

Beaumont Basin Watermaster

2016 Annual Report

DRAFT

2016 Watermaster Board

Art Vela, City of Banning

George Jorritsma, South Mesa Water Company, **Vice Chairman**

Eric Fraser, Beaumont Cherry Valley Water District, **Secretary**

Joseph Zoba, Yucaipa Valley Water District, **Treasurer**

Kyle Warsinski, City of Beaumont

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ALDA Inc. in Association with Thomas Harder & Company, **Engineering**

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August 2017

ALDA Inc.

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August 2, 2017

Art Vela, Chairman
Beaumont Basin Watermaster
560 Magnolia Avenue
Beaumont, CA 92223

Subject: **Beaumont Basin Watermaster
Draft Annual Report for Calendar Year 2016**

Dear Mr. Vela:

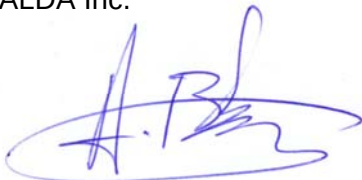
ALDA Inc., in association with Thomas Harder & Co. is pleased to submit to you, as Chairman of the Beaumont Basin Watermaster, the Beaumont Basin Watermaster Annual Report for Calendar Year 2016. This draft report expands on the earlier format of the annual report by incorporating information previously presented in the biannual Engineering Report. As such, this Annual Report summarizes all production, spreading, and storage activities that took place during calendar year 2016. Further, it documents changes in water levels and storage conditions, as well as, an estimate of the Basin Operating Safe Yield for 2016. Finally, the report presents an evaluation of water quality conditions for the 2012-2016 five year period.

We will make a formal presentation to the Watermaster Committee during the upcoming Board meeting on August 2nd, 2016. 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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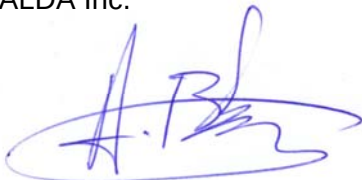
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Abbreviations

ac-ft	acre-feet
ac-ft/yr	acre-feet per year
Banning	City of Banning
Basin	Beaumont Basin
BCVWD	Beaumont-Cherry Valley Water District
BMZ	Beaumont Management Zone
Beaumont	City of Beaumont
CDPH	California Department of Public Health
CVCOI	Cherry Valley Community of Interest
CY	calendar year
du	dwelling unit
FY	fiscal year
IRWMP	Integrated Regional Water Management Program
MCL	Maximum Contaminant Level
NL	Notification Level
NTU	Nephelometric Turbidity Units
OSWDS	On-Site Waste Disposal Systems
Pass Agency	San Gorgonio Pass Water Agency
PPCPs	Pharmaceutical and Personal Care Products
SGPWA	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
TDS	Total Dissolved Solids
UCR	University of California, Riverside
USEPA	United States Environmental Protection Agency
Watermaster	Beaumont Basin Watermaster Committee
YVWD	Yucaipa Valley Water District

Section 1

Background

The Fourteen Annual Report of the Beaumont Basin Watermaster Committee (Watermaster) consolidates the information about the basin previously presented in Annual Reports with the information presented in the bi-annual Engineer's Report. This report documents activities in the Beaumont Basin for Calendar Year 2016. Section 3 of the original annual report has been expanded and retitled as "Status of the Basin" to document the Administration of the Judgment as well as to provide a status of conditions in the basin addressing water production, water levels, and storage activities. In addition, a Water Quality section, Section 4, has been added to document historical water quality of selected compounds at selected wells, as well as, basin wide concentrations.

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: City of Banning, City of

Beaumont, Beaumont Cherry Valley Water District (BCVWD), South Mesa Water Company (SMWC), and Yucaipa Valley Water District (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 percent or 6,802 ac-ft/yr
✓ City of Banning	31.43 percent or 5,029 ac-ft/yr
✓ South Mesa Water Company	12.48 percent or 1,997 ac-ft/yr
✓ Yucaipa Valley Water District	13.58 percent 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.
- 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 collected by local agencies as part of their Maximum Benefit and Monitoring Program for the Beaumont Management Zone.
- 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.

1.4 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

1.5 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.

1.6 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 December 4, 2013 regular meeting of the Beaumont Basin Watermaster, elections were held; the officers to the Watermaster Committee listed below were appointed for calendar year 2014. During the February 4, 2015 regular meeting a recommendation was made for the members of the Watermaster Committee to reaffirm the existing officers or conduct nominations for the appointment of new officers; however, no action was taken.

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

The Committee Representatives serving each Appropriator Party during CY 2015 were as follows:

- City of Banning - Duane Burk, Director of Public Works
- City of Beaumont – Kyle Warsinski, as an alternate member
- 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

It should be noted that Mr. Burk only served as representative of the City of Banning during the first meeting in 2015. The City of Banning was represented by its alternate member, Mr. Art Vela for the remainder of the year.

Legal counsel during CY 2015 was provided by Alvarado Smith APC, represented by Keith McCullough and Thierry Montoya, while Engineering Services were provided by ALDA Inc., represented by Hannibal Blandon, in association with Thomas Harder & Company, represented by Thomas Harder.

2.2 Watermaster Accomplishments and Activities During 2016

2.2.1 Watermaster Meetings

A total of six regular meetings were held during CY 2016 on the following dates:

- February 3, 2016
- June 1, 2016
- October 5, 2016
- April 6, 2016
- August 3, 2016
- December 7, 2016

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.

2.2.2 Watermaster Committee Resolutions

Resolution No. 2015-01 was adopted at the April 1st, 2015 Regular Watermaster Committee meeting. Through this resolution, the Final 2013 Reevaluation of the Beaumont Basin Safe Yield Report and Redetermination of the Safe Yield of the Beaumont Basin were adopted. See Technical Memorandum 15-07 for details.

2.2.3 Items Discussed in 2016

This section is simply an unofficial summary of topics addressed at Watermaster meetings. The Beaumont Basin Watermaster maintains official meeting minutes that report the items discussed and actions taken during normal and special meetings. Official meeting minutes may be accessed at: www.beaumontbasinwatermaster.org

The following items were discussed during the six meetings held in CY 2015 along with their resulting outcome.

Items Discussed During the February 3, 2016 Regular Watermaster Committee Meeting

- Reorganization of the Beaumont Basin Watermaster Committee [Memorandum 16-01]. Members Vela and Jorritsma were nominated and confirmed as Chairman and Vice-Chairman respectively. Members Fraser and Zoba were reaffirmed as Secretary and Treasurer respectively.
- Status Report on Water Level Monitoring throughout the Beaumont Basin [Memorandum 16-02]. Mr. Bandon gave a status report of the water level monitoring project.
- Discussion Regarding Task Order No. 9 for the Preparation of the 2015 Consolidated Annual Report, Estimate of the Basin Safe Yield, Update of the Groundwater Model, and Associated Consulting Services [Memorandum 16-03]. Watermaster Committee approved Task Order No. 9 for a sum not to exceed \$81,940.00.

- Discussion Regarding Task Order No. 10 with ALDA Inc. for the Installation, Maintenance, and Data Collection of Water Level Monitoring Equipment in 2016 [Memorandum 16-04]. Watermaster Committee approved Task Order No. 10 for a sum not to exceed \$18,840.00.
- Overview of the Sustainable Groundwater Management Act and Proposed Basin Boundary Revisions [Memorandum 16-05]. Member Zoba presented a proposed revision to the Beaumont Basin boundaries under the Sustainable Groundwater Management Act. After much discussion, member Fraser motioned and the Watermaster Committee approved to accept the proposed boundary as identified, and to develop a memorandum of understanding between the BCVWD and Beaumont Basin Watermaster to establish a groundwater sustainability agency (GSA) to manage the proposed sub-basin.

Items Discussed During the April 6, 2016 Regular Watermaster Committee Meeting

- Status Report on Water Level Monitoring throughout the Beaumont Basin [Memorandum 16-06]. A status report was presented, questions answered, and feedback from the Committee members provided.
- Consideration of Task Order No. 11 – Recalibration of the northwest portion of the Beaumont Basin groundwater model to more accurately represent water levels in the area [Memorandum 16-07]. Mr. Harder provided a background on the widening discrepancy between actual and estimated water levels in the northwest portion of the basin. The Watermaster Committee approved the task order to enhance the groundwater flow model for an amount not to exceed \$ 10,850.00.

Items Discussed During the June 1, 2016 Regular Watermaster Committee Meeting

- Status Report on Water Level Monitoring throughout the Beaumont Basin [Memorandum 16-08]. A status report was presented, questions answered, and feedback from the Committee members provided.
- Status Update on the Refinement of the Beaumont Basin Groundwater Flow Model [Memorandum 16-09]. Mr. Harder highlighted how modifications to the model improved the overall model calibration. He further indicated that the enhanced model will be used to evaluate the change in storage for 2015.
- Engineer's Opinion on the Application by the San Geronio Pass Water Agency (SGPWA) for a Groundwater Storage Agreement in the Beaumont Basin [Memorandum 16-10]. Mr. Blandon provided engineering feedback on the application submitted by SGPWA. This was followed by significant discussion between members of the Watermaster Committee and Mr. Davis, SGPWA's General Manager. A motion was introduced to continue discussion at the August meeting to allow the development of contingencies guarantying that the account will be used to store water that is surplus to everyone's needs in the basin.
- Consideration of the Proposed Budget for Fiscal Year 2016-17 [Memorandum 16-11]. Member Zoba presented the proposed budget before adoption by the Watermaster Committee.

Items Discussed During the August 3, 2016 Regular Watermaster Committee Meeting

- Status Report on Water Level Monitoring throughout the Beaumont Basin [Memorandum 16-12]. Mr. Bandon gave a status report of the water level monitoring project.
- 2015 Consolidated Annual Report and Engineering Report [Memorandum No. 16-13]. Mr. Bandon presented information from the report including accomplishments of the Committee in 2015, groundwater conditions, production, and recharge, transfers and adjustments of rights, accounting of storage, and water quality in the basin.

Items Discussed During the October 5, 2016 Regular Watermaster Committee Meeting

- Status Report on Water Level Monitoring throughout the Beaumont Basin [Memorandum 16-14]. Mr. Bandon gave a status report of the water level conditions in the Beaumont Basin.
- Overview of Total Dissolved Solids (TDS) and Nitrate (N) in the Beaumont Basin and Surrounding Area [Memorandum 16-15]. Mr. Bandon reported on water quality issues documented in the 2015 Annual Report. Discussion ensued regarding the potential reasons for TDS spikes at various locations in the Beaumont Basin.
- Adoption of the 2015 Consolidated Annual Report and Engineering Report [Memorandum No. 16-16]. The Watermaster Committee adopted the 2015 Report.
- Concept for the Formation of a Groundwater Sustainability Agency (GSA) for the San Timoteo Basin [Memorandum 16-17]. Member Zoba provided background on the reasons for creating a GSA and explained that the Watermaster is already considered to be sustainable by virtue of the stipulated judgment. No decision was needed and none was made.
- Application by the San Gorgonio Pass Water Agency (SGPWA) for a Groundwater Storage Agreement in the Beaumont Basin [Memorandum 16-18]. Member Zoba reported that he had met with the General Manager to discuss the application and presented five stipulations or conditions to a potential agreement. Member Fraser suggested that the conditions be sent to the SGPWA's Board of Directors for vetting prior to drafting a final resolution. Further discussion of this item was postponed to the next meeting.

Items Discussed During the December 7, 2016 Regular Watermaster Committee Meeting

- Status Report on Water Level Monitoring throughout the Beaumont Basin [Memorandum 16-19]. Mr. Bandon gave a status report of the water level conditions in the Beaumont Basin and fielded questions by members of the Committee. He also indicated of field equipment troubles and the unresponsive support for Solinst. Member Fraser suggested looking at different vendors for monitoring equipment and to make a presentation at the next meeting.
- Discussion Regarding the Creation of a Return Flow Policy for the Beaumont Basin [Memorandum 16-20]. After an overview, Member Fraser motioned to direct staff to develop a return policy in which individual retail agencies are credited appropriately for the return

flows that occur within their service area as a result of their activities. The return policy is to be brought back to the Committee for additional discussion.

- Conditions Related to the Groundwater Storage Agreement in the Beaumont Basin for the San Gorgonio Pass Water Agency (SGPWA) [Memorandum 16-21]. Member Zoba reported that the Committee is ready to move forward with the agreement subject to the five conditions and that an update will be provided at the next meeting. SGPWA's General Manager made a commitment to have something for Committee consideration at the February 2017 regular meeting.

2.2.4 Redetermination of Safe Yield

Under the Judgment (2003) the Safe Yield of the Beaumont Basin was established at 8,650 ac-ft/yr. to be distributed among the Overlying Producers. The Judgment indicates that the Safe Yield of the Beaumont Basin shall be redetermined at least every 10 years beginning 10 years after the date of entry of the Judgment (February 4, 2004).

At the February 2013 Watermaster meeting, the Watermaster Committee authorized a study to develop a hydrologic model of the groundwater basin to be used as a tool in the re-evaluation of the safe yield of the basin. At the February 2015 Watermaster meeting a formal presentation of the final-draft document was made to provide members of the Committee with an opportunity to ask questions and addressed any unresolved issues. The final document was presented for approval and adoption at the April 2015 Watermaster meeting.

Resolution No. 2015-01 was adopted at the April 1st, 2015 Regular Watermaster Committee meeting. Through this resolution, the Final 2013 Reevaluation of the Beaumont Basin Safe Yield Report and Redetermination of the Safe Yield of the Beaumont Basin were adopted.

The Beaumont Basin Watermaster re-determined the Safe Yield of the Beaumont Basin to be 6,700 ac-ft per year.

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. The City of 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 additional applications by Banning, BCVWD, Beaumont, and YVWD to increase the total storage allowed to 260,000 ac-ft. It is our understanding that the Watermaster Committee has not yet amended the respective Storage Agreements to reflect the current storage limits.

An application for a storage agreement was received by the Watermaster from the San Gorgonio Pass Water Agency (SGPWA) in mid 2010 and brought for discussion at the summer of 2012. The application was rejected because it was determined to be incomplete.

An application for a storage agreement was also received from the Morongo Band of Mission Indians at the December 2012 meeting. Watermaster deemed the application incomplete and

requested further information from the applicant to address questions posed by members of the Watermaster Committee. The application was subsequently approved at the June 5, 2013 meeting allowing the Morongo Band of Mission Indians to store up to 20,000 ac-ft of imported water in the basin.

As of December 31, 2015, the total storage allowed stands at 280,000 ac-ft; storage limits by participant 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 |
| ▪ Morongo Band of Mission Indians | 20,000 ac-ft |

A new application for Groundwater Storage Agreement was developed in early 2013; the application was presented and discussed at several Watermaster Committee meetings where input was received and questions were addressed. The new application was approved by the Watermaster Committee in August 2013 and will be used for future applicants.

After development of new forms and procedures, a new application by SGPWA was received in early 2016 to develop a Groundwater Storage Agreement. This application has been discussed over several Watermaster Committee meetings and is anticipated to be approved in mid 2017.

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. On September 9, 2008, the Watermaster adopted Rule and Regulation 7.8, entitled "Availability of Unused Overlying Production and Allocation to the Appropriator Parties". The objective of this rule is to define the process through which unused production by Overlying Parties is allocated to the Appropriator Parties. The unused water will be allocated based on each Appropriator's percent share of the operating safe yield, as described in Exhibit C of the Judgment. This allocation will have no impact on the legal water rights owned by the Overlying Parties in subsequent years. The initial allocation to take place on or after February 4, 2009.

No changes to the Rules and Regulations were made during Calendar Year 2016.

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 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 A.

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 Fiscal Year 2016 operations.

2.6.1 Budget

The budget for Fiscal Year 2016 was initially approved at the June 1, 2016 Watermaster Committee meeting. The approved budget provided funding for Administrative expenses in the amount of \$128,050.00, an increase of \$15,000.00 or 13.3 percent from the prior year of \$113,050.00. Funding for administrative expenses was covered from a carryover of \$15,000.00 and water agencies contributions of \$22,610.00 each. The approved budget did not include any funds for Special Projects as the basin model update and the Safe Yield studies were completed in the previous two years.

The proposed budget for FY 2017 includes \$183,050.00 for administrative expenses; no budget was allocated for special projects. Funding for administrative expenses is expected to be covered from water agencies contributions of \$36,610.00 each. The following table presents a comparison between the final budgets for FY 2014-15, final budget for FY 2015-16, and approved budget for FY 2016-17.

<i>Operating Expense</i>	<i>FY 2014-15 Approved Budget</i>	<i>FY 2015-16 Approved Budget</i>	<i>FY 2016-17 Approved Budget</i>
<u>Administrative Expenses</u>			
Bank Fees and Interest	\$ 50.00	\$ 50.00	\$ 50.00
Miscellaneous and Meetings	\$ 500.00	\$ 500.00	\$ 500.00
Acquisition/computation & Annual Report	\$ 75,000.00	\$ 85,000.00	\$ 90,000.00
Annual Audit	\$ 2,500.00	\$ 2,500.00	\$ 2,500.00
Engineering Services	\$ 10,000.00	\$ 10,000.00	\$ 20,000.00
Monitoring and Data Acquisition			\$ 25,000.00
Meter Installation and Repair			\$ 10,000.00
Legal Expenses	\$ 15,000.00	\$ 20,000.00	\$ 20,000.00
Reserve Funding	\$ 10,000.00	\$ 10,000.00	\$ 15,000.00
	\$ 113,050.00	\$ 128,050.00	\$ 183,050.00
<u>Special Project Expenses</u>			
Engineering	\$ 22,500.00	\$ 0.00	\$ 0.00
Litigation	\$ 2,500.00	\$ 0.00	\$ 0.00
	\$ 25,000.00	\$ 0.00	\$ 0.00
Total Operating Expense	\$ 138,050.00	\$ 128,050.00	\$ 183,050.00

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 2016, prepared by Rogers, Anderson, Malody, and Scott, LLP, has been completed, but not presented to the Watermaster Committee as of the time of this writing.

It is anticipated that the financial audit report will be presented at the June 7, 2017 meeting as an agenda item. This report will be included in the final 2016 Annual Report, scheduled for delivery at the October 2017 meeting.

Section 3

Status of the Basin and 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 in the Beaumont Basin. Since the inception of the Judgment accounting has been conducted on a fiscal year basis starting on July 1, 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. The conversion of Fiscal Year basis to Calendar Year basis was documented in the Annual Report for CY 2011 adopted by the Board in early 2013. The annual report for CY 2016 builds on the information presented in previous annual reports.

3.1 Climate, Hydrology and Hydrogeology

3.1.1 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 17.15 inches over the 100-year period between 1917 and 2016. On the average, 11.94 inches of precipitation, or 70 percent of total, fell during the winter between December and March.

Figure 3-1 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 17-year period three of the five years with the lowest precipitation ever recorded at Station 13 have occurred; 6.3 inches (lowest ever) in 1999, 7.40 inches in 2013, 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.

3.1.2 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.

3.1.3 Hydrogeology

3.1.3.1 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 3-2). 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).

3.1.3.2 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 3-2). 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.

3.1.3.3 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 3-2). 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.

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

3.2 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 3-3 illustrates the location of all production wells that belong to the Appropriators and Overlying parties of the Judgment.

3.2.1 Appropriative Party Production

There are five Appropriative Producers; namely, City of Banning, City of 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.

It should be noted that beginning in 2014, the Temporary Surplus is no longer available to the Appropriators as it officially ended during Fiscal Year 2013.

Annual production by well for each of the five Appropriative Parties for the CY 2003-2011 period is summarized in Table 3-1A while monthly production for the last five years of operation (CY 2012-16) are presented in a series of tables starting with Table 3-1B for CY 2012 and continuing on an annual basis through Table 3-1F for CY 2016. Tables 3-1B (2012) and 3-1C (2013) also include the overall Temporary Surplus Allocation and the amount of unused production that is eligible for storage for each Appropriator. The year 2013 was the last year that the Temporary Surplus was allocated. It should be noted that all production by Appropriators is currently being metered; however, no information is available as to the accuracy of existing meters.

During CY 2016, Appropriators pumped a combined amount of 11,989.70 ac-ft of groundwater from the Beaumont Basin representing the fifth lowest annual production year since the inception of the Judgment. While groundwater production by Appropriators in CY 2016 was 8.1 percent higher than 2015 production, it was approximately 10 percent lower than the 10-year running average of 13,270 ac-ft/yr.

Compared to groundwater production totals for CY 2015, production for individual agencies in CY 2016 was mixed. The City of Banning production dropped by 12 percent; however, production by BCVWD and SMWC increased by 13 percent and 11 percent respectively. Production by YVWD was rather minimal as less than five ac-ft were pumped during the year. A comparison of production against a 10-yr running average, all agencies underproduced. BCVWD production was lower by less than one percent while production by the City of Banning and SMWC were lower by 23 and 17 percent respectively. YVWD production was less than one percent of the 10-yr average.

3.2.2 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 in 2003 at 8,650 ac-ft/yr. Individual Overlying Producers may not pump more than five times their assigned share of the Basin's Safe Yield in any five-year consecutive period without incurring a replenishment obligation.

Currently, there are 17 Overlying Producers in the Basin pumping from 22 groundwater wells. All active wells operated by the larger producers are metered. Meters were installed by individual owners or as part of an effort initiated by Watermaster in 2013 to obtain a closer production accounting from Overlying Parties. Production from metered wells represented close to 99 percent of the total production by Overlying Parties in CY 2016.

The remaining wells, operated by smaller producers, did not have meters for some or most of 2016 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 2016 Annual Report uses the updated method developed by WEI as detailed in Appendix C.

Similar to the production reported for the Appropriators, a series of tables was developed to report monthly and annual production from the Overlying Parties on a calendar year basis. Starting with Table 3-2A, annual production is documented for CY 2003-11; Table 3-2B through 3-2F summarize monthly production by Overlying well for CY 2012 through CY 2016. In addition, these tables show their share of the safe yield and the amount of unused water for each Overlying Party is shown. It should be noted that these tables have been revised to reflect updated production records from Sharondale Mesa Owner Association since 2011.

During CY 2016, Overlying Producers produced an estimated 1,683 ac-ft; this level of production is approximately 7.7 percent lower than in 2015 and the lowest on record since accounting began in 2003. Part of the reason is related to revisions made to production totals by Oak Valley Partners in CY 2015. Production by this Overlying Party has been reported in the past at approximately 310 ac-ft per year under the assumption that a significant amount of water has been produced for agricultural purposes. A field visit to the property conducted in early April 2015 revealed that agricultural production has not taken place in that area since 2008. In addition, two of the four wells have been abandoned and the other two produce minimally; annual production has been conservatively estimated at 2.5 ac-ft/yr. Production quantities from this Overlying Producer were revised for CY 2008 through 2016.

3.2.3 2003-2015 Annual Production Summary

Annual production for all Appropriators and Overlying Parties since 2003 is summarized in Table 3-3 on a calendar year basis. Production from 2003 only includes production for the second half of the year. Since July 2003, a total of 211,999 ac-ft have been pumped from the Beaumont Basin; an estimated 83 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 74.3 percent registered in CY 2003 to a high of 89 percent recorded in CY 2014 and has averaged 87.2 percent over the last five calendar years.

Groundwater production peaked in CY 2007 when close to 20,000 ac-ft were pumped from the basin; since, it declined steadily through 2010 to approximately 13,600 ac-ft; however, production during the 2011-14 period increased by 23.6 percent. Total groundwater production from the basin in CY 2016 was only 13,673 ac-ft; the fourth lowest recorded since the inception of the judgment. Of this amount, 11,989.7 ac-ft were pumped by Appropriators representing close to 88 percent of total production. Annual production for each of the Appropriators and for the Overlying Producers combined is depicted in Figure 3-4.

3.3 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.

3.3.1 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 3-3. 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 3,501 ac-ft were spread pursuant to the storage and recharge agreement on file with Watermaster. Deliveries of imported water for BCVWD increased over the next five years peaking in CY 2011 at 7,979 ac-ft and declining through 2015 to an all-time low of 2,773 ac-ft. Spreading of imported water in CY 2016 at 9,319 ac-ft was the highest recorded. A total of 58,531 ac-ft of imported water have been spread by the BCVWD since 2006 as illustrated in Table 3-4. Values provided by the SGPWA for CY 2016 need to be checked against information to be provided by the BCVWD.

The City of Banning began purchasing imported water for recharge at the BCVWD's Noble Creek facility in July 2008 and has since recharged 10,592 ac-ft. in accordance with their storage agreement on file with Watermaster. During CY 2012 and 2013, the City of Banning spread an average of 100 ac-ft per month; spreading in CY 2014 and 2015 was reduced to approximately half of the amount spread during the previous two years. However, spreading in CY 2016 increased again to 1,477 ac-ft.

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 3-3. Spreading of imported water at these spreading ponds is likely to be a source of subsurface recharge to the Beaumont Basin; however, Watermaster has not adopted this finding. Subsurface recharge across the Banning Fault was investigated as part of the Safe Yield of the Basin determination study, completed in early 2015.

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 10,507 ac-ft averaging 808 ac-ft/yr. Deliveries in CY 2013, at 881 ac-ft, were less than half of the amount spread in CY 2011 and CY 2012. Deliveries in CY 2014 through CY 2016 were basically non-existent as less than 44 ac-ft were spread in those three years combined. Currently, the SGPWA is in the process of finalizing a storage agreement with the Beaumont Basin Watermaster.

3.3.2 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. Starting 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 3-3. It is believed that a portion of the recycled water discharged at this location reaches and recharges the Beaumont Basin; should this be the 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. It should be noted that deliveries to DP-007 ceased in the Fall of 2015 due to mechanical failure of a pump station.

In CY 2016, the City of Beaumont discharged an estimated 3,533 ac-ft of recycled water at DP-001 in Cooper's Creek; no discharges were made at DP-007. Recycled water discharges in CY 2016 were approximately five percent higher than in CY 2015. Monthly discharges at DP-001 vary slightly monthly from a low 3.01 mgd in March to a high of 3.26 mgd in August; the average for the year was 3.15 mgd. Monthly recycled water discharges by the City of Beaumont since 2007 are summarized in Table 3-5.

3.3.3 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 the City of 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 the Judgment inception in February 2003 or since delivery of flows began, whichever is latest.

3.4 Water Transfers and Adjustments of Rights

Section 7 of the Watermaster Rules and Regulations, as amended in September 2008, 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.

According to Part VI, Administration, Paragraph 5Y of the Judgment, the Safe Yield of the Beaumont Basin shall be redetermined at least every 10 years after the date of entry of the Judgment, February 4, 2004. In 2015 the Safe Yield of the Beaumont Basin was redetermined and estimated at 6,700 ac-ft/yr. This amount represents a 22.54 percent reduction from the previous estimate of 8,650 ac-ft/yr. Table 3-6 presents the initial and

revised production rights from individual Overlying Producers and compares them against actual groundwater production during the 2012-16 five year period for each user. Annual average groundwater production during this period for all Overlying Producers combined was estimated at 1,893 ac-ft/yr; representing approximately 28 percent of the revised safe yield. Individually, none of the Overlying Producers produced more than their allowable production rights during this five year period; Sharondale Mesa Owners Association produced the highest percentage of their respective allocation at 78.6 percent followed by California Oak Valley Golf and Resort LLC at 77.8 percent and Tukwet Canyon Golf Club at 60.7 percent.

3.4.1 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 also transferred 1,500 ac-ft of water to Banning in CY 2007. The purchase agreements and transfers between these agencies are on file with Watermaster. Water transfers between Appropriators were not reported during CY 2016.

3.4.2 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.

In early 2013, BCVWD provided detailed documentation of all the parcels now served by the District that were previously owned by Overlying Users including parcels owned by Oak Valley Partners, Southern California PGA, and Plantation on the Lake. The accounting of this information has been challenged by the Morongo Band of Mission Indians representatives. As of the time of this writing, the accuracy of the information has not been corroborated and it is therefore not included in this report.

3.4.3 Allocation of Unused Overlying Water

Section 7.8 of the Rules and Regulations, adopted on September 9, 2008, 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 required 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 2016 were based on unused production from Overlying Users in CY 2011. 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 allocated to Appropriators for CY 2008. Table 3-7 summarizes the volume of unused Overlying water for CY 2003 through CY 2016. While groundwater production by Overlying Users has decreased by over 40 percent since 2004, the volume of unused overlying water has correspondingly increased from 5,053 ac-ft/yr in CY 2006 to a maximum of 6,679 ac-ft during CY 2011. The amount of unused production decreased significantly in CY 2014 and CY 2015 to slightly over 4,800 ac-ft/yr because of reduced Overlying allocations resulting from the new basin Safe Yield of 6,700 ac-ft/yr.

Table 3-7 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 Overlying production in CY 2011, estimated at 6,679 ac-ft, is allocated to Appropriators during CY 2016. Unused Overlying production during CY 2016, estimated at 5,017 ac-ft and subject to revision, would be allocated to Appropriators during CY 2021.

3.5 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, losses from storage are more difficult to estimate. A methodology for estimating groundwater losses from the Basin is anticipated to be developed after the completion of the groundwater model update of the Beaumont Basin in CY 2015.

3.5.1 Annual Storage Consolidation

Consistent with the new reporting format to document extractions, spreading and other groundwater activities on a calendar year basis, Table 3-8 represents the consolidation of each Appropriator's storage account from CY 2003 through CY 2016. This table includes annual production by Appropriator, their share of Temporary Surplus, supplemental water recharge in its various forms, transfers between Appropriators, potable deliveries to parcels previously owned by Overlying Users, and transfers of unused water from Overlying Users. At the end of 2015, an overall total of 95,629.9 ac-ft of water were stored in the Basin for future use; this total increased in CY 2016 by 5,795 ac-ft to a cumulative total of 101,425.0 ac-ft. Increased spreading of imported water by BCVWD and the City of Banning along with low production totals by YVWD and SMWC were the primary reasons for the increase in groundwater storage. Despite of the expiration of the Temporary Surplus allocation at the end of CY 2013, the amount of water in storage at the end of CY 2016 was 612 ac-ft higher. The amount of water in storage by party at the beginning and end of CY 2016 is as follows:

Agency / Party to the Judgment	Calendar Year 2016 (ac-ft)		
	Beginning	Ending	Change
City of Banning	47,887.5	49,990.8	2,103.4
BCVWD	25,567.6	27,565.9	1,998.3
City of Beaumont	0.0	0.0	0.0
South Mesa Water Company	8,198.4	8,987.5	789.1
Yucaipa Valley Water District	13,976.4	14,880.8	904.4
Morongo Band of Mission Indians	0.0	0.0	0.0
TOTAL in storage	95,629.9	101,425.0	5,795.1

3.6 Changes in Groundwater Levels in the Beaumont Basin

3.6.1 Analysis of Groundwater Level Changes

Changes in groundwater flow and groundwater levels between 2015 and 2016 were evaluated using a calibrated groundwater flow model that was previously developed to reevaluate the safe yield of the Beaumont Basin (TH&Co, 2015). For this analysis, the existing calibrated model was updated with groundwater pumping, recharge, and groundwater levels through the end of 2016. A model-generated groundwater contour map was created for Fall 2016 and compared to the model-generated Fall 2015 groundwater contour map in order to evaluate changes in groundwater flow patterns and basin-wide changes in groundwater levels. The model-generated groundwater contour maps for 2015 and 2016 are shown on Figures 3-5 and 3-6, 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. 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 2015 and 2016 except near the Noble Creek Recharge Facility where a localized mount can be seen in 2016.

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 2015 groundwater surface from the 2016 groundwater surface (See Figures 3-7 and 3-8). In the northwest portion of the basin (YVWD 34 and Singleton Ranch 7), groundwater levels remained stable or increased between November 2015 and November 2016. At Tukwet Canyon Golf Club C, groundwater levels continued a steady decline in 2016 that has been observed since 2003. When evaluated on a long-term basis, groundwater levels in wells in the western portion of the basin have shown a general long-term decline since approximately 2005.

As shown on Figure 3-8, groundwater levels in the north central portion of the basin rose as much as 40 ft in 2016 as a result of renewed recharge at the Noble Creek Artificial Recharge facility. Conversely, groundwater levels in TW-1, located on the northeast corner of the recharge facility continued a decline that had started in 2014. This well is perforated in the lower aquifer and typically shows a delayed response to groundwater recharge relative to wells perforated in the upper aquifer.

In the south-central portion of the basin, groundwater levels at Oak Valley No. 1 increased in 2016 by over 10 feet. At BCVWD Well No. 2, groundwater levels rose in March 2016 to the highest levels in eleven years, declined in the summer, and have been rising since September. At Banning Well C-4 (southeast Beaumont Basin), groundwater levels were rising in April, declined in the summer, and began increasing in October.

The variability of groundwater levels at BCVWD Well No. 2 and Banning Well C4 are likely due to seasonal pumping patterns in these areas. Groundwater levels in the northeast portion of the basin (335714116565002) have been trending upward since 2010 and have remained mostly stable in 2016.

3.6.2 Analysis of Change in Groundwater Storage

Basin-wide change in groundwater storage between Fall 2015 and Fall 2016 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 2014 and Fall 2015 model-generated groundwater contour maps were each converted into three-dimensional raster surfaces.
2. The basin was discretized into 100-ft by 100-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 obtained from the calibrated groundwater flow model used to evaluate the safe yield of the Beaumont Basin, as summarized in TH&Co (2015).

Results of the analysis show an increase in groundwater storage within the adjudicated basin of approximately 1,279 acre-ft between Fall 2015 and Fall 2016. The net storage increase is attributable to artificial recharge of imported water at the Noble Creek Artificial Recharge facility. Most of the western and southern areas showed decreases in groundwater in storage

3.7 Operating Safe Yield

For purposes of this annual report, the annual operating safe yield (OSY) describes the net infiltration to the adjudicated groundwater basin (not including artificial recharge) for any given year. It is noted that the OSY is different than the Operating Yield, which is a function of the unused overlying 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 calendar year 2016 was 13,777 ac-ft (see Table 3-3). Total artificial recharge in calendar year 2016 was 10,746 ac-ft (see Table 3-4). It is noted that only the Noble Creek Recharge Facility recharge was used in the analysis of OSY (recharge at the Little San Geronio Creek facility is not included because it is outside the adjudicated area). The change in groundwater storage estimate is based on the analysis of groundwater levels described earlier in this TM. The period of time over which the OSY is evaluated is one year. The resulting OSY is estimated as:

$$\text{OSY} = \frac{13,777 + 1,279 - 10,796}{1} = 4,260 \text{ ac-ft}$$

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 was reevaluated in 2013.

It is also noted that there are a number of data limitations that could impact the OSY estimate. These limitations include:

- Accuracy of Overlyer Production Data – Production data from many of the Overlying Parties is not metered but is estimated based on a water duty method (Wildermuth Environmental, 2012). In addition to inherent limitations in this methodology, there are, in some cases, discrepancies between groundwater production estimated using the water duty method and production reported by individual parties to the California State Water Resources Control Board. Resolution of Overlyer Production is anticipated to affect the OSY (plus or minus) on the order of hundreds of ac-ft (not thousands).
- Change in Storage Calculation – Although groundwater storage change estimates will always have inherent uncertainty, it is possible to develop more representative results through collection and analysis of additional data. These data include:
 - ✓ Static groundwater levels from dedicated non-pumping wells. There is evidence that groundwater levels measured in some wells had not recovered fully between pumping cycles in the well and were not, therefore, representative of true static conditions. This can be addressed by waiting longer after pumping to collect groundwater levels or constructing/designating non-pumping groundwater monitoring wells in strategic areas.
 - ✓ Measurement of surface water flow in selected drainages, hydrogeological data near Noble Creek and San Timoteo Creek, and hydrogeological analysis of faults in the basin to help achieve a better calibrated model, resulting in more accurate groundwater head distributions. Bettering our understanding of the hydrogeology of this area will help improve the accuracy of the model and its output.

3.8 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.

Since the completion of the previous report, Watermaster is in the process of conducting additional groundwater studies, expected to be completed by early 2015, that may be used to address some of the recommendations from previous years including:

- The development of a methodology to account for new yield from capturing local stormwater in the basin.
- The development of a methodology to account for groundwater storage losses in the basin resulting from the spreading of additional water sources.
- The development of a methodology to account for recycled water recharge.

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. Our recommendations are as follows:

- 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 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. Individual parties may or may not maintain and calibrate their production meters at acceptable intervals.
- Under Section 3.2 of the Rules and Regulations, producers producing in an 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. This

provision should be revised as it was written for fiscal year accounting. Overlying Parties producing less than 10 ac-ft/yr should report by the 15th of January now that calendar year accounting is used. Proper supporting information should be provided.

- 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.

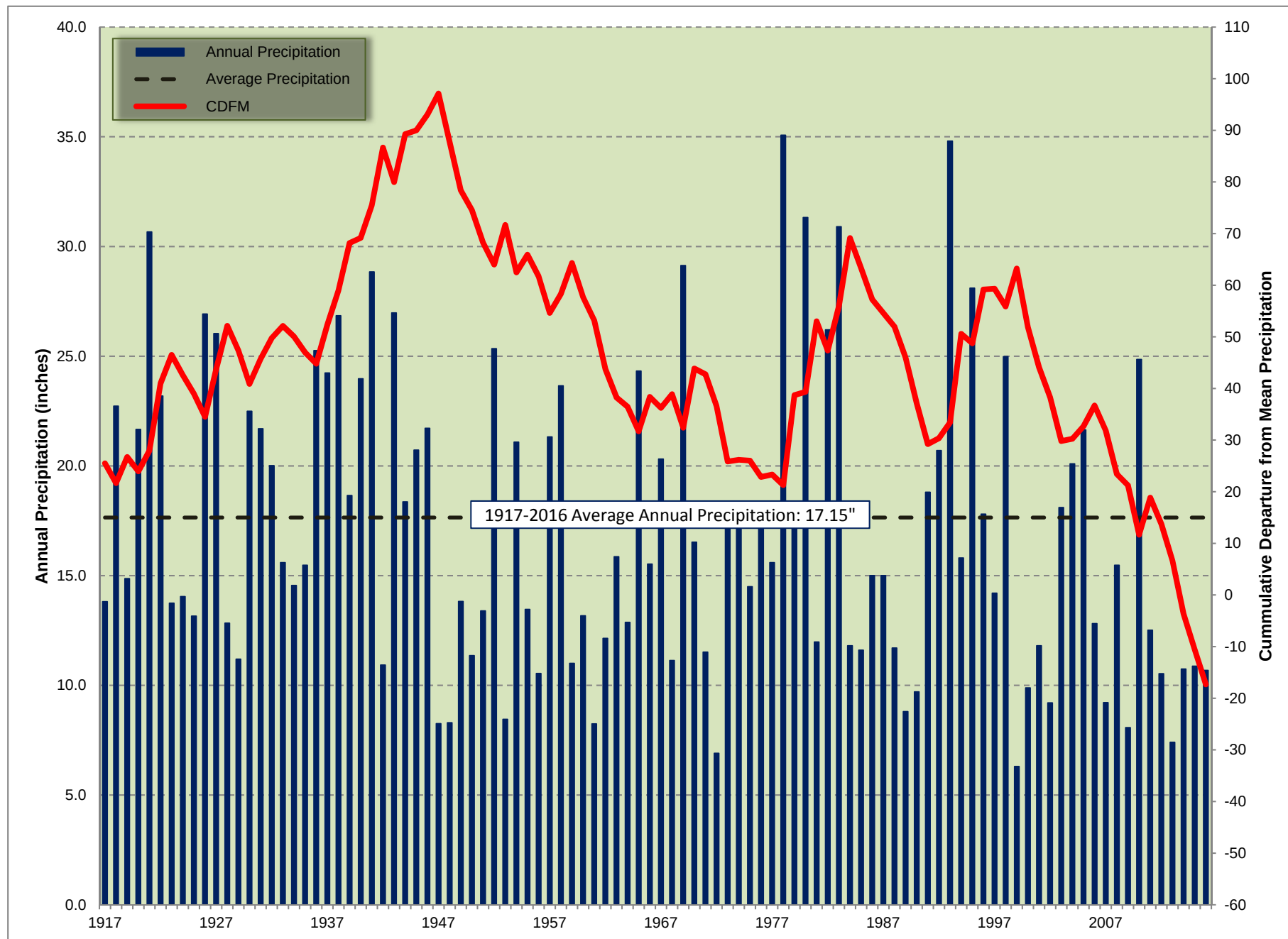
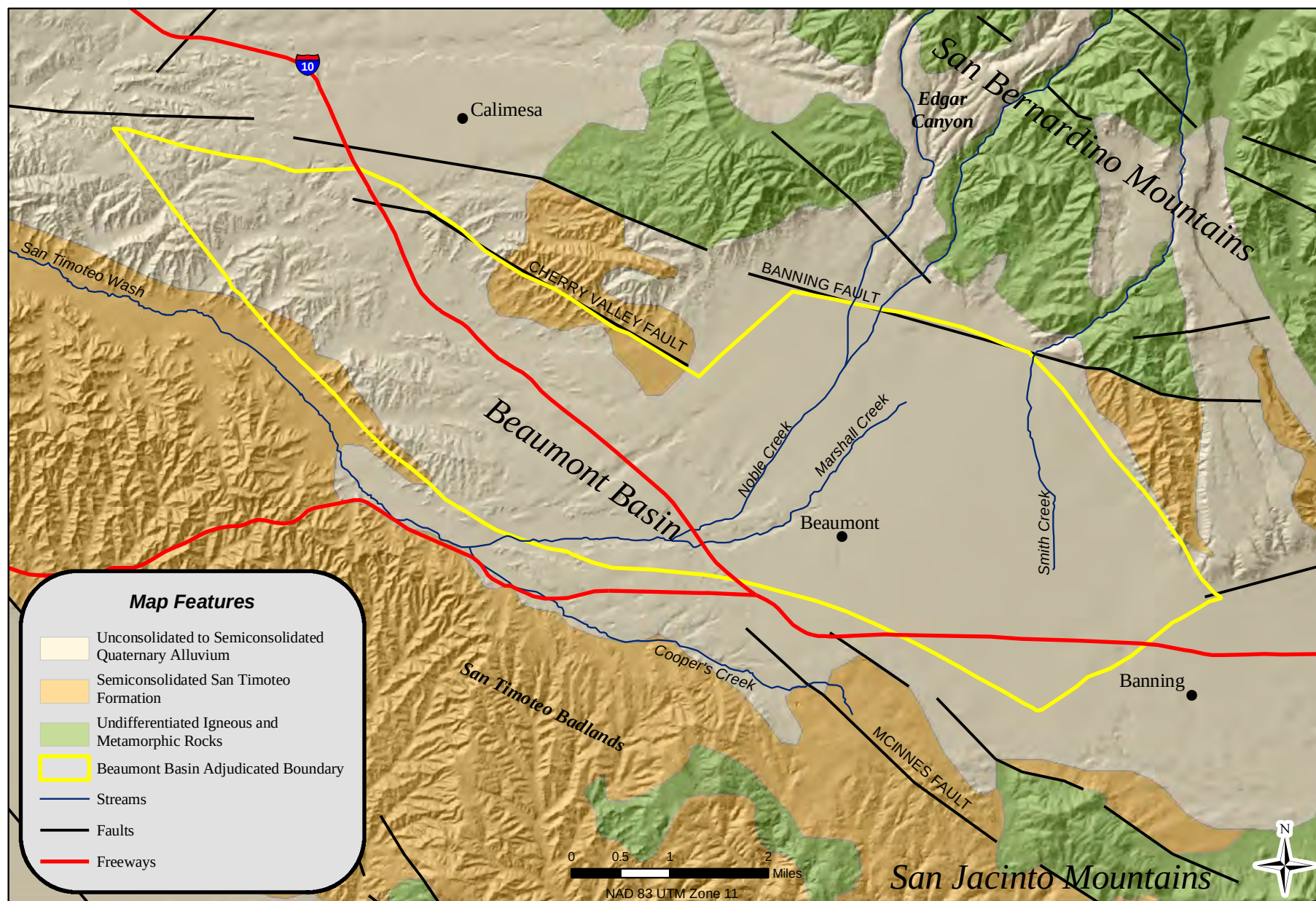
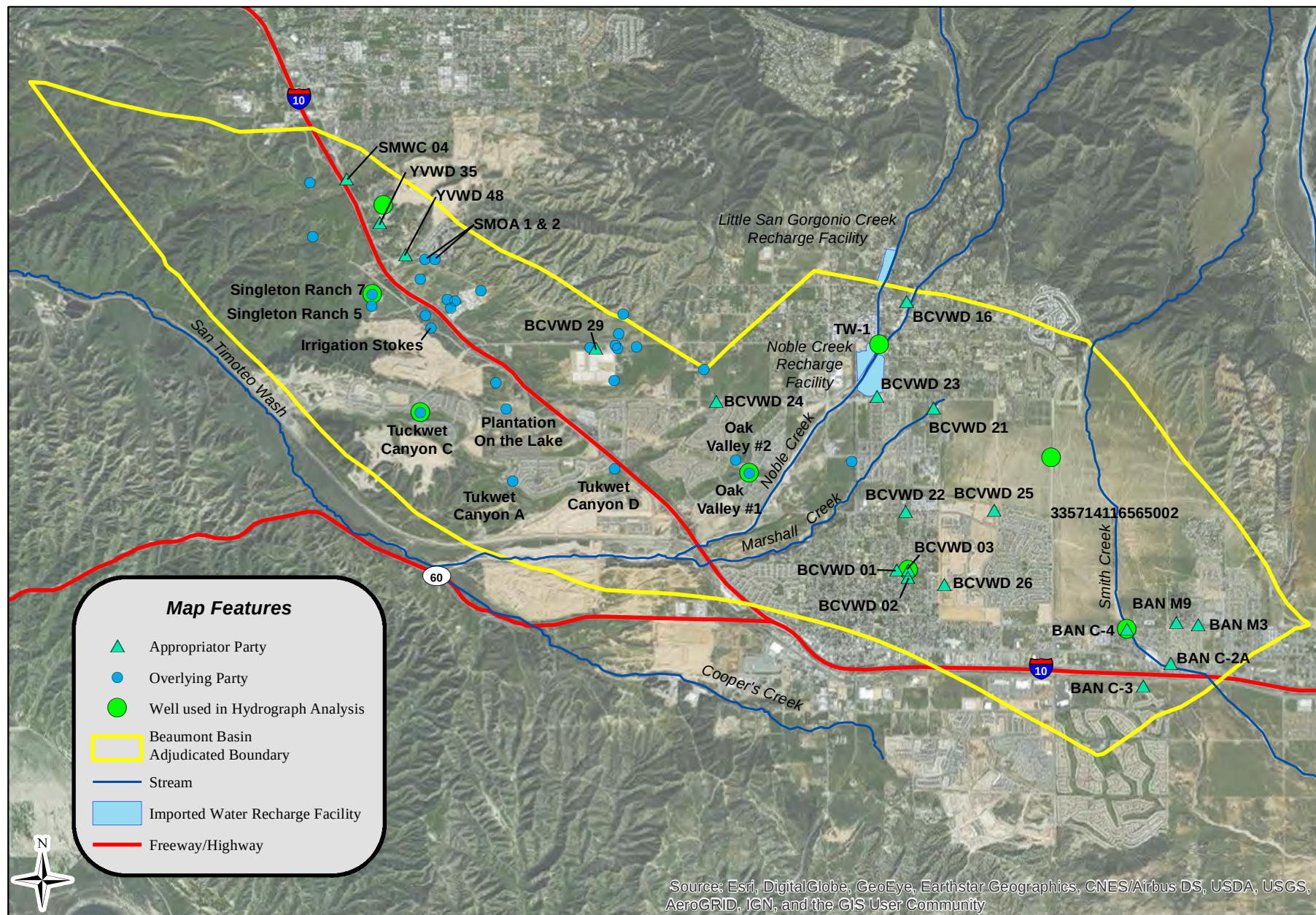


Figure 3-1
Annual Precipitation with Cumulative Departure from the Mean (1917-2016)





Alda, Inc. in association with

Thomas Harder & Co.
Groundwater Consulting

0 0.5 1 2 Miles
NAD 83 UTM Zone 11

**Well Locations in the
Beaumont Basin**

Figure 3-3

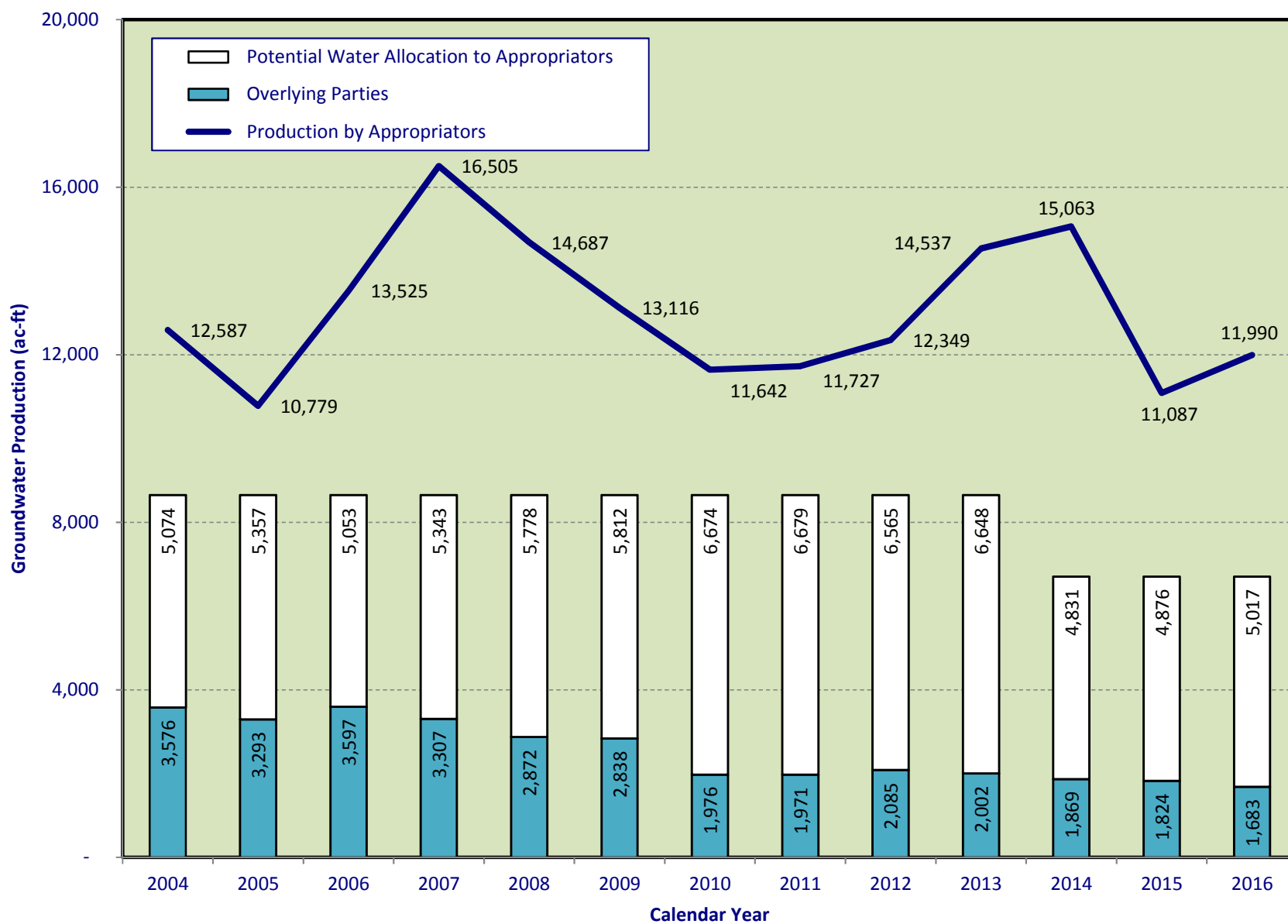
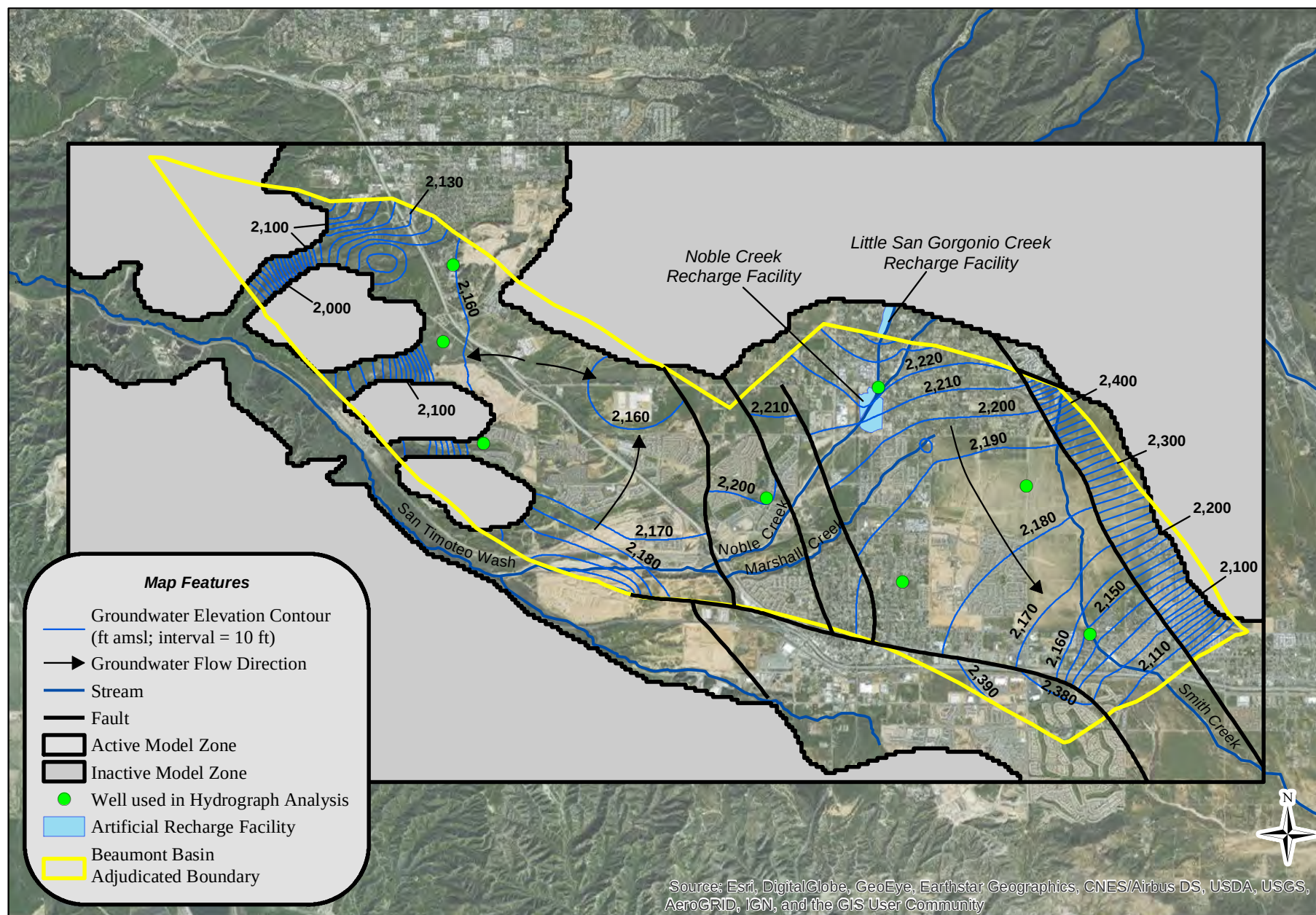


Figure 3-4
Annual Production by Appropriators and Overlying Users (2004-16)



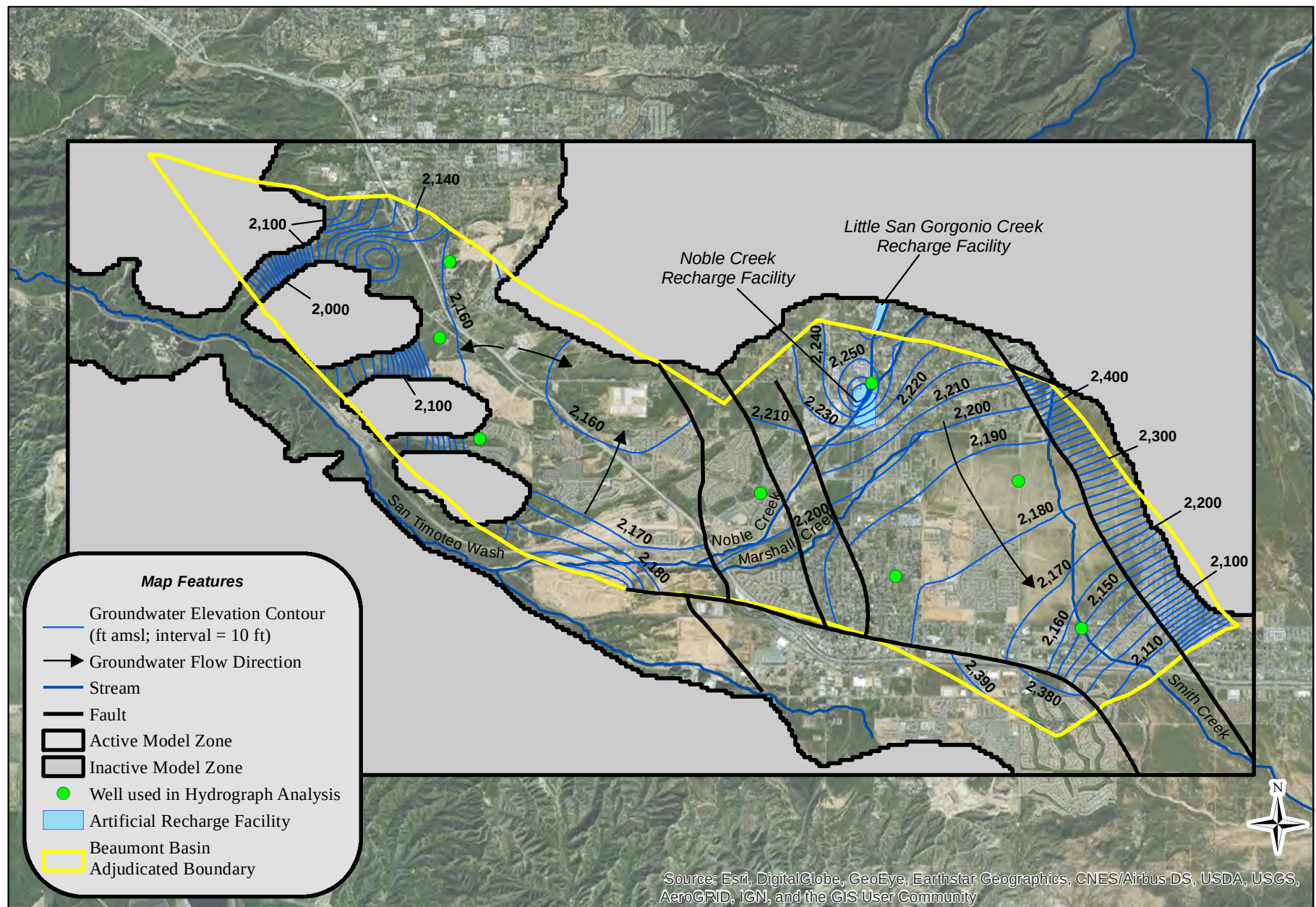
Alda, Inc. in association with

Thomas Harder & Co.
Groundwater Consulting

0 0.5 1 2
Miles
NAD 83 CA State Plane Zone 6

**Groundwater Elevation Contours
in the Beaumont Basin - Fall 2015**

Figure 3-5



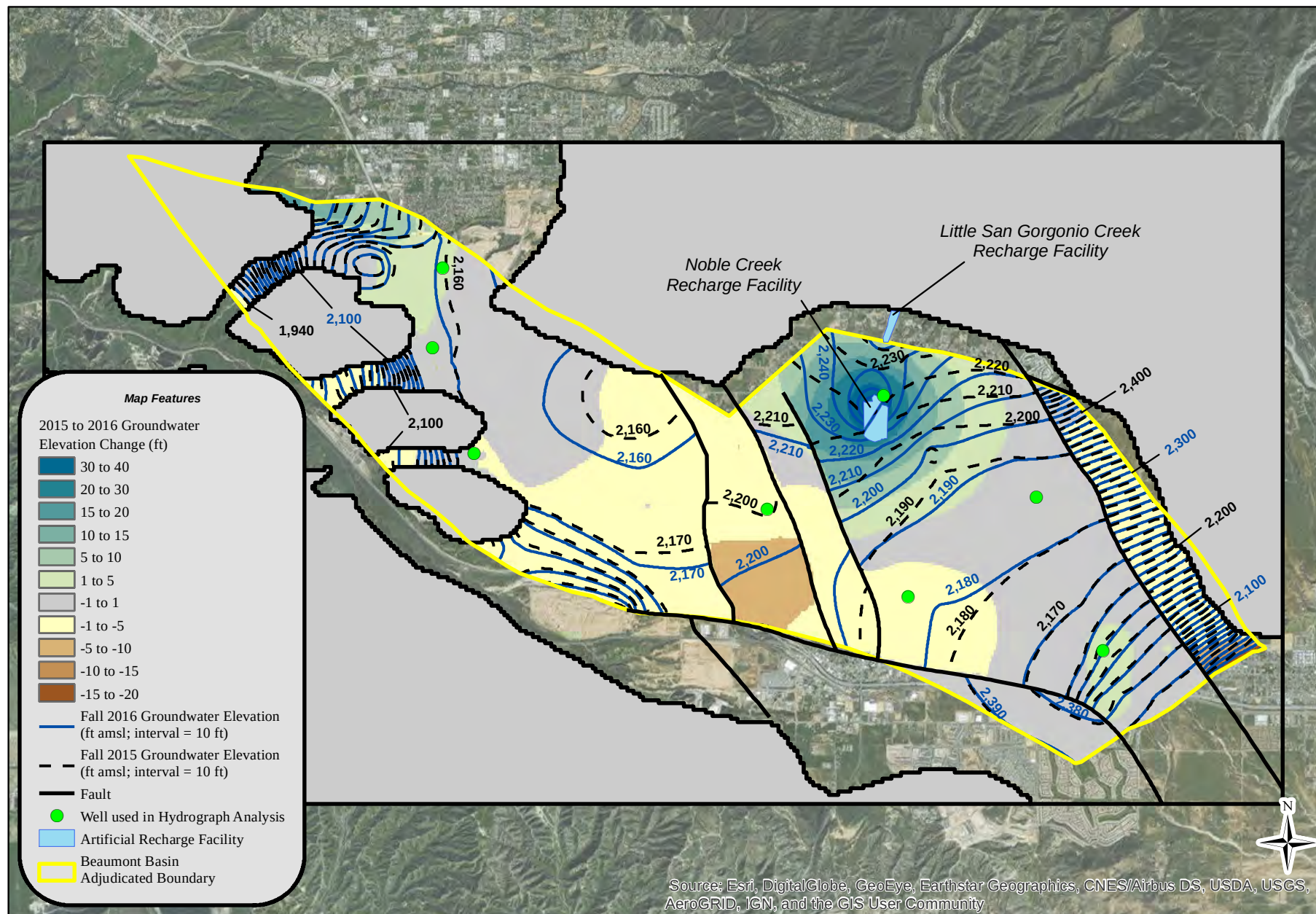
Alda, Inc. in association with

Thomas Harder & Co.
Groundwater Consulting

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NAD 83 CA State Plane Zone 6

**Groundwater Elevation Contours
in the Beaumont Basin - Fall 2016**

Figure 3-6



Alda, Inc. in association with

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Groundwater Consulting

0 0.5 1 2
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NAD 83 CA State Plane Zone 6

Change in Groundwater Elevation
2015 - 2016
Figure 3-7

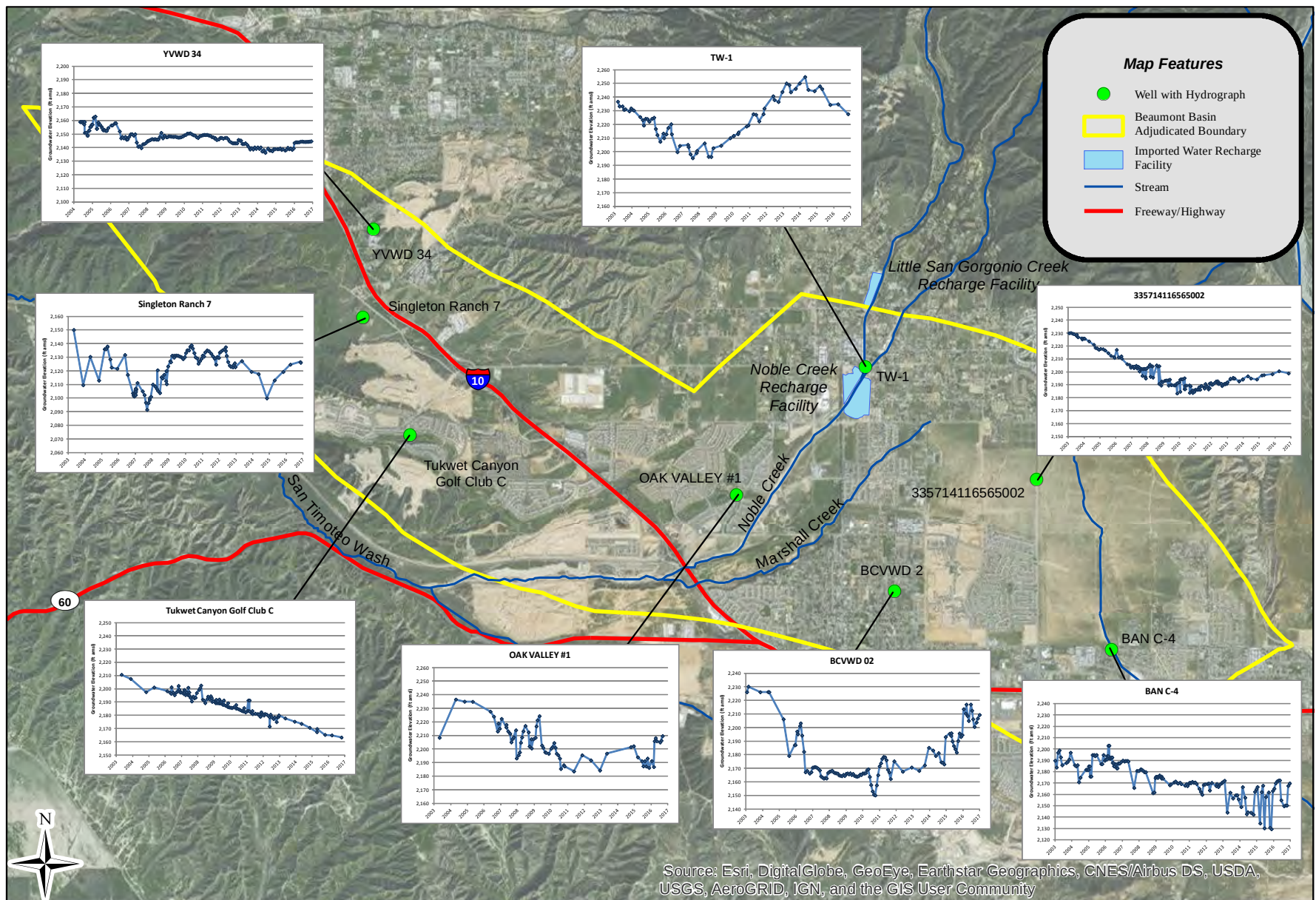


Table 3-1A
Appropriator Producer - Summary of Annual Production (2003 to 2010)

Owner & Well Name	Water Production by Well (ac-ft/yr) ⁽¹⁾								
	2003 ⁽²⁾	2004	2005	2006	2007	2008	2009	2010	2011
Banning, City of									
Well C2-A	619.2	710.7	0.4	6.8	288.1	382.3	119.8	26.8	32.5
Well C3	517.7	1,026.6	521.2	235.3	511.6	552.5	733.0	843.0	776.6
Well C4	448.3	1,135.7	387.8	276.8	673.9	664.3	472.6	51.4	197.5
Well M3	525.7	169.8	532.8	671.9	726.0	583.3	294.8	80.0	335.1
Well M9	63.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
From BCVWD ⁽³⁾	0.0	354.5	366.4	636.7	572.9	751.3	474.8	142.5	0.0
<i>Annual Production</i>	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
Eligible for Storage ⁽⁴⁾	340.3	1,631.7	3,220.4	3,201.5	2,256.4	2,095.4	2,934.0	3,885.4	3,687.3
Beaumont Cherry Valley Water District									
Well 1	5.9	978.3	1,244.2	1,149.1	1,283.8	976.9	894.1	809.1	461.7
Well 2	960.2	1,628.2	117.6	0.0	0.0	0.0	0.0	0.0	0.0
Well 3	675.1	936.0	841.6	749.7	1,357.3	1,310.2	1,139.5	775.6	535.6
Well 16	554.6	1,103.7	735.6	537.7	348.3	414.9	452.0	11.9	153.8
Well 21	832.8	1,252.5	2,299.5	1,996.3	2,424.7	2,446.1	1,784.1	8.7	1,473.3
Well 22	483.3	1,125.3	405.7	1,062.6	1,056.8	1,105.3	265.1	381.7	95.1
Well 23	0.0	204.3	1,747.9	1,963.9	3,018.3	2,491.7	982.7	1,930.4	982.1
Well 24				2,231.7	2,467.1	2,093.1	2,045.4	2,199.6	2,045.7
Well 25						127.6	1,060.7	1,300.4	1,188.6
Well 26						495.9	1,187.9	1,312.2	1,435.3
Well 29							797.1	834.4	1,060.3
To Banning ⁽³⁾	0.0	-354.5	-366.4	-636.7	-572.9	-751.3	-474.8	-142.5	0.0
<i>Annual Production</i>	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
Eligible for Storage ⁽⁴⁾	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
South Mesa Water Company									
3rd No. 4 Well	223.2	482.5	663.2	616.0	665.8	470.9	382.2	405.0	419.9
<i>Annual Production</i>	223.2	482.5	663.2	616.0	665.8	470.9	382.2	405.0	419.9
Eligible for Storage ⁽⁴⁾	774.8	1,513.5	1,332.8	1,380.0	1,330.2	1,525.2	1,613.8	1,591.0	1,576.1
Yucaipa Valley Water District									
Well 35	58.9	226.3	117.5	220.0	163.8	3.2	0.0	0.0	0.0
Well 48	1,103.5	1,607.4	1,163.7	1,807.2	1,519.1	568.8	504.4	672.4	534.1
<i>Annual Production</i>	1,162.4	1,833.7	1,281.3	2,027.3	1,682.9	572.0	504.4	672.4	534.1
Eligible for Storage ⁽⁴⁾	0.0	339.3	891.7	145.7	490.1	1,601.0	1,668.6	1,500.6	1,638.9
<i>Annual Production</i>	7,071.7	12,587.4	10,778.6	13,524.9	16,504.6	14,687.0	13,115.6	11,642.3	11,727.1
<i>Eligible for Storage</i>	1,115.1	3,484.5	5,445.0	4,727.2	4,076.7	5,221.5	6,216.4	6,977.0	6,902.3

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

2.- 2003 Production only includes from July to December to account for first half of Fiscal Year 2004 Production.

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

4.- Volume of water available for storage is equal to the positive difference between the temporary surplus allocation and the volume of groundwater produced by each agency. Temporary surplus based on 16,000 ac-ft/yr allocated from Fiscal Year 2004 to Fiscal Year 2013. Annual allocation is as follows: a) City of Banning, 5,029 ac-ft/yr, b) Beaumont Cherry Valley Water District, 6,802 ac-ft/yr, c) South Mesa Water Company, 1,996 ac-ft/yr, and d) Yucaipa Valley Water District, 2,173 ac-ft/yr. Allocations for 2003 are based on 50 percent of the annual allocation to account for the second half of the year only.

Table 3-1B
Appropriator Producer - Summary of Production for Calendar Year 2012 (ac-ft)

Owner & Well Name	Water Production by Appropriator (ac-ft) ⁽¹⁾												Total Production	Eligible for Storage ⁽²⁾
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
Banning, City of														
Well C2-A	0.5	0.4	0.4	2.3	0.3	0.7	1.4	6.1	0.2	0.2	0.4	0.2	13.1	
Well C3	95.4	82.2	64.5	85.2	107.5	25.9	20.1	47.1	41.4	29.9	8.6	0.3	607.9	
Well C4	0.7	0.7	0.4	0.2	1.0	13.3	2.2	26.9	23.4	3.0	1.0	0.2	73.0	
Well M3	0.6	0.2	0.5	1.4	0.6	76.1	80.0	72.3	68.4	37.9	2.3	3.9	344.2	
Well M9		-	-	-	-	-	-	-	-	-	-	-	0.0	
From BCVWD ⁽³⁾	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	97.1	83.4	65.8	89.1	109.5	116.1	103.6	152.3	133.3	71.0	12.4	4.7	1,038.3	3,990.7
Beaumont Cherry Valley Water District														
Well 1	-	-	-	3.02	72.03	18.84	-	-	-	-	-	-	93.9	
Well 2	-	-	-	-	-	-	-	-	-	-	-	-	0.0	
Well 3	-	-	-	2.99	60.85	130.94	150.25	140.12	90.97	64.36	60.38	15.76	716.6	
Well 16	-	-	0.01	-	17.17	45.11	72.41	53.98	39.05	8.15	15.87	3.27	255.0	
Well 21	192.55	165.40	193.32	174.32	205.19	209.22	216.61	200.54	211.30	180.71	0.77	85.08	2,035.0	
Well 22	-	1.50	-	-	18.64	141.42	136.12	76.60	106.07	34.37	-	-	514.7	
Well 23	24.66	99.04	82.69	28.94	-	1.04	40.21	188.67	94.27	157.50	115.95	21.67	854.6	
Well 24	143.87	139.27	124.45	155.98	107.88	185.79	207.00	138.86	145.87	148.56	160.36	106.24	1,764.1	
Well 25	100.50	27.80	-	78.74	222.76	245.35	257.70	238.09	264.00	139.88	76.09	30.02	1,680.9	
Well 26	97.20	93.20	76.80	54.20	147.45	147.78	131.49	126.50	115.35	121.99	104.40	64.56	1,280.9	
Well 29	1.59	-	-	30.41	85.06	138.76	156.83	150.64	129.68	129.06	92.69	51.35	966.1	
To Banning ⁽³⁾	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	560.4	526.2	477.3	528.6	937.0	1,264.3	1,368.6	1,314.0	1,196.6	984.6	626.5	378.0	10,162.0	0.0
South Mesa Water Company														
3rd No. 4 Well	27.77	23.65	23.13	23.22	41.79	70.07	69.08	62.75	53.24	27.30	8.18	18.32	448.5	
Subtotal	27.8	23.7	23.1	23.2	41.8	70.1	69.1	62.8	53.2	27.3	8.2	18.3	448.5	1,547.5
Yucaipa Valley Water District														
Well 35	-	-	-	-	-	-	-	-	-	-	-	-	0.0	
Well 48	7.19	39.11	19.00	37.39	76.94	100.79	108.51	129.60	70.41	67.78	31.59	11.79	700.1	
Subtotal	7.2	39.1	19.0	37.4	76.9	100.8	108.5	129.6	70.4	67.8	31.6	11.8	700.1	1,472.9
Total	692.5	672.4	585.2	678.4	1,165.3	1,551.2	1,649.8	1,658.6	1,453.5	1,150.6	678.6	412.7	12,348.9	7,011.1

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

2.- Volume of water available for storage is equal to the positive difference between the temporary surplus allocation and the volume of groundwater produced by each agency. Temporary surplus based on 16,000 ac-ft/yr allocated from Fiscal Year 2004 to Fiscal Year 2013. Annual allocation is as follows: a) City of Banning, 5,029 ac-ft/yr, b) Beaumont Cherry Valley Water District, 6,802 ac-ft/yr, c) South Mesa Water Company, 1,996 ac-ft/yr, and d) Yucaipa Valley Water District, 2,173 ac-ft/yr.

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

Table 3-1C
Appropriator Producer - Summary of Production for Calendar Year 2013 (ac-ft)

Owner & Well Name	Water Production by Appropriator (ac-ft) ⁽¹⁾												Total Production	Eligible for Storage ⁽²⁾
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
Banning, City of														
Well C2-A	0.3	0.3	0.2	0.7	0.3	0.4	35.5	52.8	7.2	10.7	4.0	3.2	115.5	
Well C3	3.0	0.1	2.2	56.6	76.2	92.1	78.7	82.0	79.5	70.9	47.1	38.3	626.7	
Well C4	0.5	2.8	126.0	140.6	97.6	100.5	116.2	87.3	56.0	48.1	23.8	59.0	858.5	
Well M3	0.1	66.4	0.1	0.0	0.0	0.0	12.6	69.9	84.6	99.8	79.3	87.1	499.9	
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 ⁽³⁾	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	4.0	69.7	128.5	197.9	174.1	193.0	243.0	292.1	227.3	229.4	154.1	187.6	2,100.7	413.8
Beaumont Cherry Valley Water District														
Well 1	0.6	0.0	0.0	0.3	74.0	95.9	121.9	2.2	0.0	0.0	0.0	0.0	294.9	
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	0.5	0.0	0.0	0.0	79.2	113.9	154.4	160.8	139.9	104.0	26.5	9.9	789.2	
Well 16	0.2	0.0	35.7	52.4	43.2	53.3	0.0	45.2	53.6	41.6	9.2	26.5	360.8	
Well 21	47.1	50.6	170.6	188.9	226.7	215.4	189.1	225.5	226.6	211.0	199.5	190.2	2,141.1	
Well 22	0.0	0.0	0.0	0.0	48.0	94.0	43.1	76.5	72.7	4.5	9.7	10.3	358.9	
Well 23	0.7	0.0	54.0	36.2	168.0	198.6	240.1	89.7	0.0	0.0	0.0	0.0	787.3	
Well 24	157.5	123.4	128.7	159.7	109.3	122.6	100.2	118.8	123.4	120.1	118.1	144.6	1,526.5	
Well 25	78.6	77.8	80.8	165.8	112.5	144.0	204.6	292.8	287.0	253.9	203.3	132.5	2,033.4	
Well 26	70.2	75.7	80.7	125.0	115.4	144.8	148.6	155.9	146.2	126.8	68.6	0.0	1,257.9	
Well 29	64.0	65.9	93.1	123.2	144.0	144.6	192.4	89.0	273.7	144.6	118.5	94.3	1,547.3	
To Banning ⁽³⁾	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	419.3	393.4	643.7	851.4	1,120.4	1,327.2	1,394.4	1,256.4	1,323.2	1,006.5	753.4	608.4	11,097.4	0.0
South Mesa Water Company														
3rd No. 4 Well	18.09	14.48	22.02	26.88	31.13	42.36	47.77	45.59	34.45	25.58	-	-	308.4	
Subtotal	18.1	14.5	22.0	26.9	31.1	42.4	47.8	45.6	34.5	25.6	0.0	0.0	308.4	689.7
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	0.0	17.0	72.8	106.0	95.6	135.6	188.2	198.0	99.5	106.5	11.6	0.0	1,030.8	
Subtotal	0.0	17.0	72.8	106.0	95.6	135.6	188.2	198.0	99.5	106.5	11.6	0.0	1,030.8	55.7
Total	441.3	494.5	867.0	1,182.1	1,421.2	1,698.1	1,873.4	1,792.1	1,684.5	1,368.0	919.1	796.0	14,537.2	1,159.2

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

2.- Volume of water available for storage is equal to the positive difference between the temporary surplus allocation and the volume of groundwater produced by each agency. Temporary surplus for 2013 is based on 8,000 ac-ft corresponding to half of the 16,000 ac-ft allocated between 2004 and 2012 . Annual allocation is as follows: a) City of Banning, 2,514.5 ac-ft/yr, b) Beaumont Cherry Valley Water District, 3,401 ac-ft/yr, c) South Mesa Water Company, 998 ac-ft/yr, and d) Yucaipa Valley Water District, 1,086.5 ac-ft/yr.

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

Table 3-1D
Appropriator Producer - Summary of Production for Calendar Year 2014 (ac-ft)

Owner & Well Name	Water Production by Appropriator (ac-ft) ⁽¹⁾												Total Production
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Banning, City of													
Well C2-A	0.9	26.3	93.5	87.4	73.1	71.3	71.2	52.3	9.2	15.6	29.4	0.3	530.5
Well C3	68.2	26.7	2.4	26.9	58.6	66.8	73.0	61.9	46.7	49.2	41.3	5.2	526.8
Well C4	64.1	1.5	21.2	39.4	124.4	112.9	110.1	103.3	118.1	114.5	47.7	0.2	857.7
Well M3	98.4	71.4	96.7	80.2	26.2	68.4	29.3	37.7	92.0	69.4	0.0	0.4	670.0
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 ⁽³⁾	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	231.7	125.9	213.9	233.9	282.2	319.4	283.6	255.2	265.9	248.7	118.4	6.0	2,585.1
Beaumont Cherry Valley Water District													
Well 1	0.0	0.0	0.0	6.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.9
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	7.4	81.4	72.5	140.9	143.4	161.8	192.3	124.1	135.0	122.2	85.1	15.6	1,281.8
Well 16	21.7	0.0	0.0	0.0	0.0	0.0	0.0	35.1	45.5	51.3	20.7	7.8	182.2
Well 21	229.5	181.2	184.3	170.1	231.5	242.0	283.3	262.8	211.4	212.5	177.6	174.4	2,560.7
Well 22	0.1	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
Well 23	0.0	0.0	0.0	0.0	76.2	208.3	211.0	133.9	92.7	90.6	165.2	103.3	1,081.0
Well 24	198.6	80.7	128.0	104.6	110.0	94.1	2.4	0.0	86.1	147.6	108.7	5.9	1,066.7
Well 25	227.3	164.1	175.4	234.7	259.9	279.0	372.6	285.9	188.3	170.9	26.3	2.4	2,386.8
Well 26	0.0	0.0	8.2	9.1	0.3	0.0	0.0	55.6	142.3	123.2	89.8	93.3	521.9
Well 29	119.0	88.7	102.0	128.1	172.9	198.3	210.9	180.6	172.3	158.4	120.1	65.2	1,716.5
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	803.6	596.1	671.3	794.4	994.3	1,183.5	1,272.5	1,078.1	1,073.7	1,076.7	793.6	467.8	10,805.5
South Mesa Water Company													
3rd No. 4 Well	17.43	24.26	56.87	30.32	38.34	50.25	56.87	46.55	54.69	45.88	33.22	19.04	473.7
Subtotal	17.4	24.3	56.9	30.3	38.3	50.3	56.9	46.6	54.7	45.9	33.2	19.0	473.7
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	5.1	57.0	81.7	143.3	96.6	127.1	136.5	108.9	127.9	156.6	117.9	39.9	1,198.5
Subtotal	5.1	57.0	81.7	143.3	96.6	127.1	136.5	108.9	127.9	156.6	117.9	39.9	1,198.5
Total	1,057.8	803.4	1,023.8	1,201.9	1,411.5	1,680.2	1,749.4	1,488.8	1,522.2	1,527.9	1,063.1	532.8	15,062.8

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).

Table 3-1E
Appropriator Producer - Summary of Production for Calendar Year 2015 (ac-ft)

Owner & Well Name	Water Production by Appropriator (ac-ft) ⁽¹⁾												Total Production
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Banning, City of													
Well C2-A	3.8	13.0	55.3	3.3	2.0	1.7	3.2	2.6	28.2	4.6	0.4	0.5	118.6
Well C3	1.7	-1.4	35.3	41.0	22.9	59.5	43.9	60.0	38.3	26.5	50.9	11.6	390.2
Well C4	3.2	2.7	7.5	1.4	5.1	94.0	100.4	89.4	55.1	103.0	69.9	39.9	571.8
Well M3	0.1	10.1	58.3	88.6	91.9	84.8	94.2	83.6	53.8	1.2	18.1	13.1	597.7
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 ⁽³⁾	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	8.8	24.5	156.5	134.2	122.0	240.0	241.7	235.6	175.3	135.2	139.3	65.1	1,678.3
Beaumont Cherry Valley Water District													
Well 1	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 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	0.1	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 16	5.6	24.4	49.7	75.3	81.7	83.1	72.5	60.3	51.4	73.6	57.0	41.8	0.0
Well 21	166.9	184.6	230.4	218.9	185.3	218.2	216.1	224.9	200.5	204.2	192.8	191.9	0.0
Well 22	40.0	108.3	30.6	86.1	7.5	74.6	128.2	116.1	121.1	55.5	13.4	3.0	0.0
Well 23	184.7	121.3	199.1	246.6	232.9	267.5	261.9	241.3	216.7	226.2	167.1	143.9	0.0
Well 24	54.6	5.7	97.1	69.0	64.7	179.4	124.6	106.8	60.1	24.5	49.4	27.3	0.0
Well 25	0.0	61.1	10.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Well 26	16.8	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 29	80.4	95.7	102.6	113.2	112.0	156.7	155.7	163.3	151.3	138.4	114.5	93.0	0.0
Egg Ranch Well	10.5	8.1	7.1	15.1	0.0	34.0	6.8	14.9	25.3	0.0	17.3	0.5	0.0
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	559.6	609.2	727.4	824.2	684.2	1,013.4	965.6	927.5	826.4	722.4	611.4	501.5	8,972.8
South Mesa Water Company													
3rd No. 4 Well	20.10	19.95	21.55	27.08	21.72	36.95	34.27	37.80	28.89	27.91	21.03	19.90	317.2
Subtotal	20.1	20.0	21.6	27.1	21.7	37.0	34.3	37.8	28.9	27.9	21.0	19.9	317.2
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	7.5	10.0	43.0	12.8	4.3	5.8	6.1	20.4	3.4	0.0	0.1	5.8	119.2
Subtotal	7.5	10.0	43.0	12.8	4.3	5.8	6.1	20.4	3.4	0.0	0.1	5.8	119.2
Total	596.0	663.6	948.6	998.3	832.2	1,296.2	1,247.7	1,221.3	1,034.0	885.5	771.9	592.3	11,087.4

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).

Table 3-1F
Appropriator Producer - Summary of Production for Calendar Year 2016 (ac-ft)

Owner & Well Name	Water Production by Appropriator (ac-ft) ⁽¹⁾												Total Production
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Banning, City of													
Well C2-A	4.1	0.7	0.2	0.2	1.9	17.4	32.9	30.1	1.1	2.0	0.0	3.5	94.2
Well C3	15.5	21.9	0.2	5.8	20.1	50.0	50.9	70.6	55.5	23.0	3.0	1.5	317.8
Well C4	25.5	0.9	12.0	8.3	11.8	92.8	121.5	121.2	101.9	91.9	14.2	0.5	602.3
Well M3	0.4	0.4	0.0	0.4	22.3	92.9	95.7	95.8	90.3	58.4	1.7	0.1	458.5
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 ⁽³⁾	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	45.4	23.9	12.5	14.8	56.0	253.0	301.0	317.7	248.8	175.3	18.8	5.5	1,472.7
Beaumont Cherry Valley Water District													
Well 1	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 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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Well 16	68.6	67.5	61.8	66.6	80.2	75.0	91.4	74.0	37.7	70.1	47.9	20.8	761.5
Well 21	221.1	196.3	223.2	201.2	234.2	246.1	245.0	295.8	258.9	225.3	193.1	153.3	2,693.3
Well 22	0.0	2.6	0.0	0.0	40.5	111.8	144.7	177.7	164.2	155.8	67.5	7.0	871.8
Well 23	19.9	85.8	113.9	152.0	213.6	250.9	273.2	257.9	228.1	228.1	160.6	153.7	2,137.8
Well 24	30.4	48.9	19.1	1.5	0.0	188.0	241.6	216.5	145.8	38.6	104.9	62.2	1,097.3
Well 25	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 26	23.3	65.8	54.6	74.6	101.9	123.3	151.8	293.5	25.1	99.6	82.8	31.7	1,127.9
Well 29	77.3	101.7	98.7	104.3	91.7	141.6	198.7	36.8	181.8	89.9	183.7	84.2	1,390.4
Egg Ranch Well	11.6	8.4	2.6	7.0	3.1	11.1	7.4	11.2	11.4	0.2	2.7	3.0	79.8
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	452.1	577.0	573.9	607.2	765.2	1,147.9	1,353.7	1,363.4	1,052.9	907.6	843.2	515.9	10,159.8
South Mesa Water Company													
3rd No. 4 Well	16.9	21.9	23.3	24.7	28.1	38.4	47.1	45.6	37.6	27.9	23.6	17.6	352.6
Subtotal	16.9	21.9	23.3	24.7	28.1	38.4	47.1	45.6	37.6	27.9	23.6	17.6	352.6
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	0.7	0.7	1.0	0.0	0.0	1.4	0.0	0.0	0.9	0.0	0.0	0.0	4.6
Subtotal	0.7	0.7	1.0	0.0	0.0	1.4	0.0	0.0	0.9	0.0	0.0	0.0	4.6
Total	515.0	623.5	610.6	646.6	849.3	1,440.7	1,701.9	1,726.7	1,340.2	1,110.8	885.6	539.0	11,989.7

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).

Table 3-2A
Overlying Producer - Summary of Production for Calendar Year 2003 through 2011 (ac-ft)

Owner and Well Name	Metered	Annual Water Production by Overlying Producer ^{(1) (2)}									Overlying Water Right (ac-ft/yr)
		2003	2004	2005	2006	2007	2008	2009	2010	2011	
Beckman, Walter M.	No	16.2	27.0	22.4	11.5	8.3	12.7	12.9	6.4	9.0	75.0
California Oak Valley Golf and Resort LLC ⁽³⁾											
Oak Valley #1	Yes			523.2	453.6	181.7	596.9	135.7	304.2	0.0	
Oak Valley #2	Yes			180.7	377.9	597.3	183.5	631.0	260.9	0.0	
Subtotal		736.2	728.6	703.9	831.5	779.0	780.4	766.7	565.1	517.3	950.0
Merlin Properties	No	3.6	1.6	1.6	1.6	1.6	1.6	1.6	1.5	1.6	550.0
Oak Valley Partners, LP ⁽⁴⁾											
Haskell Ranch-Main	N/A	29.4	19.6	300.0	300.0	300.0	0.0	0.0	0.0	0.0	
Singleton Ranch #5	No	180.0	300.0	40.2	2.1	2.1	2.5	2.5	2.5	2.5	
Singleton Ranch #7	Yes	85.8	111.1	10.0	10.0	10.0	0.0	0.0	0.0	0.0	
Irrigation Stokes	No	6.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Subtotal		301.2	440.7	350.2	312.1	312.1	2.5	2.5	2.5	2.5	1,806.0
Plantation on the Lake LLC	Yes	178.6	340.9	310.2	350.1	344.2	354.0	352.3	337.2	344.7	581.0
Rancho Calimesa Mobile Home Park	No	35.4	68.3	68.3	68.3	69.3	69.3	69.3	69.3	69.3	150.0
Roman Catholic Bishop of San Bernardino	No	46.8	59.1	55.6	59.0	0.7	0.7	0.7	0.0	0.0	154.0
Sharondale Mesa Owners Association											
Well No.1	Yes	98.6	111.0	98.4	97.0	130.1	102.9	80.3	67.7	81.0	
Well No.2	Yes	5.7	47.0	82.6	91.6	52.3	90.4	74.0	64.6	52.0	
Subtotal		104.3	158.0	181.0	188.6	182.3	193.3	154.3	132.3	133.0	200.0
Tukwet Canyon Golf Club ⁽⁵⁾											
Well A	Yes	130.8	268.0	217.2	341.7	329.1	11.2	204.4	118.6	118.4	
Well C	Yes	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Well D	Yes	660.6	1,078.6	995.9	1,411.6	1,269.9	1,126.4	954.2	733.2	764.5	
Subtotal		791.4	1,346.7	1,213.1	1,753.4	1,599.1	1,137.6	1,158.6	851.8	882.9	2,200.0
Stearns, Leonard M. and Dorothy D.	No	1.1	1.1	1.1	1.1	1.1	1.1	1.1	0.7	0.7	200.0
Sunny-Cal Egg and Poultry Company	N/A	226.0	404.4	385.4	2.6	2.7	4.2	4.2	3.8	4.2	1,439.5
Sunny-Cal North - Manheim, M & Berman	No				13.2	2.3	2.3	2.3	2.1	2.3	300.0
Nikodinov, Nick	No				0.7	0.8	0.8	0.7	0.7	0.8	20.0
McAmis, Ronald L.	No				0.5	0.6	0.6	0.5	0.5	0.6	5.0
Aldama, Nicolas and Amalia	No				0.8	0.8	0.9	0.8	0.8	0.9	7.0
Gutierrez, Hector, et al.	No				1.4	1.4	1.4	1.4	1.3	1.4	10.0
Darmont, Boris and Miriam	No				0.4	0.4	0.4	0.4	0.4	0.4	2.5
TOTAL		2,440.8	3,576.3	3,292.6	3,596.7	3,306.5	2,563.6	2,530.1	1,976.5	1,971.4	8,650.0

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

2.- Annual 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 through 2007. Starting in 2008, production was reduced to an estimated 2.5 ac-ft/yr as agricultural use of the land ended. Estimate based on water use by a single farm house and a small cattle population.

5.- The Southern California Section of the PGA of America changed to East Valley Golf Club in 2007 and to Tukwet Canyon Golf Course in 2010. Monthly production provided by the Morongo Band of Mission Indians - 03/14.

Table 3-2B
Overlying Producer - Summary of Production for Calendar Year 2012 (ac-ft)

Owner and Well Name	Metered	Monthly Water Production by Overlying Producer ⁽¹⁾												Total ⁽²⁾ Production	Overlying Water Right	Unused Overlying Allocation in 2012
		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															
Oak Valley #2	Yes															
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												1.62	550.00	548.38
Oak Valley Partners, LP ⁽⁴⁾																
Singleton Ranch #5	No													0.00		
Singleton Ranch #7	No													2.50		
	No													0.00		
Subtotal		Annual consumption estimated based on water use by a single farm house and a small bovine population												2.50	1,806.00	1,803.50
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 ⁽⁵⁾	No	Water Duty Method Used to Estimate Annual Production												69.30	150.00	80.70
Roman Catholic Bishop of San Bernardino		Water Duty Method Used to Estimate Annual Production												0.00	154.00	154.00
Sharondale Mesa Owners Association ⁽⁵⁾																
Well No.1	Yes	4.28	3.94	3.60	4.52	8.44	10.20	10.43	8.00	9.49	9.14	4.75	2.44	79.23		
Well No.2	Yes	3.96	3.68	3.33	4.00	6.50	7.59	7.93	7.75	7.30	7.34	4.37	2.29	66.04		
Subtotal		8.24	7.63	6.93	8.52	14.94	17.80	18.37	15.74	16.79	16.47	9.12	4.72	145.27	200.00	54.73
Tukwet Canyon Golf Club ⁽⁶⁾																
Well A	Yes	0.47	0.58	0.83	0.59	20.36	44.05	38.86	36.60	29.52	28.86	16.30	0.45	217.47		
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	51.36	27.39	28.12	47.64	93.11	118.17	113.83	102.25	86.26	70.99	17.37	10.37	766.84		
Subtotal		51.82	27.97	28.95	48.23	113.47	162.21	152.69	138.85	115.78	99.85	33.67	10.82	984.32	2,200.00	1,215.69
Stearns, Leonard M. and Dorothy D.	No	Water Duty Method Used to Estimate Annual Production												0.70	200.00	199.30
Sunny-Cal Egg and Poultry Company	No	Water Duty Method Used to Estimate Annual Production												4.34	1,439.50	1,435.16
Albor Properties III, LP	No	Water Duty Method Used to Estimate Annual Production												2.43	300.00	297.57
Nikodinov, Nick	No	Water Duty Method Used to Estimate Annual Production												0.77	20.00	19.23
McAmis, Ronald L.	No	Water Duty Method Used to Estimate Annual Production												0.56	5.00	4.44
Aldama, Nicolas and Amalia	No	Water Duty Method Used to Estimate Annual Production												0.87	7.00	6.13
Gutierrez, Hector, et al.	No	Water Duty Method Used to Estimate Annual Production												1.43	10.00	8.57
Darmont, Boris and Miriam	No	Water Duty Method Used to Estimate Annual Production												0.35	2.50	2.15
TOTAL														2,085.4	8,650.0	6,564.6

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

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

3.- Monthly production provided by BGVWD - Feb 2013. Production by Plantation on the Lake for 2012 was not available; 2011 production values were used.

4.- Starting in 2008, the parcels owned by Oak Valley Partners were no longer used for agricultural purposes. Groundwater production was estimated at 2.5 ac-ft/yr based on water use by a single farm house and a small cattle population.

5.- Monthly production since 2011 provided by Clearwater Solutions, a company in charge of operating the water system.

6.- Actual monthly production provided by the Morongo Band of Mission Indians - March 2014.

Table 3-2C
Overlying Producer - Summary of Production for Calendar Year 2013 (ac-ft)

Owner and Well Name	Metered	Monthly Water Production by Overlying Producer ⁽¹⁾												Total ⁽²⁾ Production	Overlying Water Right	Unused Overlying Allocation in 2013
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
Beckman, Walter M. ⁽³⁾	Yes	0.0	0.0	0.0	0.3	0.3	0.4	0.6	0.0	0.4	0.1	0.0	0.0	2.1	75.0	72.9
California Oak Valley Golf and Resort LLC ⁽³⁾																
Oak Valley #1	Yes	11.5	12.4	12.5	11.4	55.2	66.1	97.7	0.0	0.0	0.0	0.0	0.0	266.8		
Oak Valley #2	Yes	1.3	0.7	1.1	0.8	0.0	0.0	2.5	68.9	49.7	70.4	53.3	110.4	359.0		
Subtotal		12.8	13.1	13.6	12.1	55.2	66.1	100.1	68.9	49.7	70.4	53.3	110.4	625.8	950.0	324.2
Merlin Properties	No	Water Duty Method Used to Estimate Annual Production												1.6	550.0	548.4
Oak Valley Partners, LP ⁽⁴⁾																
Singleton Ranch #5	No													0.00		
Singleton Ranch #7	No													2.50		
Irrigation Stokes	No													0.00		
Subtotal		Annual consumption estimated based on water use by a single farm house and a small bovine population												2.5	1,806.0	1,803.5
Plantation on the Lake LLC ⁽³⁾	Yes	1.8	2.1	2.3	4.0	2.7	4.7	4.9	5.5	4.7	4.9	3.3	2.7	43.7	581.0	537.3
Rancho Calimesa Mobile Home Park ⁽⁵⁾	No	Water Duty Method Used to Estimate Annual Production												69.3	150.0	80.7
Roman Catholic Bishop of San Bernardino		Water Duty Method Used to Estimate Annual Production												0.0	154.0	154.0
Sharondale Mesa Owners Association ⁽⁵⁾																
Well No.1	Yes	2.7	3.1	4.8	7.3	7.6	9.7	10.8	10.9	3.6	1.6	5.8	4.0	72.0		133.4
Well No.2	Yes	2.5	2.8	4.1	5.9	5.8	6.6	7.6	7.8	13.3	12.2	3.0	3.7	75.0		
Subtotal		5.2	6.0	8.8	13.2	13.4	16.3	18.3	18.7	16.9	13.8	8.8	7.7	147.0	200.0	53.0
Tukwet Canyon Golf Club ⁽⁶⁾																
Well A	Yes	6.6	6.2	15.6	29.9	33.8	39.6	0.0	0.0	5.2	25.4	15.7	20.0	198.1		
Well C	Yes	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 D	Yes	20.2	13.3	35.3	70.2	86.0	111.1	152.8	143.9	117.1	77.7	41.6	31.2	900.3		
Subtotal		26.9	19.4	50.9	100.0	119.8	150.6	152.8	143.9	122.3	103.1	57.3	51.2	1,098.4	2,200.0	1,101.6
Stearns, Leonard M. and Dorothy D.	No	Water Duty Method Used to Estimate Annual Production												0.7	200.0	199.3
Sunny-Cal Egg and Poultry Company	No	Water Duty Method Used to Estimate Annual Production												4.3	1,439.5	1,435.2
Albor Properties III, LP	No	Water Duty Method Used to Estimate Annual Production												2.4	300.0	297.6
Nikodinov, Nick	No	Water Duty Method Used to Estimate Annual Production												0.8	20.0	19.2
McAmis, Ronald L.	No	Water Duty Method Used to Estimate Annual Production												0.6	5.0	4.4
Aldama, Nicolas and Amalia	No	Water Duty Method Used to Estimate Annual Production												0.9	7.0	6.1
Gutierrez, Hector, et al.	No	Water Duty Method Used to Estimate Annual Production												1.4	10.0	8.6
Darmont, Boris and Miriam	No	Water Duty Method Used to Estimate Annual Production												0.4	2.5	2.2
TOTAL														2,001.8	8,650.0	6,648.2

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

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

3.- Monthly production provided by BCVWD - Feb 2014

4.- Starting in 2008, the parcels owned by Oak Valley Partners were no longer used for agricultural purposes. Groundwater production was estimated at 2.5 ac-ft/yr based on water use by a single farm house and a small cattle population.

5.- Monthly production since 2011 provided by Clearwater Solutions, a company in charge of operating the water syste

6.- Actual monthly production provided by the Morongo Band of Mission Indians - March 2014.

Table 3-2D
Overlying Producer - Summary of Production for Calendar Year 2014 (ac-ft)

Owner and Well Name	Metered	Monthly Water Production by Overlying Producer ¹												Total ² Production	Overlying Water Right	Unused Overlying Allocation in 2014
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
Beckman, Walter M. ⁽³⁾	Yes	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	58.1	57.2
California Oak Valley Golf and Resort LLC ⁽³⁾																
Oak Valley #1	Yes	0.0	2.0	3.3	4.7	6.4	5.5	4.0	5.9	0.0	0.0	4.9	18.7	55.4		
Oak Valley #2	Yes	28.7	16.9	0.0	0.0	0.0	42.8	69.0	24.7	54.9	98.7	25.9	0.0	361.6		
Subtotal		28.7	18.9	3.3	4.7	6.4	48.3	73.0	30.5	54.9	98.7	30.8	18.7	417.0	735.8	318.8
Merlin Properties	No	Water Duty Method Used to Estimate Annual Production												1.6	426.0	424.4
Oak Valley Partners, LP ⁽⁴⁾																
Singleton Ranch #5	No													0.00		
Singleton Ranch #7	No													2.50		
Irrigation Stokes	No													0.00		
Subtotal		Annual consumption estimated based on water use by a single farm house and a small bovine population												2.5	1,398.9	1,396.4
Plantation on the Lake LLC	Yes	2.7	3.2	3.4	5.9	4.2	4.3	5.0	5.7	5.2	4.4	4.5	5.3	54.0	450.0	396.0
Rancho Calimesa Mobile Home Park ⁽⁵⁾	Yes	0.9	0.9	0.9	1.0	1.0	1.1	2.6	1.1	0.6	2.0	1.7	2.3	16.2	116.2	100.0
Roman Catholic Bishop of San Bernardino		Water Duty Method Used to Estimate Annual Production												0.0	119.3	119.3
Sharondale Mesa Owners Association ⁽⁵⁾																
Well No.1	Yes	5.1	4.0	4.9	7.0	9.0	8.7	10.1	7.0	6.5	8.8	4.9	1.8	78.0		
Well No.2	Yes	4.8	3.7	4.3	5.4	6.3	6.4	6.9	4.4	5.4	5.5	4.6	1.7	59.3		
Subtotal		9.9	7.7	9.2	12.4	15.3	15.1	17.0	11.4	12.0	14.3	9.5	3.5	137.3	154.9	17.6
Tukwet Canyon Golf Club ⁽⁶⁾																
Well A	Yes	24.0	15.9	20.1	29.3	34.3	43.4	41.1	29.6	12.1	23.5	3.5	0.8	277.6		
Well C	Yes	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 D	Yes	55.4	30.0	34.6	63.1	114.4	127.5	119.3	111.5	134.5	85.8	58.4	16.0	950.3		
Subtotal		79.4	45.8	54.7	92.4	148.7	170.9	160.3	141.1	146.6	109.3	61.9	16.7	1,227.9	1,704.0	476.1
Stearns, Leonard M. and Dorothy D.	No	Water Duty Method Used to Estimate Annual Production												0.7	154.9	154.2
Sunny-Cal Egg and Poultry Company	No	Water Duty Method Used to Estimate Annual Production												4.3	1,115.0	1,110.6
Albor Properties III, LP	No	Water Duty Method Used to Estimate Annual Production												2.4	232.4	229.9
Nikodinov, Nick	No	Water Duty Method Used to Estimate Annual Production												0.8	15.5	14.7
McAmis, Ronald L.	No	Water Duty Method Used to Estimate Annual Production												0.6	3.9	3.3
Aldama, Nicolas and Amalia	No	Water Duty Method Used to Estimate Annual Production												0.9	5.4	4.6
Gutierrez, Hector, et al.	No	Water Duty Method Used to Estimate Annual Production												1.4	7.7	6.3
Darmont, Boris and Miriam	No	Water Duty Method Used to Estimate Annual Production												0.4	1.9	1.6
TOTAL														1,868.9	6,700.0	4,831.1

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

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

3.- Monthly production provided by BCVWD - Feb 2015

4.- Starting in 2008, the parcels owned by Oak Valley Partners were no longer used for agricultural purposes. Groundwater production was estimated at 2.5 ac-ft/yr based on water use by a single farm house and a small cattle population.

5.- Monthly production since 2011 provided by Clearwater Solutions, a company in charge of operating the water system.

6.- Actual monthly production provided by the Morongo Band of Mission Indians - March 2014.

Table 3-2E
Overlying Producer - Summary of Production for Calendar Year 2015 (ac-ft)

Owner and Well Name	Metered	Monthly Water Production by Overlying Producer ¹												Total ² Production	Overlying Water Right	Unused Overlying Allocation in 2015
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
Beckman, Walter M. ⁽³⁾	Yes	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	58.1	57.2
California Oak Valley Golf and Resort LLC ⁽³⁾																
Oak Valley #1	Yes	22.2	0.0	34.5	56.4	40.1	66.6	35.1	59.9	111.6	31.3	25.3	2.8	485.6		
Oak Valley #2	Yes	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	193.8	11.7	60.0	0.0	265.5		
Subtotal		22.2	0.0	34.5	56.4	40.1	66.6	35.1	59.9	305.4	43.0	85.3	2.8	751.1	735.8	-15.3
Merlin Properties	No	Water Duty Method Used to Estimate Annual Production												1.6	426.0	424.4
Oak Valley Partners, LP ⁽⁴⁾																
Singleton Ranch #5	No													0.00		
Singleton Ranch #7	No													2.50		
Irrigation Stokes	No													0.00		
Subtotal		Annual consumption estimated based on water use by a single farm house and a small bovine population												2.5	1,398.9	1,396.4
Plantation on the Lake LLC ⁽⁵⁾	Yes	5.3	2.6	2.3	3.3	3.5	4.3	2.8	3.3	3.8	3.7	2.9	2.7	40.4	450.0	409.6
Rancho Calimesa Mobile Home Park ⁽⁵⁾																
Well No.1	Yes	1.2	1.1	1.1	1.5	0.8	0.8	1.2	1.2	0.9	1.2	1.1	1.0	13.2		
Well No.2	No	0.8	1.0	0.9	0.9	0.8	0.8	1.0	1.0	0.8	0.8	0.8	0.8	10.2		
Subtotal		1.9	2.1	2.0	2.4	1.7	1.7	2.2	2.2	1.7	1.9	1.9	1.8	23.4	116.2	92.7
Roman Catholic Bishop of San Bernardino		Water Duty Method Used to Estimate Annual Production												0.0	119.3	119.3
Sharondale Mesa Owners Association ⁽⁶⁾																
Well No.1	Yes	2.5	3.9	0.5	0.2	1.9	5.1	6.3	9.6	8.4	8.9	7.9	1.8	57.1		
Well No.2	Yes	2.4	3.2	6.6	9.3	5.3	3.9	1.9	0.0	0.0	0.0	0.0	4.5	37.0		
Subtotal		4.9	7.2	7.1	9.5	7.2	9.0	8.2	9.6	8.4	8.9	7.9	6.3	94.1	154.9	60.8
Tukwet Canyon Golf Club ⁽⁷⁾																
Well A	Yes	6.0	1.6	3.3	4.3	1.5	12.4	6.4	5.1	1.8	1.9	0.7	3.2	48.1		
Well C	Yes	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 D	Yes	42.1	53.7	51.7	89.2	55.4	120.3	93.3	104.8	95.5	59.3	50.9	34.1	850.5		
Subtotal		48.1	55.4	55.0	93.5	56.9	132.7	99.7	109.8	97.3	61.2	51.6	37.3	898.6	1,704.0	805.4
Stearns, Leonard M. and Dorothy D.	No	Water Duty Method Used to Estimate Annual Production												0.7	154.9	154.2
Sunny-Cal Egg and Poultry Company	No	Water Duty Method Used to Estimate Annual Production												4.3	1,115.0	1,110.6
Albor Properties III, LP	No	Water Duty Method Used to Estimate Annual Production												2.4	232.4	229.9
Nikodinov, Nick	No	Water Duty Method Used to Estimate Annual Production												0.8	15.5	14.7
McAmis, Ronald L.	No	Water Duty Method Used to Estimate Annual Production												0.6	3.9	3.3
Aldama, Nicolas and Amalia	No	Water Duty Method Used to Estimate Annual Production												0.9	5.4	4.6
Gutierrez, Hector, et al.	No	Water Duty Method Used to Estimate Annual Production												1.4	7.7	6.3
Darmont, Boris and Miriam	No	Water Duty Method Used to Estimate Annual Production												0.4	1.9	1.6
TOTAL														1,824.1	6,700.0	4,875.9

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

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

3.- Monthly production provided by BCVWD - Feb 2015 - Production for Plantation by the Lake provided by producer.

4.- Starting in 2008, the parcels owned by Oak Valley Partners were no longer used for agricultural purposes. Groundwater production was estimated at 2.5 ac-ft/yr based on water use by a single farm house and a small cattle population.

5.- Production for Plantation by the Lake provided by producer.

6.- Monthly production since 2011 provided by Clearwater Solutions, a company in charge of operating the water system

7.- Actual monthly production provided by the Morongo Band of Mission Indians - May 2016

Table 3-2F
Overlying Producer - Summary of Production for Calendar Year 2016 (ac-ft)

Owner and Well Name	Metered	Monthly Water Production by Overlying Producer ¹												Total ² Production	Overlying Water Right	Unused Overlying Allocation in 2016
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
Beckman, Walter M. ⁽³⁾	Yes	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	58.1	57.2
California Oak Valley Golf and Resort LLC ⁽³⁾																
Oak Valley #1	Yes	23.7	12.6	4.3	18.7	20.9	75.0	113.5	106.2	31.7	5.6	4.1	2.2	418.5		
Oak Valley #2	Yes	44.6	43.9	5.5	11.1	26.9	0.0	0.0	0.0	1.8	0.1	0.0	0.0	133.9		
Subtotal		68.2	56.5	9.8	29.8	47.8	75.0	113.5	106.2	33.4	5.7	4.1	2.2	552.3	735.8	183.5
Merlin Properties	No	Water Duty Method Used to Estimate Annual Production												1.6	426.0	424.4
Oak Valley Partners, LP ⁽⁴⁾																
Singleton Ranch #5	No													0.00		
Singleton Ranch #7	No													2.50		
Irrigation Stokes	No													0.00		
Subtotal		Annual consumption estimated based on water use by a single farm house and a small cattle population.												2.5	1,398.9	1,396.4
Plantation on the Lake LLC ⁽³⁾	Yes	1.9	2.1	2.4	2.6	2.2	3.8	4.6	4.7	5.1	4.5	2.8	2.4	39.2	450.0	410.8
Rancho Calimesa Mobile Home Park ⁽⁵⁾																
Well No.1	Yes	1.0	1.0	0.6	1.7	2.5	3.3	3.0	3.4	3.7	2.8	2.7	1.1	26.9		
Well No.2	No	0.7	0.6	0.4	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.9	4.2		
Subtotal		1.7	1.6	1.1	2.9	2.5	3.3	3.0	3.4	3.7	2.8	3.1	2.0	31.2	116.2	85.0
Roman Catholic Bishop of San Bernardino		Water Duty Method Used to Estimate Annual Production												0.0	119.3	119.3
Sharondale Mesa Owners Association ⁽⁵⁾																
Well No.1	Yes	2.7	3.7	4.7	2.7	5.1	6.6	3.5	0.3	7.2	5.3	5.8	2.9	50.5		
Well No.2	Yes	2.3	2.7	1.4	4.0	3.3	4.0	5.5	4.3	1.6	0.0	2.8	2.5	34.3		
Subtotal		5.0	6.4	6.1	6.7	8.4	10.6	9.0	4.5	8.9	5.3	8.6	5.4	84.8	154.9	70.1
Tukwet Canyon Golf Club ⁽⁶⁾																
Well A	Yes	0.8	0.7	14.1	0.7	1.7	4.7	7.9	11.7	5.7	1.4	0.6	0.5	50.6		
Well C	Yes	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 D	Yes	18.2	39.1	17.1	43.8	78.6	138.6	134.9	162.8	124.8	85.7	58.4	6.0	908.1		
Subtotal		19.1	39.8	31.2	44.5	80.2	143.2	142.8	174.5	130.5	87.2	59.1	6.5	958.6	1,704.0	745.4
Stearns, Leonard M. and Dorothy D.	No	Water Duty Method Used to Estimate Annual Production												0.7	154.9	154.2
Sunny-Cal Egg and Poultry Company	No	Water Duty Method Used to Estimate Annual Production												4.3	1,115.0	1,110.6
Albor Properties III, LP	No	Water Duty Method Used to Estimate Annual Production												2.4	232.4	229.9
Nikodinov, Nick	No	Water Duty Method Used to Estimate Annual Production												0.8	15.5	14.7
McAmis, Ronald L.	No	Water Duty Method Used to Estimate Annual Production												0.6	3.9	3.3
Aldama, Nicolas and Amalia	No	Water Duty Method Used to Estimate Annual Production												0.9	5.4	4.6
Gutierrez, Hector, et al.	No	Water Duty Method Used to Estimate Annual Production												1.4	7.7	6.3
Darmont, Boris and Miriam	No	Water Duty Method Used to Estimate Annual Production												0.4	1.9	1.6
TOTAL														1,682.5	6,700.0	5,017.5

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

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

3.- Monthly production provided by BCVWD - Feb 2015 - Production for Plantation by the Lake for 2015 was used for 2016 until producer provides final numbers.

4.- Starting in 2008, the parcels owned by Oak Valley Partners were no longer used for agricultural purposes. Groundwater production was estimated at 2.5 ac-ft/yr based on water use by a single farm house and a small cattle population.

5.- Monthly production since 2011 provided by Clearwater Solutions, a company in charge of operating the water system.

6.- Actual monthly production provided by the Morongo Band of Mission Indians - May 2017.

Table 3-3
Production Summary for Appropriator and Overlying Producers in the Beaumont Basin
2003 through 2016 - Calendar Year Accounting (ac-ft)

	Annual Production (ac-ft)													
	2003 ¹	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
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	1,038.3	2,100.7	2,585.1	1,678.3	1,472.7
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	10,162.0	11,097.4	10,805.5	8,972.8	10,159.8
South Mesa Water Company	223.2	482.5	663.2	616.0	665.8	470.9	382.2	405.0	419.9	448.5	308.4	473.7	317.2	352.6
Yucaipa Valley Water District	1,162.4	1,833.7	1,281.3	2,027.3	1,682.9	572.0	504.4	672.4	534.1	700.1	1,030.8	1,198.5	119.2	4.6
Subtotal	7,071.7	12,587.4	10,778.6	13,524.9	16,504.6	14,687.0	13,115.6	11,642.3	11,727.1	12,348.9	14,537.2	15,062.8	11,087.4	11,989.7
Overlying Parties														
Beckman, Walter M	16.2	27.0	22.4	11.5	8.3	12.7	12.9	6.4	9.0	9.0	2.1	0.9	0.9	0.9
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	517.3	625.8	417.0	751.1	552.3
Merlin Properties	3.6	1.6	1.6	1.6	1.6	1.6	1.6	1.5	1.6	1.6	1.6	1.6	1.6	1.6
Oak Valley Partners, LP	301.2	440.7	350.2	312.1	312.1	310.5	310.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Plantation on the Lake LLC	178.6	340.9	310.2	350.1	344.2	354.0	352.3	337.2	344.7	344.7	43.7	54.0	40.4	39.2
Rancho Calimesa Mobile Home Park	35.4	68.3	68.3	68.3	69.3	69.3	69.3	69.3	69.3	69.3	69.3	16.2	23.4	31.2
Roman Catholic Bishop of San Bernardino	46.8	59.1	55.6	59.0	0.7	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sharondale Mesa Owners Association	104.3	158.0	181.0	188.6	182.3	193.3	154.3	132.3	133.0	145.3	147.0	137.3	94.1	84.8
Tukwet Canyon Golf Club ²	791.4	1,346.7	1,213.1	1,753.4	1,599.1	1,137.6	1,158.6	851.8	882.9	984.3	1,098.4	1,227.9	898.6	958.6
Stearns, Leonard M. and Dorothy D.	1.1	1.1	1.1	1.1	1.1	1.1	1.1	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Sunny-Cal Egg and Poultry Company	226.0	404.4	385.4	2.6	2.7	4.2	4.2	3.8	4.2	4.3	4.3	4.3	4.3	4.3
Albor Properties III, LP ³				13.2	2.3	2.3	2.3	2.1	2.3	2.4	2.4	2.4	2.4	2.4
Nikodinov, Nick				0.7	0.8	0.8	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8
McAmis, Ronald L.				0.5	0.6	0.6	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6
Aldama, Nicolas and Amalia				0.8	0.8	0.9	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9
Gutierrez, Hector, et. al.				1.4	1.4	1.4	1.4	1.3	1.4	1.4	1.4	1.4	1.4	1.4
Darmont, Boris and Miriam				0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Subtotal	2,440.8	3,576.3	3,292.6	3,596.7	3,306.5	2,871.6	2,838.2	1,976.5	1,971.4	2,085.4	2,001.8	1,868.9	1,824.0	1,682.5
Total	9,512.5	16,163.6	14,071.3	17,121.6	19,811.1	17,558.6	15,953.7	13,618.8	13,698.4	14,434.3	16,538.9	16,931.7	12,911.4	13,672.3

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

2.- Formerly known as the East Valley Golf Course and the Southern California Section of the PGA of America.

3.- Formerly Known as 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	SGPWA ³	Total
2003	-	-	-	-	-
2004	-	-	-	813.8	813.8
2005	-	-	-	687.4	687.4
2006	-	-	3,501.0	777.7	4,278.7
2007	-	-	4,501.0	541.3	5,042.3
2008	1,534.0	-	2,399.0	1,047.4	4,980.4
2009	2,741.2	-	2,741.2	823.4	6,305.8
2010	1,338.0	-	5,727.0	1,222.3	8,287.3
2011	800.0	-	7,979.0	1,842.0	10,621.0
2012	1,200.0	-	7,783.0	1,827.2	10,810.2
2013	1,200.0	-	7,403.0	881.8	9,484.8
2014	608.0	-	4,405.0	16.5	5,029.5
2015	694.0	-	2,773.0	9.2	3,476.2
2016	1,477.0	-	9,319.0	17.8	10,813.8
Totals	11,592.2	-	58,531.2	10,507.8	80,631.2

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 Geronio Creek Spreading Ponds

Recycled Water Daily Average Discharges (mgd) to DDP1 - Coopers's Canyon

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Average (mgd)	Annual (ac-ft)
2007	2.32	2.17	2.25	2.23	2.61	2.57	2.57	2.66	2.66	2.67	2.63	2.50	2.49	2,786
2008	2.44	2.79	2.49	2.65	2.55	2.59	2.55	2.59	2.60	2.50	2.57	2.65	2.58	2,889
2009	2.52	2.66	2.56	2.58	2.59	2.56	2.44	2.63	2.60	2.61	2.63	2.69	2.59	2,902
2010	2.83	2.65	2.66	2.60	2.00	1.88	1.94	1.96	1.94	2.00	2.04	2.22	2.23	2,495
2011	2.07	2.12	2.06	2.01	2.04	2.25	2.23	2.13	2.10	2.08	2.19	2.13	2.12	2,371
2012	2.19	2.64	2.19	2.23	2.29	2.24	2.28	2.29	2.24	2.70	2.38	2.33	2.33	2,614
2013	2.76	2.80	2.80	2.81	2.78	2.78	2.81	2.82	2.89	2.83	2.21	2.50	2.73	3,061
2014	2.62	2.22	2.45	2.48	2.61	2.62	2.61	2.74	2.87	2.74	2.99	3.12	2.67	2,992
2015	2.87	2.94	2.97	2.90	2.92	2.98	2.99	3.10	3.08	3.08	3.06	3.11	3.00	3,360
2016	3.15	3.06	3.01	3.07	3.11	3.15	3.15	3.26	3.22	3.18	3.19	3.30	3.15	3,533

Recycled Water Daily Average Discharges (mgd) to DDP7 - Marshall's Canyon

[illegible]

Table 3-6
Overlying Parties Production Rights Allocation Based on Revised Safe Yield

Overlying Party to the 2003 Judgment	Initial Overlying Water Right through 2013	New Overlying Water Right Starting in 2014	5-Year (2012-16) Average Production (ac-ft)	5-Year (2012-16) Running Avg % of Water Right
Sharondale Mesa Owners Association	200.0	154.9	121.7	78.6%
California Oak Valley Golf and Resort LLC	950.0	735.8	572.7	77.8%
Tukwet Canyon Golf Club	2,200.0	1,704.0	1,033.6	60.7%
Rancho Calimesa Mobile Home Park	150.0	116.2	41.9	36.0%
Plantation on the Lake LLC	581.0	450.0	104.6	23.2%
Darmont, Boris and Miriam	2.5	1.9	1.4	73.8%
Gutierrez, Hector, et al.	10.0	7.7	0.4	4.5%
Aldama, Nicolas and Amalia	7.0	5.4	0.9	16.0%
McAmis, Ronald L.	5.0	3.9	0.6	14.5%
Beckman, Walter M.	75.0	58.1	0.8	1.3%
Nikodinov, Nick	20.0	15.5	2.7	17.7%
Albor Properties III, LP	300.0	232.4	2.4	1.0%
Stearns, Leonard M. and Dorothy D.	200.0	154.9	0.7	0.5%
Sunny-Cal Egg and Poultry Company	1,439.5	1,115.0	4.3	0.4%
Merlin Properties	550.0	426.0	1.6	0.4%
Oak Valley Partners, LP	1,806.0	1,398.9	2.5	0.2%
Roman Catholic Bishop of San Bernardino	154.0	119.3	0.0	0.0%
	8,650.0	6,700.0	1,892.8	28.3%

Table 3-7
Summary of Unused Overlying Water and Allocation to Appropriators (ac-ft)

Accounting Year	Overlying Water Right	Overlying Production	Unused Overlying Water Right	Allocation Year	City of Banning	City of Beaumont	Beaumont Cherry Valley WD	South Mesa Water Co.	Yucaipa Valley Water District	Total
2003	4,325	2,441	1,884	2008	592	0	801	235	256	1,884
2004	8,650	3,576	5,074	2009	1,595	0	2,157	633	689	5,074
2005	8,650	3,293	5,357	2010	1,684	0	2,277	669	728	5,357
2006	8,650	3,597	5,053	2011	1,588	0	2,148	631	686	5,053
2007	8,650	3,307	5,343	2012	1,679	0	2,272	667	726	5,343
2008	8,650	2,872	5,778	2013	1,816	0	2,456	721	785	5,778
2009	8,650	2,838	5,812	2014	1,827	0	2,471	725	789	5,812
2010	8,650	1,976	6,674	2015	2,097	0	2,837	833	906	6,674
2011	8,650	1,971	6,679	2016	2,099	0	2,839	833	907	6,679
2012	8,650	2,085	6,565	2017	2,063	0	2,791	819	891	6,565
2013	8,650	2,002	6,648	2018	2,090	0	2,826	830	903	6,648
2014	6,700	1,869	4,831	2019	1,518	0	2,054	603	656	4,831
2015	6,700	1,824	4,876	2020	1,533	0	2,073	609	662	4,876
2016	6,700	1,683	5,017	2021	1,577	0	2,133	626	681	5,017

Table 3-8
Consolidation of Appropriator Production and Storage Accounts
Calendar Year Accounting (ac-ft) 2003 through 2016

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 / Over 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	592.2	0.0	1,534.0	0.0	0.0	4,221.6	16,371.9
2009	16,371.9	5,029.0	2,095.0	2,934.0	1,594.7	0.0	2,741.2	0.0	0.0	7,269.8	23,641.8
2010	23,641.8	5,029.0	1,143.6	3,885.4	1,683.8	0.0	1,338.0	0.0	0.0	6,907.2	30,549.0
2011	30,549.0	5,029.0	1,341.7	3,687.3	1,588.2	0.0	800.0	0.0	0.0	6,075.6	36,624.5
2012	36,624.5	5,029.0	1,038.3	3,990.7	1,679.5	0.0	1,200.0	0.0	0.0	6,870.2	43,494.7
2013	43,494.7	2,514.5	2,100.7	413.8	1,816.1	0.0	1,200.0	0.0	0.0	3,430.0	46,924.7
2014	46,924.7	0.0	2,585.1	-2,585.1	1,826.7	0.0	608.0	0.0	0.0	-150.4	46,774.3
2015	46,774.3	0.0	1,678.3	-1,678.3	2,097.5	0.0	694.0	0.0	0.0	1,113.2	47,887.5
2016	47,887.5	0.0	1,472.7	-1,472.7	2,099.1	0.0	1,477.0	0.0	0.0	2,103.4	49,990.8
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	3,501.0	0.0	0.0	1,248.9	842.5
2007	842.5	6,802.0	11,383.3	-4,581.3	0.0	1,500.0	4,501.0	0.0	0.0	1,419.7	2,262.2
2008	2,262.2	6,802.0	10,710.5	-3,908.5	801.0	2,500.0	2,399.0	0.0	0.0	1,791.5	4,053.7
2009	4,053.7	6,802.0	10,133.9	-3,331.9	2,156.8	2,000.0	2,741.2	0.0	0.0	3,566.1	7,619.8
2010	7,619.8	6,802.0	9,421.3	-2,619.3	2,277.4	0.0	5,727.0	0.0	0.0	5,385.1	13,004.9
2011	13,004.9	6,802.0	9,431.3	-2,629.3	2,148.1	3,500.0	7,979.0	0.0	0.0	10,997.8	24,002.8
2012	24,002.8	6,802.0	10,162.0	-3,360.0	2,271.5	0.0	7,783.0	0.0	0.0	6,694.5	30,697.3
2013	30,697.3	3,401.0	11,097.4	-7,696.4	2,456.4	0.0	7,403.0	0.0	0.0	2,163.0	32,860.3
2014	32,860.3	0.0	10,805.5	-10,805.5	2,470.6	0.0	4,405.0	0.0	0.0	-3,929.9	28,930.4
2015	28,930.4	0.0	8,972.8	-8,972.8	2,836.9	0.0	2,773.0	0.0	0.0	-3,362.8	25,567.6
2016	25,567.6	0.0	10,159.8	-10,159.8	2,839.1	0.0	9,319.0	0.0	0.0	1,998.3	27,565.9

[illegible]

Table 3-8
Consolidation of Appropriator Production and Storage Accounts
Calendar Year Accounting (ac-ft) 2003 through 2016

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 / Over Production ⁽¹⁾	Unused Overlying Production Allocation	Transfers Among Appropriators	Supplemental Water		Local Recharge	Total Additions to Storage Account	
							SWP Water Recharge	Recycled Water Recharge			
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	1,833.7	339.3	0.0	0.0	0.0	0.0	0.0	339.3	263.4
2005	263.4	2,173.0	1,281.3	891.7	0.0	0.0	0.0	0.0	0.0	891.7	1,155.1
2006	1,155.1	2,173.0	2,027.3	145.7	0.0	0.0	0.0	0.0	0.0	145.7	1,300.8
2007	1,300.8	2,173.0	1,682.9	490.1	0.0	0.0	0.0	0.0	0.0	490.1	1,790.9
2008	1,790.9	2,173.0	572.0	1,601.0	255.9	0.0	0.0	0.0	0.0	1,856.8	3,647.8
2009	3,647.8	2,173.0	504.4	1,668.6	689.0	0.0	0.0	0.0	0.0	2,357.6	6,005.4
2010	6,005.4	2,173.0	672.4	1,500.6	727.5	0.0	0.0	0.0	0.0	2,228.1	8,233.5
2011	8,233.5	2,173.0	534.1	1,638.9	686.2	0.0	0.0	0.0	0.0	2,325.1	10,558.6
2012	10,558.6	2,173.0	700.1	1,472.9	725.6	0.0	0.0	0.0	0.0	2,198.5	12,757.1
2013	12,757.1	1,086.5	1,030.8	55.7	784.7	0.0	0.0	0.0	0.0	840.4	13,597.6
2014	13,597.6	0.0	1,198.5	-1,198.5	789.2	0.0	0.0	0.0	0.0	-409.2	13,188.4
2015	13,188.4	0.0	119.2	-119.2	906.3	0.0	0.0	0.0	0.0	788.1	13,976.4
2016	13,976.4	0.0	4.6	-4.6	907.0	0.0	0.0	0.0	0.0	904.4	14,880.8
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	12,587.4	3,412.6	0.0	0.0	0.0	0.0	0.0	3,412.6	4,340.9
2005	4,340.9	16,000.0	10,778.6	5,221.4	0.0	0.0	0.0	0.0	0.0	5,221.4	9,562.3
2006	9,562.3	16,000.0	13,524.9	2,475.1	0.0	0.0	3,501.0	0.0	0.0	5,976.1	15,538.3
2007	15,538.3	16,000.0	16,504.6	-504.6	0.0	0.0	4,501.0	0.0	0.0	3,996.4	19,534.8
2008	19,534.8	16,000.0	14,687.0	1,313.0	1,884.2	0.0	3,933.0	0.0	0.0	7,130.2	26,665.0
2009	26,665.0	16,000.0	13,115.6	2,884.4	5,073.7	0.0	5,482.4	0.0	0.0	13,440.6	40,105.6
2010	40,105.6	16,000.0	11,642.3	4,357.7	5,357.4	0.0	7,065.0	0.0	0.0	16,780.0	56,885.6
2011	56,885.6	16,000.0	11,727.1	4,272.9	5,053.3	0.0	8,779.0	0.0	0.0	18,105.2	74,990.9
2012	74,990.9	16,000.0	12,348.9	3,651.1	5,343.5	0.0	8,983.0	0.0	0.0	17,977.6	92,968.5
2013	92,968.5	8,000.0	14,537.2	-6,537.2	5,778.4	0.0	8,603.0	0.0	0.0	7,844.2	100,812.7
2014	100,812.7	0.0	15,062.8	-15,062.8	5,811.8	0.0	5,013.0	0.0	0.0	-4,237.9	96,574.8
2015	96,574.8	0.0	11,087.4	-11,087.4	6,673.5	0.0	3,467.0	0.0	0.0	-944.9	95,629.9
2016	95,629.9	0.0	11,756.3	-11,756.3	6,751.4	0.0	10,796.0	0.0	0.0	5,795.1	101,425.0

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

Section 4

Water Quality Conditions

The purpose of this section is to document the water quality conditions in the Beaumont Basin during the 2011-2015 reporting period. TDS and nitrate concentrations in the basin are compared against groundwater quality objectives for anti-degradation and maximum benefit as established by the Regional Board for TDS and nitrate-nitrogen in the Beaumont Management Zone (BMZ). In addition, water quality concentrations for a number of compounds are compared against Federal and State Drinking Water Standards. Figure 4-1 depicts all the wells that have groundwater quality data for the reporting period.

4.1 Comparison with Management Zone Objectives

Groundwater quality objectives for anti-degradation 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 4-1. The anti-degradation 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-N, 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.

4.1.1 Total Dissolved Solids

Figure 4-2 shows the maximum TDS concentrations for 58 wells measured within and in the vicinity of the Beaumont Basin wells during the 2012-2016 reporting period. A total of 40 wells are located inside the basin with the remaining 18 in the Singleton Basin / Edgar Canyon and the South Beaumont Basin areas.

The maximum TDS concentrations for domestic wells within the basin ranged from 170 to 370 mg/L and averaged 246 mg/L; this average value is 9 mg/L lower than the average maximum TDS concentration reported in the 2008-11 Engineering Report indicating that TDS concentrations have been fairly stable in the last 10 years.

In the Singleton Basin / Edgar Canyon area, the maximum TDS concentration ranged from 260 to 550 mg/L and averaged 330 mg/L. The average TDS concentration for all samples in this area was 311 mg/L.

In the South Beaumont Basin, the maximum TDS concentration ranged from 220 to 780 mg/L and averaged 510 mg/L. The average TDS concentration for all samples in this area was 475 mg/L.

Average and maximum TDS concentrations for all sampled wells within the basin are as follows:

Well Classification	Count	Samples	Average Concentration	Avg Max Concentration
Beaumont Groundwater Basin				
Appropriators	23	65	234	248
Overlyiers	10	14	226	244
Other	7	8	244	244
Total	50	87	234	246
Singleton Basin / Edgar Canyon Area				
All Wells	8	16	311	330
South Beaumont Basin				
All Wells	10	44	475	510

Of the 33 potable wells, 15 wells had a maximum concentration below the anti-degradation objective of 230 mg/L, 16 wells were between the anti-degradation and maximum benefit objective of 330 mg/L, and two exceeded 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). BCVWD wells along Edgar Canyon were not included in the analysis of domestic wells.

In the Singleton Basin / Edgar Canyon area, one well had a maximum concentration below the anti-degradation objective, three wells were between the anti-degradation and maximum benefit objective of 330 mg/L, and the remaining four wells exceeded the maximum objective. In the South Beaumont Basin, one well had a maximum TDS concentration below the anti-degradation objective, one well was between this and the maximum objective, and the remaining eight wells exceeded the maximum objective. Most of the wells with the highest TDS concentrations are located in the South Beaumont Basin. Table 4-1 presents the average and maximum TDS and Nitrate (as N) concentration for all the wells in the Beaumont Basin and surrounding areas.

4.1.2 Nitrate-Nitrogen

Figure 4-3 shows the maximum Nitrate-N concentrations for 58 wells measured within and in the vicinity of the Beaumont Basin wells during the 2012-2016 reporting period. A total of 40 wells are located inside the basin with the remaining 18 in the Singleton Basin / Edgar Canyon and the South Beaumont Basin areas.

The maximum Nitrate-N concentrations for domestic wells owned by Appropriators ranged from 0.6 to 3.6 mg/L and averaged 2.3 mg/L. Maximum concentrations for overlying wells was slightly higher as it ranged from 1.2 to 6.1 mg/L and averaged 2.9 mg/L. The average concentration for all potable wells was 2.0 mg/L.

In the Singleton Basin / Edgar Canyon area, the maximum Nitrate-N concentration ranged from 1.9 to 19.0 mg/L and averaged 7.5 mg/L. The average concentration for all samples in this area was 6.3 mg/L.

In the South Beaumont Basin, the maximum Nitrate-N concentration ranged from 4.0 to 22.0 mg/L and averaged 12.3 mg/L. The average concentration for all samples in this area was 10.7 mg/L.

Average and maximum Nitrate-N concentrations for all sampled wells within the basin are as follows:

Well Classification	Count	Samples	Average Concentration	Avg Max Concentration
Beaumont Groundwater Basin				
Appropriators	23	159	1.7	2.3
Overlyiers	10	21	2.8	2.9
Other	7	8	3.0	3.0
Total	50	188	2.2	2.6
Singleton Basin / Edgar Canyon Area				
All Wells	8	16	6.3	7.5
South Beaumont Basin				
All Wells	10	44	10.7	12.3

Of the 33 potable wells, 14 wells had a maximum concentration below the anti-degradation objective of 1.5 mg/L, 22 wells were between the anti-degradation and maximum benefit objective of 5.0 mg/L, and four exceeded the maximum benefit objective for the BMZ. None of the production wells samples exceeded the primary federal or state drinking water standard for Nitrate-N (10 mg/L). BCVWD wells along Edgar Canyon were not included in the analysis of domestic wells.

In the Singleton Basin / Edgar Canyon area, four wells had a maximum concentration below the anti-degradation objective and four wells exceeded the maximum benefit objective of 5.0 mg/L. There were no wells with nitrate concentrations between the anti-degradation and maximum objectives.

In the South Beaumont Basin, one well had a maximum concentration below the anti-degradation objective; all other nine wells in this area exceeded the maximum objective of 5.0 mg/L. There were no wells with nitrate concentrations between the anti-degradation and

maximum objectives. Table 4-1 presents the average and maximum TDS and Nitrate (as N) concentration for all the wells in the Beaumont Basin and surrounding areas.

4.1.3 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. A brief summary and their findings is presented below for information purposes only.

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 sewerage 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.

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 Geronio 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-N, 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.

4.2 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 2012-2016 reporting period for 23 domestic production wells in the Beaumont Basin. The objective of this analysis was to determine whether any of these potable wells 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 1,464 water quality results were extracted from the CDPH database for the 23 production wells in the Beaumont Basin. Results were obtained for 176 analytes sampled between 2012 and 2016. 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. However, the California Notification Limit for Vanadium (100 ug/day) was exceeded once at SMWC Well No. 4 during the reporting period.

Additional water quality information from 2012 through 2016 was obtained from Dudek Engineering as part of the Maximum Benefit Monitoring Program. A total of 1,356 water quality results were analyzed to determine if the water quality at non-domestic wells exceeded drinking water standards. Drinking standards were exceeded for a limited number of constituents as follows:

- Nitrate-N – Nine of the 17 monitoring wells sampled for Nitrate-N exceeded the federal and state primary MCL of 10 mg/L – Total of 98 readings. All of these wells are located outside the Beaumont Basin.
- pH – Nine of the 16 monitoring wells sampled for pH exceeded the secondary federal MCL of 8.5 – Total of 77 readings. One of these wells is located in the Beaumont Basin.
- Total Dissolved Solids – Nine of the 16 monitoring wells exceeded the federal and state secondary MCL of 500 mg/L – Total of 75 readings. These wells are located outside the Beaumont Basin.

Appendix D contains summary statistics of the analytical results for the 2012-2016 period for all chemicals that have a federal or state drinking water standard whether maximum contaminant levels were exceeded.

4.2.1 Trace Metals

As indicated earlier, not a single domestic well exceeded 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 42 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 43 water samples collected and tested for arsenic during the reporting period. The highest arsenic concentration was observed at SMWC's Well No. 4; arsenic concentration at this well has increased from 4.2 mg/L in 2009, to 4.6 mg/L in 2012, to the highest value of 5.2 mg/L in April 2013. Latest value, recorded in April 2016, arsenic concentration was down to 4.4 mg/L. One well exceeded the MCL during the FY 2004-08 reporting period.

Iron. A total of 42 water samples were taken during the reporting period and tested for iron. In most cases iron concentration was below 100 ug/L., which is significantly below the current secondary MCL of 300 ug/L. However, there is one well that exceeded the MCL during the 2012-16 period; BCVWD Well No. 3 at 450 mg/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 42 water samples collected and tested for lead during the reporting period. The highest concentration reported were 0.0065 mg/L at BCVWD Well No. 25 and 0.0058 mg/L at Rancho Calimesa Mobile Home Park Well No. 1. Both of these concentrations are 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 42 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 42 water samples were taken during the reporting period and tested for total chromium. The highest reported concentrations of total chromium were observed in January 2012 at Banning C-02A at 17 ug/L and in March 2014 at Banning C-3 at 14 ug/L. Both of these values are significantly below the current state primary MCL of 50 ug/L. One well exceeded the state primary MCL during the FY 2004-08 reporting period.

Vanadium. Three water samples were tested for vanadium during the reporting period from SMWC's Well 4 and YVWD No. 48. Vanadium at the SMWC well has been consistently hovering around 100 ug/L doubling the state notification level of 50 ug/L. Vanadium concentration at YVWD No. 48 was 25 ug/L, which is half the state notification level.

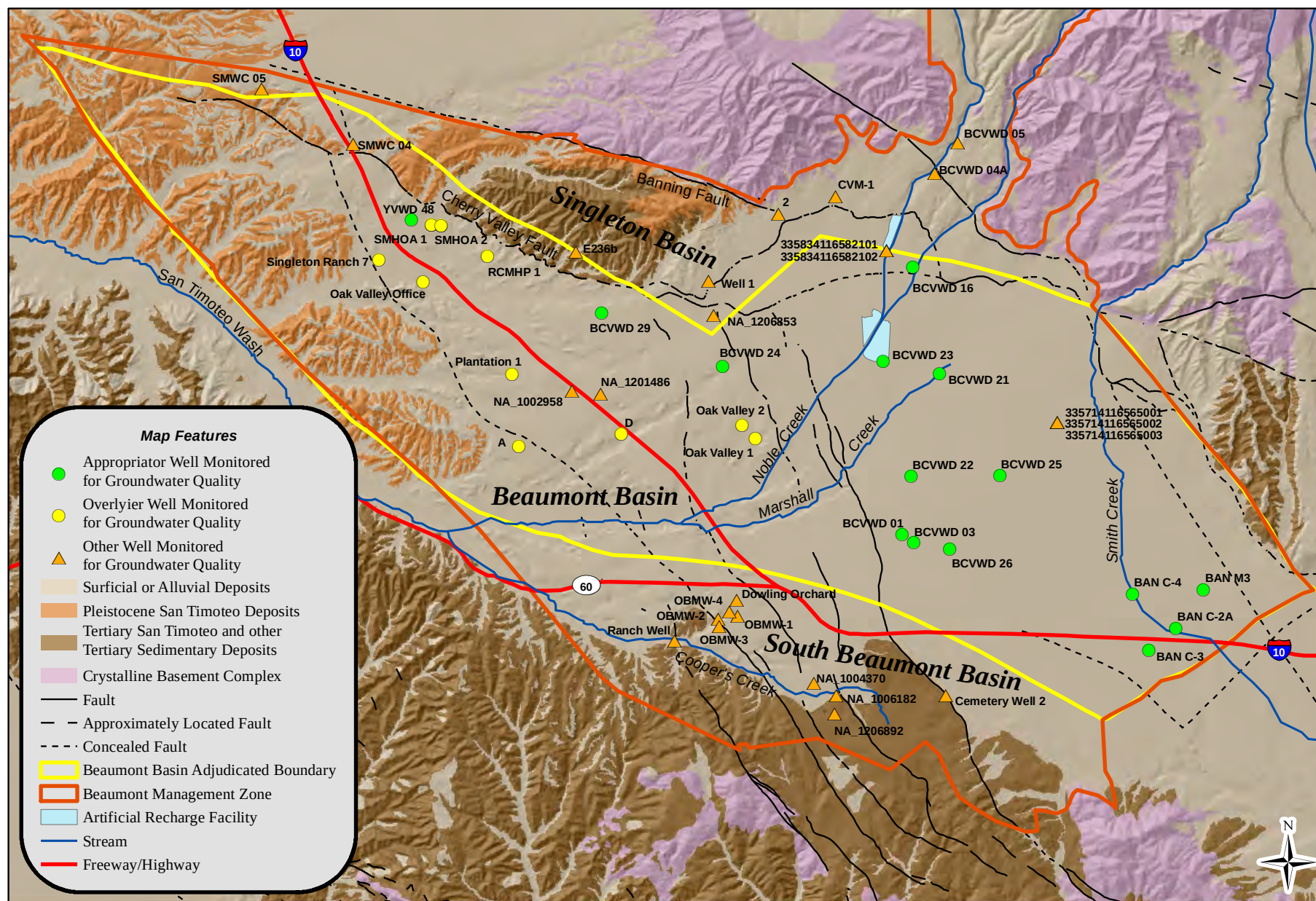
Copper. There were 42 water samples collected and tested for copper during the reporting period. Over the last five years only one well has exceeded the detection limit of 50 ug/L; the Rancho Calimesa Well No. 2 at 62 ug/L (Feb 2013). This concentration is significantly below the state primary MCL of 1,000 ug/L. This is consistent with previous reporting periods.

4.2.3 pH

There are two secondary standards for pH, a lower limit of 6.5 and an upper limit of 8.5. With the exception of one well, all other production wells were within these limits. pH concentrations ranging from a low of 7.0 to a high of 8.9 (SMWC Well No. 4) with most wells in the 7.8 to 8.0 range. Four wells in the basin exceeded the upper limit for pH during the FY 2004-08 reporting period.

4.2.4 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 of 5 NTU.



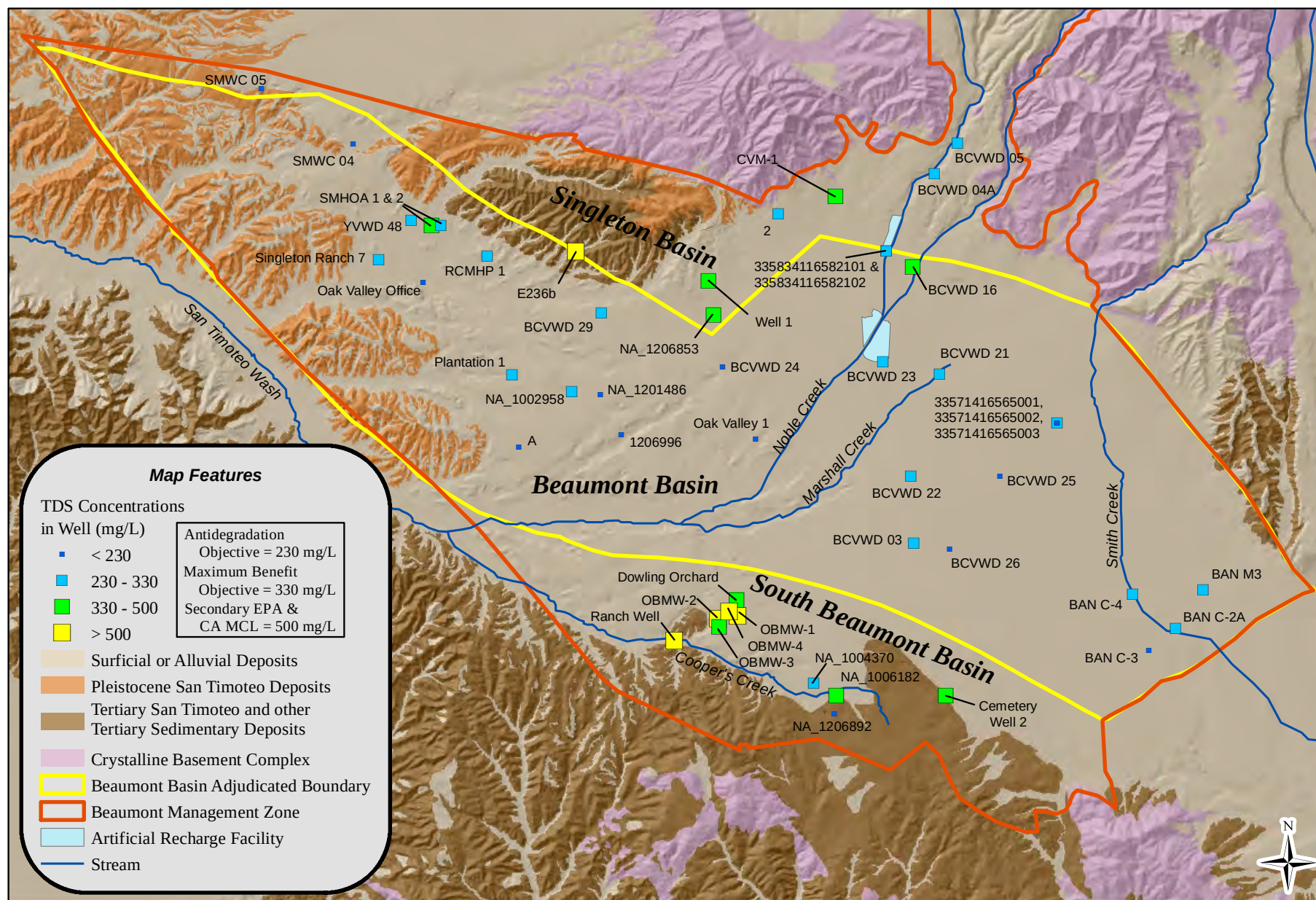
Alda, Inc. in association with

Thomas Harder & Co.
Groundwater Consulting

0 0.5 1 2
Miles
NAD 83 UTM Zone 11

**Wells with Groundwater Quality Data
in the Beaumont Basin**

Figure 4-1



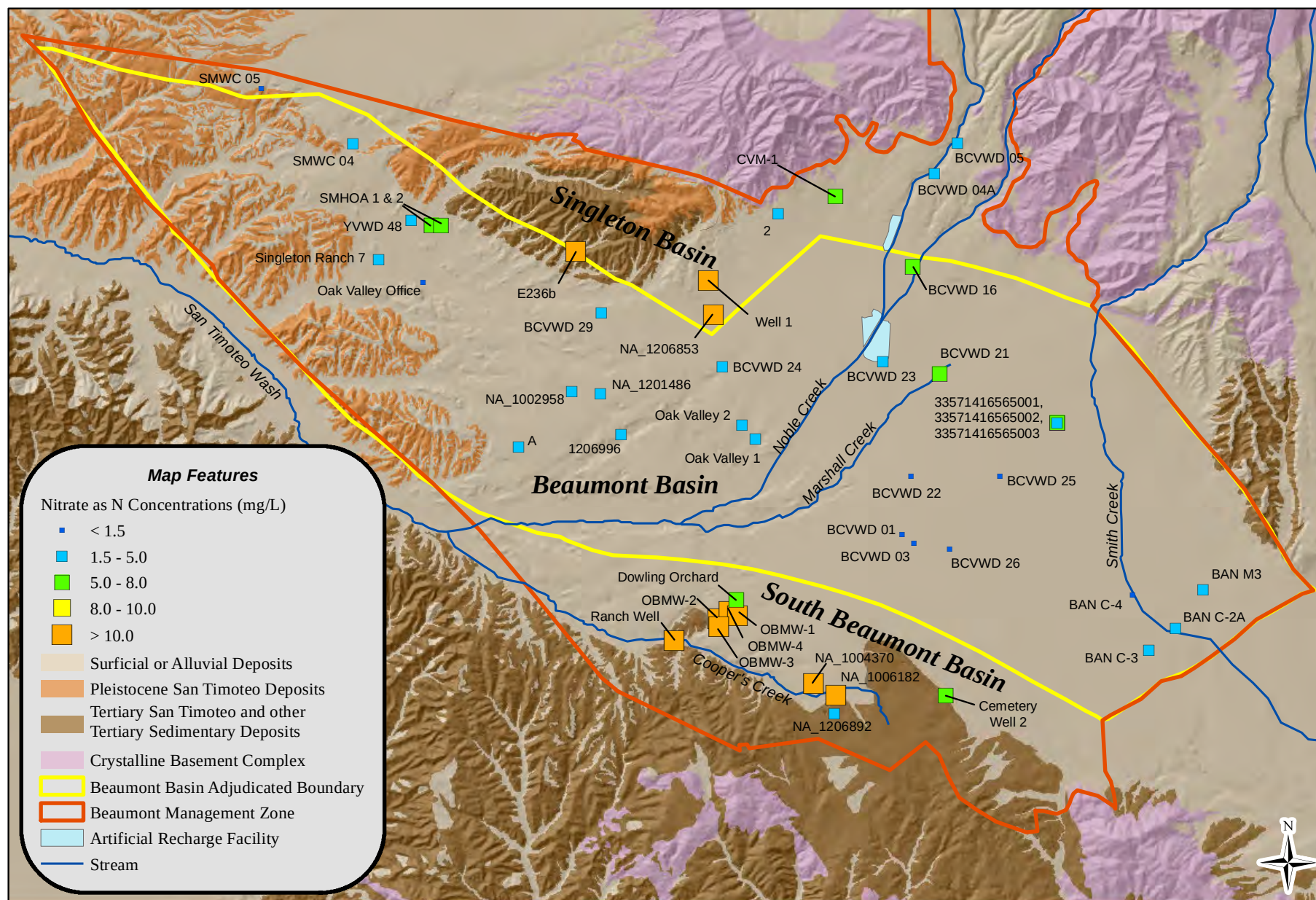
Alda, Inc. in association with

Thomas Harder & Co.
Groundwater Consulting

0 0.5 1 2 Miles
NAD 83 UTM Zone 11

**Total Dissolved Solids in Groundwater
(Maximum Concentrations 2012 to 2016)**

Figure 4-2



Alda, Inc. in association with

Thomas Harder & Co.
Groundwater Consulting

0 0.5 1 2
Miles
NAD 83 UTM Zone 11

Nitrate in Groundwater
(Maximum Concentrations 2012 to 2016)

Figure 4-3

Table 4-1
Summary of Nitrate and TDS by Well in and around the Beaumont Basin

Rec No.	Well Name	Nitrate as N			TDS		
		Count	Avg	Max	Count	Avg	Max
Appropriators							
1007031	BAN C-2A	7	1.9	2.5	3	230	240
1004377	BAN C-3	6	1.7	1.9	5	173	190
1206706	BAN C-4	5	1.1	1.2	3	203	240
1206700	BAN M-3	5	1.7	1.8	2	290	300
1004351	BCVWD 01	1	0.6	0.6			
1004350	BCVWD 03	3	0.8	0.9	4	219	240
1002917	BCVWD 06	2	2.5	2.5	1	260	260
1002896	BCVWD 10	3	3.6	8.1	1	290	290
1002901	BCVWD 11	1	1.0	1.0	2	230	230
1002891	BCVWD 12	2	0.9	1.0	1	220	220
1002890	BCVWD 13	1	0.8	0.8			
1002899	BCVWD 14	2	0.6	0.7	1	250	250
1002938	BCVWD 16	46	5.3	7.3	5	335	370
1002895	BCVWD 18	2	1.4	1.5	1	240	240
1007011	BCVWD 19	2	0.7	0.8	1	230	230
1007014	BCVWD 20	2	1.1	1.2	2	210	220
1201487	BCVWD 21	40	3.7	7.9	2	280	290
1002966	BCVWD 22	3	0.9	1.2	2	235	260
1207328	BCVWD 23	4	2.9	3.6	3	243	300
1208224	BCVWD 24	4	1.4	1.6	2	195	210
1220057	BCVWD 25	3	0.9	1.1	3	222	227
1220058	BCVWD 26	2	1.0	1.1	1	190	190
1201480	BCVWD 29	2	2.0	2.1	3	260	280
1003035	SMWC 04	4	2.9	2.9	2	170	170
1003063	YVWD 48	7	2.2	3.1	15	205	250
		Avg:	1.7	2.3	Avg:	234	248

Overlyier

1206844	1	11	5.1	6.1			
1206845	2	4	4.5	5.0			
1206995	A	1	2.0	2.0	1	220	220
1206996	D	1	2.2	2.2	1	200	200
1007025	Oak Valley 1	1	2.1	2.1	1	210	210
1207769	Oak Valley 2	1	2.8	2.8	1	180	180
1201561	Oak Valley Office	1	1.2	1.2	1	200	200
0	Plantation 1				2	260	270
0	RCMHP 1				2	170	280
1003072	Singleton Ranch 7	1	2.2	2.2	1	230	230
0	SMHOA 1				2	310	360
0	SMHOA 2				2	275	290
		Avg:	2.8	2.9	Avg:	226	244

Table 4-1
Summary of Nitrate and TDS by Well in and around the Beaumont Basin

Rec No.	Well Name	Nitrate as N			TDS		
		Count	Avg	Max	Count	Avg	Max
Other - Inside Basin							
1207773	335714116565001	1	4.7	4.7	1	251	251
1207770	335714116565002	1	5.1	5.1	1	203	203
1207771	335714116565003	1	6.6	6.6	1	221	221
1207827	335834116582101	1	0.5	0.5	1	310	310
1207828	335834116582102	1	0.5	0.5	1	280	280
1002958	NA_1002958	1	1.5	1.5	1	230	230
1201486	NA_1201486	2	1.9	1.9	2	210	210
		Avg:	3.0	3.0	Avg:	244	244

All Wells within the Beaumont Basin	2.2	2.6	234	246
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Singleton Basin / Edgar Cyn

1208430	CVM-1	2	7.5	7.6	2	330	340
1207012	E236b	2	12.5	19.0	2	440	550
1201450	2	1	1.7	1.7	1	270	270
1206853	NA_1206853	2	11.5	13.0	2	315	340
1007022	Well 1	1	11.5	12.0	2	365	370
1002931	BCVWD 04A	2	1.8	1.9	1	320	320
1002935	BCVWD 05	2	2.9	3.2	1	260	260
1003032	SMWC 05	4	1.2	1.3	1	190	190
		Avg:	6.3	7.5	Avg:	311	330

South Beaumont Basin

1220050	Cemetery Well 2	4	6.2	7.7	4	283	370
1221612	Dowling Orchard	6	6.2	6.6	4	383	420
1004370	NA_1004370	3	13.7	14.0	3	277	280
1006182	NA_1006182	1	22.0	22.0	1	370	370
1206892	NA_1206892	2	3.7	4.0	2	215	220
1208432	Ranch Well	3	15.3	16.0	3	690	720
1232662	OBMW-1	6	1.7	12.0	4	698	770
1232663	OBMW-2	6	15.3	17.0	5	678	710
1232664	OBMW-3	7	10.2	11.0	3	448	460
1232665	OBMW-4	6	12.3	13.0	3	703	780
		Avg:	10.7	12.3	Avg:	475	510

Section 5

Land Subsidence

In the first ten years of operations under the Judgment, a temporary surplus was established that allows up to 160,000 acre-ft of overdraft within the Basin. The purpose of the temporary surplus was to create room for the safe storage of supplemental water and to reduce losses from the basin. A major concern is that overdraft of the groundwater basin may lead to the lowering of groundwater levels and, subsequently, to land subsidence and ground fissuring. To proactively address this concern, the STWMA and the Watermaster developed a monitoring program specifically to assess the occurrence of subsidence from past groundwater pumping and future pumping. To implement this program, the STWMA, on behalf of the Watermaster, successfully applied for an AB303 Grant from the California Department of Water Resources (DWR)

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.

Appendix A

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Appendix B

Fiscal Year 2015-16 Audit Letter

TO BE INCLUDED IN FINAL REPORT

Appendix C

Production Estimation Methods for Unmetered Overlying Producers

University of California Riverside - CIMIS Station 44
Monthly Evapotranspiration Values - 2002 through 2016

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	7.83	6.44	4.38	2.72	1.70	62.41
2013	2.72	3.18	4.80	5.71	7.01	7.36	7.13	7.37	6.14	4.27	2.76	2.80	61.25
2014	3.27	3.03	4.95	6.52	7.65	7.62	7.76	7.29	6.19	4.40	3.21	2.01	63.90
2015	2.76	3.33	5.83	6.30	5.38	7.42	6.76	7.67	5.83	3.81	2.77	1.84	59.70
2016	2.09	4.28	4.91	6.00	5.34	6.95	7.26	6.67	4.84	3.67	3.10	1.83	56.94

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
2012	2.11	2.39	3.16	4.10	4.90	5.33	5.55	5.48	4.51	3.07	1.90	1.19	43.69
2013	1.90	2.23	3.36	4.00	4.91	5.15	4.99	5.16	4.30	2.99	1.93	1.96	42.88
2014	2.29	2.12	3.47	4.56	5.36	5.33	5.43	5.10	4.33	3.08	2.25	1.41	44.73
2015	1.93	2.33	4.08	4.41	3.77	5.19	4.73	5.37	4.08	2.67	1.94	1.29	41.79
2016	1.46	3.00	3.44	4.20	3.74	4.87	5.08	4.67	3.39	2.57	2.17	1.28	39.86

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

Estimated Pumping - All Unmetered Accounts

Year	Total Use (ac-ft/yr)
2004	466.11
2005	443.64
2006	81.28
2007	12.23
2008	13.78
2009	13.47
2010	11.85
2011	12.67
2012	13.07
2013	12.98
2014	13.17
2015	12.87
2016	12.67

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
2012	48	3	1.05	0.11	0.40	0.57	1.62
2013	48	3	1.05	0.11	0.39	0.56	1.61
2014	48	3	1.05	0.11	0.41	0.59	1.64
2015	48	3	1.05	0.11	0.38	0.55	1.60
2016	48	3	1.05	0.11	0.37	0.52	1.57

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
2012	34	0	0.00	0.00	0.00	0.00	0.00
2013	34	0	0.00	0.00	0.00	0.00	0.00
2014	34	0	0.00	0.00	0.00	0.00	0.00
2015	34	0	0.00	0.00	0.00	0.00	0.00
2016	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
2012	91	2	0.70	0.00	0.00	0.00	0.70
2013	91	2	0.70	0.00	0.00	0.00	0.70
2014	91	2	0.70	0.00	0.00	0.00	0.70
2015	91	2	0.70	0.00	0.00	0.00	0.70
2016	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
2012	185	2	0.70	0.00	0.00	0.70	2.55	3.64	4.34
2013	185	2	0.70	0.00	0.00	0.70	2.55	3.64	4.34
2014	185	2	0.70	0.00	0.00	0.70	2.55	3.64	4.34
2015	185	2	0.70	0.00	0.00	0.70	2.55	3.64	4.34
2015	185	2	0.70	0.00	0.00	0.70	2.55	3.64	4.34

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
2012	122	1	0.35	0.40	1.46	2.08	2.43
2013	122	1	0.35	0.40	1.43	2.04	2.39
2014	122	1	0.35	0.40	1.49	2.13	2.48
2015	122	1	0.35	0.40	1.39	1.99	2.34
2016	122	1	0.35	0.40	1.33	1.90	2.25

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
2012	10	1	0.35	0.08	0.29	0.42	0.77
2013	10	1	0.35	0.08	0.29	0.41	0.76
2014	10	1	0.35	0.08	0.30	0.43	0.78
2015	10	1	0.35	0.08	0.28	0.40	0.75
2016	10	1	0.35	0.08	0.27	0.38	0.73

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
2012	0.9	1	0.35	0.04	0.15	0.21	0.56
2013	0.9	1	0.35	0.04	0.14	0.20	0.55
2014	0.9	1	0.35	0.04	0.15	0.21	0.56
2015	0.9	1	0.35	0.04	0.14	0.20	0.55
2016	0.9	1	0.35	0.04	0.13	0.19	0.54

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
2012	1.4	1	0.35	0.10	0.36	0.52	0.87
2013	1.4	1	0.35	0.10	0.36	0.51	0.86
2014	1.4	1	0.35	0.10	0.37	0.53	0.88
2015	1.4	1	0.35	0.10	0.35	0.50	0.85
2016	1.4	1	0.35	0.10	0.33	0.47	0.82

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
2012	2	2	0.70	0.14	0.51	0.73	1.43
2013	2	2	0.70	0.14	0.50	0.71	1.41
2014	2	2	0.70	0.14	0.52	0.75	1.45
2015	2	2	0.70	0.14	0.49	0.70	1.40
2016	2	2	0.70	0.14	0.47	0.66	1.36

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
2012	0.5	1	0.35	0.00	0.00	0.00	0.35
2013	0.5	1	0.35	0.00	0.00	0.00	0.35
2014	0.5	1	0.35	0.00	0.00	0.00	0.35
2015	0.5	1	0.35	0.00	0.00	0.00	0.35
2016	0.5	1	0.35	0.00	0.00	0.00	0.35

Appendix D

Water Quality Analysis Summary (2012-2016) for Production Wells

Well_Name	Sample Date	Analyte	Concent.	Unit	Well_Name	Sample Date	Analyte	Concent.	Unit
BAN C-02A	03-Jan-12	ALKALINITY (AS CaCO3)	150	MG/L	BCVWD 23	21-Dec-12	ALKALINITY (AS CaCO3)	180	MG/L
BAN C-02A	25-Mar-14	ALKALINITY (AS CaCO3)	160	MG/L	BCVWD 23	04-Dec-15	ALKALINITY (AS CaCO3)	170	MG/L
BAN C-02A	03-Jan-12	ALUMINUM	< 50	UG/L	BCVWD 23	08-Dec-15	ALKALINITY (AS CaCO3)	160	MG/L
BAN C-02A	25-Mar-14	ALUMINUM	< 50	UG/L	BCVWD 23	21-Dec-12	ALUMINUM	< 50	UG/L
BAN C-02A	03-Jan-12	ARSENIC	< 2	UG/L	BCVWD 23	04-Dec-15	ALUMINUM	< 50	UG/L
BAN C-02A	25-Mar-14	ARSENIC	< 2	UG/L	BCVWD 23	08-Dec-15	ALUMINUM	< 50	UG/L
BAN C-02A	03-Jan-12	BICARBONATE ALKALINITY	190	MG/L	BCVWD 23	21-Dec-12	ARSENIC	< 2	UG/L
BAN C-02A	25-Mar-14	BICARBONATE ALKALINITY	200	MG/L	BCVWD 23	07-Dec-15	ARSENIC	< 2	UG/L
BAN C-02A	03-Jan-12	CALCIUM	41	MG/L	BCVWD 23	07-Dec-15	ARSENIC	< 2	UG/L
BAN C-02A	25-Mar-14	CALCIUM	44	MG/L	BCVWD 23	21-Dec-12	BICARBONATE ALKALINITY	220	MG/L
BAN C-02A	03-Jan-12	CARBONATE ALKALINITY	< 3	MG/L	BCVWD 23	04-Dec-15	BICARBONATE ALKALINITY	210	MG/L
BAN C-02A	25-Mar-14	CARBONATE ALKALINITY	< 3	MG/L	BCVWD 23	08-Dec-15	BICARBONATE ALKALINITY	190	MG/L
BAN C-02A	03-Jan-12	CHLORIDE	9.5	MG/L	BCVWD 23	21-Dec-12	CALCIUM	47	MG/L
BAN C-02A	25-Mar-14	CHLORIDE	11	MG/L	BCVWD 23	04-Dec-15	CALCIUM	46	MG/L
BAN C-02A	03-Jan-12	CHROMIUM (TOTAL)	17	UG/L	BCVWD 23	08-Dec-15	CALCIUM	42	MG/L
BAN C-02A	25-Mar-14	CHROMIUM (TOTAL)	15	UG/L	BCVWD 23	21-Dec-12	CARBONATE ALKALINITY	< 3	MG/L
BAN C-02A	10-Dec-14	CHROMIUM, HEXAVALENT	17	UG/L	BCVWD 23	04-Dec-15	CARBONATE ALKALINITY	< 3	MG/L
BAN C-02A	24-Mar-15	CHROMIUM, HEXAVALENT	17	UG/L	BCVWD 23	08-Dec-15	CARBONATE ALKALINITY	< 3	MG/L
BAN C-02A	27-Jun-15	CHROMIUM, HEXAVALENT	17	UG/L	BCVWD 23	21-Dec-12	CHLORIDE	11	MG/L
BAN C-02A	02-Oct-15	CHROMIUM, HEXAVALENT	17	UG/L	BCVWD 23	03-Dec-15	CHLORIDE	9.9	MG/L
BAN C-02A	30-Dec-15	CHROMIUM, HEXAVALENT	16	UG/L	BCVWD 23	04-Dec-15	CHLORIDE	15	MG/L
BAN C-02A	29-Mar-16	CHROMIUM, HEXAVALENT	15	UG/L	BCVWD 23	21-Dec-12	CHROMIUM (TOTAL)	5.3	UG/L
BAN C-02A	24-Jun-16	CHROMIUM, HEXAVALENT	15	UG/L	BCVWD 23	08-Dec-15	CHROMIUM (TOTAL)	6.3	UG/L
BAN C-02A	22-Sep-16	CHROMIUM, HEXAVALENT	16	UG/L	BCVWD 23	08-Dec-15	CHROMIUM (TOTAL)	8.4	UG/L
BAN C-02A	04-Jan-17	CHROMIUM, HEXAVALENT	16	UG/L	BCVWD 23	22-Oct-14	CHROMIUM, HEXAVALENT	5.4	UG/L
BAN C-02A	03-Jan-12	COPPER	< 50	UG/L	BCVWD 23	05-Nov-15	CHROMIUM, HEXAVALENT	6.7	UG/L
BAN C-02A	25-Mar-14	COPPER	< 50	UG/L	BCVWD 23	21-Dec-12	COPPER	< 50	UG/L
BAN C-02A	03-Jan-12	DBCP	< 0.01	UG/L	BCVWD 23	04-Dec-15	COPPER	< 50	UG/L
BAN C-02A	25-Mar-14	DBCP	< 0.01	UG/L	BCVWD 23	08-Dec-15	COPPER	< 50	UG/L
BAN C-02A	03-Jan-12	FLUORIDE	0.3	MG/L	BCVWD 23	04-Dec-15	DBCP	< 0.01	UG/L
BAN C-02A	25-Mar-14	FLUORIDE	0.3	MG/L	BCVWD 23	04-Dec-15	CBCP	0.028	UG/L
BAN C-02A	03-Jan-12	HARDNESS (AS CaCO3)	140	MG/L	BCVWD 23	21-Dec-12	FLUORIDE (F)	0.6	MG/L
BAN C-02A	25-Mar-14	HARDNESS (AS CaCO3)	150	MG/L	BCVWD 23	06-Dec-15	FLUORIDE (F)	0.4	MG/L
BAN C-02A	03-Jan-12	HYDROXIDE ALKALINITY	< 3	MG/L	BCVWD 23	06-Dec-15	FLUORIDE (F)	0.3	MG/L
BAN C-02A	25-Mar-14	HYDROXIDE ALKALINITY	< 3	MG/L	BCVWD 23	21-Dec-12	HARDNESS (AS CaCO3)	190	MG/L
BAN C-02A	03-Jan-12	IRON	< 100	UG/L	BCVWD 23	04-Dec-15	HARDNESS (AS CaCO3)	170	MG/L
BAN C-02A	25-Mar-14	IRON	< 100	UG/L	BCVWD 23	08-Dec-15	HARDNESS (AS CaCO3)	170	MG/L

Well_Name	Sample Date	Analyte	Concent.	Unit	Well_Name	Sample Date	Analyte	Concent.	Unit
BAN C-02A	03-Jan-12	LEAD	< 5	UG/L	BCVWD 23	21-Dec-12	HYDROXIDE ALKALINITY	< 3	MG/L
BAN C-02A	25-Mar-14	LEAD	< 5	UG/L	BCVWD 23	04-Dec-15	HYDROXIDE ALKALINITY	< 3	MG/L
BAN C-02A	03-Jan-12	MAGNESIUM	9.3	MG/L	BCVWD 23	08-Dec-15	HYDROXIDE ALKALINITY	< 3	MG/L
BAN C-02A	25-Mar-14	MAGNESIUM	9.5	MG/L	BCVWD 23	21-Dec-12	IRON	< 100	UG/L
BAN C-02A	03-Jan-12	MANGANESE	< 20	UG/L	BCVWD 23	04-Dec-15	IRON	< 100	UG/L
BAN C-02A	25-Mar-14	MANGANESE	< 20	UG/L	BCVWD 23	08-Dec-15	IRON	< 100	UG/L
BAN C-02A	27-Apr-16	NITRATE (AS N)	1.8	MG/L	BCVWD 23	21-Dec-12	LEAD	< 5	UG/L
BAN C-02A	26-Apr-17	NITRATE (AS N)	1.9	MG/L	BCVWD 23	07-Dec-15	LEAD	< 5	UG/L
BAN C-02A	20-Apr-11	NITRATE (AS NO3)	8.4	MG/L	BCVWD 23	07-Dec-15	LEAD	< 5	UG/L
BAN C-02A	03-Jan-12	NITRATE (AS NO3)	8.2	MG/L	BCVWD 23	21-Dec-12	MAGNESIUM	17	MG/L
BAN C-02A	16-Jun-12	NITRATE (AS NO3)	8.6	MG/L	BCVWD 23	04-Dec-15	MAGNESIUM	14	MG/L
BAN C-02A	27-Jun-13	NITRATE (AS NO3)	7.7	MG/L	BCVWD 23	08-Dec-15	MAGNESIUM	15	MG/L
BAN C-02A	24-Jul-13	NITRATE (AS NO3)	8.1	MG/L	BCVWD 23	21-Dec-12	MANGANESE	< 20	UG/L
BAN C-02A	25-Mar-14	NITRATE (AS NO3)	8.5	MG/L	BCVWD 23	04-Dec-15	MANGANESE	< 20	UG/L
BAN C-02A	29-May-14	NITRATE (AS NO3)	11	MG/L	BCVWD 23	08-Dec-15	MANGANESE	< 20	UG/L
BAN C-02A	30-Apr-15	NITRATE (AS NO3)	8.1	MG/L	BCVWD 23	09-Dec-16	NITRATE (AS N)	2.8	MG/L
BAN C-02A	03-Jan-12	NITRITE (AS N)	< 100	MG/L	BCVWD 23	15-Dec-11	NITRATE (AS NO3)	17	MG/L
BAN C-02A	25-Mar-14	NITRITE (AS N)	< 100	MG/L	BCVWD 23	21-Dec-12	NITRATE (AS NO3)	16	MG/L
BAN C-02A	27-Apr-16	NITRITE (AS N)	< 0.1	MG/L	BCVWD 23	25-Jun-14	NITRATE (AS NO3)	15	MG/L
BAN C-02A	26-Apr-17	NITRITE (AS N)	< 0.1	MG/L	BCVWD 23	03-Dec-15	NITRATE (AS NO3)	10	MG/L
BAN C-02A	03-Jan-12	POTASSIUM	1.5	MG/L	BCVWD 23	04-Dec-15	NITRATE (AS NO3)	10	MG/L
BAN C-02A	25-Mar-14	POTASSIUM	1.3	MG/L	BCVWD 23	21-Dec-12	NITRITE (AS N)	< 100	MG/L
BAN C-02A	03-Jan-12	SODIUM	24	MG/L	BCVWD 23	02-Dec-15	NITRITE (AS N)	< 100	MG/L
BAN C-02A	25-Mar-14	SODIUM	26	MG/L	BCVWD 23	03-Dec-15	NITRITE (AS N)	< 100	MG/L
BAN C-02A	03-Jan-12	SPECIFIC CONDUCTANCE	390	US	BCVWD 23	04-Dec-15	POTASSIUM	1.6	MG/L
BAN C-02A	25-Mar-14	SPECIFIC CONDUCTANCE	380	US	BCVWD 23	08-Dec-15	POTASSIUM	1.7	MG/L
BAN C-02A	03-Jan-12	SULFATE	9.3	MG/L	BCVWD 23	21-Dec-12	SODIUM	18	MG/L
BAN C-02A	25-Mar-14	SULFATE	10	MG/L	BCVWD 23	04-Dec-15	SODIUM	24	MG/L
BAN C-02A	03-Jan-12	TETRACHLOROETHYLENE	< 0.5	UG/L	BCVWD 23	08-Dec-15	SODIUM	19	MG/L
BAN C-02A	25-Mar-14	TETRACHLOROETHYLENE	< 0.5	UG/L	BCVWD 23	21-Dec-12	SPECIFIC CONDUCTANCE	420	US
BAN C-02A	03-Jan-12	TOTAL DISSOLVED SOLIDS	210	MG/L	BCVWD 23	04-Dec-15	SPECIFIC CONDUCTANCE	410	US
BAN C-02A	25-Mar-14	TOTAL DISSOLVED SOLIDS	240	MG/L	BCVWD 23	04-Dec-15	SPECIFIC CONDUCTANCE	390	US
BAN C-02A	03-Jan-12	TRICHLOROETHYLENE	< 0.5	UG/L	BCVWD 23	21-Dec-12	SULFATE	19	MG/L
BAN C-02A	25-Mar-14	TRICHLOROETHYLENE	< 0.5	UG/L	BCVWD 23	03-Dec-15	SULFATE	16	MG/L
BAN C-02A	03-Jan-12	TURBIDITY, LABORATORY	< 0.2	NTU	BCVWD 23	04-Dec-15	SULFATE	13	MG/L
BAN C-02A	25-Mar-14	TURBIDITY, LABORATORY	< 0.2	NTU	BCVWD 23	21-Dec-12	TETRACHLOROETHYLENE	< 0.5	UG/L
BAN C-02A	03-Jan-12	ZINC	< 50	UG/L	BCVWD 23	04-Dec-15	TETRACHLOROETHYLENE	< 0.5	UG/L

Well_Name	Sample Date	Analyte	Concent.	Unit	Well_Name	Sample Date	Analyte	Concent.	Unit
BAN C-02A	25-Mar-14	ZINC	< 50	UG/L	BCVWD 23	04-Dec-15	TETRACHLOROETHYLENE	< 0.5	UG/L
BAN C-03	27-Dec-11	ALKALINITY (AS CaCO3)	110	MG/L	BCVWD 23	21-Dec-12	TOTAL DISSOLVED SOLIDS	300	MG/L
BAN C-03	25-Mar-14	ALKALINITY (AS CaCO3)	140	MG/L	BCVWD 23	04-Dec-15	TOTAL DISSOLVED SOLIDS	180	MG/L
BAN C-03	15-Mar-17	ALKALINITY (AS CaCO3)	140	MG/L	BCVWD 23	08-Dec-15	TOTAL DISSOLVED SOLIDS	250	MG/L
BAN C-03	27-Dec-11	ALUMINUM	< 50	UG/L	BCVWD 23	21-Dec-12	TRICHLOROETHYLENE	< 0.5	UG/L
BAN C-03	25-Mar-14	ALUMINUM	< 50	UG/L	BCVWD 23	04-Dec-15	TRICHLOROETHYLENE	< 0.5	UG/L
BAN C-03	13-Mar-17	ALUMINUM	< 50	UG/L	BCVWD 23	04-Dec-15	TRICHLOROETHYLENE	< 0.5	UG/L
BAN C-03	27-Dec-11	ARSENIC	< 2	UG/L	BCVWD 23	21-Dec-12	TURBIDITY, LABORATORY	0.44	NTU
BAN C-03	25-Mar-14	ARSENIC	< 2	UG/L	BCVWD 23	03-Dec-15	TURBIDITY, LABORATORY	< 0.1	NTU
BAN C-03	13-Mar-17	ARSENIC	< 2	UG/L	BCVWD 23	04-Dec-15	TURBIDITY, LABORATORY	< 0.1	NTU
BAN C-03	27-Dec-11	BICARBONATE ALKALINITY	140	MG/L	BCVWD 23	21-Dec-12	ZINC	< 50	UG/L
BAN C-03	25-Mar-14	BICARBONATE ALKALINITY	160	MG/L	BCVWD 23	04-Dec-15	ZINC	< 50	UG/L
BAN C-03	15-Mar-17	BICARBONATE ALKALINITY	160	MG/L	BCVWD 23	08-Dec-15	ZINC	< 50	UG/L
BAN C-03	27-Dec-11	CALCIUM	25	MG/L	BCVWD 24	05-Dec-11	ALKALINITY (AS CaCO3)	150	MG/L
BAN C-03	25-Mar-14	CALCIUM	32	MG/L	BCVWD 24	02-Dec-16	ALKALINITY (AS CaCO3)	160	MG/L
BAN C-03	13-Mar-17	CALCIUM	31	MG/L	BCVWD 24	05-Dec-11	ALUMINUM	< 50	UG/L
BAN C-03	27-Dec-11	CARBONATE ALKALINITY	< 3	MG/L	BCVWD 24	09-Dec-16	ALUMINUM	< 50	UG/L
BAN C-03	25-Mar-14	CARBONATE ALKALINITY	< 3	MG/L	BCVWD 24	05-Dec-11	ARSENIC	< 2	UG/L
BAN C-03	15-Mar-17	CARBONATE ALKALINITY	< 3	MG/L	BCVWD 24	06-Dec-16	ARSENIC	< 2	UG/L
BAN C-03	27-Dec-11	CHLORIDE	9.9	MG/L	BCVWD 24	05-Dec-11	BICARBONATE ALKALINITY	180	MG/L
BAN C-03	25-Mar-14	CHLORIDE	12	MG/L	BCVWD 24	02-Dec-16	BICARBONATE ALKALINITY	190	MG/L
BAN C-03	08-Mar-17	CHLORIDE	9.9	MG/L	BCVWD 24	05-Dec-11	CALCIUM	37	MG/L
BAN C-03	27-Dec-11	CHROMIUM (TOTAL)	14	UG/L	BCVWD 24	09-Dec-16	CALCIUM	37	MG/L
BAN C-03	25-Mar-14	CHROMIUM (TOTAL)	13	UG/L	BCVWD 24	05-Dec-11	CARBONATE ALKALINITY	< 3	MG/L
BAN C-03	09-Mar-17	CHROMIUM (TOTAL)	15	UG/L	BCVWD 24	02-Dec-16	CARBONATE ALKALINITY	< 3	MG/L
BAN C-03	10-Dec-14	CHROMIUM, HEXAVALENT	16	UG/L	BCVWD 24	05-Dec-11	CHLORIDE	5.9	MG/L
BAN C-03	24-Mar-15	CHROMIUM, HEXAVALENT	15	UG/L	BCVWD 24	02-Dec-16	CHLORIDE	5.6	MG/L
BAN C-03	27-Jun-15	CHROMIUM, HEXAVALENT	16	UG/L	BCVWD 24	05-Dec-11	CHROMIUM (TOTAL)	8.2	UG/L
BAN C-03	02-Oct-15	CHROMIUM, HEXAVALENT	14	UG/L	BCVWD 24	07-Dec-16	CHROMIUM (TOTAL)	7.2	UG/L
BAN C-03	02-Jan-16	CHROMIUM, HEXAVALENT	16	UG/L	BCVWD 24	22-Oct-14	CHROMIUM, HEXAVALENT	7.5	UG/L
BAN C-03	29-Mar-16	CHROMIUM, HEXAVALENT	15	UG/L	BCVWD 24	12-Nov-15	CHROMIUM, HEXAVALENT	7.7	UG/L
BAN C-03	24-Jun-16	CHROMIUM, HEXAVALENT	14	UG/L	BCVWD 24	05-Dec-11	COPPER	< 50	UG/L
BAN C-03	22-Sep-16	CHROMIUM, HEXAVALENT	15	UG/L	BCVWD 24	09-Dec-16	COPPER	< 50	UG/L
BAN C-03	27-Dec-11	COPPER	< 50	UG/L	BCVWD 24	05-Dec-11	DBCP	< 0.01	UG/L
BAN C-03	25-Mar-14	COPPER	< 50	UG/L	BCVWD 24	05-Dec-11	FLUORIDE	0.5	MG/L
BAN C-03	13-Mar-17	COPPER	< 50	UG/L	BCVWD 24	07-Dec-16	FLUORIDE	0.5	MG/L
BAN C-03	27-Dec-11	DBCP	< 0.01	UG/L	BCVWD 24	05-Dec-11	HARDNESS (AS CaCO3)	140	MG/L

Well_Name	Sample Date	Analyte	Concent.	Unit	Well_Name	Sample Date	Analyte	Concent.	Unit
BAN C-03	25-Mar-14	DBCP	< 0.01	UG/L	BCVWD 24	09-Dec-16	HARDNESS (AS CaCO3)	140	MG/L
BAN C-03	14-Mar-17	DBCP	< 0.01	UG/L	BCVWD 24	05-Dec-11	HYDROXIDE ALKALINITY	< 3	MG/L
BAN C-03	27-Dec-11	FLUORIDE	0.9	MG/L	BCVWD 24	02-Dec-16	HYDROXIDE ALKALINITY	< 3	MG/L
BAN C-03	25-Mar-14	FLUORIDE	0.5	MG/L	BCVWD 24	05-Dec-11	IRON	< 100	UG/L
BAN C-03	15-Mar-17	FLUORIDE	0.4	MG/L	BCVWD 24	09-Dec-16	IRON	< 100	UG/L
BAN C-03	27-Dec-11	HARDNESS (AS CaCO3)	79	MG/L	BCVWD 24	05-Dec-11	LEAD	< 5	UG/L
BAN C-03	25-Mar-14	HARDNESS (AS CaCO3)	100	MG/L	BCVWD 24	06-Dec-16	LEAD	< 5	UG/L
BAN C-03	13-Mar-17	HARDNESS (AS CaCO3)	100	MG/L	BCVWD 24	05-Dec-11	MAGNESIUM	12	MG/L
BAN C-03	27-Dec-11	HYDROXIDE ALKALINITY	< 3	MG/L	BCVWD 24	09-Dec-16	MAGNESIUM	12	MG/L
BAN C-03	25-Mar-14	HYDROXIDE ALKALINITY	< 3	MG/L	BCVWD 24	05-Dec-11	MANGANESE	< 20	UG/L
BAN C-03	15-Mar-17	HYDROXIDE ALKALINITY	< 3	MG/L	BCVWD 24	09-Dec-16	MANGANESE	< 20	UG/L
BAN C-03	27-Dec-11	IRON	< 100	UG/L	BCVWD 24	02-Dec-16	NITRATE (AS N)	1.7	MG/L
BAN C-03	25-Mar-14	IRON	< 100	UG/L	BCVWD 24	05-Dec-11	NITRATE (AS NO3)	6.7	MG/L
BAN C-03	13-Mar-17	IRON	< 100	UG/L	BCVWD 24	18-Dec-12	NITRATE (AS NO3)	6.4	MG/L
BAN C-03	27-Dec-11	LEAD	< 5	UG/L	BCVWD 24	23-Oct-13	NITRATE (AS NO3)	7	MG/L
BAN C-03	25-Mar-14	LEAD	< 5	UG/L	BCVWD 24	25-Jun-14	NITRATE (AS NO3)	5.8	MG/L
BAN C-03	13-Mar-17	LEAD	< 5	UG/L	BCVWD 24	04-Dec-15	NITRATE (AS NO3)	6.4	MG/L
BAN C-03	27-Dec-11	MAGNESIUM	4.3	MG/L	BCVWD 24	05-Dec-11	NITRITE (AS N)	< 100	MG/L
BAN C-03	25-Mar-14	MAGNESIUM	5.9	MG/L	BCVWD 24	01-Dec-16	NITRITE (AS N)	< 0.1	MG/L
BAN C-03	13-Mar-17	MAGNESIUM	5.7	MG/L	BCVWD 24	05-Dec-11	POTASSIUM	1.7	MG/L
BAN C-03	27-Dec-11	MANGANESE	< 20	UG/L	BCVWD 24	09-Dec-16	POTASSIUM	1.4	MG/L
BAN C-03	25-Mar-14	MANGANESE	< 20	UG/L	BCVWD 24	05-Dec-11	SODIUM	19	MG/L
BAN C-03	13-Mar-17	MANGANESE	< 20	UG/L	BCVWD 24	09-Dec-16	SODIUM	19	MG/L
BAN C-03	23-Apr-16	NITRATE (AS N)	1.6	MG/L	BCVWD 24	05-Dec-11	SPECIFIC CONDUCTANCE	360	US
BAN C-03	08-Mar-17	NITRATE (AS N)	1.6	MG/L	BCVWD 24	02-Dec-16	SPECIFIC CONDUCTANCE	360	US
BAN C-03	26-Apr-17	NITRATE (AS N)	1.8	MG/L	BCVWD 24	05-Dec-11	SULFATE	11	MG/L
BAN C-03	13-Apr-11	NITRATE (AS NO3)	7.4	MG/L	BCVWD 24	02-Dec-16	SULFATE	11	MG/L
BAN C-03	27-Dec-11	NITRATE (AS NO3)	6.9	MG/L	BCVWD 24	05-Dec-11	TETRACHLOROETHYLENE	< 0.5	UG/L
BAN C-03	16-Jun-12	NITRATE (AS NO3)	7.4	MG/L	BCVWD 24	03-Dec-16	TETRACHLOROETHYLENE	< 0.5	UG/L
BAN C-03	20-Jun-13	NITRATE (AS NO3)	7.2	MG/L	BCVWD 24	05-Dec-11	TOTAL DISSOLVED SOLIDS	180	MG/L
BAN C-03	25-Mar-14	NITRATE (AS NO3)	8.5	MG/L	BCVWD 24	02-Dec-16	TOTAL DISSOLVED SOLIDS	210	MG/L
BAN C-03	29-May-14	NITRATE (AS NO3)	7.5	MG/L	BCVWD 24	05-Dec-11	TRICHLOROETHYLENE	< 0.5	UG/L
BAN C-03	22-Apr-15	NITRATE (AS NO3)	7.1	MG/L	BCVWD 24	03-Dec-16	TRICHLOROETHYLENE	< 0.5	UG/L
BAN C-03	27-Dec-11	NITRITE (AS N)	< 100	MG/L	BCVWD 24	05-Dec-11	TURBIDITY, LABORATORY	< 0.2	NTU
BAN C-03	17-Jul-13	NITRITE (AS N)	< 100	MG/L	BCVWD 24	01-Dec-16	TURBIDITY, LABORATORY	< 0.1	NTU
BAN C-03	25-Mar-14	NITRITE (AS N)	< 100	MG/L	BCVWD 24	05-Dec-11	ZINC	< 50	UG/L
BAN C-03	22-Apr-16	NITRITE (AS N)	< 0.1	MG/L	BCVWD 24	09-Dec-16	ZINC	< 50	UG/L

Well_Name	Sample Date	Analyte	Concent.	Unit	Well_Name	Sample Date	Analyte	Concent.	Unit
BAN C-03	08-Mar-17	NITRITE (AS N)	< 0.1	MG/L	BCVWD 25	06-Jan-13	ALKALINITY (AS CaCO3)	160	MG/L
BAN C-03	25-Apr-17	NITRITE (AS N)	< 0.1	MG/L	BCVWD 25	06-Jan-13	ALUMINUM	< 50	UG/L
BAN C-03	27-Dec-11	POTASSIUM	1.5	MG/L	BCVWD 25	06-Jan-13	ARSENIC	< 2	UG/L
BAN C-03	25-Mar-14	POTASSIUM	1.6	MG/L	BCVWD 25	06-Jan-13	BICARBONATE ALKALINITY	200	MG/L
BAN C-03	13-Mar-17	POTASSIUM	1.5	MG/L	BCVWD 25	06-Jan-13	CALCIUM	43	MG/L
BAN C-03	27-Dec-11	SODIUM	33	MG/L	BCVWD 25	06-Jan-13	CARBONATE ALKALINITY	< 3	MG/L
BAN C-03	25-Mar-14	SODIUM	31	MG/L	BCVWD 25	06-Jan-13	CHLORIDE	7	MG/L
BAN C-03	13-Mar-17	SODIUM	29	MG/L	BCVWD 25	06-Jan-13	CHROMIUM (TOTAL)	14	UG/L
BAN C-03	27-Dec-11	SPECIFIC CONDUCTANCE	310	US	BCVWD 25	22-Oct-14	CHROMIUM, HEXAVALENT	11	UG/L
BAN C-03	25-Mar-14	SPECIFIC CONDUCTANCE	320	US	BCVWD 25	01-Apr-15	CHROMIUM, HEXAVALENT	8.3	UG/L
BAN C-03	13-Mar-17	SPECIFIC CONDUCTANCE	330	US	BCVWD 25	11-Aug-15	CHROMIUM, HEXAVALENT	11	UG/L
BAN C-03	27-Dec-11	SULFATE	7.1	MG/L	BCVWD 25	02-Sep-15	CHROMIUM, HEXAVALENT	11	UG/L
BAN C-03	25-Mar-14	SULFATE	5.9	MG/L	BCVWD 25	06-Jan-13	COPPER	< 50	UG/L
BAN C-03	08-Mar-17	SULFATE	6	MG/L	BCVWD 25	06-Jan-13	FLUORIDE	0.3	MG/L
BAN C-03	27-Dec-11	TETRACHLOROETHYLENE	< 0.5	UG/L	BCVWD 25	06-Jan-13	HARDNESS (AS CaCO3)	160	MG/L
BAN C-03	25-Mar-14	TETRACHLOROETHYLENE	< 0.5	UG/L	BCVWD 25	06-Jan-13	HYDROXIDE ALKALINITY	< 3	MG/L
BAN C-03	09-Mar-17	TETRACHLOROETHYLENE	< 0.5	UG/L	BCVWD 25	06-Jan-13	IRON	< 100	UG/L
BAN C-03	27-Dec-11	TOTAL DISSOLVED SOLIDS	130	MG/L	BCVWD 25	06-Jan-13	LEAD	6.5	UG/L
BAN C-03	25-Mar-14	TOTAL DISSOLVED SOLIDS	190	MG/L	BCVWD 25	06-Jan-13	MAGNESIUM	13	MG/L
BAN C-03	13-Mar-17	TOTAL DISSOLVED SOLIDS	170	MG/L	BCVWD 25	06-Jan-13	MANGANESE	< 20	UG/L
BAN C-03	27-Dec-11	TRICHLOROETHYLENE	< 0.5	UG/L	BCVWD 25	30-Nov-11	NITRATE (AS NO3)	4.5	MG/L
BAN C-03	25-Mar-14	TRICHLOROETHYLENE	< 0.5	UG/L	BCVWD 25	06-Jan-13	NITRATE (AS NO3)	3.2	MG/L
BAN C-03	09-Mar-17	TRICHLOROETHYLENE	< 0.5	UG/L	BCVWD 25	23-Oct-13	NITRATE (AS NO3)	4.6	MG/L
BAN C-03	27-Dec-11	TURBIDITY, LABORATORY	< 0.2	NTU	BCVWD 25	06-Jan-13	NITRITE (AS N)	< 100	MG/L
BAN C-03	25-Mar-14	TURBIDITY, LABORATORY	< 0.2	NTU	BCVWD 25	06-Jan-13	POTASSIUM	1.5	MG/L
BAN C-03	09-Mar-17	TURBIDITY, LABORATORY	0.18	NTU	BCVWD 25	06-Jan-13	SODIUM	22	MG/L
BAN C-03	27-Dec-11	ZINC	< 50	UG/L	BCVWD 25	06-Jan-13	SPECIFIC CONDUCTANCE	400	US
BAN C-03	25-Mar-14	ZINC	< 50	UG/L	BCVWD 25	06-Jan-13	SULFATE	12	MG/L
BAN C-03	13-Mar-17	ZINC	< 50	UG/L	BCVWD 25	06-Jan-13	TETRACHLOROETHYLENE	< 0.5	UG/L
BAN C-04	27-Dec-11	ALKALINITY (AS CaCO3)	140	MG/L	BCVWD 25	06-Jan-13	TOTAL DISSOLVED SOLIDS	220	MG/L
BAN C-04	22-Mar-14	ALKALINITY (AS CaCO3)	160	MG/L	BCVWD 25	06-Jan-13	TRICHLOROETHYLENE	< 0.5	UG/L
BAN C-04	13-Mar-17	ALKALINITY (AS CaCO3)	120	MG/L	BCVWD 25	06-Jan-13	TURBIDITY, LABORATORY	< 0.2	NTU
BAN C-04	27-Dec-11	ALUMINUM	< 50	UG/L	BCVWD 25	06-Jan-13	ZINC	< 50	UG/L
BAN C-04	22-Mar-14	ALUMINUM	< 50	UG/L	BCVWD 26	06-Jan-13	ALKALINITY (AS CaCO3)	140	MG/L
BAN C-04	13-Mar-17	ALUMINUM	< 50	UG/L	BCVWD 26	06-Jan-13	ALUMINUM	< 50	UG/L
BAN C-04	27-Dec-11	ARSENIC	< 2	UG/L	BCVWD 26	06-Jan-13	ARSENIC	< 2	UG/L
BAN C-04	22-Mar-14	ARSENIC	< 2	UG/L	BCVWD 26	06-Jan-13	BICARBONATE ALKALINITY	170	MG/L

Well_Name	Sample Date	Analyte	Concent.	Unit	Well_Name	Sample Date	Analyte	Concent.	Unit
BAN C-04	13-Mar-17	ARSENIC	< 2	UG/L	BCVWD 26	06-Jan-13	CALCIUM	33	MG/L
BAN C-04	27-Dec-11	BICARBONATE ALKALINITY	180	MG/L	BCVWD 26	06-Jan-13	CARBONATE ALKALINITY	< 3	MG/L
BAN C-04	22-Mar-14	BICARBONATE ALKALINITY	190	MG/L	BCVWD 26	06-Jan-13	CHLORIDE	7	MG/L
BAN C-04	13-Mar-17	BICARBONATE ALKALINITY	140	MG/L	BCVWD 26	06-Jan-13	CHROMIUM (TOTAL)	17	UG/L
BAN C-04	27-Dec-11	CALCIUM	36	MG/L	BCVWD 26	22-Oct-14	CHROMIUM, HEXAVALENT	14	UG/L
BAN C-04	22-Mar-14	CALCIUM	37	MG/L	BCVWD 26	01-Apr-15	CHROMIUM, HEXAVALENT	13	UG/L
BAN C-04	13-Mar-17	CALCIUM	22	MG/L	BCVWD 26	06-Jan-13	COPPER	< 50	UG/L
BAN C-04	27-Dec-11	CARBONATE ALKALINITY	< 3	MG/L	BCVWD 26	06-Jan-13	FLUORIDE	0.4	MG/L
BAN C-04	22-Mar-14	CARBONATE ALKALINITY	< 3	MG/L	BCVWD 26	06-Jan-13	HARDNESS (AS CaCO3)	120	MG/L
BAN C-04	13-Mar-17	CARBONATE ALKALINITY	< 3	MG/L	BCVWD 26	06-Jan-13	HYDROXIDE ALKALINITY	< 3	MG/L
BAN C-04	27-Dec-11	CHLORIDE	10	MG/L	BCVWD 26	06-Jan-13	IRON	< 100	UG/L
BAN C-04	22-Mar-14	CHLORIDE	7.1	MG/L	BCVWD 26	06-Jan-13	LEAD	< 5	UG/L
BAN C-04	06-Mar-17	CHLORIDE	5.6	MG/L	BCVWD 26	06-Jan-13	MAGNESIUM	9.7	MG/L
BAN C-04	27-Dec-11	CHROMIUM (TOTAL)	15	UG/L	BCVWD 26	06-Jan-13	MANGANESE	< 20	UG/L
BAN C-04	22-Mar-14	CHROMIUM (TOTAL)	13	UG/L	BCVWD 26	15-Dec-11	NITRATE (AS NO3)	4.7	MG/L
BAN C-04	09-Mar-17	CHROMIUM (TOTAL)	9.9	UG/L	BCVWD 26	06-Jan-13	NITRATE (AS NO3)	4.3	MG/L
BAN C-04	12-Dec-14	CHROMIUM, HEXAVALENT	13	UG/L	BCVWD 26	23-Oct-13	NITRATE (AS NO3)	4.7	MG/L
BAN C-04	01-Apr-15	CHROMIUM, HEXAVALENT	13	UG/L	BCVWD 26	06-Jan-13	NITRITE (AS N)	< 100	MG/L
BAN C-04	27-Jun-15	CHROMIUM, HEXAVALENT	17	UG/L	BCVWD 26	06-Jan-13	POTASSIUM	1.4	MG/L
BAN C-04	02-Oct-15	CHROMIUM, HEXAVALENT	16	UG/L	BCVWD 26	06-Jan-13	SODIUM	26	MG/L
BAN C-04	30-Dec-15	CHROMIUM, HEXAVALENT	17	UG/L	BCVWD 26	06-Jan-13	SPECIFIC CONDUCTANCE	340	US
BAN C-04	29-Mar-16	CHROMIUM, HEXAVALENT	10	UG/L	BCVWD 26	06-Jan-13	SULFATE	8.3	MG/L
BAN C-04	24-Jun-16	CHROMIUM, HEXAVALENT	15	UG/L	BCVWD 26	06-Jan-13	TETRACHLOROETHYLENE	< 0.5	UG/L
BAN C-04	22-Sep-16	CHROMIUM, HEXAVALENT	15	UG/L	BCVWD 26	06-Jan-13	TOTAL DISSOLVED SOLIDS	190	MG/L
BAN C-04	04-Jan-17	CHROMIUM, HEXAVALENT	13	UG/L	BCVWD 26	06-Jan-13	TRICHLOROETHYLENE	< 0.5	UG/L
BAN C-04	27-Dec-11	COPPER	< 50	UG/L	BCVWD 26	06-Jan-13	TURBIDITY, LABORATORY	< 0.2	NTU
BAN C-04	22-Mar-14	COPPER	< 50	UG/L	BCVWD 26	06-Jan-13	ZINC	< 50	UG/L
BAN C-04	13-Mar-17	COPPER	< 50	UG/L	BCVWD 29	06-Jan-13	ALKALINITY (AS CaCO3)	150	MG/L
BAN C-04	27-Dec-11	DBCP	< 0.01	UG/L	BCVWD 29	09-Dec-16	ALKALINITY (AS CaCO3)	160	MG/L
BAN C-04	22-Mar-14	DBCP	< 0.01	UG/L	BCVWD 29	06-Jan-13	ALUMINUM	< 50	UG/L
BAN C-04	08-Mar-17	DBCP	< 0.01	UG/L	BCVWD 29	15-Dec-16	ALUMINUM	< 50	UG/L
BAN C-04	27-Dec-11	FLUORIDE (F)	0.3	MG/L	BCVWD 29	06-Jan-13	ARSENIC	< 2	UG/L
BAN C-04	22-Mar-14	FLUORIDE (F)	0.3	MG/L	BCVWD 29	14-Dec-16	ARSENIC	< 2	UG/L
BAN C-04	13-Mar-17	FLUORIDE (F)	0.4	MG/L	BCVWD 29	06-Jan-13	BICARBONATE ALKALINITY	180	MG/L
BAN C-04	27-Dec-11	HARDNESS AS CaCO3	130	MG/L	BCVWD 29	09-Dec-16	BICARBONATE ALKALINITY	190	MG/L
BAN C-04	22-Mar-14	HARDNESS AS CaCO3	120	MG/L	BCVWD 29	06-Jan-13	CALCIUM	42	MG/L
BAN C-04	13-Mar-17	HARDNESS AS CaCO3	67	MG/L	BCVWD 29	15-Dec-16	CALCIUM	42	MG/L

Well_Name	Sample Date	Analyte	Concent.	Unit	Well_Name	Sample Date	Analyte	Concent.	Unit
BAN C-04	27-Dec-11	HYDROXIDE ALKALINITY	< 3	MG/L	BCVWD 29	06-Jan-13	CARBONATE ALKALINITY	< 3	MG/L
BAN C-04	22-Mar-14	HYDROXIDE ALKALINITY	< 3	MG/L	BCVWD 29	09-Dec-16	CARBONATE ALKALINITY	< 3	MG/L
BAN C-04	13-Mar-17	HYDROXIDE ALKALINITY	< 3	MG/L	BCVWD 29	06-Jan-13	CHLORIDE	12	MG/L
BAN C-04	27-Dec-11	IRON	< 100	UG/L	BCVWD 29	09-Dec-16	CHLORIDE	13	MG/L
BAN C-04	22-Mar-14	IRON	< 100	UG/L	BCVWD 29	06-Jan-13	CHROMIUM (TOTAL)	8.7	UG/L
BAN C-04	13-Mar-17	IRON	< 100	UG/L	BCVWD 29	15-Dec-16	CHROMIUM (TOTAL)	7.6	UG/L
BAN C-04	27-Dec-11	LEAD	< 5	UG/L	BCVWD 29	22-Oct-14	CHROMIUM, HEXAVALENT	8.1	UG/L
BAN C-04	22-Mar-14	LEAD	< 5	UG/L	BCVWD 29	06-Jan-13	COPPER	< 50	UG/L
BAN C-04	13-Mar-17	LEAD	< 5	UG/L	BCVWD 29	15-Dec-16	COPPER	< 50	UG/L
BAN C-04	27-Dec-11	MAGNESIUM	8.9	MG/L	BCVWD 29	09-Dec-16	DBCP	< 0.01	UG/L
BAN C-04	22-Mar-14	MAGNESIUM	7.4	MG/L	BCVWD 29	06-Jan-13	FLUORIDE	0.6	MG/L
BAN C-04	13-Mar-17	MAGNESIUM	3.1	MG/L	BCVWD 29	16-Dec-16	FLUORIDE	0.4	MG/L
BAN C-04	27-Dec-11	MANGANESE	< 20	UG/L	BCVWD 29	06-Jan-13	HARDNESS (AS CaCO3)	170	MG/L
BAN C-04	22-Mar-14	MANGANESE	< 20	UG/L	BCVWD 29	15-Dec-16	HARDNESS (AS CaCO3)	170	MG/L
BAN C-04	13-Mar-17	MANGANESE	< 20	UG/L	BCVWD 29	06-Jan-13	HYDROXIDE ALKALINITY	< 3	MG/L
BAN C-04	27-Apr-16	NITRATE (AS N)	0.89	MG/L	BCVWD 29	09-Dec-16	HYDROXIDE ALKALINITY	< 3	MG/L
BAN C-04	06-Mar-17	NITRATE (AS N)	0.79	MG/L	BCVWD 29	06-Jan-13	IRON	< 100	UG/L
BAN C-04	26-Apr-17	NITRATE (AS N)	0.91	MG/L	BCVWD 29	15-Dec-16	IRON	< 100	UG/L
BAN C-04	13-Apr-11	NITRATE (AS NO3)	6.6	MG/L	BCVWD 29	06-Jan-13	LEAD	< 5	UG/L
BAN C-04	27-Dec-11	NITRATE (AS NO3)	6.7	MG/L	BCVWD 29	14-Dec-16	LEAD	< 5	UG/L
BAN C-04	14-Jun-12	NITRATE (AS NO3)	5.2	MG/L	BCVWD 29	06-Jan-13	MAGNESIUM	15	MG/L
BAN C-04	12-Jun-13	NITRATE (AS NO3)	4	MG/L	BCVWD 29	15-Dec-16	MAGNESIUM	15	MG/L
BAN C-04	22-Mar-14	NITRATE (AS NO3)	4.9	MG/L	BCVWD 29	06-Jan-13	MANGANESE	< 20	UG/L
BAN C-04	29-May-14	NITRATE (AS NO3)	4.7	MG/L	BCVWD 29	15-Dec-16	MANGANESE	< 20	UG/L
BAN C-04	30-Apr-15	NITRATE (AS NO3)	5	MG/L	BCVWD 29	09-Dec-16	NITRATE (AS N)	2.3	MG/L
BAN C-04	27-Dec-11	NITRITE (AS N)	< 100	MG/L	BCVWD 29	15-Dec-11	NITRATE (AS NO3)	7	MG/L
BAN C-04	17-Jul-13	NITRITE (AS N)	< 100	MG/L	BCVWD 29	06-Jan-13	NITRATE (AS NO3)	8.2	MG/L
BAN C-04	22-Mar-14	NITRITE (AS N)	< 100	MG/L	BCVWD 29	23-Oct-13	NITRATE (AS NO3)	9.3	MG/L
BAN C-04	27-Apr-16	NITRITE (AS N)	< 0.1	MG/L	BCVWD 29	06-Jan-13	NITRITE (AS N)	< 100	MG/L
BAN C-04	07-Mar-17	NITRITE (AS N)	< 0.1	MG/L	BCVWD 29	08-Dec-16	NITRITE (AS N)	< 0.1	MG/L
BAN C-04	26-Apr-17	NITRITE (AS N)	< 0.1	MG/L	BCVWD 29	06-Jan-13	POTASSIUM	1.6	MG/L
BAN C-04	27-Dec-11	POTASSIUM	1.3	MG/L	BCVWD 29	15-Dec-16	POTASSIUM	1.5	MG/L
BAN C-04	22-Mar-14	POTASSIUM	1.5	MG/L	BCVWD 29	06-Jan-13	SODIUM	19	MG/L
BAN C-04	13-Mar-17	POTASSIUM	1.4	MG/L	BCVWD 29	15-Dec-16	SODIUM	19	MG/L
BAN C-04	27-Dec-11	SODIUM	25	MG/L	BCVWD 29	06-Jan-13	SPECIFIC CONDUCTANCE	390	US
BAN C-04	22-Mar-14	SODIUM	27	MG/L	BCVWD 29	06-Jan-13	SULFATE	10	MG/L
BAN C-04	13-Mar-17	SODIUM	37	MG/L	BCVWD 29	09-Dec-16	SULFATE	11	MG/L

Well_Name	Sample Date	Analyte	Concent.	Unit	Well_Name	Sample Date	Analyte	Concent.	Unit
BAN C-04	27-Dec-11	SPECIFIC CONDUCTANCE	360	US	BCVWD 29	06-Jan-13	TETRACHLOROETHYLENE	< 0.5	UG/L
BAN C-04	22-Mar-14	SPECIFIC CONDUCTANCE	360	US	BCVWD 29	12-Dec-16	TETRACHLOROETHYLENE	< 0.5	UG/L
BAN C-04	09-Mar-17	SPECIFIC CONDUCTANCE	290	US	BCVWD 29	06-Jan-13	TOTAL DISSOLVED SOLIDS	280	MG/L
BAN C-04	27-Dec-11	SULFATE	9.4	MG/L	BCVWD 29	13-Dec-16	TOTAL DISSOLVED SOLIDS	220	MG/L
BAN C-04	22-Mar-14	SULFATE	11	MG/L	BCVWD 29	06-Jan-13	TRICHLOROETHYLENE	< 0.5	UG/L
BAN C-04	06-Mar-17	SULFATE	13	MG/L	BCVWD 29	12-Dec-16	TRICHLOROETHYLENE	< 0.5	UG/L
BAN C-04	27-Dec-11	TETRACHLOROETHYLENE	< 0.5	UG/L	BCVWD 29	06-Jan-13	TURBIDITY, LABORATORY	< 0.2	NTU
BAN C-04	22-Mar-14	TETRACHLOROETHYLENE	< 0.5	UG/L	BCVWD 29	08-Dec-16	TURBIDITY, LABORATORY	< 0.1	NTU
BAN C-04	07-Mar-17	TETRACHLOROETHYLENE	< 0.5	UG/L	BCVWD 29	06-Jan-13	ZINC	< 50	UG/L
BAN C-04	27-Dec-11	TOTAL DISSOLVED SOLIDS	240	MG/L	BCVWD 29	15-Dec-16	ZINC	< 50	UG/L
BAN C-04	22-Mar-14	TOTAL DISSOLVED SOLIDS	180	MG/L	Plantation 01	22-Mar-11	ALKALINITY (AS CaCO3)	180	MG/L
BAN C-04	08-Mar-17	TOTAL DISSOLVED SOLIDS	190	MG/L	Plantation 01	25-Mar-14	ALKALINITY (AS CaCO3)	200	MG/L
BAN C-04	27-Dec-11	TRICHLOROETHYLENE	< 0.5	UG/L	Plantation 01	23-Mar-17	ALKALINITY (AS CaCO3)	200	MG/L
BAN C-04	22-Mar-14	TRICHLOROETHYLENE	< 0.5	UG/L	Plantation 01	22-Mar-11	ALUMINUM	< 50	UG/L
BAN C-04	07-Mar-17	TRICHLOROETHYLENE	< 0.5	UG/L	Plantation 01	25-Mar-14	ALUMINUM	< 50	UG/L
BAN C-04	27-Dec-11	TURBIDITY, LABORATORY	< 0.2	NTU	Plantation 01	23-Mar-17	ALUMINUM	< 50	UG/L
BAN C-04	22-Mar-14	TURBIDITY, LABORATORY	< 0.2	NTU	Plantation 01	22-Mar-11	ARSENIC	< 2	UG/L
BAN C-04	06-Mar-17	TURBIDITY, LABORATORY	< 0.1	NTU	Plantation 01	25-Mar-14	ARSENIC	< 2	UG/L
BAN C-04	27-Dec-11	ZINC	< 50	UG/L	Plantation 01	27-Mar-17	ARSENIC	< 2	UG/L
BAN C-04	22-Mar-14	ZINC	< 50	UG/L	Plantation 01	22-Mar-11	BICARBONATE ALKALINITY	230	MG/L
BAN C-04	13-Mar-17	ZINC	< 50	UG/L	Plantation 01	25-Mar-14	BICARBONATE ALKALINITY	240	MG/L
BAN M-3	20-Mar-12	ALKALINITY (AS CaCO3)	180	MG/L	Plantation 01	23-Mar-17	BICARBONATE ALKALINITY	240	MG/L
BAN M-3	24-Mar-15	ALKALINITY (AS CaCO3)	150	MG/L	Plantation 01	22-Mar-11	CALCIUM	45	MG/L
BAN M-3	20-Mar-12	ALUMINUM	< 50	UG/L	Plantation 01	25-Mar-14	CALCIUM	53	MG/L
BAN M-3	24-Mar-15	ALUMINUM	< 50	UG/L	Plantation 01	23-Mar-17	CALCIUM	50	MG/L
BAN M-3	20-Mar-12	ARSENIC	< 2	UG/L	Plantation 01	22-Mar-11	CARBONATE ALKALINITY	< 3	MG/L
BAN M-3	24-Mar-15	ARSENIC	< 2	UG/L	Plantation 01	25-Mar-14	CARBONATE ALKALINITY	< 3	MG/L
BAN M-3	20-Mar-12	BICARBONATE ALKALINITY	220	MG/L	Plantation 01	23-Mar-17	CARBONATE ALKALINITY	< 3	MG/L
BAN M-3	24-Mar-15	BICARBONATE ALKALINITY	190	MG/L	Plantation 01	22-Mar-11	CHLORIDE	13	MG/L
BAN M-3	20-Mar-12	CALCIUM	41	MG/L	Plantation 01	25-Mar-14	CHLORIDE	14	MG/L
BAN M-3	24-Mar-15	CALCIUM	39	MG/L	Plantation 01	20-Mar-17	CHLORIDE	14	MG/L
BAN M-3	20-Mar-12	CARBONATE ALKALINITY	< 3	MG/L	Plantation 01	22-Mar-11	CHROMIUM (TOTAL)	5.7	UG/L
BAN M-3	24-Mar-15	CARBONATE ALKALINITY	< 3	MG/L	Plantation 01	25-Mar-14	CHROMIUM (TOTAL)	4.8	UG/L
BAN M-3	20-Mar-12	CHLORIDE	15	MG/L	Plantation 01	22-Mar-17	CHROMIUM (TOTAL)	5.4	UG/L
BAN M-3	24-Mar-15	CHLORIDE	14	MG/L	Plantation 01	26-Dec-14	CHROMIUM, HEXAVALENT	4.9	UG/L
BAN M-3	20-Mar-12	CHROMIUM (TOTAL)	10	UG/L	Plantation 01	22-Mar-11	COPPER	< 50	UG/L
BAN M-3	24-Mar-15	CHROMIUM (TOTAL)	8.5	UG/L	Plantation 01	25-Mar-14	COPPER	< 50	UG/L

Well_Name	Sample Date	Analyte	Concent.	Unit	Well_Name	Sample Date	Analyte	Concent.	Unit
BAN M-3	09-Dec-14	CHROMIUM, HEXAVALENT	9.3	UG/L	Plantation 01	23-Mar-17	COPPER	< 50	UG/L
BAN M-3	24-Mar-15	CHROMIUM, HEXAVALENT	9.7	UG/L	Plantation 01	25-Mar-14	DBCP	< 0.01	UG/L
BAN M-3	27-Jun-15	CHROMIUM, HEXAVALENT	10	UG/L	Plantation 01	22-Mar-11	FLUORIDE	0.4	MG/L
BAN M-3	01-Oct-15	CHROMIUM, HEXAVALENT	10	UG/L	Plantation 01	25-Mar-14	FLUORIDE	0.5	MG/L
BAN M-3	30-Dec-15	CHROMIUM, HEXAVALENT	9.9	UG/L	Plantation 01	24-Mar-17	FLUORIDE	0.5	MG/L
BAN M-3	29-Mar-16	CHROMIUM, HEXAVALENT	9.4	UG/L	Plantation 01	22-Mar-11	HARDNESS (AS CaCO3)	180	MG/L
BAN M-3	24-Jun-16	CHROMIUM, HEXAVALENT	9.1	UG/L	Plantation 01	25-Mar-14	HARDNESS (AS CaCO3)	210	MG/L
BAN M-3	22-Sep-16	CHROMIUM, HEXAVALENT	9.3	UG/L	Plantation 01	23-Mar-17	HARDNESS (AS CaCO3)	200	MG/L
BAN M-3	04-Jan-17	CHROMIUM, HEXAVALENT	9.4	UG/L	Plantation 01	22-Mar-11	HYDROXIDE ALKALINITY	< 3	MG/L
BAN M-3	20-Mar-12	COPPER	< 50	UG/L	Plantation 01	25-Mar-14	HYDROXIDE ALKALINITY	< 3	MG/L
BAN M-3	24-Mar-15	COPPER	< 50	UG/L	Plantation 01	23-Mar-17	HYDROXIDE ALKALINITY	< 3	MG/L
BAN M-3	20-Mar-12	DBCP	< 0.01	UG/L	Plantation 01	22-Mar-11	IRON	< 100	UG/L
BAN M-3	24-Mar-15	DBCP	< 0.01	UG/L	Plantation 01	25-Mar-14	IRON	< 100	UG/L
BAN M-3	20-Mar-12	FLUORIDE	0.4	MG/L	Plantation 01	23-Mar-17	IRON	< 100	UG/L
BAN M-3	24-Mar-15	FLUORIDE	0.3	MG/L	Plantation 01	22-Mar-11	LEAD	< 5	UG/L
BAN M-3	20-Mar-12	HARDNESS (AS CaCO3)	160	MG/L	Plantation 01	25-Mar-14	LEAD	< 5	UG/L
BAN M-3	24-Mar-15	HARDNESS (AS CaCO3)	150	MG/L	Plantation 01	27-Mar-17	LEAD	< 5	UG/L
BAN M-3	20-Mar-12	HYDROXIDE ALKALINITY	< 3	MG/L	Plantation 01	22-Mar-11	MAGNESIUM	16	MG/L
BAN M-3	24-Mar-15	HYDROXIDE ALKALINITY	< 3	MG/L	Plantation 01	25-Mar-14	MAGNESIUM	18	MG/L
BAN M-3	20-Mar-12	IRON	< 100	UG/L	Plantation 01	23-Mar-17	MAGNESIUM	17	MG/L
BAN M-3	24-Mar-15	IRON	< 100	UG/L	Plantation 01	22-Mar-11	MANGANESE	< 20	UG/L
BAN M-3	20-Mar-12	LEAD	< 5	UG/L	Plantation 01	25-Mar-14	MANGANESE	< 20	UG/L
BAN M-3	24-Mar-15	LEAD	< 5	UG/L	Plantation 01	23-Mar-17	MANGANESE	< 20	UG/L
BAN M-3	20-Mar-12	MAGNESIUM	14	MG/L	Plantation 01	22-Oct-16	NITRATE (AS N)	1.8	MG/L
BAN M-3	24-Mar-15	MAGNESIUM	13	MG/L	Plantation 01	20-Mar-17	NITRATE (AS N)	1.8	MG/L
BAN M-3	20-Mar-12	MANGANESE	< 20	UG/L	Plantation 01	22-Mar-11	NITRATE (AS NO3)	8.4	MG/L
BAN M-3	24-Mar-15	MANGANESE	< 20	UG/L	Plantation 01	13-Mar-12	NITRATE (AS NO3)	8	MG/L
BAN M-3	27-Apr-16	NITRATE (AS N)	2.1	MG/L	Plantation 01	27-Mar-13	NITRATE (AS NO3)	7.5	MG/L
BAN M-3	27-Apr-17	NITRATE (AS N)	2.2	MG/L	Plantation 01	25-Mar-14	NITRATE (AS NO3)	8.6	MG/L
BAN M-3	13-Apr-11	NITRATE (AS NO3)	8	MG/L	Plantation 01	31-May-14	NITRATE (AS NO3)	1.8	MG/L
BAN M-3	20-Mar-12	NITRATE (AS NO3)	7.9	MG/L	Plantation 01	22-Mar-11	NITRITE (AS N)	< 100	MG/L
BAN M-3	23-Jul-13	NITRATE (AS NO3)	8.1	MG/L	Plantation 01	25-Mar-14	NITRITE (AS N)	< 100	MG/L
BAN M-3	20-Jun-14	NITRATE (AS NO3)	8	MG/L	Plantation 01	21-Mar-17	NITRITE (AS N)	< 0.1	MG/L
BAN M-3	24-Mar-15	NITRATE (AS NO3)	7.2	MG/L	Plantation 01	22-Mar-11	POTASSIUM	1.7	MG/L
BAN M-3	22-Apr-15	NITRATE (AS NO3)	7.8	MG/L	Plantation 01	22-Mar-11	SODIUM	18	MG/L
BAN M-3	20-Mar-12	NITRITE (AS N)	< 100	MG/L	Plantation 01	25-Mar-14	SODIUM	20	MG/L
BAN M-3	23-Jul-13	NITRITE (AS N)	< 100	MG/L	Plantation 01	23-Mar-17	SODIUM	20	MG/L

Well_Name	Sample Date	Analyte	Concent.	Unit	Well_Name	Sample Date	Analyte	Concent.	Unit
BAN M-3	24-Mar-15	NITRITE (AS N)	< 100	MG/L	Plantation 01	22-Mar-11	SPECIFIC CONDUCTANCE	440	US
BAN M-3	27-Apr-16	NITRITE (AS N)	< 0.1	MG/L	Plantation 01	25-Mar-14	SPECIFIC CONDUCTANCE	440	US
BAN M-3	26-Apr-17	NITRITE (AS N)	< 0.1	MG/L	Plantation 01	21-Mar-17	SPECIFIC CONDUCTANCE	450	US
BAN M-3	20-Mar-12	POTASSIUM	2.3	MG/L	Plantation 01	22-Mar-11	SULFATE	12	MG/L
BAN M-3	24-Mar-15	POTASSIUM	2	MG/L	Plantation 01	25-Mar-14	SULFATE	12	MG/L
BAN M-3	20-Mar-12	SODIUM	38	MG/L	Plantation 01	20-Mar-17	SULFATE	10	MG/L
BAN M-3	24-Mar-15	SODIUM	39	MG/L	Plantation 01	22-Mar-11	TOTAL DISSOLVED SOLIDS	240	MG/L
BAN M-3	20-Mar-12	SPECIFIC CONDUCTANCE	470	US	Plantation 01	25-Mar-14	TOTAL DISSOLVED SOLIDS	250	MG/L
BAN M-3	24-Mar-15	SPECIFIC CONDUCTANCE	460	US	Plantation 01	21-Mar-17	TOTAL DISSOLVED SOLIDS	270	MG/L
BAN M-3	20-Mar-12	SULFATE	36	MG/L	Plantation 01	22-Mar-11	TURBIDITY, LABORATORY	< 0.2	NTU
BAN M-3	24-Mar-15	SULFATE	35	MG/L	Plantation 01	25-Mar-14	TURBIDITY, LABORATORY	0.28	NTU
BAN M-3	20-Mar-12	TETRACHLOROETHYLENE	< 0.5	UG/L	Plantation 01	20-Mar-17	TURBIDITY, LABORATORY	< 0.1	NTU
BAN M-3	24-Mar-15	TETRACHLOROETHYLENE	< 0.5	UG/L	Plantation 01	22-Mar-11	ZINC	< 50	UG/L
BAN M-3	20-Mar-12	TOTAL DISSOLVED SOLIDS	290	MG/L	Plantation 01	25-Mar-14	ZINC	< 50	UG/L
BAN M-3	24-Mar-15	TOTAL DISSOLVED SOLIDS	300	MG/L	Plantation 01	23-Mar-17	ZINC	< 50	UG/L
BAN M-3	20-Mar-12	TRICHLOROETHYLENE	< 0.5	UG/L	RCMHP 01	08-Feb-11	ALKALINITY (AS CaCO3)	180	MG/L
BAN M-3	24-Mar-15	TRICHLOROETHYLENE	< 0.5	UG/L	RCMHP 01	09-Feb-16	ALKALINITY (AS CaCO3)	170	MG/L
BAN M-3	20-Mar-12	TURBIDITY, LABORATORY	< 0.2	NTU	RCMHP 01	08-Feb-11	ALUMINUM	< 50	UG/L
BAN M-3	24-Mar-15	TURBIDITY, LABORATORY	< 0.2	NTU	RCMHP 01	10-Feb-16	ALUMINUM	< 50	UG/L
BAN M-3	20-Mar-12	ZINC	< 50	UG/L	RCMHP 01	08-Feb-11	ARSENIC	< 2	UG/L
BAN M-3	24-Mar-15	ZINC	< 50	UG/L	RCMHP 01	10-Feb-16	ARSENIC	< 2	UG/L
BCVWD 01	15-Dec-11	NITRATE (AS NO3)	4.4	MG/L	RCMHP 01	08-Feb-11	BICARBONATE ALKALINITY	220	MG/L
BCVWD 01	20-Dec-12	NITRATE (AS NO3)	2.7	MG/L	RCMHP 01	09-Feb-16	BICARBONATE ALKALINITY	210	MG/L
BCVWD 03	31-Oct-13	ALKALINITY (AS CaCO3)	150	MG/L	RCMHP 01	08-Feb-11	CALCIUM	46	MG/L
BCVWD 03	23-Aug-16	ALKALINITY (AS CaCO3)	150	MG/L	RCMHP 01	10-Feb-16	CALCIUM	44	MG/L
BCVWD 03	31-Oct-13	ALUMINUM	< 50	UG/L	RCMHP 01	08-Feb-11	CARBONATE ALKALINITY	< 3	MG/L
BCVWD 03	25-Aug-16	ALUMINUM	< 50	UG/L	RCMHP 01	09-Feb-16	CARBONATE ALKALINITY	< 3	MG/L
BCVWD 03	31-Oct-13	ARSENIC	< 2	UG/L	RCMHP 01	08-Feb-11	CHLORIDE	18	MG/L
BCVWD 03	25-Aug-16	ARSENIC	< 2	UG/L	RCMHP 01	06-Feb-16	CHLORIDE	14	MG/L
BCVWD 03	31-Oct-13	BICARBONATE ALKALINITY	180	MG/L	RCMHP 01	08-Feb-11	CHROMIUM (TOTAL)	6.2	UG/L
BCVWD 03	23-Aug-16	BICARBONATE ALKALINITY	190	MG/L	RCMHP 01	09-Feb-16	CHROMIUM (TOTAL)	6	UG/L
BCVWD 03	31-Oct-13	CALCIUM	37	MG/L	RCMHP 01	06-Aug-14	CHROMIUM, HEXAVALENT	5.3	UG/L
BCVWD 03	25-Aug-16	CALCIUM	37	MG/L	RCMHP 01	09-Feb-16	CHROMIUM, HEXAVALENT	6	UG/L
BCVWD 03	31-Oct-13	CARBONATE ALKALINITY	< 3	MG/L	RCMHP 01	08-Feb-11	COPPER	< 50	UG/L
BCVWD 03	23-Aug-16	CARBONATE ALKALINITY	< 3	MG/L	RCMHP 01	10-Feb-16	COPPER	< 50	UG/L
BCVWD 03	31-Oct-13	CHLORIDE	7.6	MG/L	RCMHP 01	08-Feb-11	FLUORIDE	0.5	MG/L
BCVWD 03	19-Aug-16	CHLORIDE	13	MG/L	RCMHP 01	05-Feb-16	FLUORIDE	0.5	MG/L

Well_Name	Sample Date	Analyte	Concent.	Unit	Well_Name	Sample Date	Analyte	Concent.	Unit
BCVWD 03	31-Oct-13	CHROMIUM (TOTAL)	11	UG/L	RCMHP 01	08-Feb-11	HARDNESS (AS CaCO3)	190	MG/L
BCVWD 03	25-Aug-16	CHROMIUM (TOTAL)	8.4	UG/L	RCMHP 01	10-Feb-16	HARDNESS (AS CaCO3)	180	MG/L
BCVWD 03	07-Nov-13	CHROMIUM, HEXAVALENT	12	UG/L	RCMHP 01	08-Feb-11	HYDROXIDE ALKALINITY	< 3	MG/L
BCVWD 03	22-Oct-14	CHROMIUM, HEXAVALENT	11	UG/L	RCMHP 01	09-Feb-16	HYDROXIDE ALKALINITY	< 3	MG/L
BCVWD 03	01-Apr-15	CHROMIUM, HEXAVALENT	9.5	UG/L	RCMHP 01	08-Feb-11	IRON	< 100	UG/L
BCVWD 03	23-Aug-16	CHROMIUM, HEXAVALENT	7.3	UG/L	RCMHP 01	10-Feb-16	IRON	< 100	UG/L
BCVWD 03	31-Oct-13	COPPER	< 50	UG/L	RCMHP 01	08-Feb-11	LEAD	5.8	UG/L
BCVWD 03	25-Aug-16	COPPER	< 50	UG/L	RCMHP 01	10-Feb-16	LEAD	< 5	UG/L
BCVWD 03	22-Dec-11	DBCP	< 0.01	UG/L	RCMHP 01	08-Feb-11	MAGNESIUM	17	MG/L
BCVWD 03	19-Aug-16	DBCP	< 0.01	UG/L	RCMHP 01	10-Feb-16	MAGNESIUM	16	MG/L
BCVWD 03	31-Oct-13	FLUORIDE	0.3	MG/L	RCMHP 01	08-Feb-11	MANGANESE	< 20	UG/L
BCVWD 03	25-Aug-16	FLUORIDE	0.5	MG/L	RCMHP 01	10-Feb-16	MANGANESE	< 20	UG/L
BCVWD 03	31-Oct-13	HARDNESS (AS CaCO3)	130	MG/L	RCMHP 01	05-Jan-16	NITRATE (AS N)	4.6	MG/L
BCVWD 03	31-Oct-13	HYDROXIDE ALKALINITY	< 3	MG/L	RCMHP 01	06-Feb-16	NITRATE (AS N)	4.1	MG/L
BCVWD 03	23-Aug-16	HYDROXIDE ALKALINITY	< 3	MG/L	RCMHP 01	17-Jan-17	NITRATE (AS N)	4.6	MG/L
BCVWD 03	31-Oct-13	IRON	< 100	UG/L	RCMHP 01	07-Jan-11	NITRATE (AS NO3)	18	MG/L
BCVWD 03	25-Aug-16	IRON	450	UG/L	RCMHP 01	02-Jul-11	NITRATE (AS NO3)	19	MG/L
BCVWD 03	31-Oct-13	LEAD	< 5	UG/L	RCMHP 01	07-Oct-11	NITRATE (AS NO3)	19	MG/L
BCVWD 03	25-Aug-16	LEAD	< 5	UG/L	RCMHP 01	06-Jan-12	NITRATE (AS NO3)	20	MG/L
BCVWD 03	31-Oct-13	MAGNESIUM	9.4	MG/L	RCMHP 01	05-Jan-13	NITRATE (AS NO3)	17	MG/L
BCVWD 03	25-Aug-16	MAGNESIUM	13	MG/L	RCMHP 01	04-Jan-14	NITRATE (AS NO3)	19	MG/L
BCVWD 03	31-Oct-13	MANGANESE	< 20	UG/L	RCMHP 01	05-Apr-14	NITRATE (AS NO3)	28	MG/L
BCVWD 03	25-Aug-16	MANGANESE	< 20	UG/L	RCMHP 01	02-Jan-15	NITRATE (AS NO3)	19	MG/L
BCVWD 03	19-Aug-16	NITRATE (AS N)	1.7	MG/L	RCMHP 01	08-Feb-11	NITRITE (AS N)	< 100	MG/L
BCVWD 03	22-Dec-11	NITRATE (AS NO3)	3.4	MG/L	RCMHP 01	05-Feb-16	NITRITE (AS N)	< 0.1	MG/L
BCVWD 03	19-Dec-12	NITRATE (AS NO3)	2.8	MG/L	RCMHP 01	08-Feb-11	SODIUM	24	MG/L
BCVWD 03	31-Oct-13	NITRATE (AS NO3)	3.9	MG/L	RCMHP 01	10-Feb-16	SODIUM	22	MG/L
BCVWD 03	31-Oct-13	NITRITE (AS N)	< 100	MG/L	RCMHP 01	08-Feb-11	SPECIFIC CONDUCTANCE	730	US
BCVWD 03	18-Aug-16	NITRITE (AS N)	< 0.1	MG/L	RCMHP 01	05-Feb-16	SPECIFIC CONDUCTANCE	440	US
BCVWD 03	31-Oct-13	POTASSIUM	1.7	MG/L	RCMHP 01	08-Feb-11	SULFATE	10	MG/L
BCVWD 03	25-Aug-16	POTASSIUM	1.5	MG/L	RCMHP 01	06-Feb-16	SULFATE	9	MG/L
BCVWD 03	31-Oct-13	SODIUM	25	MG/L	RCMHP 01	06-Feb-16	TETRACHLOROETHYLENE	< 0.5	UG/L
BCVWD 03	25-Aug-16	SODIUM	24	MG/L	RCMHP 01	08-Feb-11	TOTAL DISSOLVED SOLIDS	280	MG/L
BCVWD 03	31-Oct-13	SPECIFIC CONDUCTANCE	350	US	RCMHP 01	10-Feb-16	TOTAL DISSOLVED SOLIDS	260	MG/L
BCVWD 03	19-Aug-16	SPECIFIC CONDUCTANCE	380	US	RCMHP 01	06-Feb-16	TRICHLOROETHYLENE	< 0.5	UG/L
BCVWD 03	31-Oct-13	SULFATE	11	MG/L	RCMHP 01	08-Feb-11	TURBIDITY, LABORATORY	0.58	NTU
BCVWD 03	19-Aug-16	SULFATE	11	MG/L	RCMHP 01	05-Feb-16	TURBIDITY, LABORATORY	0.11	NTU

Well_Name	Sample Date	Analyte	Concent.	Unit	Well_Name	Sample Date	Analyte	Concent.	Unit
BCVWD 03	22-Dec-11	TETRACHLOROETHYLENE	< 0.5	UG/L	RCMHP 01	08-Feb-11	ZINC	250	UG/L
BCVWD 03	19-Aug-16	TETRACHLOROETHYLENE	< 0.5	UG/L	RCMHP 01	10-Feb-16	ZINC	< 50	UG/L
BCVWD 03	15-Nov-13	TOTAL DISSOLVED SOLIDS	210	MG/L	RCMHP 02	05-Feb-13	ALKALINITY (AS CaCO3)	170	MG/L
BCVWD 03	22-Aug-16	TOTAL DISSOLVED SOLIDS	240	MG/L	RCMHP 02	09-Feb-16	ALKALINITY (AS CaCO3)	170	MG/L
BCVWD 03	22-Dec-11	TRICHLOROETHYLENE	< 0.5	UG/L	RCMHP 02	05-Feb-13	ALUMINUM	< 50	UG/L
BCVWD 03	19-Aug-16	TRICHLOROETHYLENE	< 0.5	UG/L	RCMHP 02	10-Feb-16	ALUMINUM	< 50	UG/L
BCVWD 03	31-Oct-13	TURBIDITY, LABORATORY	< 0.2	NTU	RCMHP 02	05-Feb-13	ARSENIC	< 2	UG/L
BCVWD 03	18-Aug-16	TURBIDITY, LABORATORY	1.7	NTU	RCMHP 02	10-Feb-16	ARSENIC	< 2	UG/L
BCVWD 03	31-Oct-13	ZINC	< 50	UG/L	RCMHP 02	05-Feb-13	BICARBONATE ALKALINITY	210	MG/L
BCVWD 03	25-Aug-16	ZINC	< 50	UG/L	RCMHP 02	09-Feb-16	BICARBONATE ALKALINITY	210	MG/L
BCVWD 16	31-Oct-13	ALKALINITY (AS CaCO3)	180	MG/L	RCMHP 02	05-Feb-13	CALCIUM	41	MG/L
BCVWD 16	09-Dec-16	ALKALINITY (AS CaCO3)	180	MG/L	RCMHP 02	10-Feb-16	CALCIUM	40	MG/L
BCVWD 16	31-Oct-13	ALUMINUM	< 50	UG/L	RCMHP 02	05-Feb-13	CARBONATE ALKALINITY	< 3	MG/L
BCVWD 16	15-Dec-16	ALUMINUM	< 50	UG/L	RCMHP 02	09-Feb-16	CARBONATE ALKALINITY	< 3	MG/L
BCVWD 16	31-Oct-13	ARSENIC	< 2	UG/L	RCMHP 02	05-Feb-13	CHLORIDE	23	MG/L
BCVWD 16	14-Dec-16	ARSENIC	< 2	UG/L	RCMHP 02	06-Feb-16	CHLORIDE	20	MG/L
BCVWD 16	31-Oct-13	BICARBONATE ALKALINITY	220	MG/L	RCMHP 02	05-Feb-13	CHROMIUM (TOTAL)	7.5	UG/L
BCVWD 16	09-Dec-16	BICARBONATE ALKALINITY	220	MG/L	RCMHP 02	09-Feb-16	CHROMIUM (TOTAL)	13	UG/L
BCVWD 16	31-Oct-13	CALCIUM	52	MG/L	RCMHP 02	06-Aug-14	CHROMIUM, HEXAVALENT	6.7	UG/L
BCVWD 16	15-Dec-16	CALCIUM	53	MG/L	RCMHP 02	09-Feb-16	CHROMIUM, HEXAVALENT	12	UG/L
BCVWD 16	31-Oct-13	CARBONATE ALKALINITY	< 3	MG/L	RCMHP 02	30-Aug-16	CHROMIUM, HEXAVALENT	7	UG/L
BCVWD 16	09-Dec-16	CARBONATE ALKALINITY	< 3	MG/L	RCMHP 02	03-Dec-16	CHROMIUM, HEXAVALENT	8.3	UG/L
BCVWD 16	31-Oct-13	CHLORIDE	16	MG/L	RCMHP 02	24-Jan-17	CHROMIUM, HEXAVALENT	10	UG/L
BCVWD 16	09-Dec-16	CHLORIDE	20	MG/L	RCMHP 02	05-Feb-13	COPPER	62	UG/L
BCVWD 16	31-Oct-13	CHROMIUM (TOTAL)	11	UG/L	RCMHP 02	10-Feb-16	COPPER	< 50	UG/L
BCVWD 16	15-Dec-16	CHROMIUM (TOTAL)	4.1	UG/L	RCMHP 02	05-Feb-13	FLUORIDE	0.8	MG/L
BCVWD 16	22-Oct-14	CHROMIUM, HEXAVALENT	4.4	UG/L	RCMHP 02	05-Feb-16	FLUORIDE	0.7	MG/L
BCVWD 16	05-Nov-15	CHROMIUM, HEXAVALENT	4.6	UG/L	RCMHP 02	05-Feb-13	HARDNESS (AS CaCO3)	170	MG/L
BCVWD 16	31-Oct-13	COPPER	< 50	UG/L	RCMHP 02	10-Feb-16	HARDNESS (AS CaCO3)	170	MG/L
BCVWD 16	15-Dec-16	COPPER	< 50	UG/L	RCMHP 02	05-Feb-13	HYDROXIDE ALKALINITY	< 3	MG/L
BCVWD 16	31-Oct-13	DBCP	< 0.01	UG/L	RCMHP 02	09-Feb-16	HYDROXIDE ALKALINITY	< 3	MG/L
BCVWD 16	31-Oct-13	FLUORIDE	0.8	MG/L	RCMHP 02	05-Feb-13	IRON	< 100	UG/L
BCVWD 16	16-Dec-16	FLUORIDE	0.8	MG/L	RCMHP 02	10-Feb-16	IRON	< 100	UG/L
BCVWD 16	31-Oct-13	HARDNESS (AS CaCO3)	200	MG/L	RCMHP 02	05-Feb-13	LEAD	< 5	UG/L
BCVWD 16	15-Dec-16	HARDNESS (AS CaCO3)	210	MG/L	RCMHP 02	10-Feb-16	LEAD	< 5	UG/L
BCVWD 16	31-Oct-13	HYDROXIDE ALKALINITY	< 3	MG/L	RCMHP 02	05-Feb-13	MAGNESIUM	17	MG/L
BCVWD 16	09-Dec-16	HYDROXIDE ALKALINITY	< 3	MG/L	RCMHP 02	10-Feb-16	MAGNESIUM	16	MG/L

Well_Name	Sample Date	Analyte	Concent.	Unit	Well_Name	Sample Date	Analyte	Concent.	Unit
BCVWD 16	31-Oct-13	IRON	< 100	UG/L	RCMHP 02	05-Feb-13	MANGANESE	< 20	UG/L
BCVWD 16	15-Dec-16	IRON	< 100	UG/L	RCMHP 02	10-Feb-16	MANGANESE	< 20	UG/L
BCVWD 16	31-Oct-13	LEAD	< 5	UG/L	RCMHP 02	05-Jan-16	NITRATE (AS N)	4.9	MG/L
BCVWD 16	14-Dec-16	LEAD	< 5	UG/L	RCMHP 02	06-Feb-16	NITRATE (AS N)	4.9	MG/L
BCVWD 16	31-Oct-13	MAGNESIUM	18	MG/L	RCMHP 02	01-Jul-16	NITRATE (AS N)	5.5	MG/L
BCVWD 16	15-Dec-16	MAGNESIUM	18	MG/L	RCMHP 02	03-Dec-16	NITRATE (AS N)	6.2	MG/L
BCVWD 16	31-Oct-13	MANGANESE	< 20	UG/L	RCMHP 02	17-Jan-17	NITRATE (AS N)	6.1	MG/L
BCVWD 16	15-Dec-16	MANGANESE	< 20	UG/L	RCMHP 02	07-Jan-11	NITRATE (AS NO3)	36	MG/L
BCVWD 16	15-Dec-15	NITRATE (AS N)	5.7	MG/L	RCMHP 02	09-Apr-11	NITRATE (AS NO3)	36	MG/L
BCVWD 16	12-Jan-16	NITRATE (AS N)	5.9	MG/L	RCMHP 02	02-Jul-11	NITRATE (AS NO3)	37	MG/L
BCVWD 16	10-Feb-16	NITRATE (AS N)	5.8	MG/L	RCMHP 02	07-Oct-11	NITRATE (AS NO3)	37	MG/L
BCVWD 16	13-Apr-16	NITRATE (AS N)	6.2	MG/L	RCMHP 02	06-Jan-12	NITRATE (AS NO3)	35	MG/L
BCVWD 16	26-May-16	NITRATE (AS N)	5.9	MG/L	RCMHP 02	07-Apr-12	NITRATE (AS NO3)	30	MG/L
BCVWD 16	15-Jun-16	NITRATE (AS N)	5.8	MG/L	RCMHP 02	07-Jul-12	NITRATE (AS NO3)	31	MG/L
BCVWD 16	15-Jun-16	NITRATE (AS N)	5.8	MG/L	RCMHP 02	05-Oct-12	NITRATE (AS NO3)	32	MG/L
BCVWD 16	21-Sep-16	NITRATE (AS N)	5.3	MG/L	RCMHP 02	05-Jan-13	NITRATE (AS NO3)	31	MG/L
BCVWD 16	09-Dec-16	NITRATE (AS N)	6.1	MG/L	RCMHP 02	05-Feb-13	NITRATE (AS NO3)	31	MG/L
BCVWD 16	01-Feb-17	NITRATE (AS N)	6.9	MG/L	RCMHP 02	08-Apr-13	NITRATE (AS NO3)	31	MG/L
BCVWD 16	14-Jan-11	NITRATE (AS NO3)	14	MG/L	RCMHP 02	06-Jul-13	NITRATE (AS NO3)	32	MG/L
BCVWD 16	26-May-11	NITRATE (AS NO3)	28	MG/L	RCMHP 02	11-Oct-13	NITRATE (AS NO3)	30	MG/L
BCVWD 16	21-Jun-11	NITRATE (AS NO3)	28	MG/L	RCMHP 02	04-Jan-14	NITRATE (AS NO3)	29	MG/L
BCVWD 16	20-Jul-11	NITRATE (AS NO3)	27	MG/L	RCMHP 02	12-Jul-14	NITRATE (AS NO3)	28	MG/L
BCVWD 16	25-Aug-11	NITRATE (AS NO3)	29	MG/L	RCMHP 02	11-Oct-14	NITRATE (AS NO3)	27	MG/L
BCVWD 16	20-Sep-11	NITRATE (AS NO3)	23	MG/L	RCMHP 02	02-Jan-15	NITRATE (AS NO3)	25	MG/L
BCVWD 16	19-Oct-11	NITRATE (AS NO3)	22	MG/L	RCMHP 02	04-Apr-15	NITRATE (AS NO3)	26	MG/L
BCVWD 16	30-Nov-11	NITRATE (AS NO3)	23	MG/L	RCMHP 02	10-Jul-15	NITRATE (AS NO3)	23	MG/L
BCVWD 16	20-Jun-12	NITRATE (AS NO3)	22	MG/L	RCMHP 02	17-Oct-15	NITRATE (AS NO3)	27	MG/L
BCVWD 16	08-Aug-12	NITRATE (AS NO3)	17	MG/L	RCMHP 02	05-Feb-13	NITRITE (AS N)	< 100	MG/L
BCVWD 16	18-Sep-12	NITRATE (AS NO3)	19	MG/L	RCMHP 02	05-Feb-16	NITRITE (AS N)	< 0.1	MG/L
BCVWD 16	30-Oct-12	NITRATE (AS NO3)	26	MG/L	RCMHP 02	01-Jul-16	NITRITE (AS N)	< 0.1	MG/L
BCVWD 16	19-Dec-12	NITRATE (AS NO3)	25	MG/L	RCMHP 02	05-Feb-13	POTASSIUM	1.4	MG/L
BCVWD 16	22-May-13	NITRATE (AS NO3)	21	MG/L	RCMHP 02	05-Feb-13	SODIUM	35	MG/L
BCVWD 16	13-Jun-13	NITRATE (AS NO3)	21	MG/L	RCMHP 02	10-Feb-16	SODIUM	32	MG/L
BCVWD 16	20-Aug-13	NITRATE (AS NO3)	23	MG/L	RCMHP 02	05-Feb-13	SPECIFIC CONDUCTANCE	470	US
BCVWD 16	17-Sep-13	NITRATE (AS NO3)	22	MG/L	RCMHP 02	05-Feb-16	SPECIFIC CONDUCTANCE	470	US
BCVWD 16	16-Oct-13	NITRATE (AS NO3)	22	MG/L	RCMHP 02	05-Feb-13	SULFATE	10	MG/L
BCVWD 16	31-Oct-13	NITRATE (AS NO3)	21	MG/L	RCMHP 02	06-Feb-16	SULFATE	10	MG/L

Well_Name	Sample Date	Analyte	Concent.	Unit	Well_Name	Sample Date	Analyte	Concent.	Unit
BCVWD 16	26-Nov-13	NITRATE (AS NO3)	21	MG/L	RCMHP 02	07-Feb-16	TETRACHLOROETHYLENE	< 0.5	UG/L
BCVWD 16	11-Dec-13	NITRATE (AS NO3)	24	MG/L	RCMHP 02	05-Feb-13	TOTAL DISSOLVED SOLIDS	320	MG/L
BCVWD 16	26-Feb-14	NITRATE (AS NO3)	26	MG/L	RCMHP 02	09-Feb-16	TOTAL DISSOLVED SOLIDS	270	MG/L
BCVWD 16	19-Mar-14	NITRATE (AS NO3)	28	MG/L	RCMHP 02	07-Feb-16	TRICHLOROETHYLENE	< 0.5	UG/L
BCVWD 16	16-Apr-14	NITRATE (AS NO3)	27	MG/L	RCMHP 02	05-Feb-13	TURBIDITY, LABORATORY	< 0.2	NTU
BCVWD 16	13-May-14	NITRATE (AS NO3)	24	MG/L	RCMHP 02	05-Feb-16	TURBIDITY, LABORATORY	0.33	NTU
BCVWD 16	10-Jun-14	NITRATE (AS NO3)	25	MG/L	RCMHP 02	05-Feb-13	ZINC	< 50	UG/L
BCVWD 16	23-Jul-14	NITRATE (AS NO3)	25	MG/L	RCMHP 02	10-Feb-16	ZINC	< 50	UG/L
BCVWD 16	13-Aug-14	NITRATE (AS NO3)	22	MG/L	SMHOA 01	08-Feb-11	ALKALINITY (AS CaCO3)	230	MG/L
BCVWD 16	18-Sep-14	NITRATE (AS NO3)	24	MG/L	SMHOA 01	14-Jul-15	ALKALINITY (AS CaCO3)	200	MG/L
BCVWD 16	08-Oct-14	NITRATE (AS NO3)	24	MG/L	SMHOA 01	08-Feb-11	ALUMINUM	< 50	UG/L
BCVWD 16	08-Dec-14	NITRATE (AS NO3)	28	MG/L	SMHOA 01	14-Jul-15	ALUMINUM	< 50	UG/L
BCVWD 16	22-Jan-15	NITRATE (AS NO3)	33	MG/L	SMHOA 01	08-Feb-11	ARSENIC	< 2	UG/L
BCVWD 16	19-Feb-15	NITRATE (AS NO3)	26	MG/L	SMHOA 01	14-Jul-15	ARSENIC	< 2	UG/L
BCVWD 16	18-Mar-15	NITRATE (AS NO3)	27	MG/L	SMHOA 01	08-Feb-11	BICARBONATE ALKALINITY	280	MG/L
BCVWD 16	22-Apr-15	NITRATE (AS NO3)	26	MG/L	SMHOA 01	14-Jul-15	BICARBONATE ALKALINITY	240	MG/L
BCVWD 16	13-May-15	NITRATE (AS NO3)	26	MG/L	SMHOA 01	08-Feb-11	CALCIUM	55	MG/L
BCVWD 16	09-Jun-15	NITRATE (AS NO3)	25	MG/L	SMHOA 01	14-Jul-15	CALCIUM	43	MG/L
BCVWD 16	30-Jul-15	NITRATE (AS NO3)	27	MG/L	SMHOA 01	08-Feb-11	CARBONATE ALKALINITY	< 3	MG/L
BCVWD 16	01-Sep-15	NITRATE (AS NO3)	25	MG/L	SMHOA 01	14-Jul-15	CARBONATE ALKALINITY	< 3	MG/L
BCVWD 16	30-Sep-15	NITRATE (AS NO3)	28	MG/L	SMHOA 01	08-Feb-11	CHLORIDE	29	MG/L
BCVWD 16	27-Oct-15	NITRATE (AS NO3)	27	MG/L	SMHOA 01	14-Jul-15	CHLORIDE	20	MG/L
BCVWD 16	04-Nov-15	NITRATE (AS NO3)	27	MG/L	SMHOA 01	08-Feb-11	CHROMIUM (TOTAL)	5.6	UG/L
BCVWD 16	03-Dec-15	NITRATE (AS NO3)	26	MG/L	SMHOA 01	14-Jul-15	CHROMIUM (TOTAL)	6.2	UG/L
BCVWD 16	31-Oct-13	NITRITE (AS N)	< 100	MG/L	SMHOA 01	06-Aug-14	CHROMIUM, HEXAVALENT	5.4	UG/L
BCVWD 16	08-Dec-16	NITRITE (AS N)	< 0.1	MG/L	SMHOA 01	08-Feb-11	COPPER	< 50	UG/L
BCVWD 16	31-Oct-13	POTASSIUM	1.3	MG/L	SMHOA 01	14-Jul-15	COPPER	< 50	UG/L
BCVWD 16	15-Dec-16	POTASSIUM	1.2	MG/L	SMHOA 01	08-Feb-11	FLUORIDE	0.5	MG/L
BCVWD 16	31-Oct-13	SODIUM	36	MG/L	SMHOA 01	14-Jul-15	FLUORIDE	0.5	MG/L
BCVWD 16	15-Dec-16	SODIUM	38	MG/L	SMHOA 01	08-Feb-11	HARDNESS (AS CaCO3)	230	MG/L
BCVWD 16	31-Oct-13	SPECIFIC CONDUCTANCE	540	US	SMHOA 01	14-Jul-15	HARDNESS (AS CaCO3)	170	MG/L
BCVWD 16	31-Oct-13	SULFATE	46	MG/L	SMHOA 01	08-Feb-11	HYDROXIDE ALKALINITY	< 3	MG/L
BCVWD 16	09-Dec-16	SULFATE	46	MG/L	SMHOA 01	14-Jul-15	HYDROXIDE ALKALINITY	< 3	MG/L
BCVWD 16	31-Oct-13	TETRACHLOROETHYLENE	< 0.5	UG/L	SMHOA 01	08-Feb-11	IRON	< 100	UG/L
BCVWD 16	12-Dec-16	TETRACHLOROETHYLENE	< 0.5	UG/L	SMHOA 01	14-Jul-15	IRON	< 100	UG/L
BCVWD 16	31-Oct-13	TOTAL DISSOLVED SOLIDS	370	MG/L	SMHOA 01	08-Feb-11	LEAD	< 5	UG/L
BCVWD 16	13-Dec-16	TOTAL DISSOLVED SOLIDS	330	MG/L	SMHOA 01	14-Jul-15	LEAD	< 5	UG/L

Well_Name	Sample Date	Analyte	Concent.	Unit	Well_Name	Sample Date	Analyte	Concent.	Unit
BCVWD 16	31-Oct-13	TRICHLOROETHYLENE	< 0.5	UG/L	SMHOA 01	08-Feb-11	MAGNESIUM	23	MG/L
BCVWD 16	12-Dec-16	TRICHLOROETHYLENE	< 0.5	UG/L	SMHOA 01	14-Jul-15	MAGNESIUM	16	MG/L
BCVWD 16	31-Oct-13	TURBIDITY, LABORATORY	< 0.2	NTU	SMHOA 01	08-Feb-11	MANGANESE	< 20	UG/L
BCVWD 16	08-Dec-16	TURBIDITY, LABORATORY	< 0.1	NTU	SMHOA 01	14-Jul-15	MANGANESE	< 20	UG/L
BCVWD 16	31-Oct-13	ZINC	< 50	UG/L	SMHOA 01	05-Jan-16	NITRATE (AS N)	4.3	MG/L
BCVWD 16	15-Dec-16	ZINC	< 50	UG/L	SMHOA 01	01-Jul-16	NITRATE (AS N)	4.3	MG/L
BCVWD 21	06-Jan-13	ALKALINITY (AS CaCO3)	140	MG/L	SMHOA 01	04-Oct-16	NITRATE (AS N)	4.3	MG/L
BCVWD 21	04-Dec-15	ALKALINITY (AS CaCO3)	180	MG/L	SMHOA 01	03-Dec-16	NITRATE (AS N)	4.9	MG/L
BCVWD 21	06-Jan-13	ALUMINUM	< 50	UG/L	SMHOA 01	07-Jan-17	NITRATE (AS N)	5.2	MG/L
BCVWD 21	04-Dec-15	ALUMINUM	< 50	UG/L	SMHOA 01	08-Apr-17	NITRATE (AS N)	2.5	MG/L
BCVWD 21	06-Jan-13	ARSENIC	< 2	UG/L	SMHOA 01	07-Jan-11	NITRATE (AS NO3)	18	MG/L
BCVWD 21	07-Dec-15	ARSENIC	< 2	UG/L	SMHOA 01	07-Jan-11	NITRATE (AS NO3)	31	MG/L
BCVWD 21	06-Jan-13	BICARBONATE ALKALINITY	170	MG/L	SMHOA 01	06-May-11	NITRATE (AS NO3)	21	MG/L
BCVWD 21	04-Dec-15	BICARBONATE ALKALINITY	220	MG/L	SMHOA 01	07-Oct-11	NITRATE (AS NO3)	22	MG/L
BCVWD 21	06-Jan-13	CALCIUM	45	MG/L	SMHOA 01	06-Jan-12	NITRATE (AS NO3)	24	MG/L
BCVWD 21	04-Dec-15	CALCIUM	49	MG/L	SMHOA 01	06-Apr-12	NITRATE (AS NO3)	23	MG/L
BCVWD 21	06-Jan-13	CARBONATE ALKALINITY	< 3	MG/L	SMHOA 01	10-Nov-12	NITRATE (AS NO3)	22	MG/L
BCVWD 21	04-Dec-15	CARBONATE ALKALINITY	< 3	MG/L	SMHOA 01	04-Jan-13	NITRATE (AS NO3)	27	MG/L
BCVWD 21	06-Jan-13	CHLORIDE	13	MG/L	SMHOA 01	08-Apr-13	NITRATE (AS NO3)	21	MG/L
BCVWD 21	03-Dec-15	CHLORIDE	14	MG/L	SMHOA 01	06-Jul-13	NITRATE (AS NO3)	21	MG/L
BCVWD 21	06-Jan-13	CHROMIUM (TOTAL)	5.4	UG/L	SMHOA 01	07-Dec-13	NITRATE (AS NO3)	23	MG/L
BCVWD 21	08-Dec-15	CHROMIUM (TOTAL)	6.4	UG/L	SMHOA 01	04-Jan-14	NITRATE (AS NO3)	22	MG/L
BCVWD 21	22-Oct-14	CHROMIUM, HEXAVALENT	6.8	UG/L	SMHOA 01	05-Apr-14	NITRATE (AS NO3)	23	MG/L
BCVWD 21	12-Nov-15	CHROMIUM, HEXAVALENT	6.7	UG/L	SMHOA 01	12-Jul-14	NITRATE (AS NO3)	21	MG/L
BCVWD 21	06-Jan-13	COPPER	< 50	UG/L	SMHOA 01	11-Oct-14	NITRATE (AS NO3)	21	MG/L
BCVWD 21	04-Dec-15	COPPER	< 50	UG/L	SMHOA 01	02-Jan-15	NITRATE (AS NO3)	27	MG/L
BCVWD 21	31-Oct-13	DBCP	< 0.01	UG/L	SMHOA 01	06-May-15	NITRATE (AS NO3)	18	MG/L
BCVWD 21	06-Jan-13	FLUORIDE	1	MG/L	SMHOA 01	14-Jul-15	NITRATE (AS NO3)	19	MG/L
BCVWD 21	06-Dec-15	FLUORIDE	0.5	MG/L	SMHOA 01	17-Oct-15	NITRATE (AS NO3)	22	MG/L
BCVWD 21	06-Jan-13	HARDNESS (AS CaCO3)	180	MG/L	SMHOA 01	08-Feb-11	NITRITE (AS N)	< 100	MG/L
BCVWD 21	04-Dec-15	HARDNESS (AS CaCO3)	200	MG/L	SMHOA 01	14-Jul-15	NITRITE (AS N)	< 100	MG/L
BCVWD 21	06-Jan-13	HYDROXIDE ALKALINITY	< 3	MG/L	SMHOA 01	08-Feb-11	SODIUM	43	MG/L
BCVWD 21	04-Dec-15	HYDROXIDE ALKALINITY	< 3	MG/L	SMHOA 01	14-Jul-15	SODIUM	43	MG/L
BCVWD 21	06-Jan-13	IRON	< 100	UG/L	SMHOA 01	08-Feb-11	SPECIFIC CONDUCTANCE	630	US
BCVWD 21	04-Dec-15	IRON	< 100	UG/L	SMHOA 01	14-Jul-15	SPECIFIC CONDUCTANCE	500	US
BCVWD 21	06-Jan-13	LEAD	< 5	UG/L	SMHOA 01	08-Feb-11	SULFATE	20	MG/L
BCVWD 21	07-Dec-15	LEAD	< 5	UG/L	SMHOA 01	14-Jul-15	SULFATE	16	MG/L

Well_Name	Sample Date	Analyte	Concent.	Unit	Well_Name	Sample Date	Analyte	Concent.	Unit
BCVWD 21	06-Jan-13	MAGNESIUM	16	MG/L	SMHOA 01	08-Mar-13	TETRACHLOROETHYLENE	< 0.5	UG/L
BCVWD 21	04-Dec-15	MAGNESIUM	18	MG/L	SMHOA 01	08-Feb-11	TOTAL DISSOLVED SOLIDS	360	MG/L
BCVWD 21	06-Jan-13	MANGANESE	< 20	UG/L	SMHOA 01	14-Jul-15	TOTAL DISSOLVED SOLIDS	260	MG/L
BCVWD 21	04-Dec-15	MANGANESE	< 20	UG/L	SMHOA 01	08-Mar-13	TRICHLOROETHYLENE	< 0.5	UG/L
BCVWD 21	15-Dec-15	NITRATE (AS N)	3.3	MG/L	SMHOA 01	08-Feb-11	TURBIDITY, LABORATORY	0.28	NTU
BCVWD 21	12-Jan-16	NITRATE (AS N)	3.2	MG/L	SMHOA 01	14-Jul-15	TURBIDITY, LABORATORY	0.53	NTU
BCVWD 21	13-Apr-16	NITRATE (AS N)	3.4	MG/L	SMHOA 01	08-Feb-11	ZINC	< 50	UG/L
BCVWD 21	26-May-16	NITRATE (AS N)	3.2	MG/L	SMHOA 01	14-Jul-15	ZINC	< 50	UG/L
BCVWD 21	14-Jun-16	NITRATE (AS N)	3.1	MG/L	SMHOA 02	08-Feb-11	ALKALINITY (AS CaCO3)	190	MG/L
BCVWD 21	21-Sep-16	NITRATE (AS N)	2.8	MG/L	SMHOA 02	14-Jul-15	ALKALINITY (AS CaCO3)	200	MG/L
BCVWD 21	02-Dec-16	NITRATE (AS N)	3.4	MG/L	SMHOA 02	08-Feb-11	ALUMINUM	< 50	UG/L
BCVWD 21	01-Feb-17	NITRATE (AS N)	3.6	MG/L	SMHOA 02	14-Jul-15	ALUMINUM	< 50	UG/L
BCVWD 21	26-May-11	NITRATE (AS NO3)	33	MG/L	SMHOA 02	08-Feb-11	ARSENIC	< 2	UG/L
BCVWD 21	21-Jun-11	NITRATE (AS NO3)	28	MG/L	SMHOA 02	14-Jul-15	ARSENIC	< 2	UG/L
BCVWD 21	20-Jul-11	NITRATE (AS NO3)	21	MG/L	SMHOA 02	08-Feb-11	BICARBONATE ALKALINITY	230	MG/L
BCVWD 21	25-Aug-11	NITRATE (AS NO3)	19	MG/L	SMHOA 02	14-Jul-15	BICARBONATE ALKALINITY	240	MG/L
BCVWD 21	21-Sep-11	NITRATE (AS NO3)	18	MG/L	SMHOA 02	08-Feb-11	CALCIUM	44	MG/L
BCVWD 21	19-Oct-11	NITRATE (AS NO3)	17	MG/L	SMHOA 02	14-Jul-15	CALCIUM	46	MG/L
BCVWD 21	30-Nov-11	NITRATE (AS NO3)	18	MG/L	SMHOA 02	08-Feb-11	CARBONATE ALKALINITY	< 3	MG/L
BCVWD 21	22-Feb-12	NITRATE (AS NO3)	17	MG/L	SMHOA 02	14-Jul-15	CARBONATE ALKALINITY	< 3	MG/L
BCVWD 21	30-Mar-12	NITRATE (AS NO3)	18	MG/L	SMHOA 02	08-Feb-11	CHLORIDE	28	MG/L
BCVWD 21	30-Apr-12	NITRATE (AS NO3)	18	MG/L	SMHOA 02	14-Jul-15	CHLORIDE	28	MG/L
BCVWD 21	18-May-12	NITRATE (AS NO3)	18	MG/L	SMHOA 02	08-Feb-11	CHROMIUM (TOTAL)	9.1	UG/L
BCVWD 21	20-Jun-12	NITRATE (AS NO3)	17	MG/L	SMHOA 02	14-Jul-15	CHROMIUM (TOTAL)	8.9	UG/L
BCVWD 21	08-Aug-12	NITRATE (AS NO3)	14	MG/L	SMHOA 02	06-Aug-14	CHROMIUM, HEXAVALENT	7.9	UG/L
BCVWD 21	19-Sep-12	NITRATE (AS NO3)	16	MG/L	SMHOA 02	08-Feb-11	COPPER	< 50	UG/L
BCVWD 21	30-Oct-12	NITRATE (AS NO3)	18	MG/L	SMHOA 02	14-Jul-15	COPPER	< 50	UG/L
BCVWD 21	06-Jan-13	NITRATE (AS NO3)	35	MG/L	SMHOA 02	08-Feb-11	FLUORIDE	0.6	MG/L
BCVWD 21	06-Mar-13	NITRATE (AS NO3)	18	MG/L	SMHOA 02	14-Jul-15	FLUORIDE	0.7	MG/L
BCVWD 21	22-May-13	NITRATE (AS NO3)	17	MG/L	SMHOA 02	08-Feb-11	HARDNESS (AS CaCO3)	180	MG/L
BCVWD 21	13-Jun-13	NITRATE (AS NO3)	17	MG/L	SMHOA 02	14-Jul-15	HARDNESS (AS CaCO3)	190	MG/L
BCVWD 21	20-Aug-13	NITRATE (AS NO3)	16	MG/L	SMHOA 02	08-Feb-11	HYDROXIDE ALKALINITY	< 3	MG/L
BCVWD 21	17-Sep-13	NITRATE (AS NO3)	16	MG/L	SMHOA 02	14-Jul-15	HYDROXIDE ALKALINITY	< 3	MG/L
BCVWD 21	16-Oct-13	NITRATE (AS NO3)	17	MG/L	SMHOA 02	08-Feb-11	IRON	< 100	UG/L
BCVWD 21	31-Oct-13	NITRATE (AS NO3)	16	MG/L	SMHOA 02	14-Jul-15	IRON	< 100	UG/L
BCVWD 21	26-Nov-13	NITRATE (AS NO3)	14	MG/L	SMHOA 02	08-Feb-11	LEAD	< 5	UG/L
BCVWD 21	11-Dec-13	NITRATE (AS NO3)	18	MG/L	SMHOA 02	14-Jul-15	LEAD	< 5	UG/L

Well_Name	Sample Date	Analyte	Concent.	Unit	Well_Name	Sample Date	Analyte	Concent.	Unit
BCVWD 21	26-Feb-14	NITRATE (AS NO3)	15	MG/L	SMHOA 02	08-Feb-11	MAGNESIUM	17	MG/L
BCVWD 21	19-Mar-14	NITRATE (AS NO3)	16	MG/L	SMHOA 02	14-Jul-15	MAGNESIUM	18	MG/L
BCVWD 21	16-Apr-14	NITRATE (AS NO3)	16	MG/L	SMHOA 02	08-Feb-11	MANGANESE	< 20	UG/L
BCVWD 21	13-May-14	NITRATE (AS NO3)	16	MG/L	SMHOA 02	14-Jul-15	MANGANESE	< 20	UG/L
BCVWD 21	10-Jun-14	NITRATE (AS NO3)	16	MG/L	SMHOA 02	05-Jan-16	NITRATE (AS N)	4.9	MG/L
BCVWD 21	23-Jul-14	NITRATE (AS NO3)	16	MG/L	SMHOA 02	07-Jan-17	NITRATE (AS N)	5.1	MG/L
BCVWD 21	13-Aug-14	NITRATE (AS NO3)	14	MG/L	SMHOA 02	07-Jan-11	NITRATE (AS NO3)	36	MG/L
BCVWD 21	17-Sep-14	NITRATE (AS NO3)	15	MG/L	SMHOA 02	07-Jan-11	NITRATE (AS NO3)	19	MG/L
BCVWD 21	08-Oct-14	NITRATE (AS NO3)	15	MG/L	SMHOA 02	06-May-11	NITRATE (AS NO3)	19	MG/L
BCVWD 21	08-Dec-14	NITRATE (AS NO3)	16	MG/L	SMHOA 02	02-Jul-11	NITRATE (AS NO3)	21	MG/L
BCVWD 21	22-Jan-15	NITRATE (AS NO3)	16	MG/L	SMHOA 02	07-Oct-11	NITRATE (AS NO3)	19	MG/L
BCVWD 21	19-Feb-15	NITRATE (AS NO3)	15	MG/L	SMHOA 02	06-Jan-12	NITRATE (AS NO3)	22	MG/L
BCVWD 21	18-Mar-15	NITRATE (AS NO3)	16	MG/L	SMHOA 02	07-Jul-12	NITRATE (AS NO3)	18	MG/L
BCVWD 21	22-Apr-15	NITRATE (AS NO3)	15	MG/L	SMHOA 02	04-Jan-13	NITRATE (AS NO3)	20	MG/L
BCVWD 21	13-May-15	NITRATE (AS NO3)	15	MG/L	SMHOA 02	04-Jan-14	NITRATE (AS NO3)	19	MG/L
BCVWD 21	09-Jun-15	NITRATE (AS NO3)	14	MG/L	SMHOA 02	02-Jan-15	NITRATE (AS NO3)	19	MG/L
BCVWD 21	30-Jul-15	NITRATE (AS NO3)	15	MG/L	SMHOA 02	14-Jul-15	NITRATE (AS NO3)	21	MG/L
BCVWD 21	31-Aug-15	NITRATE (AS NO3)	14	MG/L	SMHOA 02	08-Feb-11	NITRITE (AS N)	< 100	MG/L
BCVWD 21	30-Sep-15	NITRATE (AS NO3)	15	MG/L	SMHOA 02	14-Jul-15	NITRITE (AS N)	< 100	MG/L
BCVWD 21	27-Oct-15	NITRATE (AS NO3)	14	MG/L	SMHOA 02	08-Feb-11	SODIUM	38	MG/L
BCVWD 21	04-Nov-15	NITRATE (AS NO3)	15	MG/L	SMHOA 02	14-Jul-15	SODIUM	39	MG/L
BCVWD 21	03-Dec-15	NITRATE (AS NO3)	14	MG/L	SMHOA 02	08-Feb-11	SPECIFIC CONDUCTANCE	520	US
BCVWD 21	06-Jan-13	NITRITE (AS N)	< 100	MG/L	SMHOA 02	14-Jul-15	SPECIFIC CONDUCTANCE	510	US
BCVWD 21	02-Dec-15	NITRITE (AS N)	< 100	MG/L	SMHOA 02	08-Feb-11	SULFATE	12	MG/L
BCVWD 21	01-Dec-16	NITRITE (AS N)	< 0.1	MG/L	SMHOA 02	14-Jul-15	SULFATE	14	MG/L
BCVWD 21	06-Jan-13	POTASSIUM	1.4	MG/L	SMHOA 02	08-Mar-13	TETRACHLOROETHYLENE	< 0.5	UG/L
BCVWD 21	04-Dec-15	POTASSIUM	1.6	MG/L	SMHOA 02	08-Feb-11	TOTAL DISSOLVED SOLIDS	290	MG/L
BCVWD 21	06-Jan-13	SODIUM	26	MG/L	SMHOA 02	14-Jul-15	TOTAL DISSOLVED SOLIDS	260	MG/L
BCVWD 21	04-Dec-15	SODIUM	25	MG/L	SMHOA 02	08-Mar-13	TRICHLOROETHYLENE	< 0.5	UG/L
BCVWD 21	06-Jan-13	SPECIFIC CONDUCTANCE	460	US	SMHOA 02	08-Feb-11	TURBIDITY, LABORATORY	< 0.2	NTU
BCVWD 21	04-Dec-15	SPECIFIC CONDUCTANCE	450	US	SMHOA 02	14-Jul-15	TURBIDITY, LABORATORY	0.22	NTU
BCVWD 21	06-Jan-13	SULFATE	24	MG/L	SMHOA 02	08-Feb-11	ZINC	< 50	UG/L
BCVWD 21	03-Dec-15	SULFATE	26	MG/L	SMHOA 02	14-Jul-15	ZINC	< 50	UG/L
BCVWD 21	31-Oct-13	TETRACHLOROETHYLENE	< 0.5	UG/L	SMWC 04	08-Apr-13	ALKALINITY (AS CaCO3)	100	MG/L
BCVWD 21	03-Dec-16	TETRACHLOROETHYLENE	< 0.5	UG/L	SMWC 04	12-Apr-16	ALKALINITY (AS CaCO3)	110	MG/L
BCVWD 21	06-Jan-13	TOTAL DISSOLVED SOLIDS	280	MG/L	SMWC 04	08-Apr-13	ALUMINUM	< 0	UG/L
BCVWD 21	07-Dec-15	TOTAL DISSOLVED SOLIDS	290	MG/L	SMWC 04	15-Apr-16	ALUMINUM	< 0	UG/L

Well_Name	Sample Date	Analyte	Concent.	Unit	Well_Name	Sample Date	Analyte	Concent.	Unit
BCVWD 21	31-Oct-13	TRICHLOROETHYLENE	< 0.5	UG/L	SMWC 04	15-Mar-12	ARSENIC	4.6	UG/L
BCVWD 21	03-Dec-16	TRICHLOROETHYLENE	< 0.5	UG/L	SMWC 04	08-Apr-13	ARSENIC	5.2	UG/L
BCVWD 21	06-Jan-13	TURBIDITY, LABORATORY	< 0.2	NTU	SMWC 04	21-Apr-16	ARSENIC	4.4	UG/L
BCVWD 21	03-Dec-15	TURBIDITY, LABORATORY	< 0.1	NTU	SMWC 04	08-Apr-13	BICARBONATE ALKALINITY	89	MG/L
BCVWD 21	06-Jan-13	ZINC	< 50	UG/L	SMWC 04	12-Apr-16	BICARBONATE ALKALINITY	110	MG/L
BCVWD 21	04-Dec-15	ZINC	< 50	UG/L	SMWC 04	08-Apr-13	CALCIUM	6.8	MG/L
BCVWD 22	31-Oct-13	ALKALINITY (AS CaCO3)	170	MG/L	SMWC 04	25-Apr-16	CALCIUM	8.8	MG/L
BCVWD 22	02-Dec-16	ALKALINITY (AS CaCO3)	180	MG/L	SMWC 04	08-Apr-13	CARBONATE ALKALINITY	16	MG/L
BCVWD 22	31-Oct-13	ALUMINUM	< 50	UG/L	SMWC 04	12-Apr-16	CARBONATE ALKALINITY	12	MG/L
BCVWD 22	09-Dec-16	ALUMINUM	< 50	UG/L	SMWC 04	08-Apr-13	CHLORIDE	17	MG/L
BCVWD 22	31-Oct-13	ARSENIC	< 2	UG/L	SMWC 04	11-Apr-16	CHLORIDE	17	MG/L
BCVWD 22	06-Dec-16	ARSENIC	< 2	UG/L	SMWC 04	08-Apr-13	CHROMIUM (TOTAL)	< 0	UG/L
BCVWD 22	31-Oct-13	BICARBONATE ALKALINITY	210	MG/L	SMWC 04	21-Apr-16	CHROMIUM (TOTAL)	< 0	UG/L
BCVWD 22	02-Dec-16	BICARBONATE ALKALINITY	210	MG/L	SMWC 04	09-Dec-14	CHROMIUM, HEXAVALENT	2.7	UG/L
BCVWD 22	31-Oct-13	CALCIUM	40	MG/L	SMWC 04	08-Apr-13	COPPER	< 0	UG/L
BCVWD 22	09-Dec-16	CALCIUM	40	MG/L	SMWC 04	15-Apr-16	COPPER	< 0	UG/L
BCVWD 22	31-Oct-13	CARBONATE ALKALINITY	< 3	MG/L	SMWC 04	23-Sep-15	DBCP	< 0	UG/L
BCVWD 22	02-Dec-16	CARBONATE ALKALINITY	< 3	MG/L	SMWC 04	08-Apr-13	FLUORIDE	0.38	MG/L
BCVWD 22	31-Oct-13	CHLORIDE	9.2	MG/L	SMWC 04	11-Apr-16	FLUORIDE	0.41	MG/L
BCVWD 22	02-Dec-16	CHLORIDE	7.6	MG/L	SMWC 04	08-Apr-13	HARDNESS (AS CaCO3)	22	MG/L
BCVWD 22	31-Oct-13	CHROMIUM (TOTAL)	6.9	UG/L	SMWC 04	25-Apr-16	HARDNESS (AS CaCO3)	29	MG/L
BCVWD 22	07-Dec-16	CHROMIUM (TOTAL)	7.9	UG/L	SMWC 04	08-Apr-13	HYDROXIDE ALKALINITY	< 0	MG/L
BCVWD 22	22-Oct-14	CHROMIUM, HEXAVALENT	7.1	UG/L	SMWC 04	12-Apr-16	HYDROXIDE ALKALINITY	< 0	MG/L
BCVWD 22	12-Nov-15	CHROMIUM, HEXAVALENT	7.2	UG/L	SMWC 04	08-Apr-13	IRON	< 0	UG/L
BCVWD 22	31-Oct-13	COPPER	< 50	UG/L	SMWC 04	15-Apr-16	IRON	< 0	UG/L
BCVWD 22	09-Dec-16	COPPER	< 50	UG/L	SMWC 04	08-Apr-13	LEAD	< 0	UG/L
BCVWD 22	31-Oct-13	DBCP	< 0.01	UG/L	SMWC 04	20-Apr-16	LEAD	< 0	UG/L
BCVWD 22	31-Oct-13	FLUORIDE	0.4	MG/L	SMWC 04	08-Apr-13	MAGNESIUM	1.1	MG/L
BCVWD 22	07-Dec-16	FLUORIDE	0.4	MG/L	SMWC 04	25-Apr-16	MAGNESIUM	1.7	MG/L
BCVWD 22	31-Oct-13	HARDNESS (AS CaCO3)	170	MG/L	SMWC 04	08-Apr-13	MANGANESE	< 0	UG/L
BCVWD 22	09-Dec-16	HARDNESS (AS CaCO3)	170	MG/L	SMWC 04	15-Apr-16	MANGANESE	< 0	UG/L
BCVWD 22	31-Oct-13	HYDROXIDE ALKALINITY	< 3	MG/L	SMWC 04	11-Apr-16	NITRATE (AS N)	3.2	MG/L
BCVWD 22	02-Dec-16	HYDROXIDE ALKALINITY	< 3	MG/L	SMWC 04	01-Jun-16	NITRATE (AS N)	3	MG/L
BCVWD 22	31-Oct-13	IRON	< 100	UG/L	SMWC 04	02-Sep-16	NITRATE (AS N)	3	MG/L
BCVWD 22	09-Dec-16	IRON	< 100	UG/L	SMWC 04	01-Dec-16	NITRATE (AS N)	4	MG/L
BCVWD 22	31-Oct-13	LEAD	< 5	UG/L	SMWC 04	03-Mar-17	NITRATE (AS N)	3.8	MG/L
BCVWD 22	06-Dec-16	LEAD	< 5	UG/L	SMWC 04	13-Jul-11	NITRATE (AS NO3)	13	MG/L

Well_Name	Sample Date	Analyte	Concent.	Unit	Well_Name	Sample Date	Analyte	Concent.	Unit
BCVWD 22	31-Oct-13	MAGNESIUM	17	MG/L	SMWC 04	11-Jul-12	NITRATE (AS NO3)	12	MG/L
BCVWD 22	09-Dec-16	MAGNESIUM	17	MG/L	SMWC 04	08-Apr-13	NITRATE (AS NO3)	13	MG/L
BCVWD 22	31-Oct-13	MANGANESE	< 20	UG/L	SMWC 04	16-Jul-13	NITRATE (AS NO3)	13	MG/L
BCVWD 22	09-Dec-16	MANGANESE	< 20	UG/L	SMWC 04	14-Jul-14	NITRATE (AS NO3)	13	MG/L
BCVWD 22	02-Dec-16	NITRATE (AS N)	3	MG/L	SMWC 04	08-Jul-15	NITRATE (AS NO3)	18	MG/L
BCVWD 22	15-Dec-11	NITRATE (AS NO3)	4.3	MG/L	SMWC 04	08-Apr-13	NITRITE (AS N)	< 0	MG/L
BCVWD 22	18-Dec-12	NITRATE (AS NO3)	3.4	MG/L	SMWC 04	11-Apr-16	NITRITE (AS N)	< 0	MG/L
BCVWD 22	31-Oct-13	NITRATE (AS NO3)	5.1	MG/L	SMWC 04	08-Apr-13	POTASSIUM	< 0	MG/L
BCVWD 22	04-Dec-15	NITRATE (AS NO3)	3.7	MG/L	SMWC 04	25-Apr-16	POTASSIUM	1	MG/L
BCVWD 22	31-Oct-13	NITRITE (AS N)	< 100	MG/L	SMWC 04	08-Apr-13	SODIUM	62	MG/L
BCVWD 22	01-Dec-16	NITRITE (AS N)	< 0.1	MG/L	SMWC 04	25-Apr-16	SODIUM	61	MG/L
BCVWD 22	31-Oct-13	POTASSIUM	1.5	MG/L	SMWC 04	08-Apr-13	SPECIFIC CONDUCTANCE	320	US
BCVWD 22	09-Dec-16	POTASSIUM	1.4	MG/L	SMWC 04	12-Apr-16	SPECIFIC CONDUCTANCE	330	US
BCVWD 22	31-Oct-13	SODIUM	19	MG/L	SMWC 04	08-Apr-13	SULFATE	16	MG/L
BCVWD 22	09-Dec-16	SODIUM	18	MG/L	SMWC 04	11-Apr-16	SULFATE	16	MG/L
BCVWD 22	31-Oct-13	SPECIFIC CONDUCTANCE	390	US	SMWC 04	14-Aug-13	TETRACHLOROETHYLENE	< 0	UG/L
BCVWD 22	02-Dec-16	SPECIFIC CONDUCTANCE	430	US	SMWC 04	12-Aug-16	TETRACHLOROETHYLENE	< 0	UG/L
BCVWD 22	31-Oct-13	SULFATE	11	MG/L	SMWC 04	08-Apr-13	TOTAL DISSOLVED SOLIDS	170	MG/L
BCVWD 22	02-Dec-16	SULFATE	24	MG/L	SMWC 04	13-Apr-16	TOTAL DISSOLVED SOLIDS	190	MG/L
BCVWD 22	31-Oct-13	TETRACHLOROETHYLENE	< 0.5	UG/L	SMWC 04	14-Aug-13	TRICHLOROETHYLENE	< 0	UG/L
BCVWD 22	03-Dec-16	TETRACHLOROETHYLENE	< 0.5	UG/L	SMWC 04	12-Aug-16	TRICHLOROETHYLENE	< 0	UG/L
BCVWD 22	31-Oct-13	TOTAL DISSOLVED SOLIDS	210	MG/L	SMWC 04	08-Apr-13	TURBIDITY, LABORATORY	< 0	NTU
BCVWD 22	02-Dec-16	TOTAL DISSOLVED SOLIDS	260	MG/L	SMWC 04	11-Apr-16	TURBIDITY, LABORATORY	0.3	NTU
BCVWD 22	31-Oct-13	TRICHLOROETHYLENE	< 0.5	UG/L	SMWC 04	08-Apr-13	VANADIUM	84	UG/L
BCVWD 22	03-Dec-16	TRICHLOROETHYLENE	< 0.5	UG/L	SMWC 04	25-Apr-16	VANADIUM	100	UG/L
BCVWD 22	31-Oct-13	TURBIDITY, LABORATORY	< 0.2	NTU	SMWC 04	08-Apr-13	ZINC	< 0	UG/L
BCVWD 22	01-Dec-16	TURBIDITY, LABORATORY	< 0.1	NTU	SMWC 04	15-Apr-16	ZINC	< 0	UG/L
BCVWD 22	31-Oct-13	ZINC	< 50	UG/L					
BCVWD 22	09-Dec-16	ZINC	< 50	UG/L					
YVWD 48	03-May-11	ALKALINITY (AS CaCO3)	140	MG/L	YVWD 48	03-May-11	NITRATE (AS NO3)	8	MG/L
YVWD 48	22-May-14	ALKALINITY (AS CaCO3)	140	MG/L	YVWD 48	10-Aug-11	NITRATE (AS NO3)	8.9	MG/L
YVWD 48	03-May-11	ALUMINUM	< 50	UG/L	YVWD 48	21-Aug-12	NITRATE (AS NO3)	7.3	MG/L
YVWD 48	22-May-14	ALUMINUM	< 0	UG/L	YVWD 48	27-Feb-13	NITRATE (AS NO3)	11	MG/L
YVWD 48	03-May-11	ARSENIC	< 2	UG/L	YVWD 48	15-Aug-13	NITRATE (AS NO3)	9.6	MG/L
YVWD 48	22-May-14	ARSENIC	< 0	UG/L	YVWD 48	22-May-14	NITRATE (AS NO3)	9.9	MG/L
YVWD 48	03-May-11	BICARBONATE ALKALINITY	170	MG/L	YVWD 48	15-Aug-14	NITRATE (AS NO3)	10	MG/L

Well_Name	Sample Date	Analyte	Concent.	Unit	Well_Name	Sample Date	Analyte	Concent.	Unit
YVWD 48	22-May-14	BICARBONATE ALKALINITY	170	MG/L	YVWD 48	26-Aug-15	NITRATE (AS NO3)	9.9	MG/L
YVWD 48	03-May-11	CALCIUM	31	MG/L	YVWD 48	03-May-11	NITRITE (AS N)	< 100	MG/L
YVWD 48	22-May-14	CALCIUM	31	MG/L	YVWD 48	22-May-14	NITRITE (AS N)	< 0	MG/L
YVWD 48	03-May-11	CARBONATE ALKALINITY	< 3	MG/L	YVWD 48	03-May-11	POTASSIUM	1.9	MG/L
YVWD 48	22-May-14	CARBONATE ALKALINITY	< 0	MG/L	YVWD 48	22-May-14	POTASSIUM	2	MG/L
YVWD 48	03-May-11	CHLORIDE	9.7	MG/L	YVWD 48	03-May-11	SODIUM	33	MG/L
YVWD 48	22-May-14	CHLORIDE	12	MG/L	YVWD 48	22-May-14	SODIUM	36	MG/L
YVWD 48	03-May-11	CHROMIUM (TOTAL)	6.7	UG/L	YVWD 48	03-May-11	SPECIFIC CONDUCTANCE	350	US
YVWD 48	22-May-14	CHROMIUM (TOTAL)	< 0	UG/L	YVWD 48	22-May-14	SPECIFIC CONDUCTANCE	340	US
YVWD 48	27-Feb-13	CHROMIUM, HEXAVALENT	6.2	UG/L	YVWD 48	03-May-11	SULFATE	12	MG/L
YVWD 48	03-May-11	COPPER	< 50	UG/L	YVWD 48	22-May-14	SULFATE	16	MG/L
YVWD 48	22-May-14	COPPER	< 0	UG/L	YVWD 48	21-Aug-12	TETRACHLOROETHYLENE	< 0	UG/L
YVWD 48	24-Mar-11	DBCP	< 0.01	UG/L	YVWD 48	13-Dec-15	TETRACHLOROETHYLENE	< 0	UG/L
YVWD 48	21-Aug-12	DBCP	< 0	UG/L	YVWD 48	26-Jun-16	TETRACHLOROETHYLENE	< 0	UG/L
YVWD 48	02-Sep-15	DBCP	< 0	UG/L	YVWD 48	03-May-11	TOTAL DISSOLVED SOLIDS	200	MG/L
YVWD 48	03-May-11	FLUORIDE	0.3	MG/L	YVWD 48	10-Aug-11	TOTAL DISSOLVED SOLIDS	220	MG/L
YVWD 48	22-May-14	FLUORIDE	0.43	MG/L	YVWD 48	23-Apr-12	TOTAL DISSOLVED SOLIDS	170	MG/L
YVWD 48	03-May-11	HARDNESS (AS CaCO3)	98	MG/L	YVWD 48	21-Aug-12	TOTAL DISSOLVED SOLIDS	210	MG/L
YVWD 48	22-May-14	HARDNESS (AS CaCO3)	96	MG/L	YVWD 48	27-Feb-13	TOTAL DISSOLVED SOLIDS	230	MG/L
YVWD 48	03-May-11	HYDROXIDE ALKALINITY	< 3	MG/L	YVWD 48	15-Aug-13	TOTAL DISSOLVED SOLIDS	200	MG/L
YVWD 48	22-May-14	HYDROXIDE ALKALINITY	< 0	MG/L	YVWD 48	22-May-14	TOTAL DISSOLVED SOLIDS	220	MG/L
YVWD 48	03-May-11	IRON	< 100	UG/L	YVWD 48	15-Aug-14	TOTAL DISSOLVED SOLIDS	210	MG/L
YVWD 48	22-May-14	IRON	< 0	UG/L	YVWD 48	27-Aug-15	TOTAL DISSOLVED SOLIDS	210	MG/L
YVWD 48	03-May-11	LEAD	< 5	UG/L	YVWD 48	29-Sep-16	TOTAL DISSOLVED SOLIDS	130	MG/L
YVWD 48	22-May-14	LEAD	< 0	UG/L	YVWD 48	21-Aug-12	TRICHLOROETHYLENE	< 0	UG/L
YVWD 48	03-May-11	MAGNESIUM	4.6	MG/L	YVWD 48	13-Dec-15	TRICHLOROETHYLENE	< 0	UG/L
YVWD 48	22-May-14	MAGNESIUM	4.5	MG/L	YVWD 48	26-Jun-16	TRICHLOROETHYLENE	< 0	UG/L
YVWD 48	03-May-11	MANGANESE	< 20	UG/L	YVWD 48	03-May-11	TURBIDITY, LABORATORY	< 0.2	NTU
YVWD 48	22-May-14	MANGANESE	< 0	UG/L	YVWD 48	22-May-14	TURBIDITY, LABORATORY	< 0	NTU
YVWD 48	23-Sep-16	NITRATE (AS N)	1.8	MG/L	YVWD 48	22-May-14	VANADIUM	25	UG/L
					YVWD 48	03-May-11	ZINC	< 50	UG/L
					YVWD 48	22-May-14	ZINC	< 0	UG/L