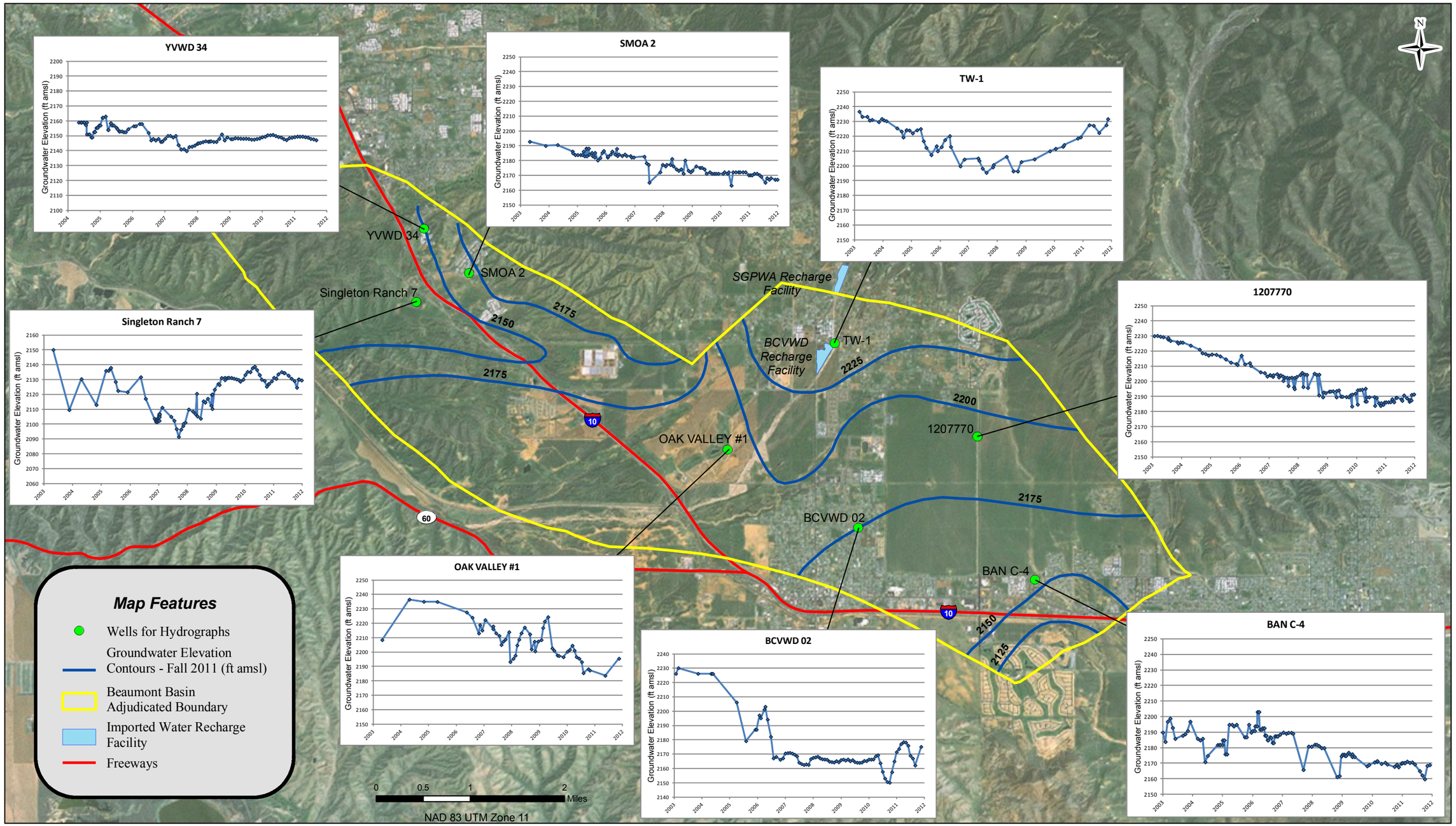
Groundwater Consulting

Groundwater Contours Fall 2011

Figure 3-4



Alda, Inc. *in association with*
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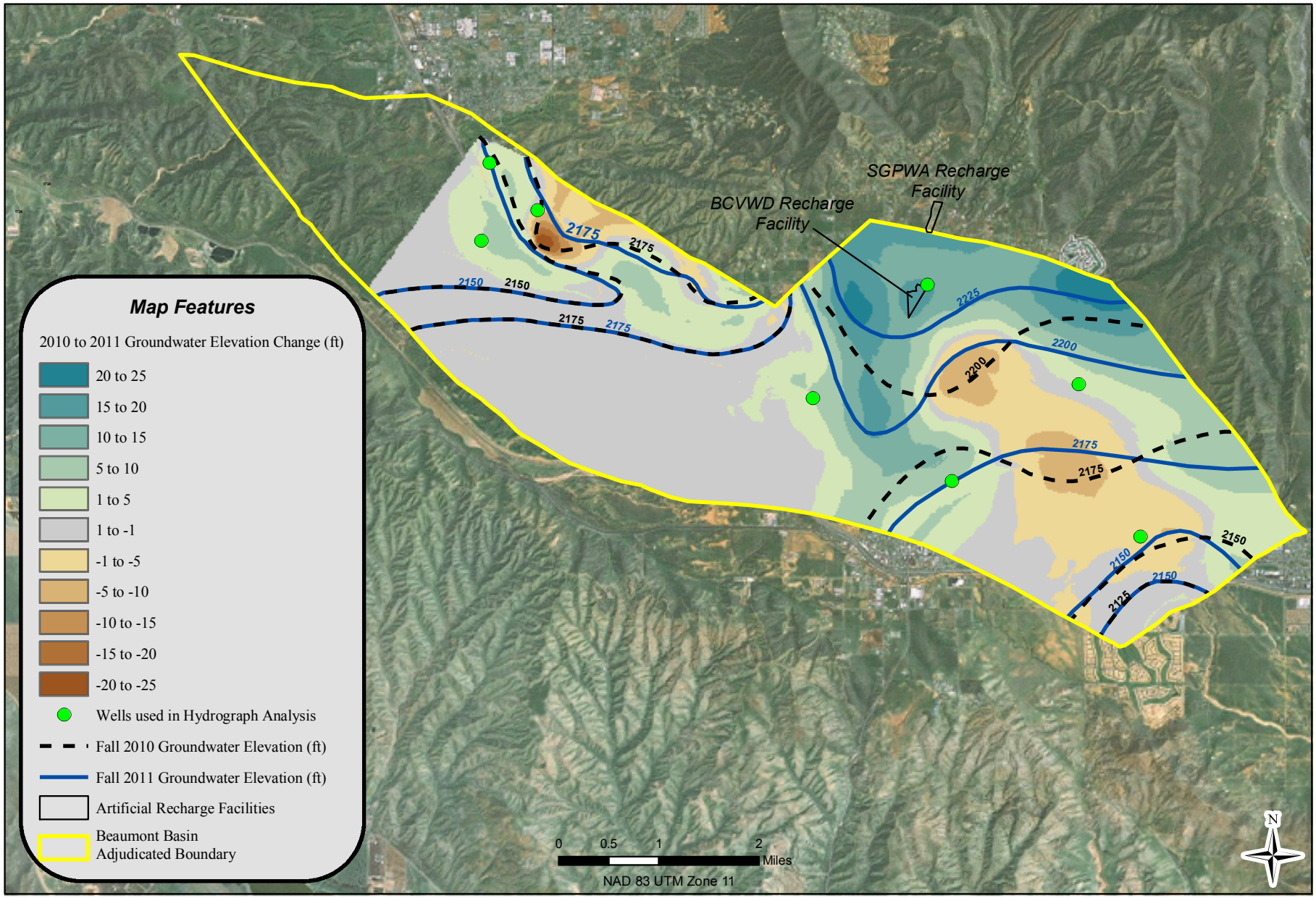
Groundwater Consulting

Groundwater Level Trends at Key Wells

Figure 3-5



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Thomas Harder & Co.
Groundwater Consulting

Groundwater Elevation Changes 2010 - 2011

Figure 3-6

Appendix A
FY 2010-11 Audit Letter

BEAUMONT BASIN WATERMASTER

INDEPENDENT ACCOUNTANT'S REPORT ON APPLYING AGREED-UPON PROCEDURES ON THE BEAUMONT BASIN WATERMASTER SCHEDULES

OCTOBER 11, 2011

INDEPENDENT ACCOUNTANTS' REPORT ON APPLYING AGREED-UPON PROCEDURES

Yucaipa Valley Water District as treasurer
of the Beaumont Basin Watermaster
Yucaipa, California

We have performed the procedures enumerated below, which were agreed to by the Yucaipa Valley Water District (District), as treasurer of the Beaumont Basin Watermaster (Watermaster), solely to assist the District in evaluating certain amounts reported in the Watermaster Schedules (Schedules), attached as Exhibit A and Exhibit B, on the full accrual basis of accounting. The District and Watermaster is responsible for the accuracy of the Schedules. This agreed-upon procedures engagement was conducted in accordance with attestation standards established by the American Institute of Certified Public Accountants. The sufficiency of the procedures is solely the responsibility of those parties specified in the report. Consequently, we make no representations regarding the sufficiency of the procedures described below, either for the purpose for which this report has been requested or for any other purpose.

Our procedures and findings are as follows:

1. **Procedure**

   Agree the opening equity on Exhibit B to the ending equity noted on the trial balance for the fiscal year ended June 30, 2010.

   Finding

   No exceptions were noted as a result of applying the procedure.

2. **Procedure**

   Agree the cash balance reported on Exhibit A to the bank reconciliation, bank statement and trial balance. Select all of the deposits in transit and outstanding checks and trace their clearing to the subsequent month's bank statement.

   Finding

   No exceptions were noted as a result of applying the procedure.

3. **Procedure**

   Trace all member agency assessments recorded in the schedule to invoices and the bank statements.

   Finding

   No exceptions were noted as a result of applying the procedure.

8270 Aspen Street Rancho Cucamonga, CA 91730 Tel: 909.466.4410 Fax: 909.466.4431 www.vtdcpa.com

4. Procedure

Compare the ending check number for the fiscal year ended June 30, 2010 to the beginning check number for the period beginning on July 1, 2010. Note any breaks in check sequence for the period of July 1, 2010 through June 30, 2011.

Finding

No exceptions were noted as a result of applying the procedure. No breaks in check sequence were noted during the period of July 1, 2010 through June 30, 2011.

5. Procedure

Based on the population of checks issued during July 1, 2010 through June 30, 2011, select all payments and trace the check to supporting invoice noting whether the activity pertains to the Watermaster. Agree the dollar amount and vendor on the invoice to the check for accuracy.

Finding

No exceptions were noted as a result of applying the procedure.

6. Procedure

Obtain the general ledger detail for the period of July 1, 2010 to June 30, 2011. Select all journal entries and trace the transaction to an approved journal entry and documentation supporting the nature and rationale of the journal entry.

Finding

No exceptions were noted as a result of applying the procedure.

We were not engaged to, and did not conduct an audit, the objective of which would be the expression of an opinion on the schedules of assets, liabilities and equity (Exhibit A) and assessments and expenses (Exhibit B) or the related internal control structure. Accordingly, we do not express such an opinion. Had we performed additional procedures, other matters might have come to our attention that would have been reported to you.

This report is intended solely for the use of the Beaumont Basin Watermaster and the District and is not intended to be and should not be used by anyone other than the specified party.

Vavrinek, Trine, Day & Co., LLP

Rancho Cucamonga, California
October 11, 2011

EXHIBIT A

BEAUMONT BASIN WATERMASTER

SCHEDULE OF ASSETS, LIABILITIES AND NET ASSETS
(UNAUDITED)
JUNE 30, 2011

ASSETS	
Cash and Cash Equivalents	$ 40,430
LIABILITIES	
Accounts Payable	-
NET ASSETS	
Unrestricted	$ 40,430

See Independent Accountant's Agreed Upon Procedures Report.

EXHIBIT B

BEAUMONT BASIN WATERMASTER

SCHEDULE OF ASSESSMENTS AND EXPENSES
(UNAUDITED)
FOR THE FISCAL YEAR ENDED JUNE 30, 2011

REVENUES	
Assessments	$ 30,000
Interest Revenue	4
Total Revenues	30,004
EXPENSES	
Administrative Expenses:	
Meetings and Miscellaneous	1,297
Legal and Professional	2,525
Bank Charges and Miscellaneous	411
Total Expenses	4,233
Change in Net Assets	25,771
NET ASSETS	
Unrestricted Net Assets, Beginning of Year	14,659
Unrestricted Net Assets, End of Year	$ 40,430

See Independent Accountant's Agreed Upon Procedures Report.

Appendix B
Active and Interested Party List

Beaumont Basin Watermaster
2011 Active and Interested Party List

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Best, Best & Krieger
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Appendix C
Production Estimation Methods for Un-metered Overlying Producers

Production Estimation for Un-metered Overlying Producers

Introduction

The Water Duty Method is a method used to estimate groundwater production for individual Overlying Users whose wells do not have water meters. The method was initially developed by Wildermuth Environmental Inc. (WEI) during the preparation of the 2005-06 Annual Report for the Watermaster. This method was later updated by WEI and it has been used since.

This appendix presents a list of un-metered Overlying Users, a summary of the Water Duty Method, and updated production estimates.

Unmetered Overlying Users

The Water Duty Method was applied to the following un-metered Overlying Users:

- Merlin Properties
- Rancho Calimesa Mobile Home Park
- Roman Catholic Bishop of San Bernardino County
- Leonard M. and Dorothy D. Stearns
- Sunny-Cal Egg and Poultry Company
- Albor Properties III, LP
- Nick Nikodinov
- Ronald L. McAmis
- Nicolas and Amalia Aldama
- Hector Gutierrez, Luis Gutierrez, and Sebastian Monroy
- Boris and Miriam Darmont

Water Duty Method

The following is a summary of the main elements of the water duty method.

- The method is used to estimate groundwater pumping for indoor, outdoor, and agricultural use.
- Indoor water use is estimated based on the number of dwelling units on each producer's property. From historical water sales records in the BCVWD's service area, indoor water used was estimated 0.35 ac-ft/yr per dwelling unit. This consumption rate was applied to each Overlying User based on the number of dwelling units in their property.
- Outdoor water uses the Crop Water Requirement approach to estimate, based on the acreage of irrigated landscape, the volume of water pumped on each producer's property. This approach uses evapotranspiration records from the CIMIS Station 44,

located at the University of California, Riverside, and crop type to determine the amount of water required for landscape use; an irrigation efficiency of 70 percent is then used to estimate the volume of water pumped.

- Agricultural water use was limited to the operations of the former Sunny-Cal Egg and Poultry Company. The approach considers the water consumption of chickens and the amount of water used for washing ranch facilities. A water consumption rate of 60 gallons per day per 1,000 chickens was used, based on published daily nutritional requirements. Water for washing of ranch facilities was considered to be equal to the amount use for landscape irrigation on a per acre basis.

Estimated Water Production

The estimate of groundwater production from un-metered Overlying Users is presented for each user in the tables attached. It should be noted that very small differences exists between the amounts published in previous reports and the numbers presented here. The differences are based on the evapotranspiration values obtained from the CIMIS station; some published values currently used were slightly different than those used in the past for selected months.

University of California Riverside - CIMIS Station 44
Monthly Evapotranspiration Values - 2002 through 2011

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2002	2.65	3.60	4.68	4.88	6.34	7.13	7.55	6.95	5.66	3.13	3.15	2.01	57.73
2003	3.05	2.57	4.61	5.00	5.65	5.16	7.05	7.46	5.54	4.08	2.23	2.07	54.47
2004	2.49	2.76	4.81	5.90	7.10	6.50	7.55	6.81	5.83	3.39	2.44	2.30	57.88
2005	2.02	2.21	3.93	5.41	6.47	6.49	7.28	6.68	5.32	3.65	2.84	2.15	54.45
2006	2.92	3.35	3.42	4.26	6.02	7.16	7.73	7.20	5.70	3.95	3.14	2.94	57.79
2007	3.28	2.91	5.02	5.04	6.47	7.16	7.57	7.09	5.44	4.34	2.81	2.24	59.37
2008	1.69	2.31	5.30	6.04	6.28	7.59	7.53	7.23	5.79	5.02	3.14	1.89	59.81
2009	3.32	2.41	4.62	5.58	6.32	5.37	7.60	6.68	5.89	4.40	3.18	2.08	57.45
2010	2.35	2.44	4.67	5.11	6.18	6.25	6.57	6.99	5.45	2.10	3.22	1.78	53.11
2011	2.91	2.91	4.22	5.57	6.67	6.95	7.76	7.65	5.47	4.03	2.45	2.82	59.41
2012	3.02	3.41	4.51	5.85	7.00	7.62	7.93						

Crop Coefficient (Warm Season Bermuda Grass)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Kc	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7

Monthly Water Requirements (inches)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2004	1.74	1.93	3.37	4.13	4.97	4.55	5.29	4.77	4.08	2.37	1.71	1.61	40.52
2005	1.41	1.55	2.75	3.79	4.53	4.54	5.10	4.68	3.72	2.56	1.99	1.51	38.12
2006	2.04	2.35	2.39	2.98	4.21	5.01	5.41	5.04	3.99	2.77	2.20	2.06	40.45
2007	2.30	2.04	3.51	3.53	4.53	5.01	5.30	4.96	3.81	3.04	1.97	1.57	41.56
2008	1.18	1.62	3.71	4.23	4.40	5.31	5.27	5.06	4.05	3.51	2.20	1.32	41.87
2009	2.32	1.69	3.23	3.91	4.42	3.76	5.32	4.68	4.12	3.08	2.23	1.46	40.22
2010	1.65	1.71	3.27	3.58	4.33	4.38	4.60	4.89	3.82	1.47	2.25	1.25	37.18
2011	2.04	2.04	2.95	3.90	4.67	4.87	5.43	5.36	3.83	2.82	1.72	1.97	41.59

Indoor Water Use: 0.35 ac-ft/yr/du
Irrigation Efficienty: 70%

Estimated Pumping - All Unmetered Accounts

Year	Total Use (ac-ft/yr)
2004	534.36
2005	511.89
2006	149.53
2007	81.53
2008	83.08
2009	82.77
2010	81.15
2011	81.97

Estimated Pumping by Merlin Properties

Year	Parcel Size (acres)	No. DU	Indoor Water Use (ac-ft/yr)	Irrigated Acres	Irrigation Requirement (ac-ft/yr)	Outdoor Water Use (ac-ft/yr)	Total Use (ac-ft/yr)
2004	48	3	1.05	0.11	0.37	0.53	1.58
2005	48	3	1.05	0.11	0.35	0.50	1.55
2006	48	3	1.05	0.11	0.37	0.53	1.58
2007	48	3	1.05	0.11	0.38	0.54	1.59
2008	48	3	1.05	0.11	0.38	0.55	1.60
2009	48	3	1.05	0.11	0.37	0.53	1.58
2010	48	3	1.05	0.11	0.34	0.49	1.54
2011	48	3	1.05	0.11	0.38	0.54	1.59

Estimated Pumping by Rancho Calimesa

Year	Parcel Size (acres)	No. DU	Indoor Water Use (ac-ft/yr)	Irrigated Acres	Irrigation Requirement (ac-ft/yr)	Outdoor Water Use (ac-ft/yr)	Total Use (ac-ft/yr)
2004	29	195	68.25	0.00	0.00	0.00	68.25
2005	29	195	68.25	0.00	0.00	0.00	68.25
2006	29	195	68.25	0.00	0.00	0.00	68.25
2007	29	198	69.30	0.00	0.00	0.00	69.30
2008	29	198	69.30	0.00	0.00	0.00	69.30
2009	29	198	69.30	0.00	0.00	0.00	69.30
2010	29	198	69.30	0.00	0.00	0.00	69.30
2011	29	198	69.30	0.00	0.00	0.00	69.30

Estimated Pumping by Roman Catholic Bishop of San Bernardino

Year	Parcel Size (acres)	No. DU	Indoor Water Use (ac-ft/yr)	Irrigated Acres	Irrigation Requirement (ac-ft/yr)	Outdoor Water Use (ac-ft/yr)	Total Use (ac-ft/yr)
2004	34	2	0.70	12.10	40.85	58.36	59.06
2005	34	2	0.70	12.10	38.43	54.90	55.60
2006	34	2	0.70	12.10	40.79	58.27	58.97
2007	34	2	0.70	0.00	0.00	0.00	0.70
2008	34	2	0.70	0.00	0.00	0.00	0.70
2009	34	2	0.70	0.00	0.00	0.00	0.70
2010	34	0	0.00	0.00	0.00	0.00	0.00
2011	34	0	0.00	0.00	0.00	0.00	0.00

Estimated Pumping by Leonard Stearns

Year	Parcel Size (acres)	No. DU	Indoor Water Use (ac-ft/yr)	Irrigated Acres	Irrigation Requirement (ac-ft/yr)	Outdoor Water Use (ac-ft/yr)	Total Use (ac-ft/yr)
2004	91	3	1.05	0.00	0.00	0.00	1.05
2005	91	3	1.05	0.00	0.00	0.00	1.05
2006	91	3	1.05	0.00	0.00	0.00	1.05
2007	91	3	1.05	0.00	0.00	0.00	1.05
2008	91	3	1.05	0.00	0.00	0.00	1.05
2009	91	3	1.05	0.00	0.00	0.00	1.05
2010	91	2	0.70	0.00	0.00	0.00	0.70
2011	91	2	0.70	0.00	0.00	0.00	0.70

Estimated Pumping by Sunny Cal

Year	Parcel Size (acres)	No. DU	Indoor Water Use (ac-ft/yr)	Number of Chickens	Chicken Water Use (ac-ft/yr)	Irrigated Acres	Irrigation Requirement (ac-ft/yr)	Outdoor Water Use (ac-ft/yr)	Total Use (ac-ft/yr)
2004	200	10	3.50	1,200,000	80.65	66.40	224.19	320.27	404.42
2005	200	10	3.50	1,200,000	80.65	66.40	210.90	301.29	385.44
2006	185	2	0.70	0.00	0.00	0.40	1.35	1.93	2.63
2007	185	2	0.70	0.00	0.00	0.40	1.39	1.98	2.68
2008	185	2	0.70	0.00	0.00	0.70	2.44	3.49	4.19
2009	185	2	0.70	0.00	0.00	0.70	2.35	3.35	4.05
2010	185	2	0.70	0.00	0.00	0.70	2.17	3.10	3.80
2011	185	2	0.70	0.00	0.00	0.70	2.43	3.47	4.17

Water consumption per chicken estimated at 6.0 gal/100 chickens

Estimated Pumping by Albor Properties

Year	Parcel Size (acres)	No. DU	Indoor Water Use (ac-ft/yr)	Irrigated Acres	Irrigation Requirement (ac-ft/yr)	Outdoor Water Use (ac-ft/yr)	Total Use (ac-ft/yr)
2004	0	0	0.00	0.00	0.00	0.00	0.00
2005	0	0	0.00	0.00	0.00	0.00	0.00
2006	122	2	0.70	2.60	8.76	12.52	13.22
2007	122	1	0.35	0.40	1.39	1.98	2.33
2008	122	1	0.35	0.40	1.40	1.99	2.34
2009	122	1	0.35	0.40	1.34	1.92	2.27
2010	122	1	0.35	0.40	1.24	1.77	2.12
2011	122	1	0.35	0.40	1.39	1.98	2.33

Estimated Pumping by Nikodinov

Year	Parcel Size (acres)	No. DU	Indoor Water Use (ac-ft/yr)	Irrigated Acres	Irrigation Requirement (ac-ft/yr)	Outdoor Water Use (ac-ft/yr)	Total Use (ac-ft/yr)
2004	0	0	0.00	0.00	0.00	0.00	0.00
2005	0	0	0.00	0.00	0.00	0.00	0.00
2006	10	1	0.35	0.08	0.27	0.39	0.74
2007	10	1	0.35	0.08	0.28	0.40	0.75
2008	10	1	0.35	0.08	0.28	0.40	0.75
2009	10	1	0.35	0.08	0.27	0.38	0.73
2010	10	1	0.35	0.08	0.25	0.35	0.70
2011	10	1	0.35	0.08	0.28	0.40	0.75

Estimated Pumping by McAmis

Year	Parcel Size (acres)	No. DU	Indoor Water Use (ac-ft/yr)	Irrigated Acres	Irrigation Requirement (ac-ft/yr)	Outdoor Water Use (ac-ft/yr)	Total Use (ac-ft/yr)
2004	0	0	0.00	0.00	0.00	0.00	0.00
2005	0	0	0.00	0.00	0.00	0.00	0.00
2006	0.9	1	0.35	0.04	0.13	0.19	0.54
2007	0.9	1	0.35	0.04	0.14	0.20	0.55
2008	0.9	1	0.35	0.04	0.14	0.20	0.55
2009	0.9	1	0.35	0.04	0.13	0.19	0.54
2010	0.9	1	0.35	0.04	0.12	0.18	0.53
2011	0.9	1	0.35	0.04	0.14	0.20	0.55

Estimated Pumping by Aldama

Year	Parcel Size (acres)	No. DU	Indoor Water Use (ac-ft/yr)	Irrigated Acres	Irrigation Requirement (ac-ft/yr)	Outdoor Water Use (ac-ft/yr)	Total Use (ac-ft/yr)
2004	0	0	0.00	0.00	0.00	0.00	0.00
2005	0	0	0.00	0.00	0.00	0.00	0.00
2006	1.4	1	0.35	0.10	0.34	0.48	0.83
2007	1.4	1	0.35	0.10	0.35	0.49	0.84
2008	1.4	1	0.35	0.10	0.35	0.50	0.85
2009	1.4	1	0.35	0.10	0.34	0.48	0.83
2010	1.4	1	0.35	0.10	0.31	0.44	0.79
2011	1.4	1	0.35	0.10	0.35	0.50	0.85

Estimated Pumping by Gutierrez

Year	Parcel Size (acres)	No. DU	Indoor Water Use (ac-ft/yr)	Irrigated Acres	Irrigation Requirement (ac-ft/yr)	Outdoor Water Use (ac-ft/yr)	Total Use (ac-ft/yr)
2004	0	0	0.00	0.00	0.00	0.00	0.00
2005	0	0	0.00	0.00	0.00	0.00	0.00
2006	2	2	0.70	0.14	0.47	0.67	1.37
2007	2	2	0.70	0.14	0.48	0.69	1.39
2008	2	2	0.70	0.14	0.49	0.70	1.40
2009	2	2	0.70	0.14	0.47	0.67	1.37
2010	2	2	0.70	0.14	0.43	0.62	1.32
2011	2	2	0.70	0.14	0.49	0.69	1.39

Estimated Pumping by Damont

Year	Parcel Size (acres)	No. DU	Indoor Water Use (ac-ft/yr)	Irrigated Acres	Irrigation Requirement (ac-ft/yr)	Outdoor Water Use (ac-ft/yr)	Total Use (ac-ft/yr)
2004	0	0	0.00	0.00	0.00	0.00	0.00
2005	0	0	0.00	0.00	0.00	0.00	0.00
2006	0.5	1	0.35	0.00	0.00	0.00	0.35
2007	0.5	1	0.35	0.00	0.00	0.00	0.35
2008	0.5	1	0.35	0.00	0.00	0.00	0.35
2009	0.5	1	0.35	0.00	0.00	0.00	0.35
2010	0.5	1	0.35	0.00	0.00	0.00	0.35
2011	0.5	1	0.35	0.00	0.00	0.00	0.35

BEAUMONT BASIN WATERMASTER
MEMORANDUM NO. 12-14

Date: **October 3, 2012**

From: **Joseph Zoba, Treasurer**

Subject: **Review of the Draft Engineer's Report No. 3 (2008-2011)**

Recommendation: **None.**

The purpose of this agenda item is to discuss the attached Draft Engineer's Report No. 3 for the period of 2008 to 2011.

ALDA Inc.
5928 Vineyard Avenue
Alta Loma, CA 91701
Tel: (909) 587-9916
Fax: (909) 498-0423

September 27, 2012

Duane Burk, Chairman
Beaumont Basin Watermaster
560 Magnolia Avenue
Beaumont, CA 92223

Subject: **Beaumont Basin Watermaster**
Engineer's Report No. 3 for 2008 - 2011

Dear Mr. Burk:

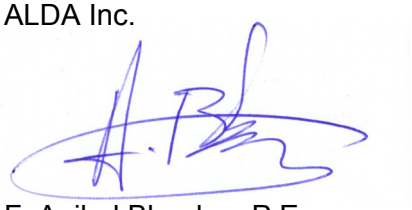
ALDA Inc., in association with Thomas Harder & Co. is pleased to submit to you, as Chairman of the Beaumont Basin Watermaster, the Beaumont Basin Watermaster Engineeer's Report No. 3 for Calendar Years 2008 through 2011. This draft report documents all production, spreading, and groundwater quality conditions that took place during calendar years 2008 through 2011. Further, the report documents changes in water levels and storage conditions as well as an estimate of the Basin Operating Safe Yield for this four year period.

We will make a formal presentation to the Board of Directors during the upcoming Board meeting on October 3rd, 2012. We welcome your review and comments on this report and look forward to answering any questions you may have.

Should you have any questions on this matter, please contact us at 909-587-9916 during normal business hours.

Very truly yours

ALDA Inc.



F. Anibal Blandon, P.E.
Principal

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Abbreviations

ac-ft	acre-feet
ac-ft/yr	acre-feet per year
Amendment	Basin Plan Amendment
Banning	City of Banning
Basin	Beaumont Basin
BCVWD	Beaumont-Cherry Valley Water District
Beaumont	City of Beaumont
BMZ	Beaumont Management Zone
CDfM	Cummulative departure from mean
CVCOI	Cherry Valley Community of Interest
CDPH	California Department of Public Health
CY	calendar year
FY	fiscal year
IRWMP	Integrated Regional Water Management Program
MCL	Maximum contaminant level
mg/L	Milligrams per liter
NL	Notification level
OSWDS	On-site waste disposal systems
Pass Agency	San Gorgonio Pass Water Agency
PPCP	Pharmaceutical and personal care products
Regional Board	Santa Ana River Water Quality Control Board
SMWC	South Mesa Water Company
STMZ	San Timoteo Management Zone
STWMA	San Timoteo Watershed Management Authority
SWP	State Water Project
TDS	Total dissolved solids
ug/L	Micrograms per liter
USEPA	United States Environmental Protection Agency
Watermaster	Beaumont Basin Watermaster
WEI	Wildermuth Environmental, Inc.
YVWD	Yucaipa Valley Water District

Section 1
Background

In January 2001, the City of Beaumont (Beaumont), the Beaumont-Cherry Valley Water District (BCVWD), the South Mesa Water Company (SMWC), and the Yucaipa Valley Water District (YVWD) formed the San Timoteo Watershed Management Authority (STWMA). One of the initial tasks of STWMA was to develop a watershed-wide program to develop and implement a comprehensive management program for the San Timoteo watershed.

Phase I of the management program, documented in the San Timoteo Watershed Management Program, Phase I Report (WEI, 2002), included the following goals:

- Enhancing water supplies
- Protecting and enhancing water quality
- Optimizing the management of STWMA area groundwater basins
- Protecting riparian habitat in San Timoteo Creek and protecting/enhancing habitat in the STWMA area
- Equitably distributing the benefits and costs of developing the Integrated Regional Watershed Management Program for the San Timoteo Watershed

One of the elements identified in the management plan to achieve the listed goals consisted in the establishment of a groundwater management entity for the Beaumont Basin. As a result of this initiative, two groups representing overlying users and water agencies with interest in this basin began negotiations in May 2002.

Over the next 18 months of negotiations, a Stipulated Agreement was developed and submitted to the Court. Honorable Judge Gary Tranbarger of the Superior Court of the State of California for the County of Riverside signed the Judgment, titled “San Timoteo Watershed Management Authority, vs. City of Banning, et al.” (Case No. RIC 389197), on February 4, 2004.

Pursuant to the Judgment, the Court appointed a five-member Watermaster committee, consisting of representatives from each of the Appropriator parties: the Banning, Beaumont, BCVWD, SMWC, and YVWD. The effective date of the Judgment for accounting purposes was retroactively established to July 1, 2003.

The Court gave the responsibility of managing the Basin to the Watermaster by approving the Stipulated Agreement but retained continuing jurisdiction should there be any future need to resolve difficult questions among the Parties.

Under the Judgment, the Watermaster is granted discretionary powers to develop and implement a groundwater management plan for the Beaumont Basin, including water quality and quantity considerations and being reflective of the provisions of the Judgment.

In carrying out its duties, Watermaster is responsible for providing the legal and practical means of ensuring that the waters of the Basin are put to maximum beneficial use. Specific responsibilities of the Watermaster include:

- Administer the Beaumont Basin Judgment
- Approve Producer Activities
- Maintain and Improve Water Supply
- Monitor and Understand the Basin
- Maintain and Improve Water Quality
- Develop and Administer a Well Policy
- Develop Contracts for Beneficial Programs and Services
- Provide Cooperative Leadership

Part VI of the Judgment calls for the establishment of Rules and Regulations for the conduct of Watermaster affairs. The Rules and Regulations of the Watermaster were adopted on June 8, 2004. Section 2.13 of the Rules and Regulations calls for the preparation of a Basin Condition Report, at least every two years, documenting the state of the groundwater basin. The Basin Condition Report, also known as Engineer's Report, should provide an update on the status of monitoring, storage and water quality.

This Third Biennial Engineer's Report summarizes changes in groundwater levels, storage, safe yield, water quality, and ground elevation for Calendar Year (CY) 2008 through CY 2011. During the September 21, 2011 committee meeting, the Board adopted Resolution 2011-01, which amended Rule 2.12 of the Beaumont Basin Watermaster Rules and Regulations to change the annual reporting of Watermaster activities from a fiscal year basis to a calendar year basis starting in CY 2011. This is the first biennial report that presents data on a calendar year basis.

Section 2
Climate, Hydrology, and Hydrogeology

2.1 Climate

The Beaumont Basin is located in a semi-arid region characterized by warm summers and mild winters with average summer high temperatures in the mid to upper 90s (Fahrenheit) and average winter low temperatures in the mid to low 40s. Precipitation in the region occurs as snowfall in the upper elevations of the San Bernardino Mountains to the north and rainfall in the Basin. Annual precipitation in the Beaumont Basin, as recorded at the County of Riverside's Beaumont Station 013 averaged 17.78 inches over the 100-year period between 1912 and 2011. On the average, 70 percent of precipitation falls during the winter between December and March.

Figure 2-1 illustrates annual precipitation at this station for the reporting period including a plot of the cumulative departure from the mean (CDFM) precipitation. This parameter is used to assess the occurrence, duration, and extent of wet and dry precipitation cycles. Upper trending periods in the graph represent periods with above average precipitation such as the 1913-46 period; average precipitation during this period was 20.5 inches or close to 16 percent above the long-term average. Other above average precipitation periods include the 1977-83 and 1990-98 periods. Conversely, down trending periods indicate periods of below average precipitation as in the 1947-77 period when average precipitation was only 15.2 inches. The 1984-90 period with seven consecutive years of below average precipitation was also characterized as a dry period.

Currently, the Basin is in a dry period that began in 1999. During this 12-year period two of the three years with the lowest precipitation ever recorded at Station 13 have occurred; 6.3 inches (lowest) in 1999 and 8.07 inches in 2009. It should be noted that the average precipitation during the base period (1997-2001) used to determine the safe yield of the Basin was 13.43 inches, close to 25 percent below the long-term average for the Basin.

2.2 Surface Water Hydrology

There are three significant drainage systems that overlie the Beaumont Basin: the San Timoteo Creek drainage system which is tributary to the Santa Ana River; the Potrero Creek drainage system in the San Jacinto watershed; and the Smith Creek drainage system tributary to the White Water River which is part of the Salton Sea drainage basin.

Surface water flows originate in the San Bernardino Mountains to the north of the Basin. The streams and creeks that flow into the Beaumont Basin are dry for most of the year with occasional runoff during rainfall events. There are no stream gages in the Basin that can be used to estimate surface water recharge to the Basin or discharge from the Basin.

2.3 Hydrogeology

2.3.1 Regional Geologic Context

The Beaumont Basin is located in the San Gorgonio Pass, a low-relief highland that is bordered on the north by the San Bernardino Mountains, on the southeast by the San Jacinto Mountains, and on the west by the San Timoteo Badlands. Surface sediments in the Beaumont Basin and nearby lowlands consist of unconsolidated to semiconsolidated Quaternary alluvium. Surrounding the alluvial sediments are semiconsolidated rocks of the San Timoteo Formation and igneous and metamorphic rocks that make up the San Jacinto and San Bernardino Mountains (see Figure 2-2). The San Timoteo Formation is composed primarily of sandstone, conglomerate, siltstone, and mudstone (Rewis, et al., 2007). The igneous and metamorphic rocks form the crystalline basement rocks in the area (Bloyd, 1971). The unconsolidated Quaternary alluvium and the upper portion of the underlying San Timoteo Formation constitute the water-bearing aquifer of the Beaumont Basin (Rewis, et al., 2007).

2.3.2 Faults

The boundaries of the Beaumont Basin are based on faults that often form barriers to groundwater flow (Bloyd, 1971). Major faults in the area include the Banning and Cherry Valley faults, which form the northern boundary of the basin (see Figure 2-2). Groundwater levels within the Beaumont Basin are generally lower than groundwater levels in the surrounding areas. Along the Banning Fault, groundwater levels on the north side of the fault and outside the basin are as much as 400 ft higher than groundwater levels on the south side of the fault and inside the basin. The same condition has been observed along the southern Beaumont Basin boundary.

2.3.3 Groundwater Occurrence and Flow

Groundwater in the Beaumont Basin occurs at depth in the Quaternary alluvium and the underlying San Timoteo Formation. Groundwater flow within the Beaumont Basin generally depends on location with respect to a groundwater flow divide which occurs in the center of the basin, approximately coincident with the Noble Creek drainage (see Figure 2-2). West of the Noble Creek drainage, groundwater generally flows to the northwest and ultimately as underflow beneath San Timoteo Wash. East of the Noble Creek drainage, groundwater flows to the southeast towards the City of Banning.

2.3.4 Groundwater Recharge and Discharge

The groundwater system in the Beaumont Basin is replenished from multiple sources. These include:

- Infiltration of precipitation within the unlined portions of natural streams
- Subsurface seepage across fault boundaries
- Return flow from irrigation and individual septic systems
- Artificial recharge in man-made basins (e.g. Noble Creek Recharge Facility).

Groundwater discharges from the Beaumont Basin primarily occur from:

- Groundwater production
- Underflow out of the basin at the downgradient margins
- Rising water in San Timoteo Creek
- Evapotranspiration

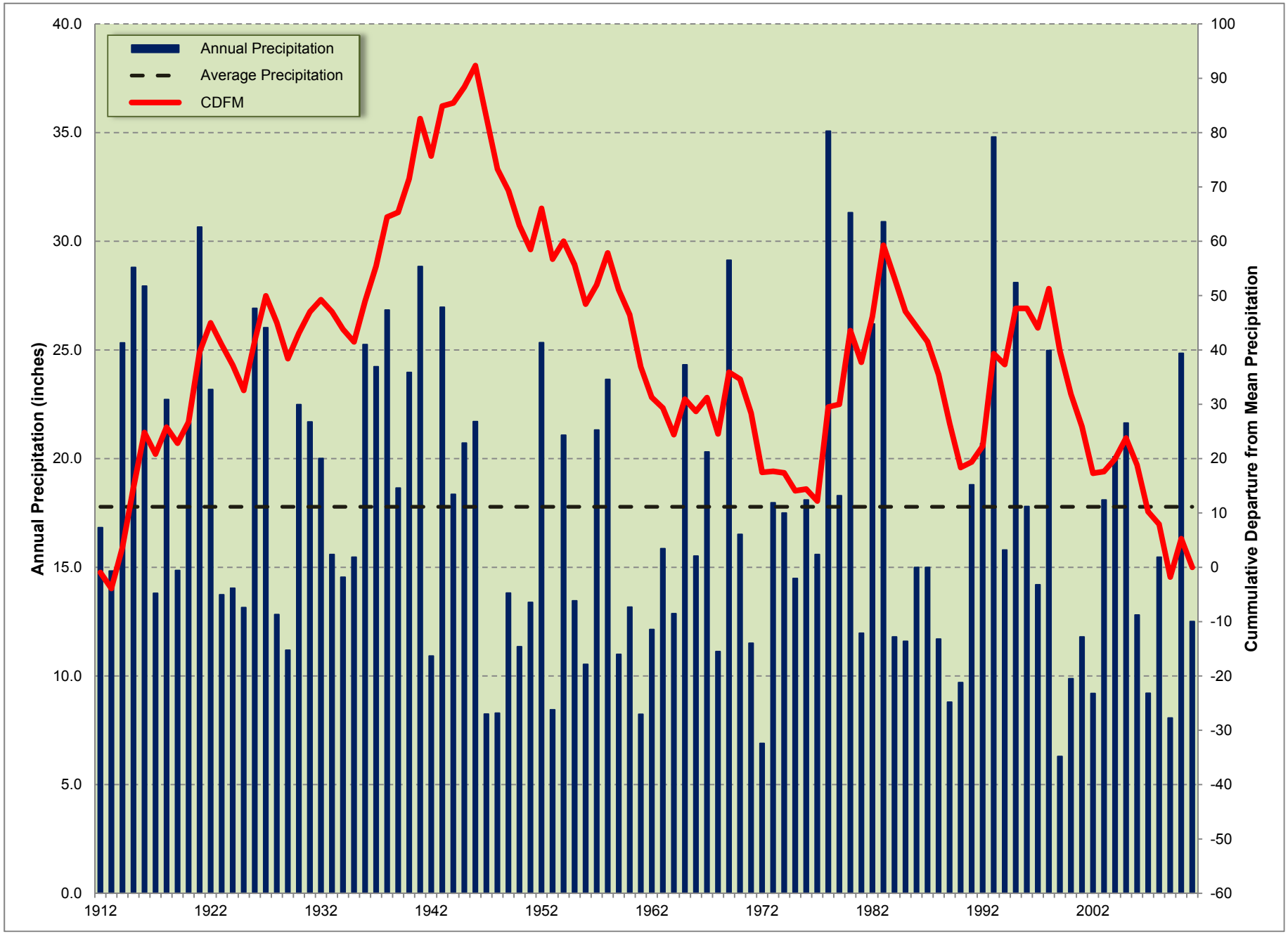
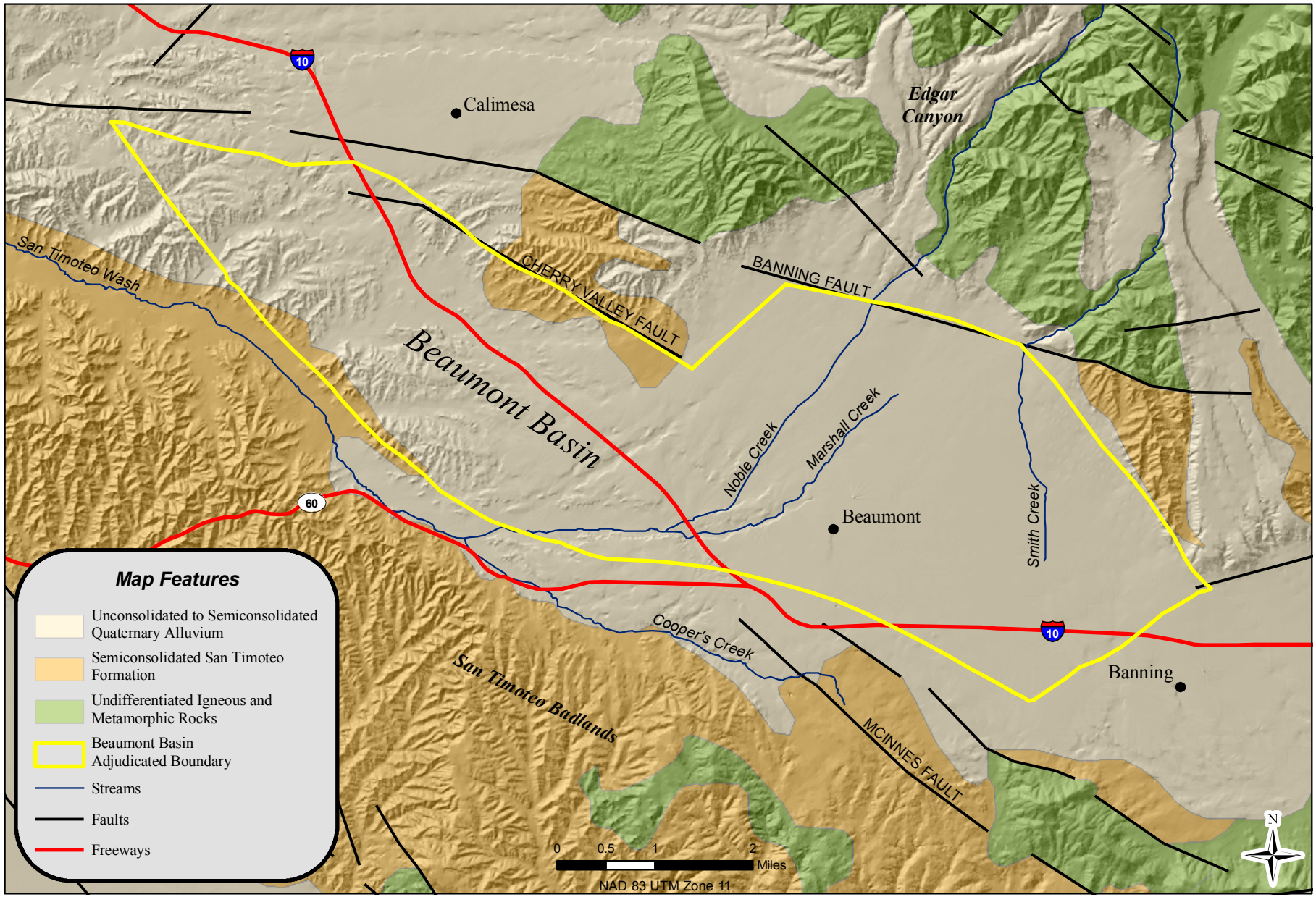


Figure 2-1
Annual Precipitation with Cummulative Departure from the Mean



Alda, Inc. *in association with*
Thomas Harder & Co.
Groundwater Consulting

Geology of the Beaumont Basin
Figure 2-2

Section 3
Monitoring and Data Collection Programs

Part VI, Paragraph 5 of the Judgment outlines the Powers and Duties of the Watermaster. One of Watermaster's duties is the monitoring of groundwater levels, ground levels, storage, and water quality in the Basin, as outlined in Paragraph G. The collection of these data is essential to assess the state of the Basin and to assist Watermaster in fulfilling its responsibilities of maintaining or enhancing available supplies and the quality of those supplies.

Watermaster's database is supplemented by various monitoring programs and data collection efforts implemented by other agencies. Each monitoring and data collection program is discussed below.

3.1 Watermaster Programs

3.1.1 Groundwater Production and Recharge

According to Part III, Paragraph 4 of the Judgment, Watermaster is responsible for the collection of groundwater production from all Appropriator Parties and Overlying Users that are listed in the Judgment. Producers who pump less than 10 ac-ft/yr., also known as minimal producers, are exempt from the provisions of the Judgment. The location of all wells owned by the Appropriators and Overlying Parties of the Judgment is depicted in Figure 3-1. Appropriator Parties include the City of Banning, the BCVWD, the YVWD, and the SMWC. Production and water level information from these parties is reported to the Watermaster on a monthly basis.

Currently, there are a total of 17 Overlying Producers in the Basin pumping from 22 groundwater wells. The majority of the larger wells are metered; the remaining wells do not have meters at this time and their production is estimated using the water duty method. This method was initially proposed by Wildermuth Environmental Inc. (WEI), during the preparation of the 2005-06 Annual Report. After being accepted by the Watermaster, an updated water duty method was developed by WEI and it has been used since.

In addition to collecting water production, the Watermaster is responsible for maintaining an annual account of all recharged water in the Beaumont Basin and any losses of water supplies or Safe Yield resulting from such recharge water. Sources of groundwater recharge include imported water from the State Water Project (SWP), recycled water, and new yield sources developed in the basin since the Judgment inception in July 2003. The Watermaster has maintained the accounting of groundwater recharge; however, losses from the basin, if any, have not been tracked.

BCVWD's Noble Creek spreading facility, located in the vicinity of Beaumont Avenue and Cherry Valley Boulevard, is the only facility in the Beaumont Basin where deliveries of imported water can be used to recharge the groundwater basin. The location of this spreading facility is depicted in Figure 3-1. Imported water is also delivered to the Little San Gorgonio

Spreading Ponds. These spreading ponds are located outside the adjudicated boundary of the Beaumont Basin and to the north of the Banning Fault, as shown in Figure 3-1. Spreading of imported water at these spreading ponds may be a source of subsurface recharge to the Beaumont Basin; however, Watermaster has not adopted this finding.

Another source of groundwater recharge in the Basin may be from Beaumont's Wastewater Treatment Plant No. 1 Discharge Point No. 7 located along an unnamed tributary of Marshall Creek, as shown in Figure 3-1. It is believed that a portion of the recycled water discharged at this location reaches and recharges the Beaumont Basin; however, additional engineering studies need to be conducted to better quantify the amount of recharge.

3.1.2 Groundwater Level Monitoring Program

In addition to water level information provided by Appropriator Producers, Watermaster also collects water level information from a series of dedicated monitoring wells equipped with pressure transducers that measure and record groundwater levels every 15 minutes. This monitoring network was first established during FY 2006-07 as part of a program to determine the location of subsurface groundwater barriers and to collect consistent and accurate long-term water level information.

Initially, 10 dedicated monitoring wells were equipped with pressure transducers. Since the program inception, wells have been added and/or removed from the program. Currently, there are 13 dedicated monitoring wells in the Basin as shown in Figure 3-2.

3.1.3 Land Subsidence

The Subsidence Monitoring Program was established in 2005. Initially, ground level information for the 1928 to 2000 period was analyzed. In mid to late 2006, 72 benchmark monuments were installed across the Basin and in nearby basins and an initial ground-level survey conducted to establish the initial elevations of all benchmarks. A second survey was conducted in 2007. A comparison analysis of the two surveying efforts reveals little vertical change; in addition, this minimum subsidence was fairly evenly distributed across the Basin. According to the program, the ground level survey of all benchmarks was to be conducted on a tri-annual basis with the next round of survey scheduled for the spring of 2009. The 2009 survey was not conducted by Watermaster since it was determined that the level of subsidence was minimal. No additional surveys are scheduled at this time.

The results of earlier land subsidence surveys have been reported in previous engineer's reports. Considering that there is no new information to report, the Land Subsidence section of the report, normally presented under Section 6, has not been included in this report.

3.2 Cooperative Data Collection Efforts

The Watermaster relies on various agencies in the region to maintain its basin-wide groundwater level and quality database. Watermaster collects water quality information from all producers required to comply with the California Department of Health Services (CDPH) requirements for Title 22 of the California Code of Regulations. Appropriators provide these data to Watermaster upon request; alternatively, Watermaster can download this information

from CDPH's web site on a regular basis. The other primary source of groundwater data for wells in the Basin is the Maximum Benefit Monitoring Program run by the STWMA and the City of Beaumont. Details of this program are presented below.

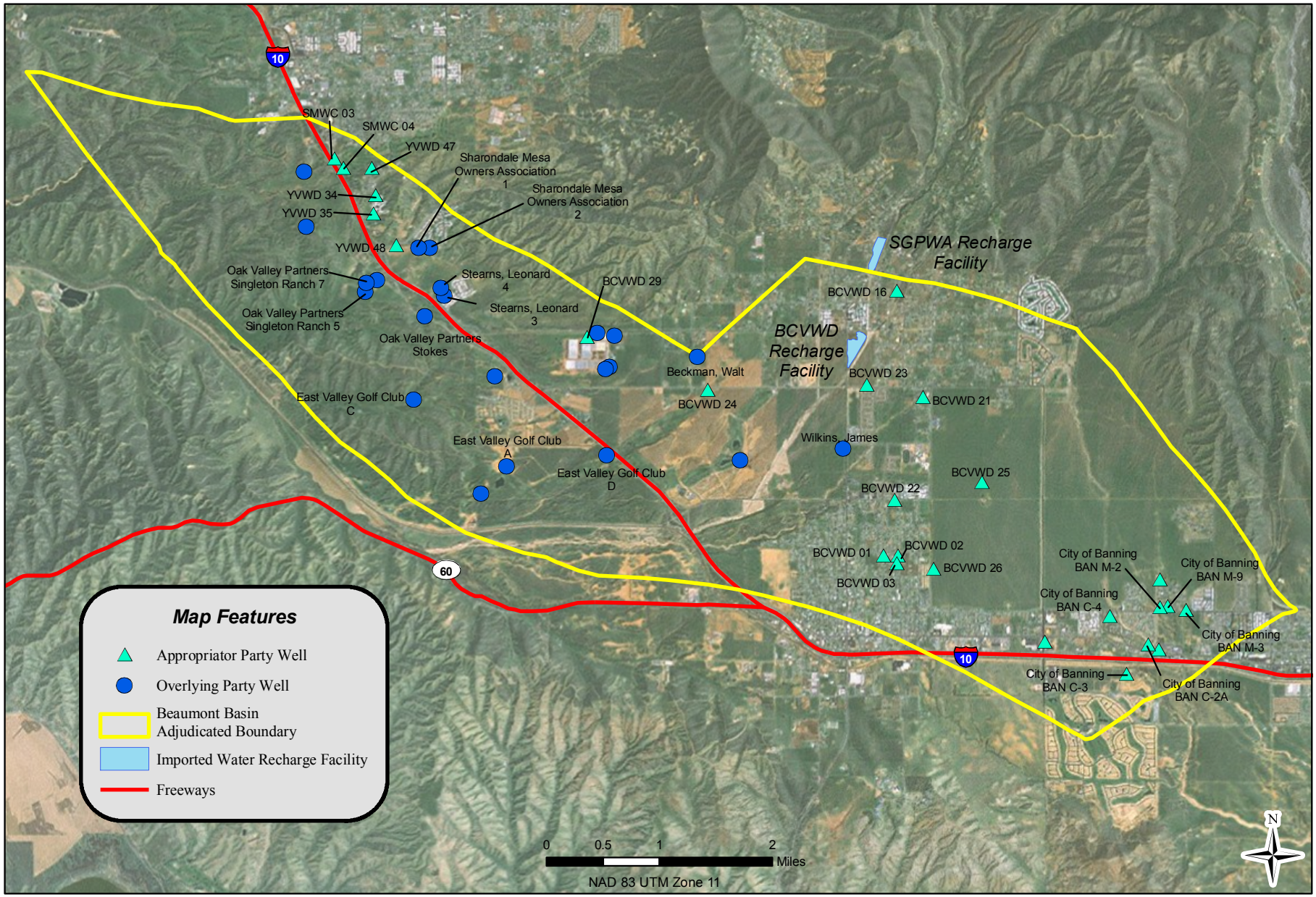
3.2.1 Maximum Benefit Monitoring Program

In January 2004, the Santa Ana Regional Water Quality Control Board (Regional Board) amended the Water Quality Control Plan for the Santa Ana River Basin to incorporate an updated TDS and Nitrogen management plan. The amended plan included the following revisions:

- Designation of sub-basins as management zones
- Sub-basins boundaries
- TDS and nitrate-nitrogen groundwater quality objectives
- TDS and nitrogen wasteload allocations
- Reach designations
- TDS and nitrogen objectives and beneficial uses for specific surface waters

In addition, alternative maximum benefit objectives were specified for a number of groundwater management zones including the Beaumont Management Zone (BMZ) and the San Timoteo Management Zone (STMZ). The adoption of the maximum benefit objectives for these two management zones by the Regional Board was based on demonstrations by the STWMA and the City of Beaumont that the beneficial uses of ground and surface waters were being protected and that water quality was being maintained.

As part of the demonstration that the maximum benefit objectives were being met, STWMA and Beaumont were required to develop a comprehensive groundwater monitoring program to collect groundwater level and quality information from a number of wells throughout the STMZ and BMZ. To implement this program, potential public and private wells were surveyed and a selected number of wells identified to be used for water level and water quality monitoring. From the survey, a Key Well Water Level Program and a Key Well Water Quality Program were created. Figure 3-2 illustrates the location of the wells identified as part of these programs.



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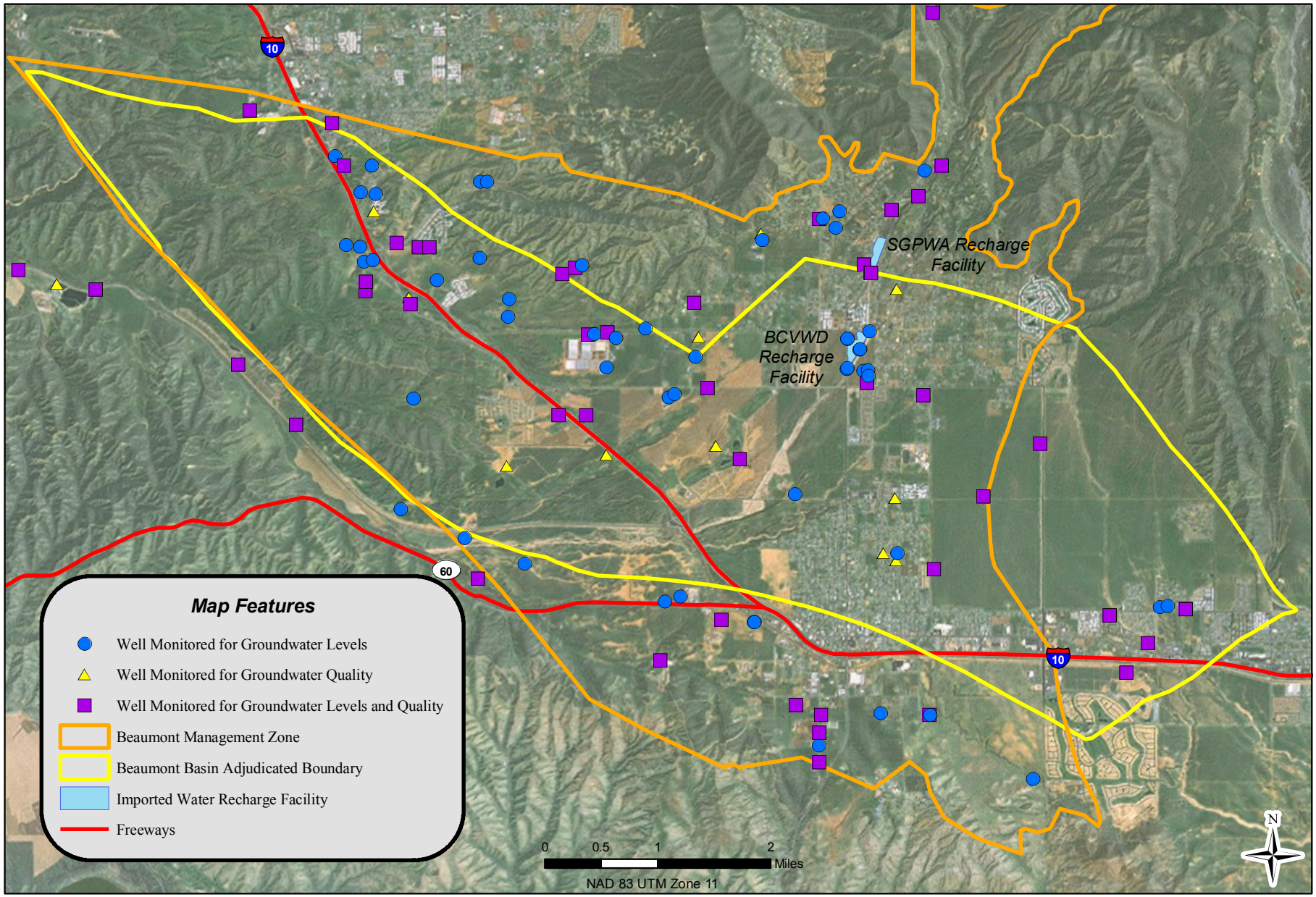
Appropriator and Overlyer Wells in the Beaumont Basin

Figure 3-1



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Wells Monitored for Water Level and Water Quality in the Beaumont Basin

Figure 3-2

Section 4
Groundwater Pumping, Recharge, Elevation, and Storage

Until now, groundwater production, recharge, and storage have been reported on a fiscal year basis; however, Watermaster approval of Resolution No. 2011-01 changed the reporting of the Annual Report to a calendar year basis. It should be noted that this resolution did not provide guidelines for the reporting of the Beaumont Basin Watermaster Biennial Engineer's Report; the previous two editions were reported on a fiscal year basis.

Consistent with the 2011 Annual Report, this Third Biennial Engineer's Report presents groundwater basin information on a calendar year basis for CY 2008 through CY 2011.

4.1 Groundwater Pumping

The safe yield of the Basin, as designated by the Judgment, was estimated at 8,650 ac-ft/yr based on groundwater conditions for the 1997-2001 period. In addition, a temporary surplus of 160,000 ac-ft of additional pumping was established for the Appropriative Members over the first ten years of Watermaster operations. The purpose of the temporary surplus was to establish a controlled overdraft to create enough additional storage capacity to prevent the waste of water outflowing from the basin. Therefore, the combined safe yield and temporary surplus bring the annual operating yield of the Basin to 24,650 ac-ft/yr through FY 2012-13. Section 4 of the Rules and Regulations indicates that the Safe Yield of the Beaumont Basin shall be redetermined at least every ten years beginning during FY 2013-14.

The annual production on a calendar year basis for all Appropriators and Overlying users is shown in Table 4-1. It should be noted that production in 2003 only includes the second half of the year. Since July 2003, a total of 137,930 ac-ft have been pumped from the Beaumont Basin; approximately 81 percent of this total has been pumped by Appropriators. The percentage of groundwater production from Appropriators has steadily increased since the Judgment inception from a low of 74 percent registered in CY 2003 to a high of 84 percent in CY 2008, 2010, and 2011.

Groundwater production peaked in 2007 when close to 20,000 ac-ft were pumped from the basin; since, it has declined steadily to approximately 14,000 ac-ft. and averaged 16,054 ac-ft/yr for the 2004-11 period. Production from 2003 was excluded as it only represents the second half of that year. Figure 4-1 illustrates the annual production since CY 2003 for individual Appropriator Parties and the combined Overlying Users.

During the CY 2008-11 reporting period, Appropriator Parties produced 51,172 ac-ft while Overlying Users pumped 10,348 ac-ft for a combined amount of 61,520 ac-ft. Average production over the reporting period was 15,380 ac-ft, which is approximately 700 ac-ft/yr lower than the 2004-11 average. The groundwater production data for CY 2003 through CY 2011 will be included in the final report as an appendix to the report.

4.2 Groundwater Recharge

The Watermaster is responsible for maintaining an annual account of all recharged water in the Beaumont Basin and any losses of water supplies or Safe Yield resulting from such recharge water. Sources of groundwater recharge include imported water from the State Water Project (SWP), recycled water, and new yield sources developed in the basin since the Judgment inception in July 2003. The Watermaster has maintained the accounting of groundwater recharge; however, losses from the basin, if any, have not been tracked. Table 4-2 presents a summary of the annual groundwater recharge in the Beaumont Basin since 2003 on a calendar year basis.

Since the inception of the Judgment, a total of 33,293 ac-ft of imported water have been recharged in the Beaumont Basin at the Noble Creek spreading facility by Banning and the BCVWD. The SGPWA has recharged 7,755 ac-ft at their Little San Gorgonio Spreading Ponds located just to the north of the basin boundary. It should be noted that spreading of imported water at these ponds may be a source of subsurface recharge to the Beaumont Basin; however, Watermaster has not adopted this finding. Consequently, imported water recharge at this location would not be considered as water in the Basin until a hydrogeologic investigation is conducted to evaluate whether a portion or all of this water recharges the Beaumont Basin.

During the CY 2008-11 reporting period, Banning recharged 4,400 ac-ft while BCVWD recharged 21,121 ac-ft for a combined amount of 25,521 ac-ft over the period.

4.3 Groundwater Elevation

Groundwater contour maps were generated for Fall 2008 and Fall 2011 in order to evaluate changes in groundwater flow patterns and basin-wide changes in the groundwater levels over this time period. Groundwater level data for the contour maps were obtained from Wildermuth Environmental, Inc. Groundwater levels were selected from wells with available data in the October to December period (i.e. Fall) of each year. For wells with available data, the groundwater level record for the target time period was evaluated to distinguish static groundwater levels from pumping groundwater levels. Only static groundwater levels were used for developing contour maps. The resulting groundwater contour maps for 2008 and 2011 are shown on Figures 4-2 and 4-3, respectively.

Basin-wide groundwater level change between 2008 and 2011 is shown on Figure 4-4. This map was developed by subtracting the 2008 groundwater elevation surface from the 2011 groundwater surface. Parts of the basin where groundwater levels have risen include the furthest northwestern portion, the northern part of the basin near the BCVWD Noble Creek Recharge Facility, and in the southern part of the basin southeast of Beaumont. A maximum groundwater elevation increase of approximately 45 ft was observed near the Noble Creek Recharge Facility. Areas of groundwater decline over the period of interest include the north-central and southeast portions of the basin. Maximum groundwater declines of as much as 35 ft were observed in these areas.

Groundwater flow within the Beaumont Basin generally depends on location with respect to a groundwater flow divide which occurs in the center of the basin approximately coincident with the Noble Creek drainage (see Figures 4-2 and 4-3). West of the Noble Creek drainage, groundwater generally flows to the northwest and ultimately towards San Timoteo Wash. East of the Noble Creek drainage, groundwater flows to the southeast towards the City of Banning. Aside from localized groundwater flow changes associated with changing pumping patterns, the general groundwater flow directions did not change significantly between 2008 and 2011.

4.4 Changes in Storage (2008 - 2011)

Groundwater storage in the Beaumont Basin fluctuates in response to changes in recharge (e.g. precipitation and artificial recharge) and discharge (e.g. pumping). Basin-wide change in groundwater storage between Fall 2008 and Fall 2011 was analyzed as a function of the difference in groundwater levels across the basin and the specific yield of the aquifer sediments. Groundwater level change across the basin was analyzed using the following procedure:

1. The Fall 2008 and Fall 2011 groundwater contour maps were each converted into three-dimensional raster surfaces.
2. The basin was discretized into 75-ft by 75-ft grid cells.
3. Attributes were assigned to each grid cell including groundwater level change and specific yield.
4. The resulting attribute table was processed in a Geographic Information System (GIS) for calculating the change in storage.

The specific yield distribution used for the analysis was based on Figure 3-6 of the Beaumont Basin 1st Biennial Report.

Results of the analysis show a basin-wide decrease in groundwater storage from 2008 to 2011 of approximately 60 ac-ft. It is noted that, as with previous estimates of change in storage, the northwest portion of the basin was not used in the analysis because there is little groundwater level data in this area.

4.5 Operating Safe Yield

For purposes of this report, the annual operating safe yield (OSY) describes the sustainable supply of groundwater in the basin for the period of 2008 through 2011. It is noted that the OSY is different than the Operating Yield, which is a function of the unused overlyer production (Appropriative Water) and Temporary Surplus, as described in the Beaumont Basin Judgments (San Timoteo Management Authority v. Banning et al., 2004).

Operating safe yield is estimated based on the following equation:

$$OSY = \frac{\Sigma P + \Delta S - \Sigma AR}{\Delta T}$$

where: ΣP = The sum of groundwater production (acre-ft)

ΔS = The change in groundwater storage (acre-ft)

ΣAR = The sum of artificial recharge (acre-ft)

ΔT = The time over which the OSY is estimated (years)

Total Beaumont Basin groundwater production from calendar years 2008 to 2011 was 61,521 acre-ft (see Table 4-1). Total artificial recharge from calendar years 2008 to 2011 was 25,521 acre-ft (see Table 4-2). It is noted that only the Noble Creek Recharge Facility recharge was used in the analysis of OSY. The change in groundwater storage estimate is based on the analysis of groundwater levels described Section 4.4. The period of time over which the OSY is evaluated is four years. The resulting OSY is estimated as:

$$OSY = \frac{61{,}521 + (-60) - 25{,}521}{4} = 8{,}985 \text{ acre-ft}$$

It is emphasized that the OSY, as presented herein, is based on four years of data. When evaluated on a long-term basis, this methodology can be used to estimate the long-term Safe Yield of the basin, as defined in the Beaumont Basin Judgment. As required by the Judgment, the Safe Yield of the basin will need to be reevaluated in 2013.

Table 4-1
Production Summary for Appropriator and Overlying Producers in the Beaumont Basin
Calendar Year Accounting (ac-ft)

	Annual Production (ac-ft)									Total Production
	2003[1]	2004	2005	2006	2007	2008	2009	2010	2011	
Appropriator Parties										
Banning, City of	2,174.2	3,397.3	1,808.6	1,827.5	2,772.6	2,933.6	2,095.0	1,143.6	1,341.7	19,494.1
Beaumont-Cherry Valley Water District	3,511.9	6,873.9	7,025.6	9,054.1	11,383.3	10,710.5	10,133.9	9,421.3	9,431.3	77,545.8
South Mesa Water Company	223.2	482.5	663.2	616.0	665.8	470.9	382.2	405.0	419.9	4,328.6
Yucaipa Valley Water District	1,162.4	1,804.7	1,274.3	2,027.3	1,682.9	573.4	504.4	671.5	534.1	10,234.9
Subtotal	**7,071.7**	**12,558.3**	**10,771.7**	**13,524.9**	**16,504.6**	**14,688.4**	**13,115.6**	**11,641.3**	**11,727.1**	**111,603.5**
Overlying Parties										
Beckman, Walter M	16.2	27.0	22.4	11.5	8.3	12.7	12.9	6.4	9.0	126.3
California Oak Valley Golf and Resort LLC	736.2	728.6	703.9	831.5	779.0	780.4	766.7	565.1	517.3	6,408.7
Merlin Properties	3.6	1.6	1.6	1.6	1.6	1.6	1.6	1.5	1.6	16.2
Oak Valley Partners, LP	301.2	440.7	350.2	312.1	312.1	310.5	310.5	311.1	310.0	2,958.4
Plantation on the Lake LLC	178.6	340.9	310.2	350.1	344.2	354.0	352.3	337.2	344.7	2,912.1
Rancho Calimesa Mobile Home Park	35.4	68.3	68.3	68.3	69.3	69.3	69.3	69.3	69.3	586.7
Roman Catholic Bishop of San Bernardino	46.8	59.1	55.6	59.0	0.7	0.7	0.7	0.0	0.0	222.5
Sharondale Mesa Owners Association	104.3	158.0	181.0	188.6	182.3	193.3	154.3	132.3	113.2	1,407.4
East Valley Golf Club[2]	779.1	1,369.0	1,227.0	1,579.0	1,514.9	1,221.0	1,144.0	859.0	901.5	10,594.4
Stearns, Leonard M. and Dorothy D.	1.1	1.1	1.1	1.1	1.1	1.1	1.1	0.7	0.7	8.8
Sunny-Cal Egg and Poultry Company	226.0	404.4	385.4	2.6	2.7	4.2	4.2	3.8	4.2	1,037.5
Albor Properties III, LP[3]				13.2	2.3	2.3	2.3	2.1	2.3	24.6
Nikodinov, Nick				0.7	0.8	0.8	0.7	0.7	0.8	4.4
McAmis, Ronald L.				0.5	0.6	0.6	0.5	0.5	0.6	3.3
Aldama, Nicolas and Amalia				0.8	0.8	0.9	0.8	0.8	0.9	5.0
Gutierrez, Hector, et. al.				1.4	1.4	1.4	1.4	1.3	1.4	8.2
Darmont, Boris and Miriam				0.4	0.4	0.4	0.4	0.4	0.4	2.1
Subtotal	**2,428.5**	**3,598.5**	**3,306.5**	**3,422.3**	**3,222.4**	**2,955.0**	**2,823.6**	**2,292.2**	**2,277.7**	**26,326.7**
Total	**9,500.2**	**16,156.8**	**14,078.2**	**16,947.3**	**19,726.9**	**17,643.4**	**15,939.1**	**13,933.5**	**14,004.7**	**137,930.1**

1.- 2003 groundwater production only includes Jul-Dec time period.

2.- Formerly the Southern California Section of the PGA of America.

3.- Formerly Sunny Cal North - Manheim, Manheim & Berman.

Table 4-2
Annual Supplemental Recharge to the Beaumont Basin -- Calendar Year Accounting

Year	Supplemental Recharge (ac-ft)				
	Banning[1]	Beaumont[2]	BCVWD[1]	Pass Agency[3]	Total
2003	-	-	-	-	-
2004	-	-	-	813.8	813.8
2005	-	-	-	687.4	687.4
2006	-	-	3,498.1	777.7	4,275.8
2007	-	-	4,274.0	541.3	4,815.3
2008	1,200.0	-	2,654.5	1,047.4	4,901.9
2009	1,200.0	-	4,362.3	823.4	6,385.7
2010	1,200.0	-	5,788.3	1,222.3	8,210.6
2011	800.0	-	8,316.0	1,842.0	10,958.0
Totals	**4,400.0**	**-**	**28,893.2**	**7,755.3**	**41,048.5**

1.- SWP water recharged in the BCVWD Noble Creek Recharge Facility

2.- The City of Beaumont is seeking credit for recycled water recharge in the Beaumont Basin from DP-007 in an unnamed tributary to Marshall Creek. A technical demonstration of the estimated amount of recharge in the Beaumont Basin is pending.

3.- SWP water recharged in the Pass Agency's Little San Gorgonio Creek Spreading Ponds

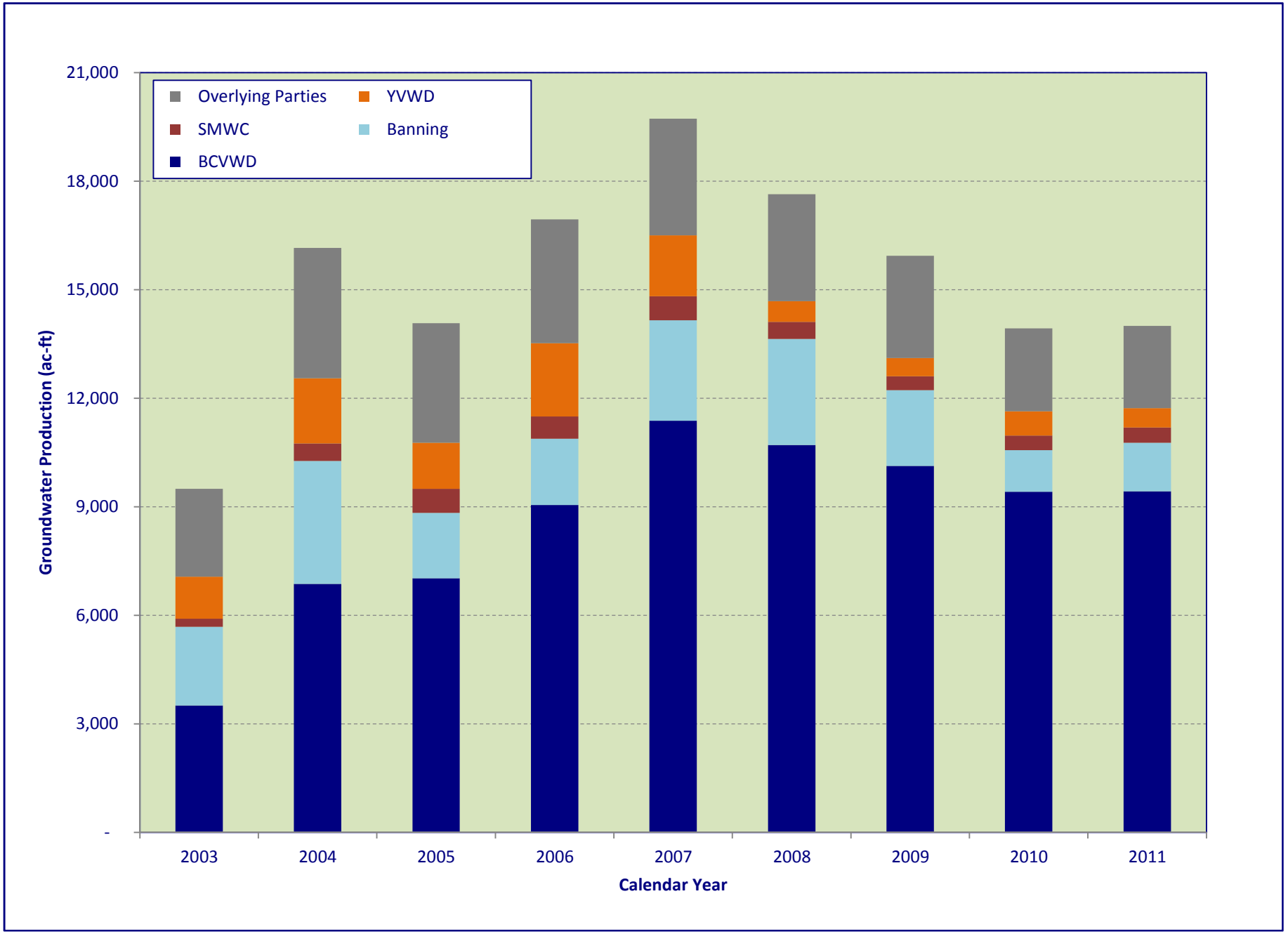
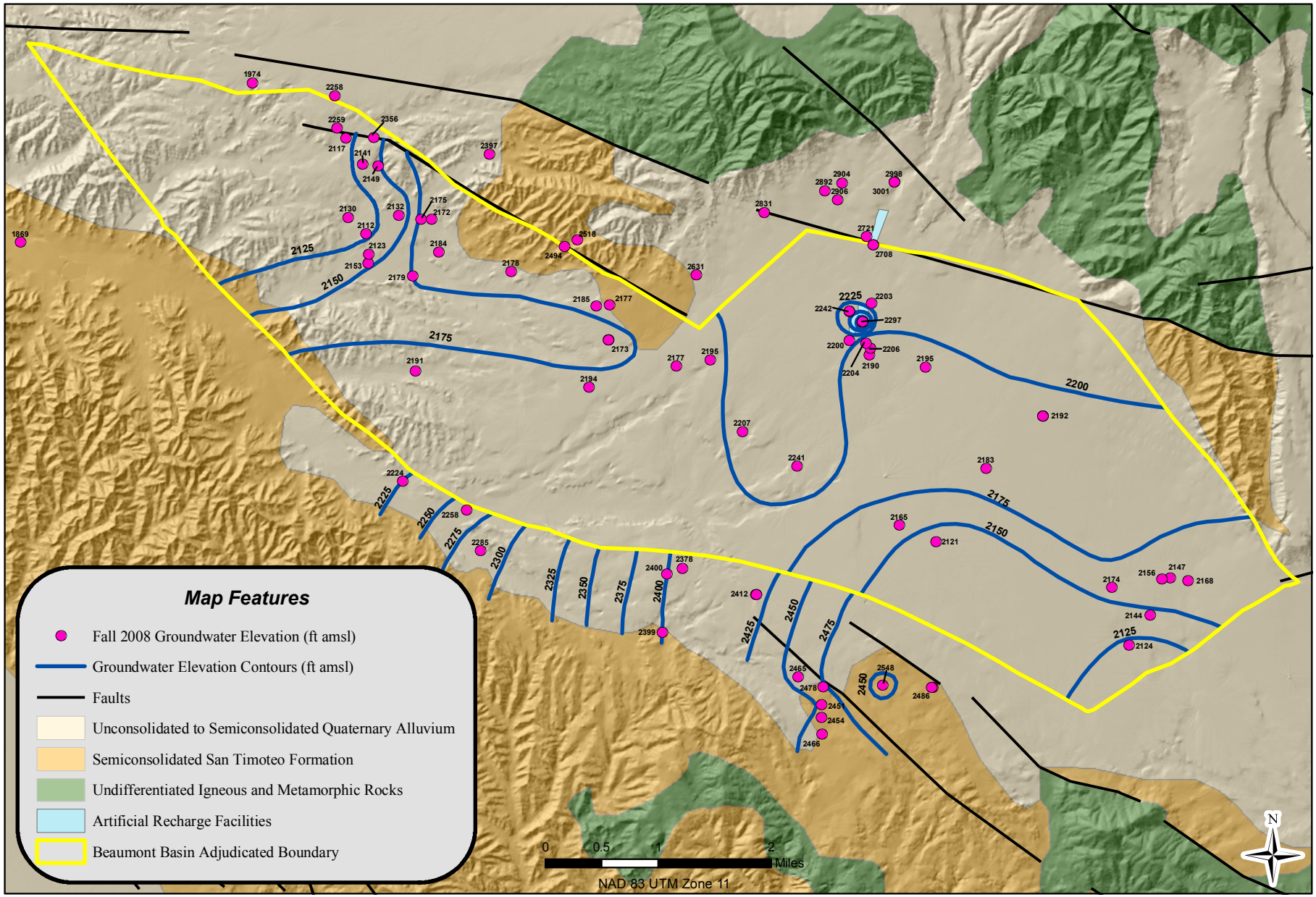


Figure 4-1
Annual Production by Appropriator and Overalying Users (2003-11)



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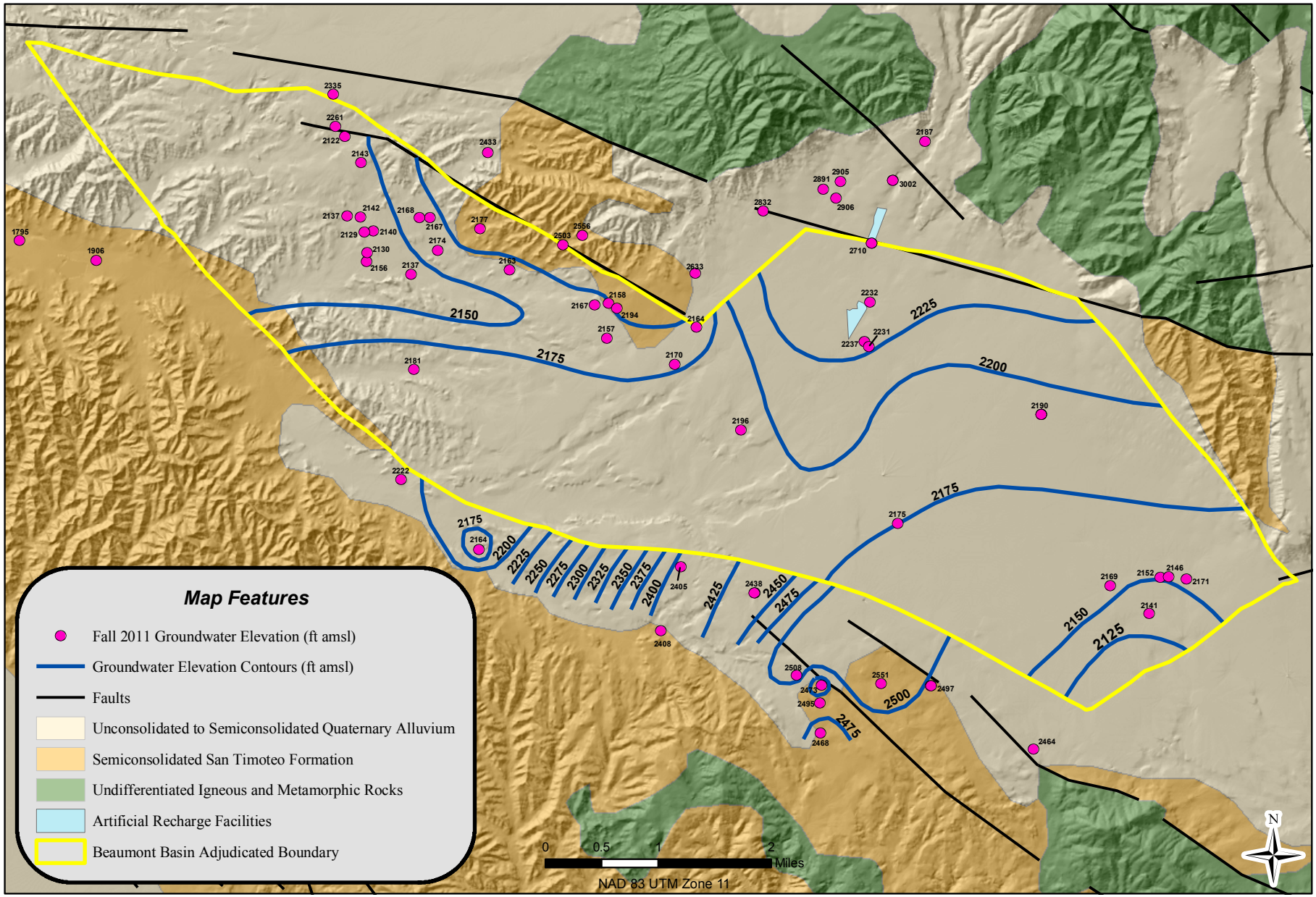
Groundwater Elevation Contours Fall 2008

Figure 4-2



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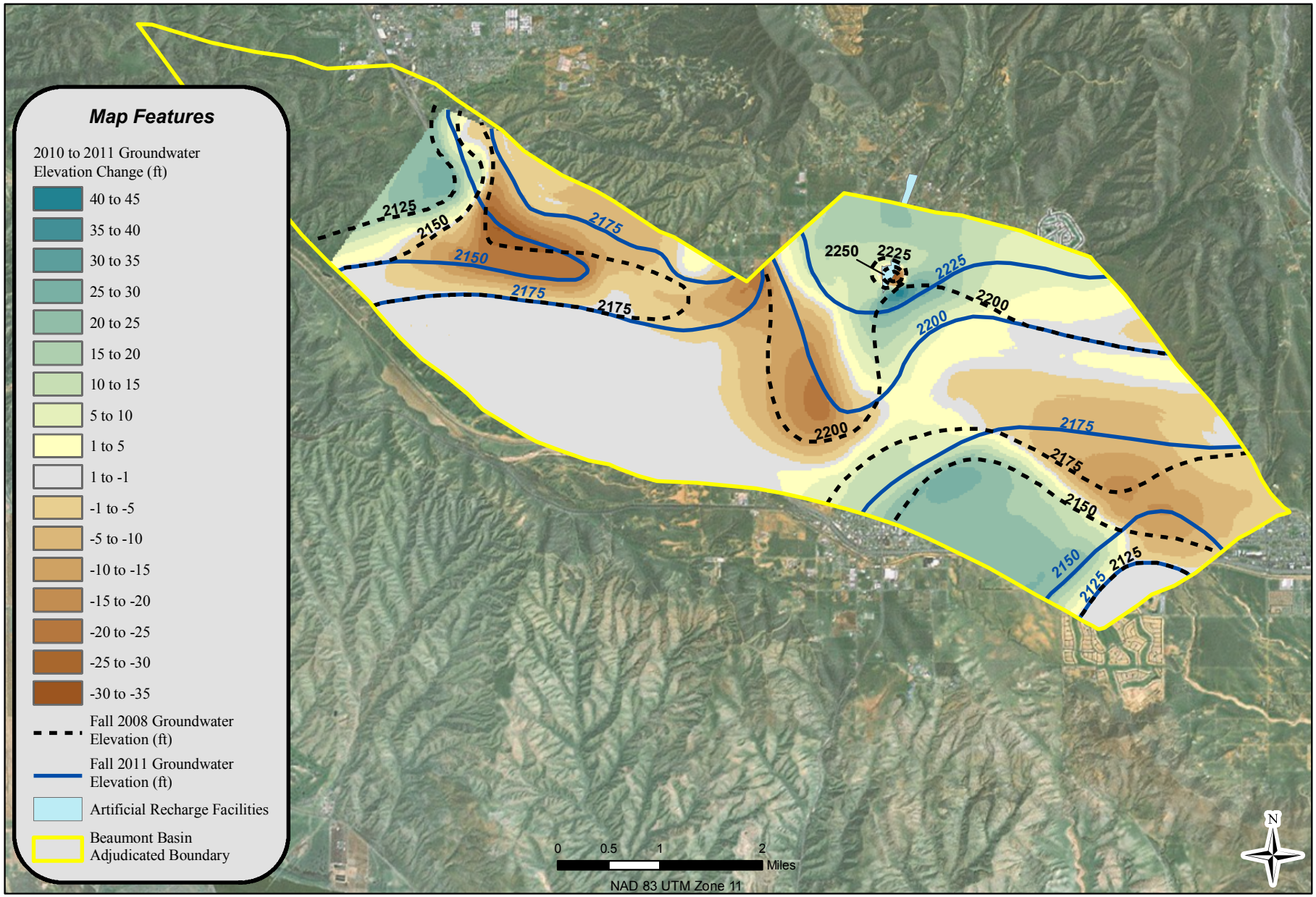
Groundwater Consulting

Groundwater Elevation Contours Fall 2011

Figure 4-3



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Change in Groundwater Elevation Fall 2008 - Fall 2011

Figure 4-4

Section 5
Water Quality Conditions

The purpose of this section is to document the water quality conditions in the Beaumont Basin during the 2008-11 reporting period. Figure 5-1 shows all of the wells that have groundwater quality data for the reporting period. This section discusses the Water Character Index of groundwater in the basin and compares reported water quality against management zone objectives and Federal and State regulatory standards. In addition, this section summarizes two nitrate studies conducted over the last five years in the Beaumont Management Zone.

5.1 Water Character Index

Water character index (WCI) is a concept introduced by WEI in the two previous Biennial Reports. Additional documentation of this concept is not widely used and its applications could not be substantiated; however, it is considered here as it was presented in previous reports. The findings are based strictly on WEI's interpretation of its usefulness.

According to WEI, the WCI is a unitless parameter that provides a numerical estimate of water character; it can be used to assess the ionic distribution of constituents in a water sample and it is defined by the following equation.

$$WCI = \left[\left\{ \frac{Ca + Mg}{Na + K} \right\} + \left\{ \frac{CO_3 + HCO_3}{Cl + SO_4} \right\} \right] \times 100$$

The utility of the WCI method is that time history and/or spatial distribution can be created and displayed. Further, this method can be used to provide a semi-quantitative estimate of the mixing of source of water. Figure 5-2 presents the 2008-11 average WCI for the 22 wells owned and operated by Appropriators. Values range from a low of 282 (SMWC No. 4) in the northwesterly portion of the Beaumont Basin to a high of 1,655 for BCVWD Well No. 22. Higher values are associated with groundwater that has more of a calcium-magnesium-bicarbonate character such as those expected for this area as groundwater is directly influenced by drainage from the San Bernardino Mountains. Lower WCI values reflect a sodium-chloride-sulfate character that may be associated with groundwater that is influenced by on-site waste disposal system discharges, agricultural practices, and/or return flows from irrigation.

Of the 22 WCI values calculated, 12 of them exceeded 1,000. This finding is consistent with previous findings reported by WEI in the 1st and 2nd Biennial Reports.

5.2 Comparison with Management Zone Objectives

Groundwater quality objectives for antidegradation and maximum benefit have been established by the Regional Board for TDS and nitrate-nitrogen in the BMZ, which

encompasses portions of the Beaumont Basin, the Singleton and South Beaumont basins, and limited portions of Edgar Canyon above the Banning Fault as illustrated in Figure 5-2. The antidegradation objectives are based on the historic ambient TDS and nitrate-nitrogen concentration of 230 mg/L and 1.5 mg/L respectively.

The maximum benefit objectives were adopted by the Regional Board in 2004 at the request of STWMA and Beaumont to allow for recharge of imported water and the reuse of recycled water. The maximum benefit objectives, set to 330 mg/L for TDS and 5.0 mg/L for nitrate-nitrogen, are relatively low compared to other basins and are protective of the beneficial uses of the Basin groundwater. According to the Basin Plan, salt mitigation will be required once the ambient TDS and nitrate-nitrogen concentration exceeds the BMZ maximum benefit objectives.

5.2.1 Total Dissolved Solids

Figure 5-3 shows the maximum TDS concentrations measured at Basin wells during the 2008-2011 reporting period for 22 production and 23 monitoring wells. The maximum TDS concentrations for production wells ranged from 180 to 380 mg/L and averaged 255 mg/L. Of the 22 production wells, 9 wells had a maximum concentration below the antidegradation objective, 10 wells had a maximum concentration between the antidegradation and maximum benefit objectives, and 3 wells had a maximum concentration exceeding the maximum benefit objective for the BMZ. None of the production wells samples exceeded the secondary federal or state drinking water standard for TDS (500 mg/L).

Of the 23 monitoring wells sampled, the maximum TDS concentrations ranged from 100 to 768 mg/L and averaged 322 mg/L, significantly higher than for production wells. Four of these wells had maximum concentrations below the antidegradation objective, 13 wells had a maximum concentration between the antidegradation and maximum benefit objectives, and six wells exceeded the maximum benefit objective for the BMZ. In addition, two of these six wells also exceeded the secondary federal or state drinking water standard for TDS. Most of the wells with the highest TDS concentrations, include the two wells that exceeded drinking water standards are located within the BMZ, but outside the Beaumont Basin.

5.2.2 Nitrate-Nitrogen

Figure 5-4 shows the maximum nitrate-nitrogen concentrations measured at Basin wells during the 2008-2011 period for 21 monitoring and 22 production wells. The maximum nitrate-nitrogen concentrations for production wells ranged from 0.96 to 8.89 mg/L and averaged 3.64 mg/L. Of the 22 production wells, six had a maximum concentration below the antidegradation objective, 10 wells had a maximum concentration between the antidegradation and maximum benefit objectives, and six wells had a maximum concentration exceeding the maximum benefit objective for the BMZ. None of the production wells sample exceeded the primary federal and state drinking water standard for nitrate-nitrogen of 10 mg/L.

Of the 21 monitoring wells sampled, the maximum nitrate-nitrogen concentrations ranged from 0.25 to 21.3 mg/L and averaged 5.44 mg/L, significantly higher than for production wells. Only one of these wells had maximum concentrations below the antidegradation objective, 13 wells

had a maximum concentration between the antidegradation and maximum benefit objectives, and the remaining seven wells exceeded the maximum benefit objective for the BMZ. In addition, four of these seven wells also exceeded the primary federal and state drinking water standard for nitrate.

Amongst production wells, there are six wells with nitrate-nitrogen concentrations often exceeding the BMZ maximum benefit objective of 330 mg/L; their location is identified in Figure 5-4. Figure 5-5 illustrates the nitrate-nitrogen concentration for these high nitrate wells since 1999. In addition to exceeding the BMZ maximum benefit objective, all of these wells have exceeded the 80 percent of MCL (10.0 mg/L) threshold level that the CDPH uses to begin considering potential blending and/or treatment alternatives to address high nitrate concentrations in drinking water.

5.3 Nitrate Studies in the Beaumont Management Zone

Rising nitrate concentrations observed in 2005 along the northern portion of the Basin prompted STWMA to launch an investigation in 2006 to determine the potential impact on groundwater quality from on-site waste disposal systems (OSWDS) commonly used in the Cherry Valley Community of Interest (CVCOI). STWMA retained the services of Wildermuth Environmental Inc. (WEI) to conduct this study.

The results of this study were disputed by the Beaumont Board of Supervisors' Groundwater Quality Evaluation Committee (Committee) as they identified potential shortcomings in sampling design and project execution. The Committee recommended that an independent assessment be conducted. They recommended that the second study should expand the study area, consider reasonable build-out projections and other sources of groundwater contamination. This independent study was conducted by scientist at the University of California, Riverside and funded as a Supplemental Environmental Project by the State Water Resources Control Board. The results of this study were published in early 2012.

While both of these reports were conducted outside of the reporting period (2008-11) for this report, a brief summary and their findings is presented below for information purposes only.

5.3.1 Summary of Wildermuth Environmental Inc. Study

This study is titled: "*Water Quality Impacts from On-Site Waste Disposal Systems in the Cherry Valley Community of Interest" (WEI, 2007).* The bases for this study include the following:

- A review of scientific literature,
- A field study to estimate nitrogen concentrations in soil water below selected OSWDS,
- A tracer study of nitrogen isotope and pharmaceutical and personal care products (PPCP) to confirm the presence of effluent from OSWDS,
- An estimation of current and future discharge from OSWDS to groundwater,

- A planning-level evaluation of basin impacts using the groundwater flow and nitrate transport model, and
- A review of the threshold used in California to compel sewering when OSWDS contaminate or threaten to contaminate groundwater

The results of the investigation are summarized as follows:

- Parcel density in the CVCOI violates the minimum half-acre parcel size requirement of the Regional Board to be on a septic system.
- Water produced from high nitrate wells in the area has a nitrogen isotopic signature and contain PPCPs consistent with discharge from OSWDS.
- Present contribution of OSWDS discharges is estimated at 665 ac-ft/yr.; this represents about five percent of total recharge to the BMZ. At ultimate buildout, there will be between 4,900 to 8,800 OSWDS in the CVCOI. Discharge contribution from these OSWDS is estimated between 1,700 and 3,100 ac-ft/yr. representing 13 to 21 percent of total recharge to the BMZ.
- At 4,900 lots, the contributions from OSWDS will significantly impact water quality to the point that well head treatment will be required at certain well locations in order to meet drinking water standards. At 8,800 lots, the contributions from OSWDS will rendered the entire BMZ non-potable.
- Left unmitigated, OSWDS discharges will contribute enough nitrate to exceed the Basin Plan objectives for the BMZ.
- There is sufficient evidence of groundwater contamination by OSWDS to warrant the Regional Board to issue a prohibition on new OSWDS in the CVCOI.

According to WEI, as a result of this investigation, the County of Riverside issued a moratorium, followed by a permanent prohibition on the installation of septic systems in Cherry Valley unless the septic system is designed to remove at least 50 percent of the nitrogen in the wastewater. In 2009, the County passed a new ordinance that removed the prohibition on conventional OSWDS. WEI further indicates that the Regional Board initiated a process in 2009 that may lead to amending the Basin Plan prohibiting conventional OSWDS and regulating the discharges to meet antidegradation objectives.

5.3.2 Summary of University of California, Riverside Study

This study is titled: *"Water Quality Assessment of the Beaumont Management Zone: Identifying Sources of Groundwater Contamination Using Chemical and Isotopic Tracers" (UCR, 2012).*

The study divides the BMZ into four distinct zones; their location is depicted in Figure 2 of the UCR report (not included here). A brief description of the zones is as follows:

Zone 1 – Region Influenced by Wastewater Treatment Plant Effluent. This zone occupies the southernmost area of the BMZ. Water quality in this zone is influenced by effluent from the City of Beaumont wastewater treatment plant.

Zone 2 – Wildland and Low Density Septic Disposal Region. This zone is defined as the area uphill of Edgar Canyon to the north of Cherry Valley. Water quality in this area had low to moderate concentrations of TDS and nitrate.

Zone 3 – Urban Region with On-site Septic Disposal Systems. This zone overlies the Cherry Valley area including the area around the Noble Creek and Little San Gorgonio Spreading Ponds. Human waste from homes and business in this zone is primarily disposed of in on-site waste disposal systems.

Zone 4 – Urban Region with Consolidate Sewer System. Zone 4 comprises those portions of the City of Beaumont utilizing a municipal wastewater system.

The UCR report attempted to answer a series of questions; the questions and a summary of their response is provided below.

1.- Can different groundwater regions within the BMZ be defined using isotope, PPCP, and general chemical parameters?

According to the study,

- Zone 1 was characterized by relatively high levels of PPCPs and it has the highest likelihood for nitrate contamination from human waste.
- Zone 2 had detectable levels of some PPCPs. Septic contributions to groundwater are relatively minor.
- Zone 3 had several wells with clear signs of contamination by septic systems. Groundwater in the central portion of Cherry Valley appeared to be more strongly affected by septic systems than on the periphery of Cherry Valley.
- Zone 4 shows the fewest signs of human waste as most homes are served by consolidated sewer systems.

1A.- Do areas with septic systems have different chemistry than areas with sewers?

The report indicates that there are statistically significant differences between groundwater in areas with septic systems and groundwater where sewer service is available. The concentrations of PPCPs, TDS, Nitrate-nitrogen, the sum of base cations, Boron, and Isotopes of Nitrate were all significantly higher in areas with septic systems than in areas with sewer service.

1B.- Do areas where groundwater recharge with water from the State Water Project or wastewater treatment plant effluent have different chemistry from other areas?

Strong evidence of nitrate deriving from human waste was detected in Zone 1 as well as strong biological attenuation of nitrate transported in groundwater.

2.- What sources contribute nitrate to groundwater of the BMZ?

The report indicates that in Zone 1 the isotopes of nitrate values overlap those expected for human or animal waste. Similarly, in Zone 3 the isotopic composition of water suggest a high

probability of inputs of nitrate from human or animal waste. The presence of PPCPs in most samples indicates the possibility that septic systems are contaminating groundwater within the central part of Cherry Valley.

3.- How much nitrate from human waste is making its way into the groundwater of the BMZ?

The report documents the following findings:

- Mixing models suggest that between 18 to 30 percent of the nitrate in central Cherry Valley groundwater is derived from septic systems.
- If septic systems were completely phased out, nitrate concentrations in central Cherry Valley groundwater could decline by 30 percent once a steady state condition is achieved. The time to reach a steady state is anticipated to be shorter than in other portions of the BMZ due to relatively high rates of recharge in Zone 3.
- Mass balance calculations show that nitrate-nitrogen inputs from septic systems is one of the largest inputs of nitrogen to groundwater in the BMZ.
- If the waste from septic tanks were to be conveyed to the City of Beaumont WWTP, about 30 percent of the current input of nitrate from human waste to groundwater would be removed.

5.4 Comparison with Federal and State Drinking Water Standards

The California Department of Health Services (CDPH) maintains an active water quality database of all public and private drinking water wells throughout the state. This database, available at CDPH's website, was assessed for the 2008-2011 reporting period to determine whether any of the 22 production wells in the Beaumont Basin had exceeded the Primary or Secondary Federal and State standards or the notification levels set by the state. Federal standards are set by the United States Environmental Protection Agency (USEPA) while state standards in California are set by CDPH. Primary standards at the federal and state level are enforceable criteria that have been established to protect the public against consumption of drinking water contaminants that present a risk to human health. Secondary standards are not enforceable standards; they have been established for aesthetic qualities of water, such as taste, color, and other. Contaminants with a secondary MCL are not considered to present a risk to human health at the established maximum level. Notification levels (NL) are not enforceable standards; however, they require that municipal water suppliers notify the public if the NL for a chemical has been exceeded.

A total of 2,729 water quality results were extracted from the CDPH database for the 22 production wells owned and operated by Appropriators and pumping from the Beaumont Basin. Results were obtained for 115 analytes sampled between 2008 and 2011. The results of the analysis indicate that not a single production well exceeds either the primary or secondary federal and state standards during the reporting period. Further, the California Notification Limit was also not exceeded by any well during the reporting period.

Additional water quality information from 2008 through 2011 was obtained from WEI as part of the Maximum Benefit Monitoring Program. This information was analyzed to determine if the water quality at the monitoring wells exceeded drinking water standards. Drinking standards were exceeded for a limited number of constituents as follows:

- Nitrate-nitrogen – Three monitoring wells exceeded this federal and state primary MCL of 10 mg/L – Total of 11 readings. One of the wells is located within the Beaumont Basin.
- pH – Two monitoring wells exceeded this secondary federal MCL of 8.5 – Total of two readings. Both wells located in the Beaumont Basin.
- Total Dissolved Solids – Two monitoring wells exceeded this federal and state secondary MCL of 500 mg/L – Total of six readings. Both wells located outside the Beaumont Basin.
- Turbidity – Two wells exceeded this secondary California MCL of 5 NTU – Total of two readings. One of these two wells is located within the Beaumont Basin.

Appendix A contains summary statistics of the analytical results for the 2008-2011 period for all chemicals that have a federal or state drinking water standard whether maximum contaminant levels were exceeded.

5.4.1 Trace Metals

As indicated earlier, not a single production well exceeds either the primary or secondary federal and state standards during the reporting period. This represents a significant improvement over previous reporting periods when several wells exceeded the MCL for trace metals. Trace metals are briefly discussed here and compared to previous reporting periods.

Aluminum. There were 30 water samples taken during the reporting period and tested for aluminum. Aluminum concentration at all wells was below 50 ug/L, significantly below the secondary MCL of 200 ug/L. Aluminum above the MCL can add color to water. One well exceeded the MCL during the FY 2004-08 reporting period.

Arsenic. There were 36 water samples collected and tested for arsenic during the reporting period. The highest arsenic concentration was at the City of Banning Well C-02A at 4.6 mg/L followed by SMWC's Well No. 4 at 4.2 mg/L. Both of these readings are below 50 percent of the current primary MCL of 10 mg/L. One well exceeded the MCL during the FY 2004-08 reporting period.

Iron. A total of 31 water samples were taken during the reporting period and tested for iron. Iron concentration in all cases was below 100 ug/L., significantly less than the current secondary MCL of 300 ug/L. Iron at a concentration above the MCL can impact color, odor, and taste in water. Five wells exceeded the MCL during the FY 2004-08 reporting period.

Lead. There were 30 water samples collected and tested for lead during the reporting period. The highest concentration reported was 0.006 mg/L, whi**.** A total of 31 water samples were taken

during the reporting period and tested for iron. Iron concentration in all cases was below 100 ug/L., significantly less than the current secondary MCL of 300 ug/L. Iron at a concentration above the MCL can impact color, odor, and taste in water. Five wells exceeded the MCL during the FY 2004-08 reporting period.ch is significantly below the current primary MCL for Lead of 0.015 mg/L. Lead concentrations in water above the MCL can have significant impacts on human health. One well exceeded the MCL during the FY 2004-08 reporting period.

Manganese. There were 31 water samples taken during the reporting period and tested for Manganese. Manganese concentration at all wells was below 20 ug/L, significantly below the secondary MCL of 50 ug/L. Manganese can significantly impact color and taste in water at concentrations above the MCL. One monitoring well exceeded the MCL during the FY 2004-08 reporting period.

Total Chromium. A total of 30 water samples were taken during the reporting period and tested for total chromium. The highest reported concentration of total chromium was 0.02 ug/L, which is significant less that the current state primary MCL of 0.05 ug/L. One well exceeded the state primary MCL during the FY 2004-08 reporting period.

Vanadium. A single water sample was tested for vanadium during the reporting period from SMWC's Well 4. Vanadium at this well was 17 ug/L or approximately 30 percent of the state notification level of 50 ug/L. Two wells exceeded the state NL for vanadium during the FY 2004-08 reporting period.

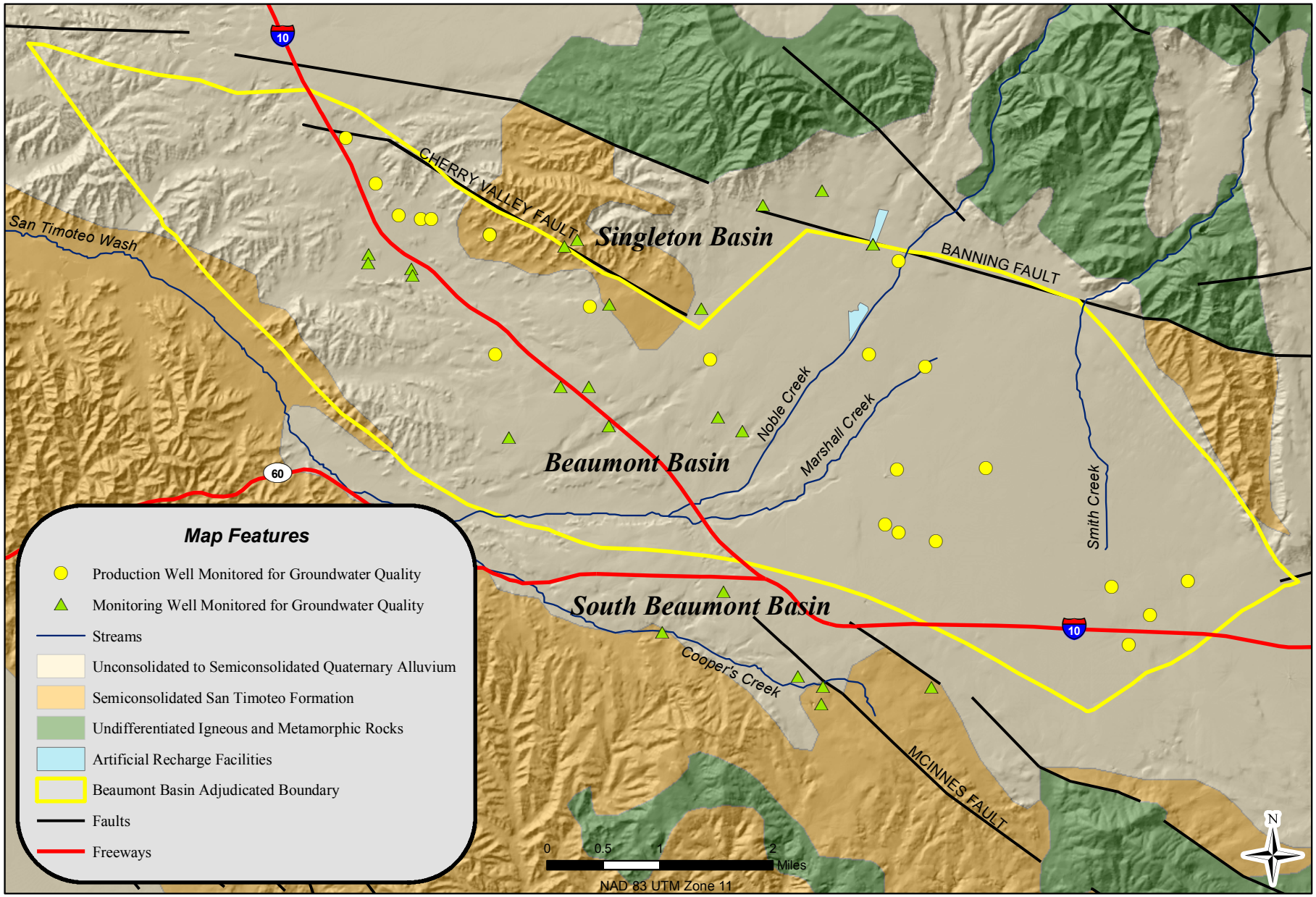
Copper. There were 31 water samples collected and tested for copper during the reporting period. Copper concentration in all of them were below 50 ug/L, significantly below the state primary MCL of 1,300 ug/L. This is consistent with previous reporting periods.

5.4.2 pH

There are two secondary standards for pH, a lower limit of 6.5 and an upper limit of 8.5. All production wells in the Basin were within these limits with pH concentrations ranging from a low of 7.6 to a high of 8.1. Four wells in the Basin exceeded the upper limit for pH during the FY 2004-08 reporting period.

5.4.3 Turbidity

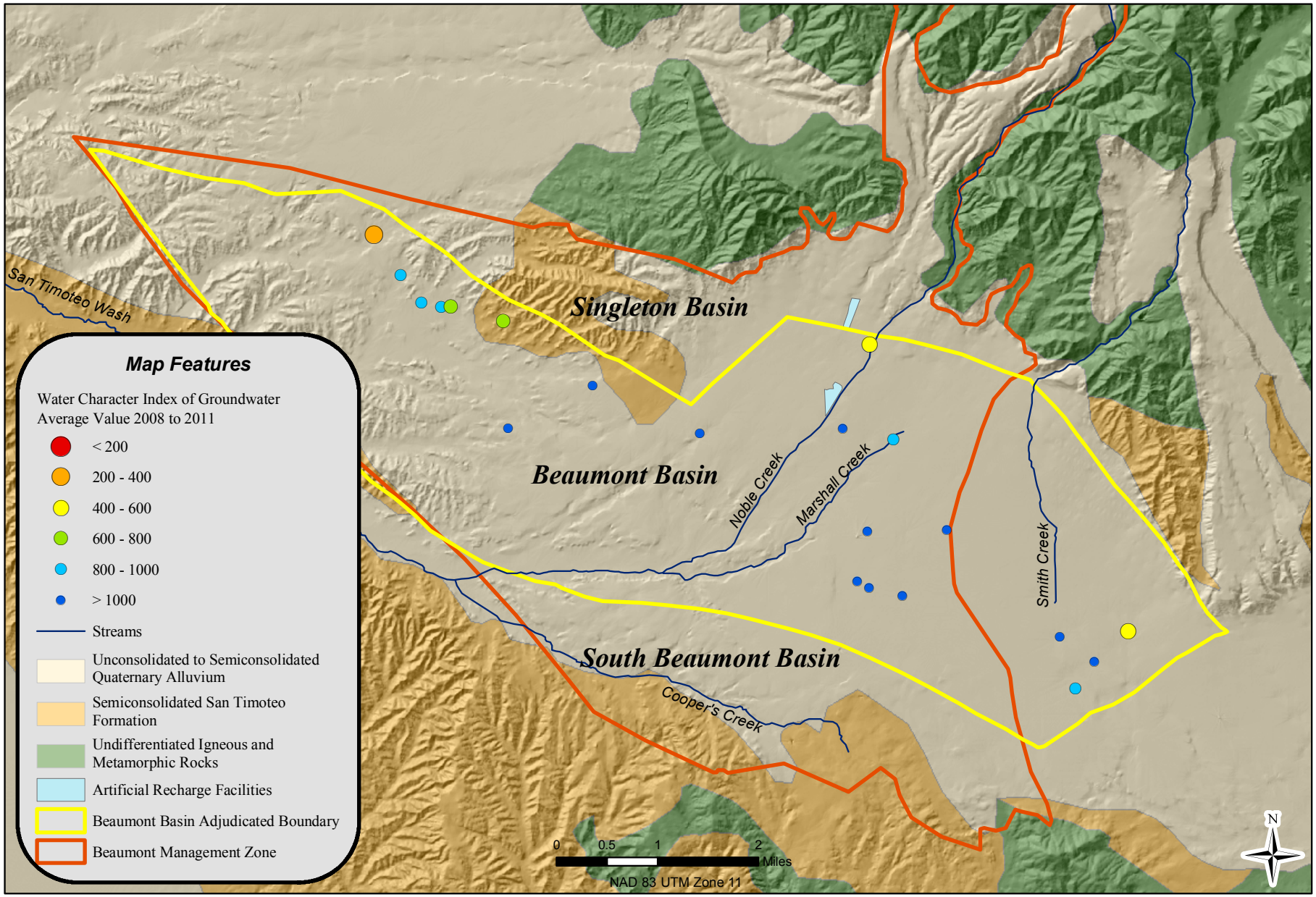
Turbidity is a measure of the cloudiness of water, and is used to indicate water quality and filtration effectiveness. All production wells in the Basin were tested for turbidity and none exceeded the primary federal and state MCL.



Alda, Inc. *in association with*
Thomas Harder & Co.
Groundwater Consulting

Wells with Groundwater Quality Data 2008 - 2011

Figure 5-1



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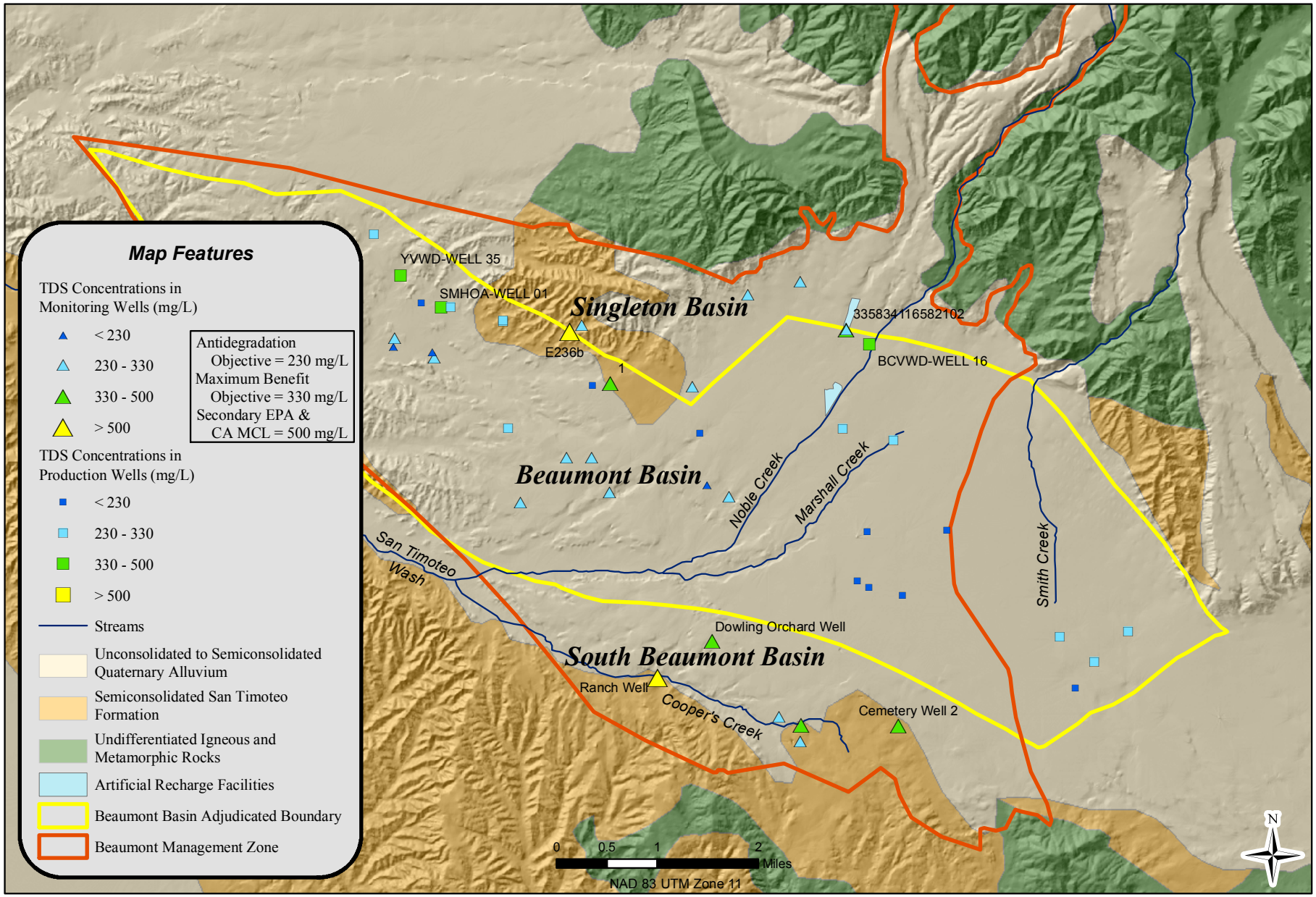
Water Character Index of Groundwater Average Value 2008 to 2011

Figure 5-2



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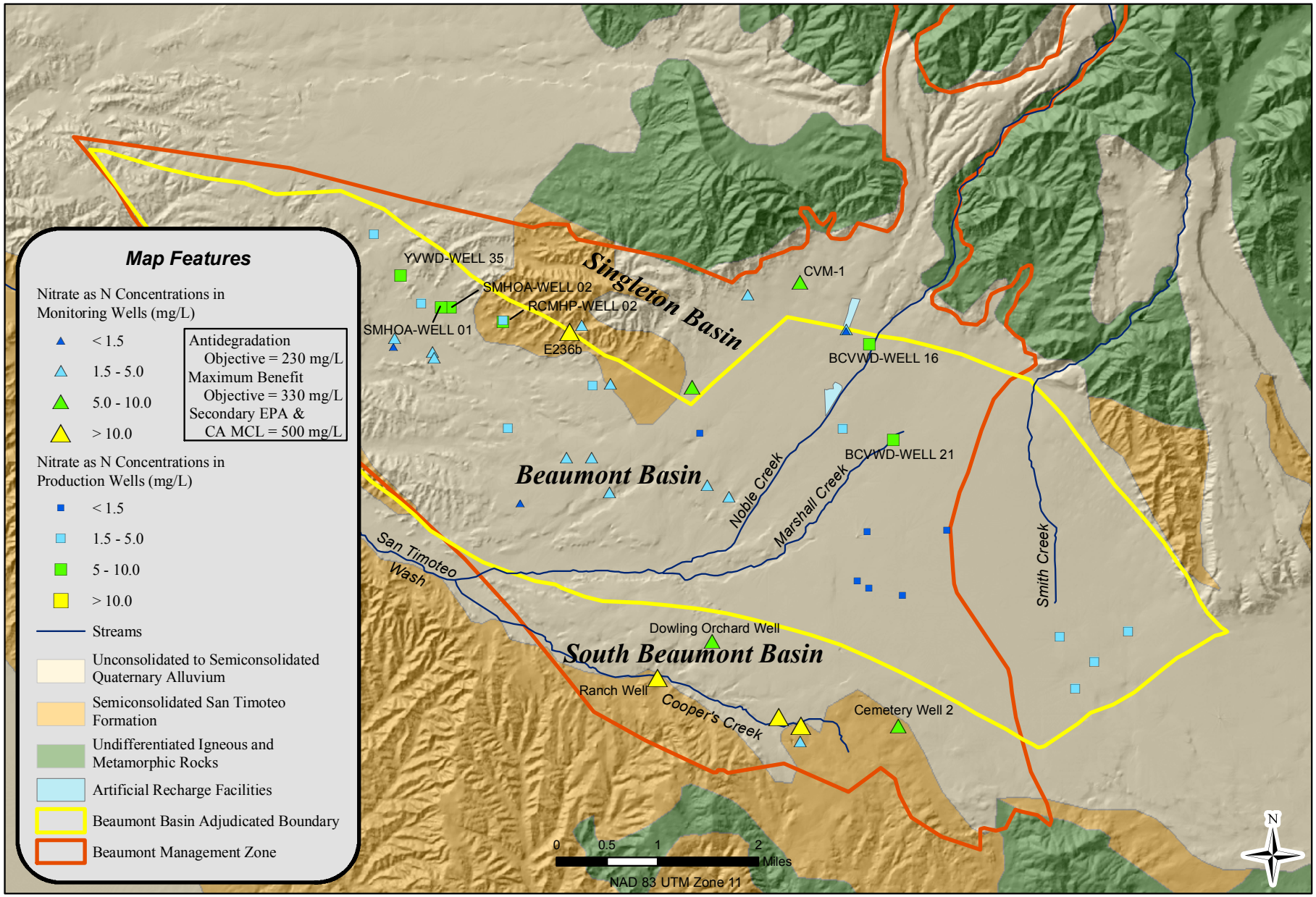
Total Dissolved Solids in Groundwater - Maximum Concentration 2008 to 2011

Figure 5-3



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Nitrate in Groundwater - Maximum Concentration 2008 to 2011

Figure 5-4

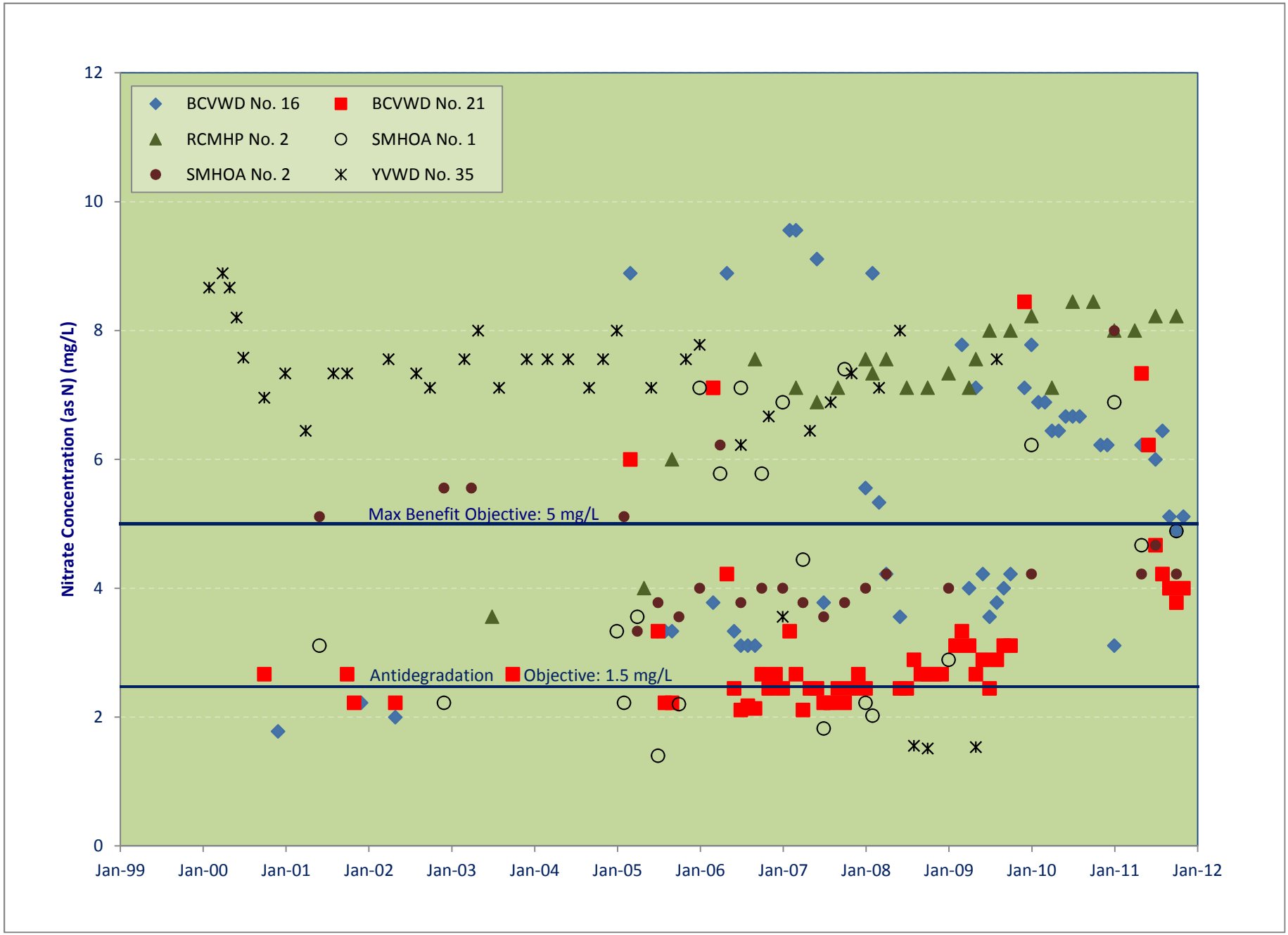

Figure 5-5
Historical Nitrate-Nitrogen Concentrations at Selected Wells

Appendix A
Water Quality

Beaumont Basin Watermaster

Water Quality Analysis Summary (2008-2011) for Drinking Water Production Wells

Analyte	Units	Federal Primary MCL	Federal Secondary MCL	California Primary MCL	California Secondary MCL	Public Health Goal	DLR	Wells Sampled	Wells Exceeding MCL	Average Value	Maximum Value
Color, Apparent (Unfiltered)	UNITS		15		15			22	0	2.8	5
Odor Threshold @ 60 C	TON		3		3		1	22	0	1.0	1
Specific Conductance (E.C.)	umhos				900			22	0	421	730
pH, Laboratory	Std Units		8.5					22	0	7.8	8.1
Bicarbonate (as HCO3)	mg/L							22	0	200	280
Carbonate (as CO3)	mg/L							22	0	2.6	3
Nitrite as Nitrogen (N)	ug/L	1000		1000		1000	400	22	0	86.9	100
Calcium (Ca)	mg/L							22	0	38.0	55
Magnesium (Mg)	mg/L							22	0	12.2	23
Sodium (Na)	mg/L							22	0	28.3	57
Potassium (K)	mg/L							18	0	1.5	2.1
Chloride	mg/L		250		250			22	0	13.0	39
Sulfate (SO4)	mg/L		250		250		0.5	22	0	15.1	63
Fluoride (F) (Natural-Source)	mg/L	4	2	2			0.1	22	0	0.5	0.9
Arsenic	ug/L	10		10			2	22	0	2.0	4.2
Barium (Ba)	ug/L	2000		1000		2000	100	22	0	90.9	100
Beryllium	ug/L	4		4		4	1	22	0	0.9	1
Cadmium (Cd)	ug/L	5		5		5	1	22	0	0.9	1
Chromium (Total Cr)	ug/L	100		50		100	10	22	0	11.2	20
Copper (Cu)	ug/L		1000		1000	1300	50	22	0	45.5	50
Iron (Fe)	ug/L		300		300		100	22	0	90.9	100
Lead (Pb)	ug/L						5	22	0	4.6	5.8
Manganese (Mn)	ug/L		50		50		20	22	0	18.2	20
Thallium	ug/L	2		2		0.5	1	22	0	0.9	1
Nickel	ug/L			100			10	22	0	9.1	10
Silver (Ag)	ug/L		100		100		10	22	0	9.1	10
Vanadium	ug/L						3	1	1	17.0	17
Zinc (Zn)	ug/L		5000		5000		50	22	0	54.5	250
Antimony	ug/L	6		6		6	6	22	0	5.5	6

Beaumont Basin Watermaster

Water Quality Analysis Summary (2008-2011) for Drinking Water Production Wells

Analyte	Units	Federal Primary MCL	Federal Secondary MCL	California Primary MCL	California Secondary MCL	Public Health Goal	DLR	Wells Sampled	Wells Exceeding MCL	Average Value	Maximum Value
Aluminum (Al)	ug/L		200	1000	200		50	22	0	45.5	50
Selenium (Se)	ug/L	50		50		50	5	22	0	4.5	5
Cyanide	ug/L	200		150			100	18	0	94.4	100
Gross Alpha	pCi/L	15		15			3	17	0	1.3	8.55
Uranium	pCi/L	30		20			1	3	0	1.1	1.72
Carbon Tetrachloride	µg/L	5		0.5			0.5	19	0	< 0.5	< 0.5
Toluene	µg/L	1000		150		1000	0.5	19	0	< 0.5	< 0.5
Benzene	µg/L	5		1			0.5	19	0	< 0.5	< 0.5
Benzo(a)pyrene	µg/L	0.2		0.2			0.1	19	0	< 0.1	< 0.1
Monochlorobenzene (Chlorobenzene)	µg/L	100		70		100	0.5	19	0	< 0.5	< 0.5
Ethyl Benzene	µg/L	700		300			0.5	19	0	< 0.5	< 0.5
Hexachlorocyclopentadiene	µg/L	50		50		50	1	6	0	< 1	< 1
Dichloromethane (Methylene Chloride)	µg/L	5		5			0.5	19	0	< 0.5	< 0.5
Tetrachloroethylene (PCE)	µg/L	5		5			0.5	19	0	< 0.5	< 0.5
Trichlorofluoromethane (FREON 11)	µg/L			150			5	19	0	< 5	< 5
1,1-Dichloroethane (1,1-DCA)	µg/L			5			0.5	19	0	< 0.5	< 0.5
1,1-Dichloroethylene (1,1-DCE)	µg/L	7		6			0.5	19	0	< 0.5	< 0.5
1,1,1-Trichloroethane (1,1,1-TCA)	µg/L	200		200		200	0.5	19	0	< 0.5	< 0.5
1,1,2-Trichloroethane (1,1,2-TCA)	µg/L	5		5		3	0.5	19	0	< 0.5	< 0.5
1,1,2,2-Tetrachloroethane	µg/L			1			0.5	19	0	< 0.5	< 0.5
1,2-Dichloroethane (1,2-DCA)	µg/L	5		0.5			0.5	19	0	< 0.5	< 0.5
1,2-Dichlorobenzene (o-DCB)	µg/L	600		600			0.5	19	0	< 0.5	< 0.5
1,2-Dichloropropane	µg/L	5		5			0.5	19	0	< 0.5	< 0.5
trans-1,2-Dichloroethylene (t-1,2-DCE)	µg/L	100		10			0.5	19	0	< 0.5	< 0.5
1,2,4-Trichlorobenzene	µg/L	70		5		70	0.5	19	0	< 0.5	< 0.5
1,3-Dichloropropene, Total	µg/L			0.5			0.5	19	0	< 0.5	< 0.5
1,4-Dichlorobenzene (p-DCB)	µg/L	75		5			0.5	19	0	< 0.5	< 0.5
Dichlorodifluoromethane (Freon 12)	µg/L						0.5	19	0	< 0.5	< 0.5
2,3,7,8-TCDD (Dioxin)	pg/L	0.00003		30			5	5	0	0	0

Beaumont Basin Watermaster

Water Quality Analysis Summary (2008-2011) for Drinking Water Production Wells

Analyte	Units	Federal Primary MCL	Federal Secondary MCL	California Primary MCL	California Secondary MCL	Public Health Goal	DLR	Wells Sampled	Wells Exceeding MCL	Average Value	Maximum Value
Naphthalene	µg/L						0.5	19	0	< 0.5	< 0.5
Foaming Agents (MBAS)	mg/L		0.5		0.5			22	0	0.05	0.09
Dalapon	µg/L	200		200			10	6	0	< 10	< 10
Propachlor	µg/L						0.5	6	0	< 0.5	< 0.5
Bentazon (BASAGRAN)	µg/L			18			2	6	0	< 2	< 2
Dibromochloropropane (DBCP)	µg/L	0.2		0.2			0.01	16	0	< 0.01	< 0.01
Oxamyl (Vydate)	µg/L	200		50		200	20	5	0	< 5	< 5
Endothall	µg/L	100		100			45	5	0	< 45	< 45
Pentachlorophenol (PCP)	µg/L	1		1			0.2	6	0	< 0.2	< 0.2
Atrazine (AATREX)	µg/L	3		1		3	0.5	16	0	< 0.5	< 0.5
2,4,5-TP (SILVEX)	µg/L	50		50		50	1	6	0	< 1	< 1
Simazine (PRINCEP)	µg/L	4		4		4	1	16	0	< 1	< 1
Diethylhexylphthalate (DEHP)	µg/L	6		4			3	12	0	< 3	< 3
Vinyl Chloride (VC)	µg/L	2		0.5			0.5	19	0	< 0.5	< 0.5
Trichloroethylene (TCE)	µg/L	5		5			0.5	19	0	< 0.5	< 0.5
Lindane (gamma-BHC)	µg/L	0.2		0.2		0.2	0.2	6	0	< 0.2	< 0.2
Chlordane	µg/L	2		0.1			0.1	6	0	< 0.1	< 0.1
Endrin	µg/L	2		2			0.1	6	0	< 0.1	< 0.1
Toxaphene	µg/L	3		3			1	6	0	< 1	< 1
Heptachlor	µg/L	0.4		0.01			0.01	6	0	< 0.01	< 0.01
Heptachlor Epoxide	µg/L	0.2		0.01			0.01	6	0	< 0.01	< 0.01
Methoxychlor	µg/L	40		30		40	10	6	0	< 10	< 10
Polychlorinated Biphenyls, Total, as DCB	µg/L	0.5		0.5			0.5	6	0	< 0.5	< 0.5
Hexachlorobenzene	µg/L	1		1			0.5	6	0	< 0.5	< 0.5
Picloram	µg/L	500		500		500	1	6	0	< 1	< 1
2,4-D	µg/L	70		70			10	6	0	< 10	< 10
Methyl tert-Butyl Ether (MTBE)	µg/L			13	5		3	19	0	< 3	< 3
Total Filterable Residue @ 180 C (TDS)	mg/L		500		500			22	0	245	380
Nitrate as (N03)	mg/L	45		45				22	0	11.4	40

Beaumont Basin Watermaster

Water Quality Analysis Summary (2008-2011) for Drinking Water Production Wells

Analyte	Units	Federal Primary MCL	Federal Secondary MCL	California Primary MCL	California Secondary MCL	Public Health Goal	DLR	Wells Sampled	Wells Exceeding MCL	Average Value	Maximum Value
Mercury (Hg)	ug/L	2		2		2	1	22	0	0.9	< 1
tert-Butyl Alcohol (TBA)	µg/L						2	4	0	< 2	< 2
cis-1,2-Dichloroethylene (c-1,2-DCE)	µg/L	70		6			0.5	19	0	< 0.5	< 0.5
Styrene	µg/L	100		100		100	0.5	19	0	< 0.5	< 0.5
1,2,4-Trimethylbenzene	µg/L							19	0	< 0.5	< 0.5
Isopropylbenzene (Cumene)	µg/L						0.5	19	0	< 0.5	< 0.5
n-Propylbenzene	µg/L						0.5	19	0	< 0.5	< 0.5
1,3,5-Trimethylbenzene	µg/L						0.5	19	0	< 0.5	< 0.5
sec-Butylbenzene	µg/L						0.5	19	0	< 0.5	< 0.5
tert-Butylbenzene	µg/L						0.5	19	0	< 0.5	< 0.5
Ethylene Dibromide (EDB)	µg/L	0.05		0.05			0.02	16	0	< 0.02	< 0.02
Alachlor (ALANEX)	µg/L	2		2			1	9	0	< 1	< 1
Diquat	µg/L	20		20			4	5	0	0	0
Glyphosate	µg/L	700		700			25	5	0	0	0
Dinoseb (DNBP)	µg/L	7		7			2	6	0	< 2	< 2
Carbofuran (FURADAN)	µg/L	40		18		40	5	5	0	< 0.5	< 0.5
Total Xylenes (m,p, & o)	µg/L	10000		1750		10000		19	0	< 0.5	< 0.5
Methyl Isobutyl Ketone (MIBK)	µg/L						5	19	0	< 5	< 5
Trichlorotrifluoroethane (FREON 113)	µg/L			1200			10	19	0	< 10	< 10
Asbestos	MFL	7		7			0.2	4	0	< 0.2	< 0.2
Turbidity, Laboratory	NTU		5		5			22	0	0.2	0.58
Molinate (ORDRAM)	µg/L			20			2	8	0	< 2	< 2
Thiobencarb (BOLERO)	µg/L			70	1		1	8	0	< 1	< 1
2-Chlorotoluene	µg/L						0.5	19	0	< 0.5	< 0.5
4-Chlorotoluene	µg/L						0.5	19	0	< 0.5	< 0.5
n-Butylbenzene	µg/L						0.5	19	0	< 0.5	< 0.5
Di(2-ethylhexyl) Adipate	µg/L	400		400			5	12	0	< 5	< 5
Perchlorate	ug/L			6			4	22	0	3.8	< 4