

# **Beaumont Basin Watermaster**

## **2021 Consolidated Annual Report and Engineering Report**

**DRAFT**

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### **2021 Watermaster Board**

Art Vela, City of Banning, **Chairman**

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

Daniel Jagers, Beaumont Cherry Valley Water District, **Secretary**

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

Jeff Hart, City of Beaumont

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Alvarado Smith, **Legal Counsel**

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

Rogers, Anderson, Malody, and Scott. LLP, **Financial Auditors**

**April 2022**

# ALDA Inc.

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April 6<sup>th</sup>, 2022

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

Subject: **Beaumont Basin Watermaster  
Draft Annual Report for Calendar Year 2021**

Dear Mr. Vela:

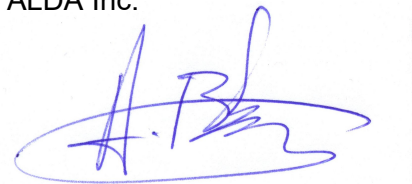
ALDA Inc., in association with Thomas Harder & Co. is pleased to submit to you, as Chairman of the Beaumont Basin Watermaster, a draft of the Beaumont Basin Watermaster Annual Report for Calendar Year 2021. This draft report summarizes all production, spreading, water rights issues, and storage activities that took place during calendar year 2021. Further, it documents changes in water levels and storage conditions, as well as an estimate of the Basin Operating Safe Yield for 2021. Finally, the report presents an evaluation of water quality conditions for all domestic wells during the 2017-2021 five-year period and for the Maximum Benefit Monitoring Program.

We will make a formal presentation to the Watermaster Committee during the upcoming Board meeting on April 6<sup>th</sup>, 2022. We welcome your review and comments on this report and look forward to answering any questions you may have.

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

Very truly yours

ALDA Inc.



F. Anibal Blandon, P.E.  
Principal

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## Abbreviations

ac-ft	acre-feet
ac-ft/yr	acre-feet per year
Banning	City of Banning
Basin	Beaumont Basin
BCVWD	Beaumont-Cherry Valley Water District
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
GAMA	Groundwater Ambient Monitoring and Assessment
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
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 Sixteenth 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 2021. Section 3 of the original annual report has been expanded and retitled as "Status of the Basin and Administration of the Judgment"; it documents the Administration of the Judgment as well as provides a status of conditions in the basin addressing water production, water levels, recharge of supplemental water, water transfers, and storage activities. In addition, a Water Quality section, Section 4, has been added to document water quality of selected compounds at selected wells, as well as basin wide concentrations for the 2017-2021 period.

### 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 was 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 was 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 local and regional agencies 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 was 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 Recent Legal Opinions Related to the Judgment

On August 31, 2021, the Honorable Irma Poole Asberry ruled on two motions filed by YVWD regarding Case No. RIC389197. The first motion filed by YVWD was to rescind Watermaster Rule 7.3, formerly known as Rule 7.8. The second motion was to order the Watermaster to recognize Oak Valley Partners, LP's transfer of overlying water rights. The Court denied these motions without prejudice.

A copy of the Notice of Entry of Order Regarding Yucaipa Valley Water District's Motions, along with associated exhibits A and B is included under Appendix A of this report.

### 1.4 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 Rules and Regulations were most recently amended in 2019. 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 groundwater production, recharge activities, water transfers between appropriators, transfers of water rights from an overlying member to an appropriator 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.

## 1.5 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

## 1.6 Watermaster Website

Watermaster website address is [www.beaumontbasinwatermaster.org](http://www.beaumontbasinwatermaster.org). This website is maintained by 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.

## 1.7 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 February 3, 2021 regular meeting of the Beaumont Basin Watermaster, the current Watermaster Committee Officers were re-affirmed to their respective positions for 2021 as follows:

- ✓ Mr. Art Vela – Chairman
- ✓ Mr. George Jorritsma – Vice Chairman
- ✓ Mr. Dan Jaggars – Secretary
- ✓ Mr. Joseph Zoba – Treasurer

The Watermaster Representatives serving each Appropriative Party at the end of CY 2021 were as follows:

Agency	Representative	Alternate
City of Banning	Art Vela	Luis Cardenas
City of Beaumont	Jeff Hart	Robert Vestal
Beaumont Cherry Valley Water District	Daniel Jaggars	Mark Swanson
South Mesa Water Company	George Jorritsma	Dave Armstrong
Yucaipa Valley Water District	Joseph Zoba	Jennifer Ares

Legal counsel during CY 2021 was provided by Alvarado Smith APC, represented by Keith McCullough and Thierry Montoya, while Engineering Services were provided by ALDA Inc., represented by Anibal Blandon, in association with Thomas Harder & Company, represented by Thomas Harder.

#### 2.2 Watermaster Accomplishments and Activities During 2021

##### 2.2.1 Watermaster Meetings

A total of seven regular meetings were held during CY 2021 on the following dates:

- ✓ February 2, 2021
- ✓ June 2, 2021
- ✓ August 4, 2021 (postponed to 8/17/21)
- ✓ October 6, 2021
- ✓ April 7, 2021
- ✓ June 18, 2021
- ✓ August 17, 2021
- ✓ December 1, 2021

The regular meeting scheduled for August 4, 2021 was postponed to August 17, 2021 due to technical difficulties prior to the meeting. In addition, there was one Special Meeting on February 18, 2021 and one Closed Session meeting on June 28, 2021.

Agendas for each of the above regular and special meetings can be viewed at and/or downloaded from Watermaster's website or by making a request to the Watermaster Secretary. Pursuant to Resolution 2009-01, 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**

There were no resolutions adopted during CY 2021.

## **2.2.3 Items Discussed in 2021**

This section is a 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. Signed official copies of the minutes for all the regular and special meetings that took place in 2021 are included in Appendix B. Official meeting minutes may also be accessed at the Beaumont Basin Watermaster website:

[www.beaumontbasinwatermaster.org](http://www.beaumontbasinwatermaster.org)

The following items were discussed during the seven regular meetings and one special meeting held in CY 2021 along with their resulting outcome.

### ***Items Discussed During the February 3, 2021 Regular Watermaster Committee Meeting***

- ✓ *Reorganization of the Beaumont Basin Watermaster Committee – Chairman, Vice-Chairman, Secretary, and Treasurer [Memorandum 21-01].* The current Watermaster Committee Officers were re-affirmed to their respective positions for 2021.
- ✓ *Status Report on Water Level Monitoring throughout the Beaumont Basin through Jan 18, 2021 [Memorandum 21-02].* Engineer Blandon explained YVWD Well No. 34 and Banning M-9 experienced a sudden drop in level, likely due to equipment malfunctioning. He further indicated that the water level probe at YVWD No. 34 has been replaced. Member Zoba noted that some of the equipment may have dropped down into the well.
- ✓ *Monitoring Sites – Safety and Security [Memorandum 21-03].* Mr. Blandon provided a presentation of the well sites and reassured the Watermaster Committee that all the locations were secured. Member Ayres indicated that YVWD may be able to recover some of the items from the bottom of their well (YVWD No. 34).
- ✓ *A Comparison of Production and Allowable Extractions for Calendar Year 2020. [Memorandum 21-04].* Mr. Blandon pointed out the Transfer of Overlying Rights from 2015 of 4,614 ac-ft and the Transfer of Overlying Rights from Oak Valley Partners to YVWD of 183 ac-ft. He further indicated that the annual production of 16,725 ac-ft is the highest production in recent years. Member Zoba indicated that the table seem to imply that the transfer of Overlying Rights from 2015 are actually the water utilized in 2020, he

asked if it was a policy of the Committee that the right is being consumed straightaway in the year that is received. A discussion ensued on this issue by various members of the Committee, Member Zoba suggested a table or discussion that tabulates the accrual of overlying water rights and consumption versus other stored water in the agencies' storage accounts. He further suggested future discussion on how the water is used at the storage accounts.

- ✓ *Task Order No. 17 – Progress Report [Memorandum 21-05].* Mr. Harder provided brief background of the proposed amendment to Return Flow Methodology and addressed the comments received. He detailed the uncertainties in indoor/outdoor water use and recommended the continued use of the methodology presented in the draft Technical Memorandum. Chair Vela asked about fine tuning outdoor use estimates given ongoing work on Department of Water Resources residential landscape measurements; Mr. Harder cautioned that with too much detail, uncertainty could become too great and the numbers meaningless.
- ✓ *Task Order No. 22 – Preliminary Results Presentation [Memorandum 21-06].* Mr. Harder explained the analysis process of the potential impacts of return flow on groundwater quality (TDS). He explained that the water quality in the Basin was very good with all wells in the range of 250 to 300 mg/L which is low. He explained that the average TDS is not projected to reach the 330 mg/L maximum benefit objective. Member Zoba suggested that an agency credited with the return flow should absorb the liability of salt removal to maintain the TDS in the basin; he further noted that this would demonstrate to the Regional Water Quality Control Board that the Beaumont Basin is ahead of the curve in meeting the maximum benefit objectives.
- ✓ *2019 Revised Draft of the Beaumont Basin Watermaster Annual Report – Presentation of Comments [Memorandum 21-07].* Mr. Jagers made a point of order indicating that a communication from YVWD related to this issue was made available to the Board members, but not to the public in potential violation of the Brown Act. Legal Counsel Montoya agreed and recommended the item be re-agendized. Chairman Vela tabled the item to a special meeting on February 18, 2021.
- ✓ *Discussion Regarding Task Order No. 23 with ALDA Inc. for the Preparation of 2020 Consolidated Annual Report, Estimate of the Basin Safe Yield, Update of the Groundwater Model, and Associated Consulting Services for 2021 [Memorandum 21-08].* Mr. Bandon reminded the Committee of the concerns raised about the cost at the December 2, 2020 meeting. He further indicated that actual expenditures for similar tasks averaged 90 percent of budget. Mr. Bandon recommended the Committee authorize up to 90 percent of the budget and use the remaining as a contingency. A motion was introduced by Member Jagers along Mr. Bandon's recommendation. Motion was approved 5-0.
- ✓ *Consideration of Resolution No. 2021-01 Amending Section 7 of the Rules and Regulations of the Watermaster by Eliminating Rule 7.3 Availability of Unused Overlying Production and Allocation to the Appropriator Parties [Memorandum 21-09].* Member

Zoba expressed concern that there is a claim to groundwater supplies that is increasing; he pointed out that the Table in Rule 7.8 shows there is now close to 90,000 ac-ft of water in the Basin that has been claimed through the methodology described by this rule. After presenting four charts to illustrate his concerns, Member Zoba suggested that Rule 7.8 should be rescinded as it does not serve its purpose and it is not consistent with the Judgment; he further indicated that he is concerned with the overall operational health of the Basin. Counsel Montoya indicated that he is not concerned with the legality of Rule 7.8 or 7.3 as a matter of law. He advised that is legal and it is consistent with the purpose of the Judgment. After much discussion by the Watermaster Committee members, input from the public and opinions expressed by Mr. Harder and Mr. Blandon, the motion made by Member Zoba die for a lack of a second. An alternative motion was introduced by Member Jaggars to reject Resolution 2021-01; after additional discussion, the alternative motion was approved on a 4-1 vote.

***Items Discussed During the February 18, 2021 Special Watermaster Committee Meeting***

- ✓ ***2019 Revised Draft of the Beaumont Basin Watermaster Annual Report – Presentation of Comments [Memorandum 21-12].*** Before Mr. Blandon's presentation of comments, Member Jaggars expressed concern that some of the referenced attachments to Mr. Zoba's February 1, 2021 letter were not made available to the public on the website. After much discussion, Member Zoba indicated that he was confident that accurate draft minutes were included in the packets and provided to the public. Counsel Montoya stated that if the documents are publicly available, the Brown Act requirements have been met. Member Zoba suggested attaching all agencies comments to the annual report to build an administrative record. Member Jaggars indicated that he was satisfied that the Brown Act requirements have been met; Counsel Montoya concurred.

Mr. Blandon noted that comments received were categorized as related or unrelated to Section 3.4.2. Unrelated comments addressed by Mr. Blandon included storage issues, the Basin southern boundary, and changes in production numbers for Banning C-4 and BCVWD deliveries allocated to Banning in 2018 and 2019.

Mr. Blandon indicated that comments on Section 3.4.2 were received from the City of Beaumont, City of Banning, BCVWD, and YVWD and explained the edited report. He opined that consistent with the 2018 Annual Report, the Watermaster Committee should consider approval of the 2019 Annual Report based on the documentation of 183.05 ac-ft of overlying rights transferred from OVP to YVWD. He noted that the discussion of YVWD's submittal of Form 5 and the transfer of all OVP's rights to YVWD is yet to be resolved, and suggested upon resolution, adjustments may be made to the 2018 and 2019 annual reports, if needed.

After much discussion on the issue, Member Jaggars opined that the 2019 Annual Report is consistent with the Rules and Regulations and with Resolution 2017-02, and the activities of 2019 are accurately represented other than minor production discrepancies. A motion to approve the 2019 Annual Report with de minimus changes was introduced by Member Jaggars; the motion was approved on a 4-1 vote.

***Items Discussed During the April 7, 2021 Regular Watermaster Committee Meeting***

- ✓ *Certification of Groundwater Production and Imported Water Use during Calendar Year 2020 [Memorandum 21-13].* Mr. Blandon reported that a letter has been written documenting the groundwater production and imported water deliveries and sent to the State before the April 1, 2021 deadline. Member Jagers confirmed this. Mr. Blandon advised that a final letter must be submitted to the State later in the year.
- ✓ *Presentation of the 2020 Consolidated Annual Report and Engineering Report [Memorandum 21-14].* Mr. Blandon reviewed the report indicating that there were no resolutions adopted in 2020. He compared annual production in 2020 to the five-year average for each appropriator and noted that production was 17.2 percent higher than the average. He documented that a total of 11,469 ac-ft of imported water were delivered to the basin on behalf of BCVWD, the City of Banning and SGPWA. Discharges to Cooper Canyon from the City of Beaumont wastewater treatment plant were 4,305 ac-ft. Mr. Blandon documented that there were no transfers of groundwater between appropriators and that transfers from OVP to YVWD continue at 183.05 ac-ft. He noted that overall storage in the basin decreased slightly and currently represents 40.5 percent of total potential storage.

Mr. Harder gave a presentation on the operating safe yield and estimated that overall the basin loss about 5,577 ac-ft of storage over the last year, which is the largest drop in storage on a year to year basis. He stated is by no means in overdraft and that 2020 estimated operating safe yield was 1,590 ac-ft, the lowest in the last 10 years.

Mr. Blandon reviewed water quality evaluation noting that no primary standards were exceeded. He made various recommendations to the Committee including the development of a policy to account for groundwater storage losses, new yield, and recycled water recharge.

Member Zoba noted that the customers within the adjudicated area of the overlying water rights of OVP have now exceeded the 183 ac-ft as referenced in the report and has climbed to 215 ac-ft. He asked Mr. Blandon how he expected to incorporate that information into the 2020 Annual Report; Mr. Blandon responded that based on Resolution 2017-02 the amount transferred continue to be 183.05 ac-ft and the issue of the Form 5 continues to be debated. Much discussion continued on this topic between various members of the Committee. Member Jagers acknowledge the concerns of YVWD and suggested the approval of the 2020 Consolidated Annual Report and Engineering Report be continued; others agreed.

- ✓ *A Comparison of Production and Allowable Extractions through February 2021 [Memorandum 21-15].* Mr. Blandon documented the Overlying water rights transfers from 2016, the transfer of overlying rights of OVP to YVWD and imported water deliveries for the first two months of the year. Member Zoba pointed out that unused overlying water rights transfers remain a big issue and that this problem needs to be tended to

immediately. Member Jagers presented his position and noted that he is interested in resolving the issue; he requested a future agenda item on this issue.

- ✓ *Status Report of Water Level Monitoring throughout the Beaumont Basin through March 21, 2021 [Memorandum 21-16].* Mr. Blandon indicated the presence of anomalies with water levels at YVWD well 34 probably resulting from earthquakes; he pointed out that he is also investigating fluctuating levels at Banning M-9. He concluded that there are no equipment needs at this time.
- ✓ *Financial Status Report [Memorandum 21-17].* Member Zoba detailed the process for invoicing and payments and noted that the bank account balance is slightly below \$200,000. Per consensus, this report will be added to the consent calendar.
- ✓ *Independent Accountant's Financial Report and Agreed-Upon Procedures for the Beaumont Basin Watermaster [Memorandum 21-18].* Member Zoba presented the report showing long term trends and reminded the Committee that the public had originally asked for this tally of the operation's expenditures. He noted that everything appears to be in order and the auditors will be coming again this year. Member Jagers motioned to receive and file the accountant's report for the period ending June 30, 2020. The motion was approved on a 5-0 vote.
- ✓ *Consideration of the Watermaster Budget for Fiscal Year 2021-2022 [Memorandum 21-19].* Member Zoba advised that invoices are sent out as each task order is approved and through each agency's financial departments Watermaster year-to-year spending trends can be followed. Mr. Zoba explained the proposed budget of \$246,700.00. A motion to approve the budget was introduced by Chair Vela. The budget was approved on a 5-0 vote.
- ✓ *Discussion Regarding Proposed Revisions to Section 2.2 of the Rules and Regulations [Memorandum 21-20].* Member Jagers advised that the proposal to bolster Section 2.2 was prompted by receipt of a request from an overlying party for a special Committee meeting over the Christmas holidays. The proposal is for a process of how to approach getting an item on the agenda while assuring there is enough time to prepare the agenda packet. Member Zoba noted that any of the managers should have the ability to add items to the agenda. There was a brief discussion to assure that the process is better defined in Section 2.2 with a final document for the Board to consider.

#### ***Items Discussed During the June 2, 2021 Regular Watermaster Committee Meeting***

- ✓ *Financial Status Report [Memorandum 21-21].* Member Zoba provided an overview and indicated that after payment of invoices the bank balance was \$97,000.00. He noted that at the next meeting the fiscal year will be closed and a year end report will be provided.
- ✓ *Status Report of Water Level Monitoring throughout the Beaumont Basin through May 13, 2021 [Memorandum 21-22].* Mr. Blandon reminded the Committee of the anomalies reported at the last meeting and indicated that jump in water level had been determined to be correct. He noted that Banning M-9 has declined over 30 feet over the last two



years. Mr. Blandon indicated that three wells were being considered for observation in the northern portion of the basin but decided against because they were located in an area where water levels have been flat.

- ✓ *Production and Allowable Extractions through April 2021 [Memorandum 21-23].* Mr. Blandon shared the table of Production vs. Allowable Extractions and noted that 6,617 ac-ft of imported water were spread in the first four months of the year. Production was documented at 4,126 ac-ft. Member Jagers suggested adding the Morongo Band of Mission Indians and SGPWA to the report to memorialize the data; Mr. Blandon suggested a clarifying footnote to the table.
- ✓ *Discussion Regarding Task Order No. 25 with ALDA Inc. for On-Call Engineering Services [Memorandum 21-24].* Mr. Blandon reminded the Committee that six tasks have been completed under Task No. 8 and \$18,062 of the \$20,000 have been spent. The new Task Order No. 25 is requested for \$25,000. Member Zoba noted that money left on Task 8 should be spent first and then Task Order No. 25 will take over. Chair Vela moved to approve the task order which was approved on a 5-0 vote.
- ✓ *Development of a Policy to Account for Storage Losses in the Beaumont Basin – Initial Approach [Memorandum 21-25].* Mr. Harder indicated that basin losses are sensitive to imported recharge and the location and pumping rate of wells. He noted that accounting for basin losses is necessary to maintain a representative water balance and behooves the Committee to evaluate those losses and develop a methodology and policy to account for them. Mr. Eckhart of SGPWA pointed out that this is a big deal for a managed basin and that this will be an ongoing effort as we move into basin optimization; he indicated that his agency will be happy to participate in this effort. Member Zoba motioned to create Task Order No. 26 for a sum not to exceed \$10,000. Motion was approved on a 5-0 vote.
- ✓ *Update on Development of a Return Flow Accounting Methodology [Memorandum 21-26].* Mr. Harder reminded the Committee that a draft of the Return Flow Methodology was prepared in 2019, comments were received, and results were presented in February. Mr. Harder requested comments on the draft by July 21.
- ✓ *2020 Consolidated Annual Report and Engineering Report – Presentation of Comments Received on Draft Report [Memorandum 21-27].* Mr. Blandon highlighted comments that were received and changes made to the report in response. Member Jorritsma moved to approve the annual report. The motion passed on a 4-1 vote.

#### ***Items Discussed During the June 28, 2021 Regular Watermaster Committee Meeting***

After requesting public comments, Chair Vela recessed the meeting to Closed Session.

#### ***Items Discussed During the August 4, 2021 Regular Watermaster Committee Meeting***

This meeting was cancelled due to technical difficulties.

***Items Discussed During the August 17, 2021 Regular Watermaster Committee Meeting***

- ✓ *Status Report of Water Level Monitoring throughout the Beaumont Basin through Jul 26, 2021 [Memorandum No. 21-28].* Mr. Blandon reviewed the report and noted that water levels at certain wells continue to decline. He described seasonal fluctuations and year-to-year decline at BCVWD No. 25 and the impact of BCVWD No. 3 on levels at Well No. 2. He noted that BCVWD will be fully responsible for the replacement of the cable and probe at BCVWD No. 29.
- ✓ *Production and Allowable Extractions through June 2021 [Memorandum 21-29].* Mr. Blandon noted that 6,617 ac-ft of imported water have been spread over 7,600 ac-ft have been produced from the basin. Member Jaggars indicated that he understands that BCVWD is withdrawing from storage at this time.
- ✓ *Return Flow Accounting Methodology presentation of final Technical Memorandum and comments [Memorandum 21-30].* Mr. Harder reviewed the recommended return flow accounting methodology and comments received on the Technical Memo. He recommended reevaluating the methodology every five to 10 years to assure it is representative of what is happening. Mr. Harder discussed the projected impact of return flow on groundwater quality. Member Jaggars asked about detailed of the model regarding the spreading of recycled water and suggested some refinement to fully understand the application of recycled water. Much discussion ensued on the issue of spreading of recycled water and its impact on the Basin with multiple viewpoints. Counsel Montoya indicated the constituent elements should be determined before the policy and indicated that there is not enough information at this point to get to the policy development stage. Member Zoba suggested tabling this item as at this time may be incomplete. After ensuing discussion, Chair Vela requested legal counsel opinion and tabled the item for further discussion.
- ✓ *Task Order No. 27 to Provide Electronic Files of the Groundwater Model of the Beaumont Basin to the City of Beaumont [Memorandum 21-31].* Mr. Blandon requested a new Task Order at a cost not to exceed \$15,000. Member Hart objected to the additional compensation and that the owner should be entitled to the information requested. Mr. Harder described the data requested and the work involved. Members Zoba and Jaggars concurred that the data would be helpful to have in a clear and consistent form. Member Zoba motioned to approve Task Order No. 27 to be split between the five members. Motion was approved on a 5-0 vote.
- ✓ *Electronic Delivery of Annual Report [Memorandum 21-32].* Mr. Blandon noted that reports have been delivered and comments provided electronically for the past year and longer due to COVID-19 and business is moving toward paperless. Member Hart motioned to approve the delivery of the annual report in electronic form. Motion was approved on a 5-0 vote.
- ✓ *Discussion Regarding the Date and Time of Regular Meetings of the Beaumont Basin Watermaster [Memorandum 21-33].* Member Zoba requested comments for scheduling



the next year's meetings. Discussion ensued. Member Zoba will prepare a resolution for adoption at the October meeting.

- ✓ *Financial Status Report [Memorandum 21-34].* Member Zoba presented the update and indicated the Task Orders will be updated to include the approved Task Order No. 27. He advised that he is engaging with the auditor to prepare the review of financial documents, which may be ready for the next meeting.

#### ***Items Discussed During the October 6, 2021 Regular Watermaster Committee Meeting***

- ✓ *Discussion Regarding the Date and Time of Regular Meetings of the Beaumont Basin Watermaster [Memorandum 21-35].* Chair Vela motion to change the time of the Watermaster Committee meetings to 11:00 AM. Motion was approved on a 5-0 vote.
- ✓ *Discussion Regarding the Assignment of an Ad Hoc Committee for the Development of a Procurement Policy [Memorandum 21-36].* Member Hart reminded the Committee that there is procurement policy for the Committee and volunteered to serve on an ad hoc committee. Member Jagers also volunteered. Member Zoba motioned to establish an Ad Hoc Committee on Procurement Policy. Motion was approved on a 5-0 vote.
- ✓ *Financial Status Report [Memorandum 21-37].* Member Zoba presented the update. There were no questions or comments.
- ✓ *Discussion Regarding the Development and Inclusion of Items on a Meeting Agenda [Memorandum 21-38].* Member Zoba explained the process that consultants used to include an item on the agenda packet. Member Jagers noted that the issue was for others who may want to approach the Committee. Chair Vela suggested the Committee Secretary and Chair collaborate to determine if an item submitted by an outside entity is appropriate. Member Jagers will draft a potential process for Committee evaluation.
- ✓ *Status Report of Water Level Monitoring throughout the Beaumont Basin through September 22, 2021 [Memorandum No. 21-39].* Mr. Bandon review the report and noted the potential for a monitoring well north of Cherry Valley Blvd.
- ✓ *A Comparison of Production vs Extraction Credits through August 2021 [Memorandum 21-40].* Mr. Bandon explained the new concept of Extraction Credits for Committee consideration. He reviewed the report and documented the amount of water imported and production; he noted that some agencies have exceeded their credits. Member Zoba asked about rollover of extraction credits. Member Jagers suggested that given the recent Court ruling, this should be brought back as an agenda item.
- ✓ *Storage Accounting Issues – Preliminary Framework [Memorandum 21-41].* Mr. Bandon reviewed historical hydrological conditions as well as historical pumping and spreading and water rights issues in the Beaumont Basin. He noted the amount of water in storage and the allocation of storage in the Basin.

Mr. Harder reviewed change in groundwater levels over time and explained the hydrological conditions of the basin. He documented a negative change in storage in the basin between 2003 and 2020 of approximately 42,000 ac-ft, all of it occurring on the west side of the basin. He further noted that the change in storage could be as high as a negative 59,000 ac-ft basin wide and that total storage in the basin was approximately 1.4 million ac-ft. Mr. Harder noted that the west side is more sensitive to precipitation trends and anticipated a continue declined in water levels without recharge.

Member Zoba noted that to return to the zero point there is no enough water in the State Project Water. Mr. Harder agreed and indicated that the Committee must make the decision as to the significance of the overdraft; he discussed options from a physical operation and suggested there is more analysis to be done.

Mr. Harder suggested workshops to address the balance of recharge and discharge, look at the significance and what is to be done about it, and examine losses.

Mr. Blandon noted that to address the storage imbalance, recharge facilities need to be developed on the west side and proposed to conduct a series of workshops to begin discussion. He detailed two areas where additional recharge of imported water could take place. Members of the Committee contributed with a number of ideas as to how to address the storage imbalance. Discussion ensued regarding prioritizing topics for the workshop.

- ✓ *Consideration of Change Order No. 1 for Task Order No. 26 for the Development of a Framework to Address Storage Accounting Issues [Memorandum 21-42].* Mr. Blandon reviewed the request for change order. The Committee discussed needs and the potential for a workshop facilitator. Mr. Eckhart offered to participate financially in the workshops. Member Jaggars moved to approve amendment of the budget for Task Order No. 26 to add \$6,700.00. Motion passed on a 5-0 vote.

#### ***Items Discussed During the December 1, 2021 Regular Watermaster Committee Meeting***

- ✓ *Storage Accounting Issues – Additional Thoughts [Memorandum 21-43].* Mr. Blandon reviewed issues raised and information discussed in October. He noted that the August 2021 ruling settled the water rights and storage issues in the basin for supplemental water as well as unused surplus water. He explained that all the water in the storage accounts is valid and available for use and the basin must be managed accordingly.

To be determined over the next few meetings, Blandon stated, will be how to manage the basin in a way that does not negatively affect some producers, consideration of the issues of spreading imported water on the west side of the basin, and ascertain that appropriators can safely store and extract their production rights.

Chair Vela noted that it will get to a point where agencies will have to rely on the surplus water, and basin management practices and implementation to ensure the basin is in good condition should be discussed, along with a policy on storage losses.

- ✓ *Use of On-Call Task Order No. 8 and 25 to Provide Engineering Services related to evaluation of Storage Issues in the Beaumont Groundwater Basin [Memorandum 21-44].* Mr. Bandon explained that additional work needs to be done but there is no budget approved for additional activities. After much discussion, Chair Vela tabled the item.
- ✓ *Discussion Regarding Amendment of Engineering Services Contract with ALDA Inc. for Calendar Year 2022 [Memorandum 21-45].* Mr. Bandon provided history of the Agreement for Engineering Services and shared the proposed billing rates. Following discussion of upcoming work and the RFP process, the majority of the Committee concurred on extension of the contract. Member Ares moved to approve the contract extension through December 31, 2022. Motion was approved on a 4-1 vote.
- ✓ *Discussion Regarding Task Order No. 28 with ALDA Inc. for the Preparation of the 2021 Consolidated Annual Report, Estimate of the Basin Safe Yield, Update of the Groundwater Model, and Associated Consulting Services for 2022 [Memorandum 21-46].* Mr. Bandon explained that this is the basic task order as provided each year to prepare the annual report, estimate the operating safe yield, and provide general engineering services. After much discussion Chair Vela motioned to approve Task Order No. 28 for a sum not to exceed \$103,600.00. Motion was approved on a 4-1 vote.
- ✓ *Discussion Regarding Task Order No. 29 with ALDA Inc. for the Installation, Maintenance, and Data Collection of Water Level Monitoring Equipment in 2022 [Memorandum 21-47].* Mr. Bandon reviewed the work to be conducted under this task. After some discussion, Member Jorritsma motion to approve Task Order No. 29 for a sum not to exceed \$24,975.00. Motion was approved on a 5-0 vote.

## **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 Committee 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 Committee meeting.

Resolution No. 2015-01 was adopted at the April 1<sup>st</sup>, 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 Committee 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 the City of 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 the City of Banning, BCVWD, the City of 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 Geronio Pass Water Agency (SGPWA) in mid-2010 and brought for discussion at the summer of 2012. The initial 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. The Watermaster Committee deemed the application incomplete and requested further information from the applicant to address questions posed by members of the Committee. This 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.

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 was discussed over several Watermaster Committee meetings and was finally approved at the June 7, 2017 regular meeting under Resolution 17-01. The approval of this application allows SGPWA to store up to 10,000 ac-ft of imported water in the Beaumont Groundwater Basin.

As of December 31, 2021, the total storage allowed stands at 290,000 ac-ft; storage limits by participant are presented below. Amounts of water in storage by participant are discussed under Section 3.

✓ 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
- ✓ San Geronio Pass Water Agency      10,000 ac-ft

## 2.4 Rules and Regulations

The original Rules and Regulations of the Watermaster were adopted on June 8, 2004. The Judgment provides for their periodic update as deemed necessary by the Watermaster. 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.

The latest change to the Rules and Regulations came under Resolution 2019-02, adopted on June 25, 2019, by which the Beaumont Basin Watermaster rescinded Section 7 of the Beaumont Basin Watermaster Rules and Regulations in its entirety and replaced it as provided in Attachment A of the resolution. Under this resolution, the Beaumont Basin Watermaster also updated Form 5 entitled, “Notice to Adjust Rights of an Overlying Party due to Proposed Provision of Water Service by an Appropriator” and Form 7 entitled, “Notice to Transfers of Appropriator Production Right of Operating Yield Between Appropriators” as provided in Attachment “A” to the Resolution.

## 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 C.

## 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 2021 operations.

### 2.6.1 Budget

The budget for Fiscal Year 2019-20 and 2020-21 were initially approved at the Feb 5, 2020 Watermaster Committee meeting under Memorandum 20-02. The FY 2020-21 was for the amount of \$246,600.00. The budget for Fiscal Year 2021-22 was approved at the April 6, 2021 Watermaster Committee meeting under Memorandum 21-19. The approved budget provided funding for administrative expenses in the amount of \$246,700.00, an increase of

\$100.00 over the FY 2020-21 budget. The approved FY 2021-22 budget did not include any funds for Special Projects.

The following table presents a comparison between the final budgets for FY 2019-20, approved budget for FY 2020-21, and approved budget for FY 2021-22. Typically the final budget for FY 2020-21 is listed, but it was not available at the time of this report preparation.

<i><b>Operating Expense</b></i>	<i><b>FY 2019-20 Final Budget</b></i>	<i><b>FY 2020-21 Approved Budget</b></i>	<i><b>FY 2021-22 Approved Budget</b></i>
<b><u>Administrative Expenses</u></b>			
Bank Fees and Interest	\$ 14.00	\$ 50.00	\$ 50.00
Miscellaneous and Meetings	\$ 0.00	\$ 250.00	\$ 250.00
Acquisition/computation & Annual Report	\$ 0.00	\$ 100,000.00	\$ 100,000.00
Annual Audit	\$ 1,300.00	\$ 1,300.00	\$ 1,400.00
Engineering Services	\$ 24,527.00	\$ 50,000.00	\$ 50,000.00
Monitoring and Data Acquisition	\$ 96,644.00	\$ 50,000.00	\$ 50,000.00
Meter Installation and Repair	\$ 0.00	\$ 10,000.00	\$ 0.00
Legal Expenses	\$ 10,032.00	\$ 25,000.00	\$ 35,000.00
Reserve Funding	\$ 0.00	\$ 10,000.00	\$ 10,000.00
	<b>\$ 131,217.00</b>	<b>\$ 246,600.00</b>	<b>\$ 246,700.00</b>
<b><u>Special Project Expenses</u></b>			
Engineering	\$ 0.00	\$ 0.00	\$ 0.00
Litigation	\$ 0.00	\$ 0.00	\$ 0.00
	<b>\$ 0.00</b>	<b>\$ 0.00</b>	<b>\$ 0.00</b>
<b>Total Operating Expense</b>	<b>\$ 131,217.00</b>	<b>\$ 246,600.00</b>	<b>\$ 246,700.00</b>

## 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 2021, dated June 30, 2021, prepared by Rogers, Anderson, Malody, and Scott, LLP, is included under Appendix D.



## **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 2021 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 16.84 inches over the 100-year period between 1922 and 2021. On the average during this 100-year period, 11.76 inches of precipitation, or 69.8 percent of total, fell during the winter between December and March. Over the last 25 years (1997-2021), precipitation has averaged 13.70 inches of rain which is approximately 81 percent of the 100-year average precipitation. Precipitation during CY 2021 at Station 13 was 11.05 inches, approximately 66 percent of the 100-year average or 81 percent of the 25-year average.

Figure 3-1 illustrates annual precipitation at this station for the 25-year reporting period between 1997 and 2021 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 2003-05 period; average precipitation during this period was 19.94 inches or close to 18 percent above the long-term average. Conversely, down trending periods indicate periods of below average precipitation as in the 2011-18 period when average precipitation was only 11.23 inches or approximately 67 percent of the 100-year average.

Notwithstanding the significantly above average precipitation recorded in 2019 (23.34 inches), the Basin has been in a dry period that began in 2011. During the last 13 years (2009-21), two of the five years with the lowest precipitation ever recorded at Station 13 have occurred; 7.4 inches (lowest ever) 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, slightly over 20 percent below the 100-year long-term average for the Basin and approximately two percent below the 25-year precipitation average.

### **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 semi consolidated Quaternary alluvium. Surrounding the alluvial sediments are semi consolidated 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. The southern boundary of the basin was postulated by Bloyd (1971) based on groundwater level differences in the area. No fault has ever formally been mapped at this southern boundary. The San Timoteo Fault was identified by USGS (2006) but does not correlate to the adjudicated 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, BCVWD, SMWC, and YVWD. The City of Beaumont, while identified as an Appropriator in Exhibit C of the Judgment, it has never produced from the basin and it has a zero allocation as a percent share of Safe Yield allocated to Appropriators. 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; applicable only between Fiscal Years 2004 and 2013

- ✓ Transfers from other Appropriators,
- ✓ Transfers of unused production from Overlying Producers,
- ✓ Conversion of Overlying rights to Appropriative rights
- ✓ Water withdrawn from their storage account, and
- ✓ New yield created by the Appropriator.

Monthly production for the last five years of operation (CY 2017-21) are presented in a series of tables starting with Table 3-1A for CY 2017 and continuing on an annual basis through Table 3-1E for CY 2021. 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 2021, Appropriators pumped a combined amount of 17,904.20 ac-ft of groundwater from the Beaumont Basin (See Table 3-1E). Production for CY 2021 was the highest production ever recorded from the Basin by Appropriators and represents an increase of approximately 1,180 ac-ft over CY 2020. CY 2021 production was 15.9 percent higher than the 2017-21 five-year average of 15,448 ac-ft per year.

With the exception of YVWD, in CY 2021 all agencies increased their groundwater production over CY 2020. The City of Banning production increased by over 43 percent while SMWC more than doubled the amount pumped. BCVWD's production was slightly higher by approximately 70 ac-ft. Production by YVWD decreased by approximately 250 ac-ft compared to the previous year.

In mid-2021, YVWD notified Watermaster that they will be using an old irrigation well, known as the Calimesa Irrigation Well, to provide construction water to an industrial development north of Cherry Valley Blvd. Upon finalization of this short-term project, the operations of this well will be reverted back to its owner, Cherry Valley Recreation and Park District, for their use.

### **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 21 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 over 99 percent of the total production by Overlying Parties in CY 2021.

The remaining wells, operated by smaller producers, did not have meters for some or most of 2021 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 2021 Annual Report uses the updated method as detailed in Appendix E.

Similar to the production reported for the Appropriators, a series of tables were developed to report monthly and annual production from the Overlying Parties on a calendar year basis. Starting with Table 3-2A, monthly production by well is documented for CY 2017. In a similar manner, Tables 3-2B through 3-2E summarize monthly overlying production for CY 2018 through CY 2021, respectively. In addition, these tables show their share of the Safe Yield and the amount of unused water for each Overlying Party.

During CY 2021, Overlying Producers produced an estimated 2,034.10 ac-ft; this level of production is approximately six percent higher than in CY 2020 and 15 percent higher than in CY 2019, a record low year. Production in CY 2021 was however nine percent lower than in CY 2018. Compared to the 2017-21 five-year average of 2,069.0 ac-ft/yr, Overlying Producers pumped two percent less water.

### **3.2.3 2003-2021 Annual Production Summary**

Annual production for all appropriators and overlying parties since 2003 is summarized in Table 3-3A on a calendar year basis for the 2003 to 2011 calendar years and Table 3-3B for CY 2012 through CY 2021. It should be noted that production from 2003 only includes production for the second half of the year. Since July 2003, a total of 300,731 ac-ft has been pumped from the Beaumont Basin; an estimated 84.4 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 temporary high of 87.2 percent recorded in CY 2014. Production by appropriators reached an all-time high of 89.8 percent in CY 2021. Over the last five years, production by appropriators has averaged 88.1 percent of total extractions.

Groundwater production peaked in CY 2007 when 19,811 ac-ft were pumped from the basin; since, it declined steadily through CY 2010 to approximately 13,600 ac-ft. Production during the CY 2011-14 period increased by 26.2 percent to 17,281 ac-ft.; however, it declined to less than 14,000 ac-ft in the ensuing two years. Total production from the basin has increased significantly in the last five years to an all time high of 19,938 ac-ft in CY 2021. Figure 3-4 depicts annual total production by appropriators and overlying parties on a calendar year basis. Also, depicted on this figure is the amount of annual overlying underproduction to be allocated to appropriators.

## **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, estimated in the recently completed

(Sep 2018) Beaumont Basin Storage Analysis, have not been incorporated into the accounting of storage in the basin. The Watermaster may adopt a policy to address storage losses in the future. Table 3-4 presents a summary of the annual groundwater recharge in the Beaumont Basin since 2004 on a calendar year basis. There was no imported water recharge in 2003.

### **3.3.1 State Water Project Water Recharge**

Deliveries of imported water are conducted through the San Geronio Pass Water Agency, the State Water Contractor for this area. BCVWD's Noble Creek spreading facility, located in the vicinity of Beaumont Avenue and Cherry Valley Blvd., has been until now the primary facility in the Beaumont Basin where imported water can be delivered for groundwater recharge. The location of this recharge facility is depicted in Figure 3-3. In 2019, SGPWA completed the construction of a new spreading facility southwest of the intersection of Beaumont Avenue and Brookside Avenue; spreading of imported water at this location took place for the first time in December of the year when 257.80 ac-ft were spread.

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 low of 2,773 ac-ft. From CY 2017 through CY 2020, BCVWD spread over 10,000 ac-ft per year; however, spreading in CY 2021 decreased to a low of 2,468 ac-ft. In total, a total of 111,360 ac-ft of imported water have been spread on behalf of BCVWD since CY 2006 (See Table 3-4).

The City of Banning began purchasing imported water for recharge at BCVWD's Noble Creek facility in July 2008 and has since recharged 13,942 ac-ft. in accordance with their storage agreement on file with Watermaster. During CY 2012 and 2013, Banning spread an average of 100 ac-ft per month; spreading in CY 2014 and 2015 was reduced to approximately half of that amount. However, spreading in CY 2016 and 2017 increased significantly to 1,477 ac-ft and 1,350 ac-ft, respectively. In CY 2019 and again in CY 2020, the City of Banning spread only 250 ac-ft of imported water per year. No spreading took place by the City of Banning during CY 2021.

In addition to imported water deliveries to BCVWD and the City of Banning at BCVWD's Noble Creek facility, SGPWA has also delivered significant quantities of imported water at the Little San Geronio 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 SGPWA to the Little San Geronio Creek Spreading Ponds began in August 2003. Between 2004 and 2013, SGPWA recharged a total of 10,464 ac-ft or an average of 1,046.4 ac-ft/yr. Deliveries in CY 2014 through CY 2018 were practically non-existent as less than 44 ac-ft were spread in those five years combined.

Under Resolution 17-01, adopted on June 7, 2017, SGPWA entered into a storage agreement with the Beaumont Basin Watermaster to spread up to 10,000 ac-ft of imported water in the Beaumont Basin subject to certain conditions. Starting in CY 2019, SGPWA began spreading imported water at their new facilities on Brookside Avenue and has spread a total of 507.8 ac-ft at this new location including 36 ac-ft spread in CY 2021. No spreading by SGPWA has taken place at the Little San Geronio Creek Spreading Ponds since CY 2016.

### **3.3.2 Treated Wastewater Recharge**

The City of Beaumont owns and operates the Beaumont Wastewater Treatment Plant. The plant was originally designed and permitted to discharge up to 4.0 mgd of tertiary treated wastewater; current capacity is 6.0 mgd. Discharges from this plant are not permitted for recycled water use at this time. Wastewater discharges from this facility are currently regulated under Order No. R8- 2015-0026, NPDES Number CA105376.

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 Canyon where it infiltrates into the San Timoteo Management Zone and outside the Beaumont Basin. Starting in March 2010, Beaumont began deliveries of treated wastewater 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 treated wastewater discharged at this location reaches and recharges the Beaumont Basin. In the Fall of 2015, the City of Beaumont ceased deliveries to DP-007 in Marshall Creek.

In CY 2021, the City of Beaumont discharged an estimated 4,148 ac-ft of treated wastewater at DP-001 in Cooper's Canyon. Discharges at this location were approximately four percent lower than in CY 2020 when 4,305 ac-ft of treated wastewater were discharged. Monthly discharges at DP-001 varied slightly in CY 2021 from a low 3.44 mgd in February to a high of 4.55 mgd in June; the average for the year was 3.70 mgd. Monthly treated wastewater 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 the City of Beaumont to receive credit however, Watermaster will need to develop the methodology to compute and credit the New Yield.

## **3.4 Water Transfers and Adjustments of Rights**

Section 7 of the Watermaster Rules and Regulations, as replaced by Resolution 2019-2 in June 2019, 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:

- ✓ Transfer of water rights and/or water in storage between Appropriators
- ✓ Transfer of water rights from Overlying producers to an Appropriator in exchange for water service, and
- ✓ 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 re-determined 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 re-determined 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 2017-21 five-year period for each user. Annual average groundwater production during this period for all Overlying producers combined was estimated at 2,069.0 ac-ft/yr; representing approximately 30.9 percent of the revised Safe Yield. Individually, none of the Overlying producers produced more than their allowable production rights during this five-year period; California Oak Valley Golf and Resort LLC averaged the highest percentage of their respective allocation at 81.6 percent followed by Sharondale Mesa Owner Association at 75.3 percent and Plantation on the Lake at 66.9 percent. Tukwet Canyon Golf Club followed at an average of 59.0 percent of their Overlying right.

### **3.4.1 Transfers between Appropriators**

According to Section 7.2 of the Rules and Regulations, as replaced under Resolution 2019-02, 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, SMWC and BCVWD entered into a transfer agreement that allowed 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 SMWC estimates the amount of water available for transfer and offers it to 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 alone. 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. CY 2011 was the last year that SMWC transferred water to other appropriators.

No water transfers between Appropriators were reported during CY 2021.



### **3.4.2 Transfers of Overlying Rights for Service by an Appropriator**

The Stipulated Judgment, under Part III, Declaration of Adjustment of Rights, Section 3(B), provides that to the extent any Overlying Party requests, and uses its Exhibit “B”, Column 4 water to obtain water service from an Appropriative Party, an equivalent volume of potable groundwater shall be earmarked by the Appropriative Party which will serve the Overlying Party, up to the volume of the Overlying Water Rights as reflected in Column 4 of Exhibit “B” for the purpose of serving the Overlying Party.

The Stipulated Judgment, under Part III, Section 3(C), states that in the event that an Overlying Party receives water service from an Appropriative Party, the Overlying Party shall forebear the use of that volume of the Overlying Water Right earmarked by the Appropriative Party. The Appropriator Party providing such service shall have the right to produce the volume of water foregone by the Overlying Party, in addition to other rights otherwise allocated to the Appropriator Party.

Under Resolution 17-02, adopted on August 30, 2017, Oak Valley Partners L.P. (“OVP”) agreed to transfer its Overlying water rights to particular development parcels, intending to secure commitments from YVWD to provide water services to development phases of OVP’s Summerwind Ranch Specific Plan (Project), located in the Beaumont Basin. The Stipulated Judgment allocated OVP an Overlying production right of 1,806 ac-ft based on the initial Safe Yield of 8,650 ac-ft/yr. OVPs rights have been adjusted to 1,398.86 ac-ft based on the recalculated Safe Yield of 6,700 ac-ft/yr as approved by the Watermaster on April 1, 2015. Overlying rights and Overlying-Appropriative rights will be adjusted every 10 years based on the recalculation of the Safe Yield of the Beaumont Basin.

In CY 2018, Oak Valley Partners transferred a combined total of 180.4 ac-ft in Overlying rights to YVWD upon YVWD’s water service commitments to serve certain Project parcels in the Beaumont Basin. In a similar manner, an additional 2.65 ac-ft of former OVP’s Overlying rights were transferred to YVWD in early 2019 for a combined total of 183.05 ac-ft. There were no transfers of Overlying rights from OVP to YVWD in CY 2020 and CY 2021.

The transfer of the above amount reduced OVP’s Overlying rights to 1,215.81 ac-ft/yr for 2021. In the future OVP’s rights will remain at this level or adjusted down as additional rights are transferred to YVWD. Starting in 2018, YVWD is free to use its Appropriative rights, as denoted above, by either pumping from the basin, transferring to other Appropriators, or adding to its storage account.

Under Resolution 2019-02, adopted on June 25, 2019, the Beaumont Basin Watermaster rescinded Section 7 of the Beaumont Basin Watermaster Rules and Regulations in its entirety and replaced it as provided in Attachment A of the resolution. Under this resolution, the Beaumont Basin Watermaster also updated Form 5 entitled, “Notice to Adjust Rights of an Overlying Party due to Proposed Provision of Water Service by an Appropriator” and Form 7 entitled, “Notice to Transfers of Appropriator Production Right of Operating Yield Between Appropriators”.

At the Dec 4, 2019 Watermaster Meeting, YVWD submitted a Form 5, signed Nov 19, 2019, documenting the transfer of OVP's all original 1,806 / revised 1,398.90 ac-ft ("Earmarked Water") of Overlying Water Rights to YVWD effective on October 9, 2018 (A copy of Form 5 submitted by YVWD to the Watermaster was included under Appendix E of the 2020 Annual Report). This issue was extensively discussed at that meeting and throughout the various meetings in 2020 between legal counsel and members of the Watermaster Committee without reaching an agreement. In mid-2021, YVWD filed with the Court two related motions. The first motion was to rescind Watermaster Rule 7.3 (formerly Rule 7.8); the second motion was to order the Watermaster to recognize Oak Valley Partners, LP's transfer of overlying water rights. On August 31, 2021, the Court denied these motions without prejudice. A copy of the Notice of Entry of Order Regarding Yucaipa Valley Water District's Motions, along with associated exhibits A and B is included under Appendix A of this report.

### **3.4.3 Allocation of Unused Overlying Water**

Section 7.3 of the Rules and Regulations, as replaced under Resolution 2019-02, 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 have 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 2021 were based on unused production from Overlying Users in CY 2016. 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 2021. While groundwater production by Overlying Users has decreased by over 45 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 starting in CY 2014 as a result 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 share of the Safe Yield and the schedule set forth under Section 7.3 of the Rules and Regulations, as replaced under Resolution 2019-02. 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 2016, estimated at 4,763 ac-ft, is allocated to Appropriators during CY 2021. Unused Overlying production during CY 2021, adjusted by reductions on OVP's rights, is estimated at 4,483 ac-ft. This amount would be allocated to Appropriators during CY 2026.



### 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. The completion of the “Beaumont Basin Storage Loss Analysis” in September 2018 estimates storage losses under various spreading scenarios; however, Watermaster has not develop a methodology to adjust storage accounts and their corresponding losses.

#### 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 2021. This table includes annual production by Appropriator, their share of Temporary Surplus, Appropriative rights, 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 2020, an overall total of 117,532.80 ac-ft of water were stored in the Basin for future use; this total decreased in CY 2021 by 10,453.80 ac-ft to a cumulative total of 107,078.90 ac-ft. 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 2021 was 6,266.20 ac-ft higher. The amount of water in storage by party at the beginning and end of CY 2021 is presented below. Figure 3-5 compares the amount of water in storage to the storage limit for each party with storage accounts. Figure 3-6 presents storage totals by agency for the most recent 10-year period.

Agency / Party to the Judgment	Calendar Year 2021 (ac-ft)		
	Beginning	Ending	Change
City of Banning	50,889.2	48,718.1	-2,171.1
BCVWD	39,749.8	31,633.2	-8,116.6
City of Beaumont	0.0	0.0	0.0
South Mesa Water Company	10,134.2	10,262.7	128.4
Yucaipa Valley Water District	16,287.7	15,957.1	-330.6
Morongo Band of Mission Indians	0.0	0.0	0.0
San Gorgonio Pass Water Agency	471.8	507.8	36.0
<b>TOTAL in Storage</b>	<b>117,532.8</b>	<b>107,078.9</b>	<b>-10,453.8</b>

## **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 2020 and 2021 were evaluated based on measured data in monitoring wells located throughout the Beaumont Basin. Separate groundwater level contour maps were created for December 2020 and December 2021 to evaluate changes in groundwater flow patterns and basin-wide changes in groundwater levels over the time period. The manual generated groundwater contour maps for 2019 and 2020 are shown on Figures 3-7 and 3-8, respectively.

Groundwater flow direction and gradient within the Beaumont Basin varies depending on location. In the west central portion of the basin (immediately west of the Beaumont Plains Fault Zone), groundwater generally flows to the north from the lowest reach of Noble Creek. Further to the west near Calimesa, the groundwater flow direction becomes westerly and then southwesterly toward San Timoteo Wash. In the eastern part of the basin, groundwater flows to the southeast towards the City of Banning. The groundwater flow directions did not change significantly between 2020 and 2021 although a previous pumping depression near BCVWD Well 29 was abated somewhat resulting from reduced production from this well.

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 2020 groundwater surface from the 2021 groundwater surface (see Figures 3-9 and 3-10). In the northwest portion of the basin (YVWD 34 and Singleton Ranch 7), groundwater levels have shown a downward trend since approximately 2020. At Tukwet Canyon Golf Club C, although groundwater levels had been steadily declining between 2003 and 2019, they were relatively stable between December 2020 and December 2021.

Groundwater levels in the north central portion of the basin showed general declines in the range of -4 to -18 feet with the largest declines (as much as -44 feet) in the vicinity of the Noble Creek Artificial Recharge Facility (see Figure 3-9).

In the south-central portion of the basin, groundwater levels at Oak Valley No. 1 were relatively stable between 2020 and 2021. At Beaumont-Cherry Valley Water District (BCVWD) Well No. 2, groundwater levels showed a decrease of approximately 21 feet between December 2020 and December 2021. At Banning Well C-4 (southeast Beaumont Basin), groundwater levels are highly variable and likely influenced by groundwater pumping. As judged by the highest peaks in the hydrograph, the overall groundwater level trend at this well has been downward from 2020 to 2021.

Groundwater levels in the northeast portion of the basin (USGS Highland Springs Monitoring Well) were relatively stable between 2020 and 2021.

### 3.6.2 Analysis of Change in Groundwater Storage

Basin-wide change in groundwater storage between December 2020 and December 2021 was analyzed as a function of the difference in groundwater levels across the basin and the specific yield of the aquifer sediments. Specific yield values were obtained from the calibrated groundwater flow model of the Beaumont Basin (TH&Co, 2015). Groundwater level change across the basin was analyzed using the following procedure:

- ✓ The December 2020 and 2021 hand-generated groundwater contour maps were each converted into three-dimensional raster surfaces.
- ✓ The basin was discretized into 100-ft by 100-ft grid cells.
- ✓ Attributes were assigned to each saturated grid cell including groundwater level change and specific yield.
- ✓ The resulting attribute table was processed in a Geographic Information System (GIS) for calculating the change in storage.

Results of the analysis show an overall decrease in groundwater storage within the adjudicated basin of approximately 9,522 ac-ft during this one-year period.

## 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 overlie 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:	$\Sigma P$	=	The sum of groundwater production (ac-ft)
	$\Delta S$	=	The change in groundwater storage (ac-ft)
	$\Sigma AR$	=	The sum of groundwater recharge (ac-ft)
	$\Delta T$	=	The time over which the OSY is estimated (years)

Total Beaumont Basin groundwater production in calendar year 2021 was 19,938 ac-ft (see Table 3-3B). Total artificial recharge in calendar year 2021 was 2,504 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, if any, 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. The period of time over which the OSY is evaluated is one year. The resulting OSY is estimated as:

$$\text{OSY} = \frac{19,938 + (-9,522) - 2,504}{1} = 7,912 \text{ ac-ft}$$

It is emphasized that the OSY, as presented herein, is based on one year of groundwater production and recharge 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. The Safe Yield will be reevaluated again in 2023.

It is noted that the change in groundwater storage used to estimate the annualized Safe Yield is based on the most representative data available to date. Further, after review of the annualized safe yield from previous years, it is likely that the localized positive storage change resulting from artificial recharge at the Noble Creek Recharge Facility was underestimated, resulting in underestimated OSY for years 2016 through 2020. The storage estimate issues associated with these annualized OSYs will be addressed in the reevaluation of the long-term Safe Yield in 2023.

### 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 revisions changing the reporting of Watermaster activities from a fiscal year basis to a calendar year basis and more recently replacing Section 7 in its entirety under Resolution 19-02.

In September 2018, a study to estimate groundwater losses from the basin was completed for Watermaster. In this study groundwater losses from the basin resulting from spreading of imported or outside water at selected locations in the basin was estimated. The study has been accepted by the Watermaster Committee; however, a methodology to address this issue is yet to be developed.

Watermaster may conduct additional studies in the future in support of:

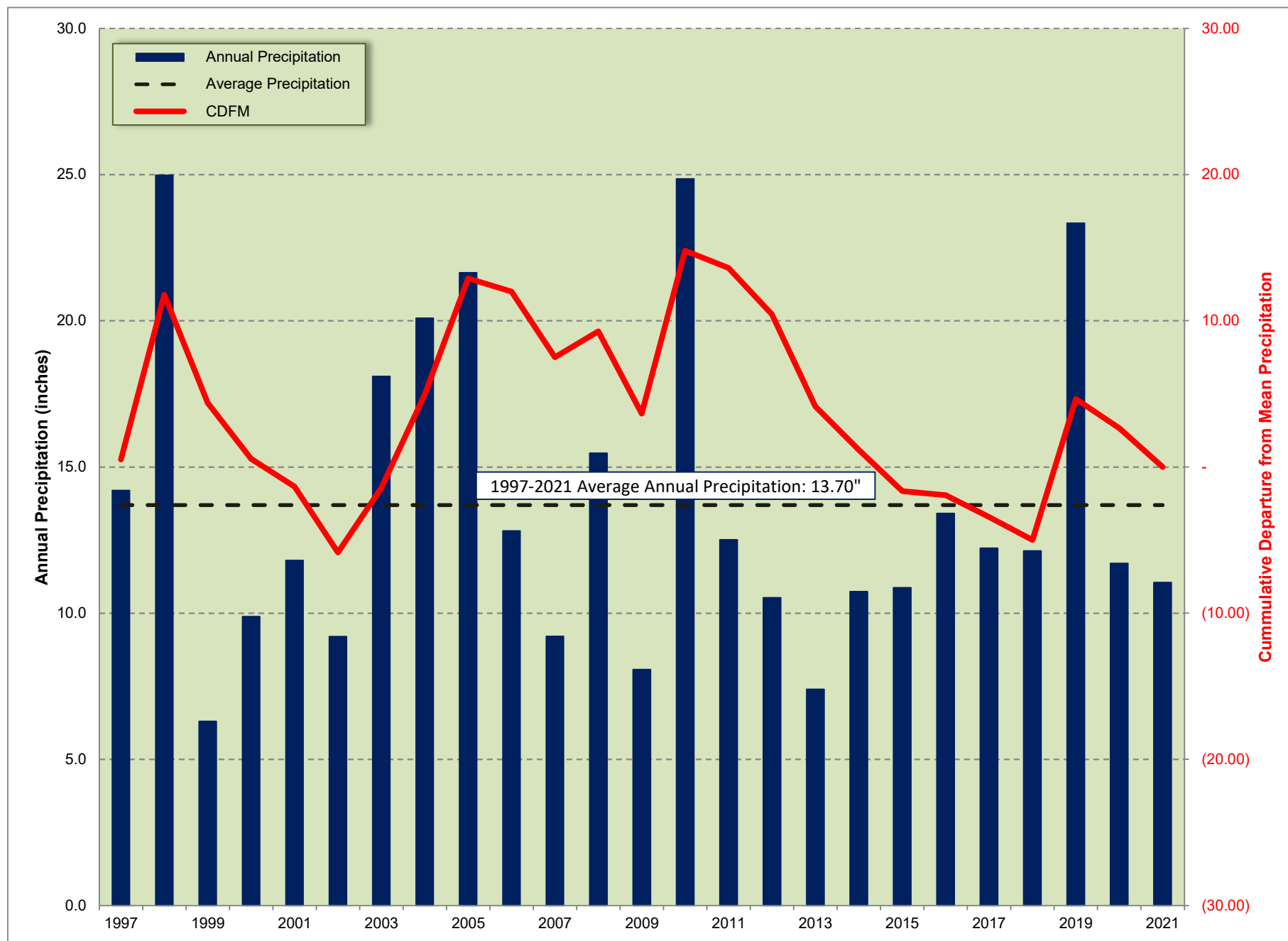
- ✓ Developing a methodology to account for new yield from capturing local stormwater in the basin, and
- ✓ Developing a methodology to account for recycled water recharge in the basin.

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.

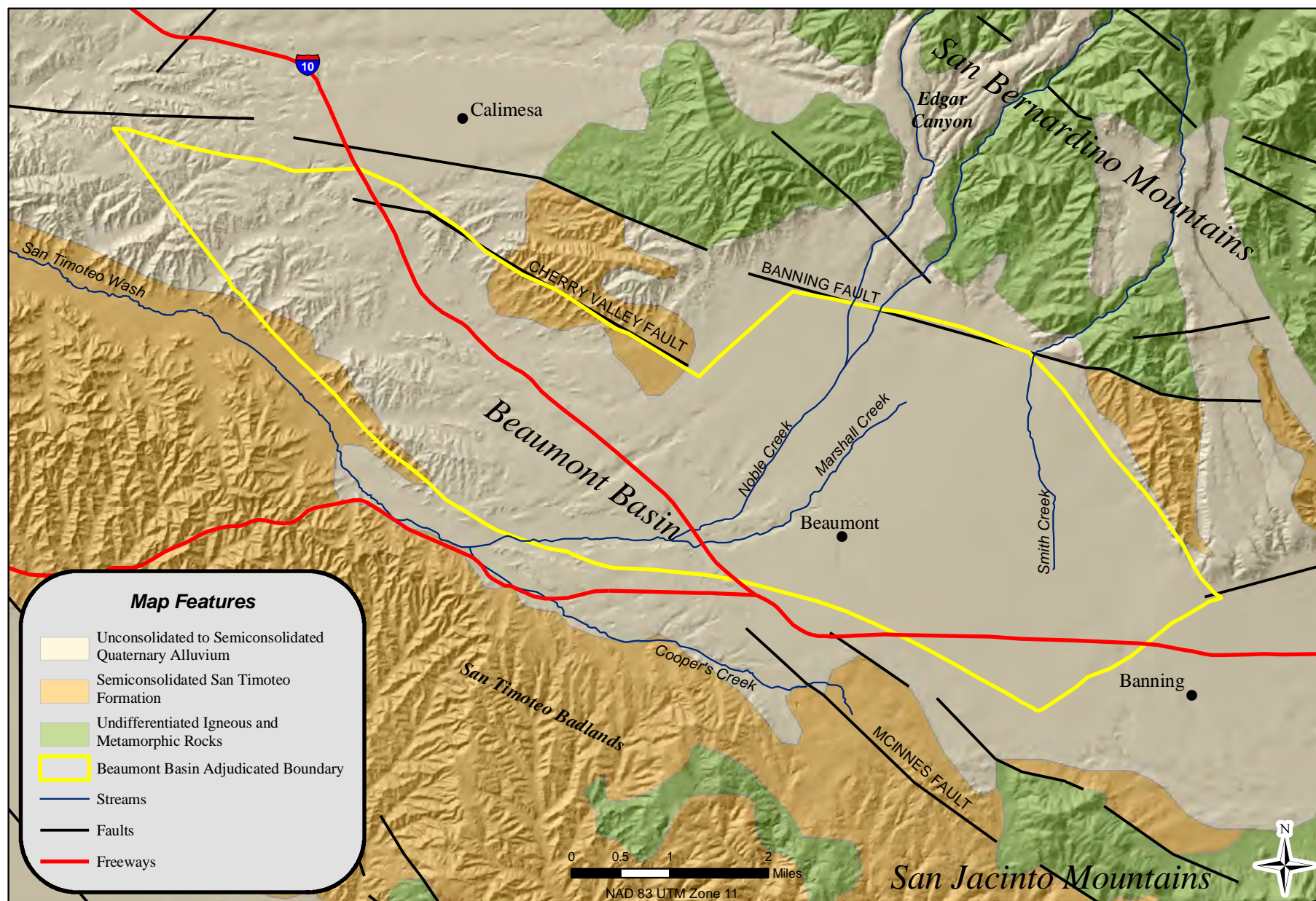
As indicated earlier, Watermaster should revisit the Rules and Regulations to ensure that its activities are consistent with the requirements of the Judgment. The following inconsistencies between guidelines provided in this document and current Watermaster activities were identified:

- ✓ 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.

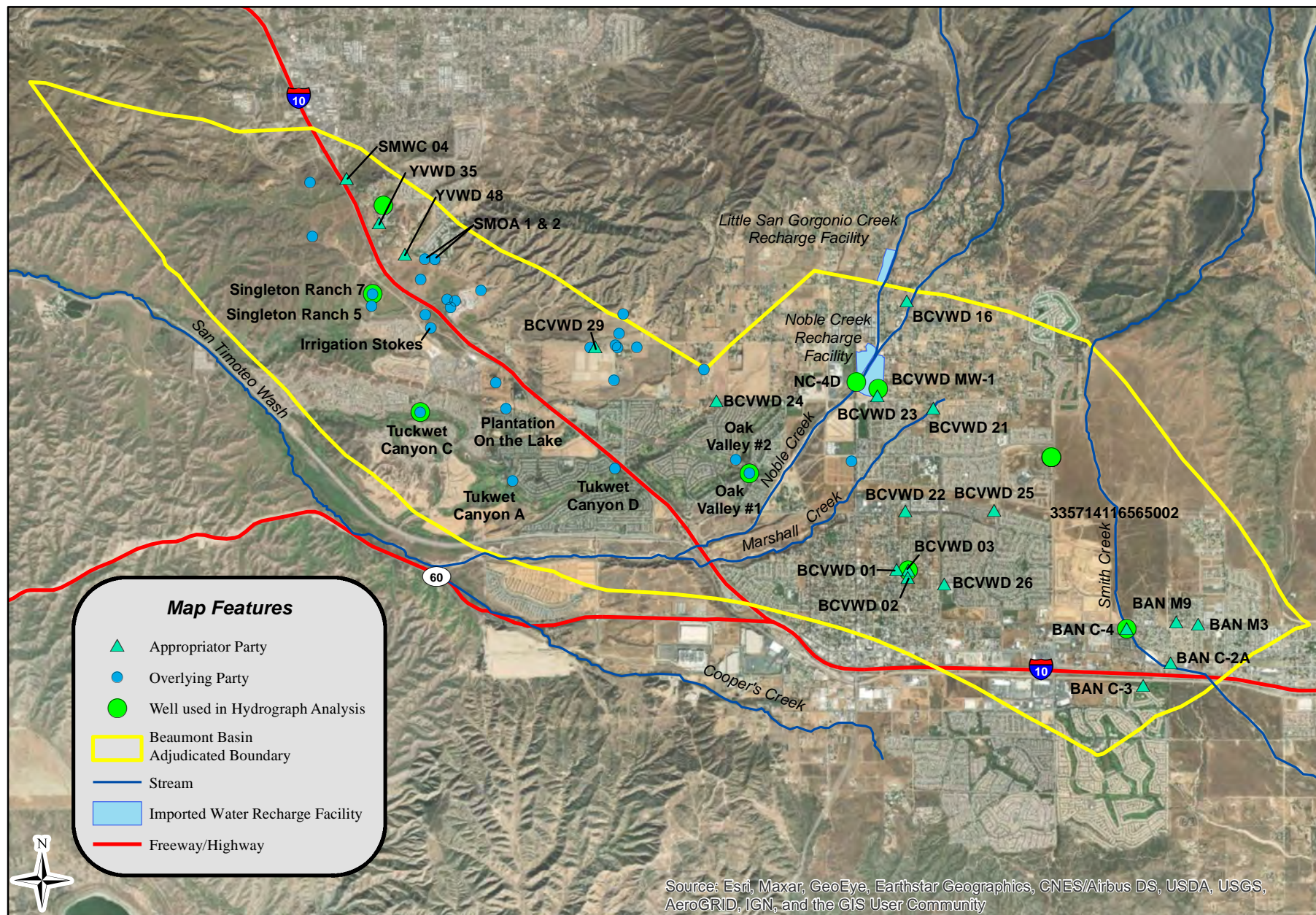


**Figure 3-1**  
**Annual Precipitation with Cumulative Departure from the Mean (1997-2021)**





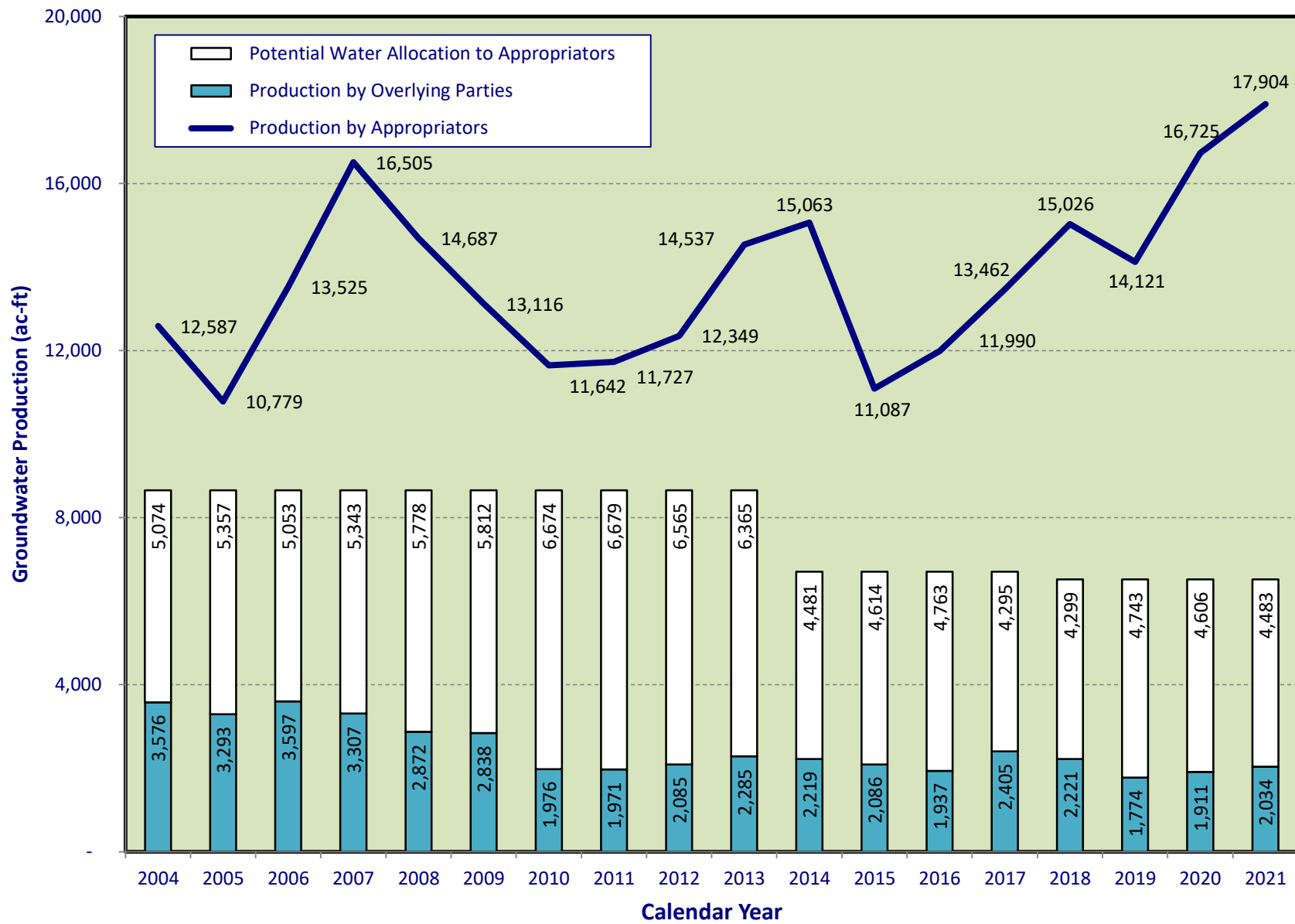




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 Groundwater Consulting

0 0.5 1 2 Miles  
 NAD 83 UTM Zone 11

**Well Locations in the  
 Beaumont Basin**  
 DRAFT  
 Figure 3-3



**Figure 3-4**  
**Annual Production by Appropriators and Overlying Users (2004-21)**

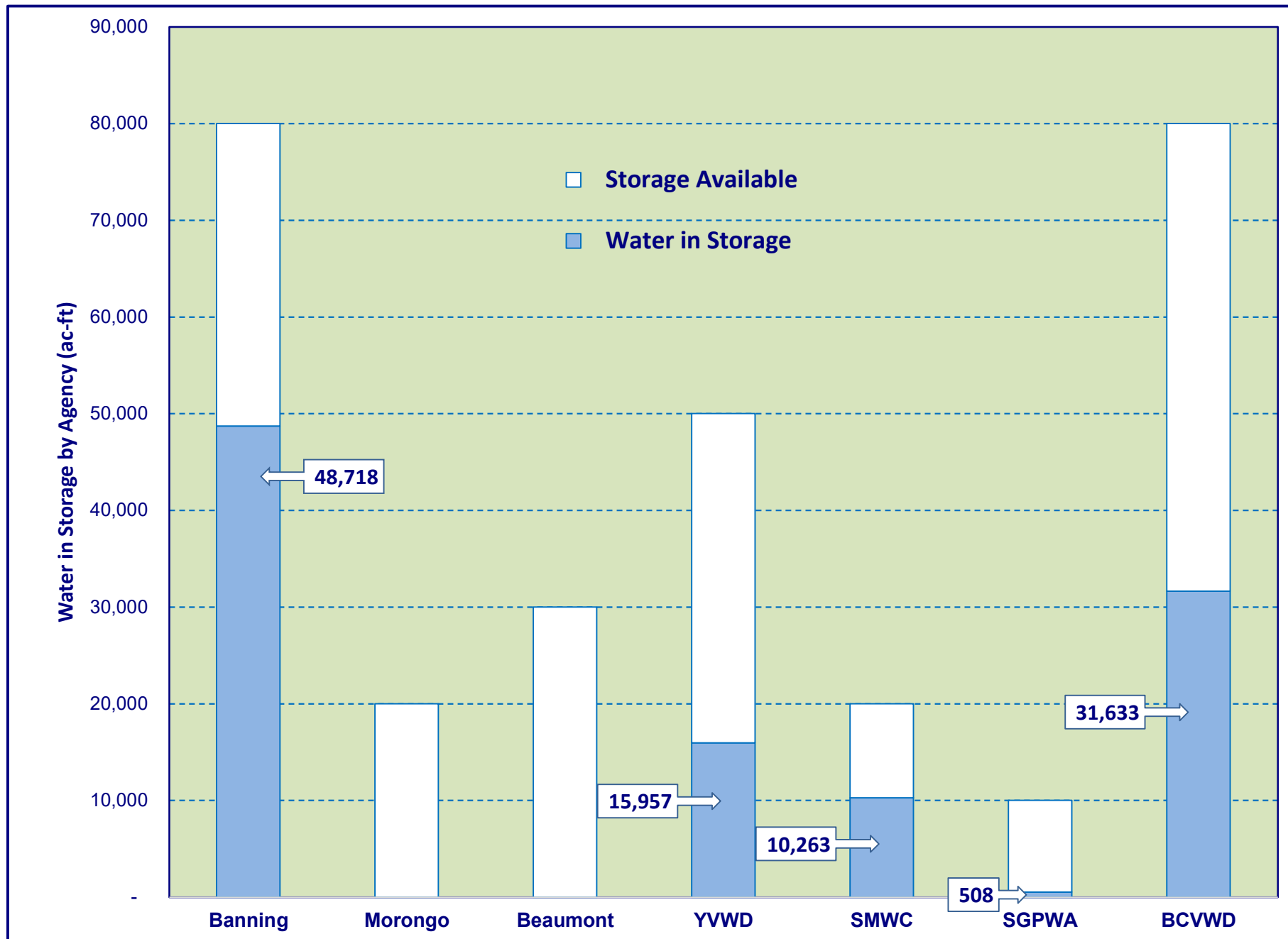
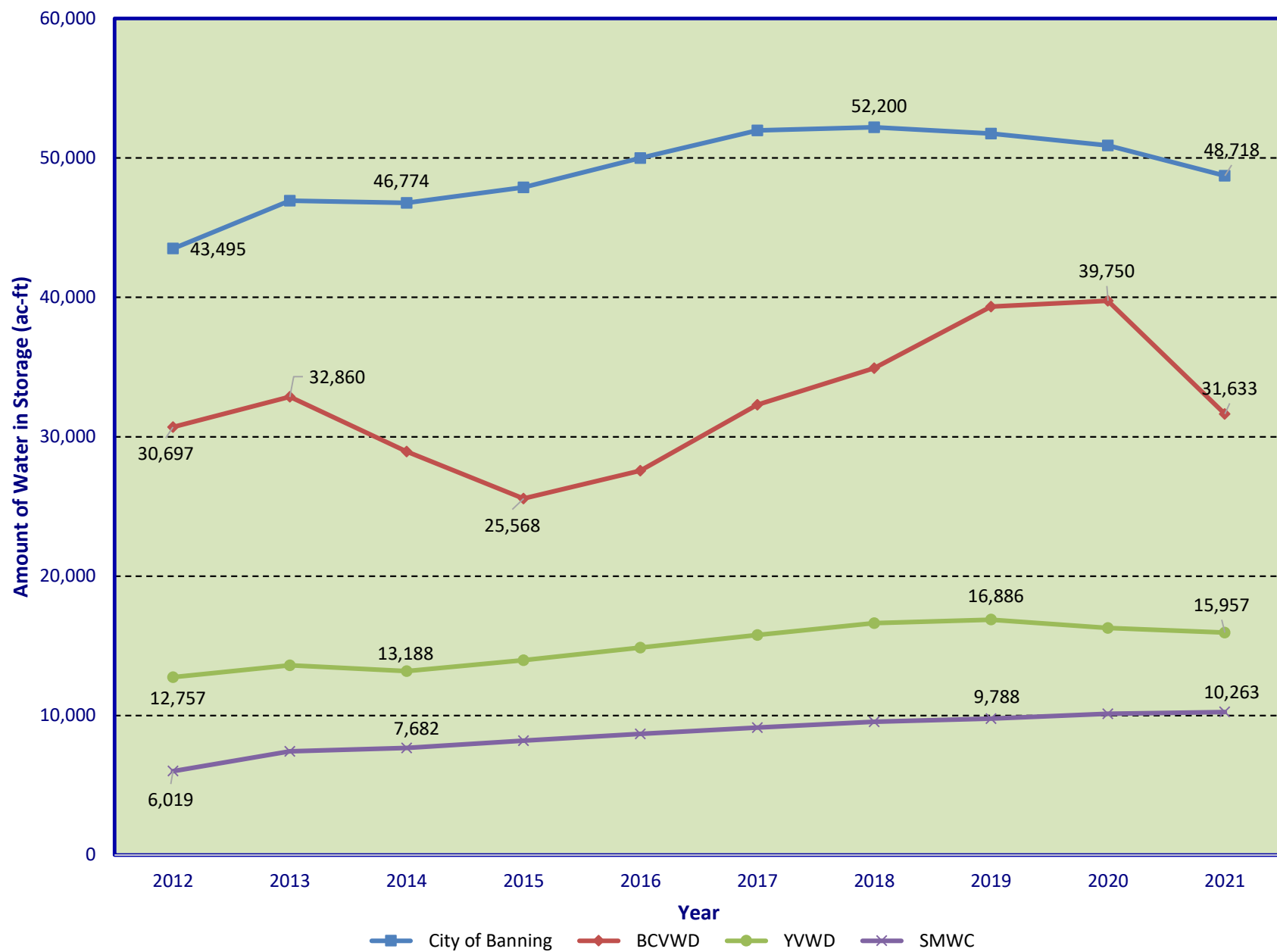
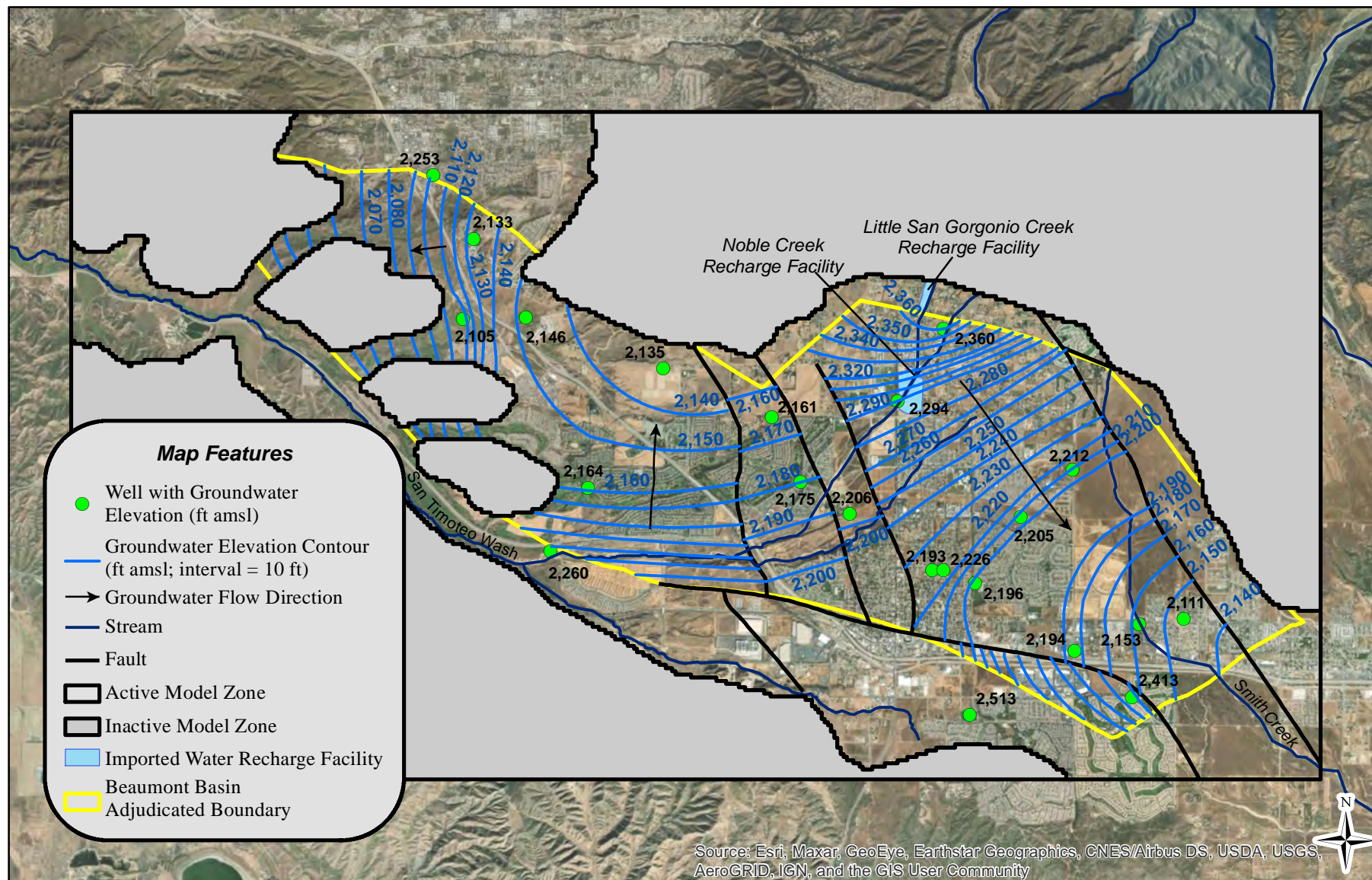


Figure 3-5  
Groundwater Storage by Agency/User as of 2021



**Figure 3-6**  
**Accumulation of Storage by Agency for the Last Ten Years (2012-21)**





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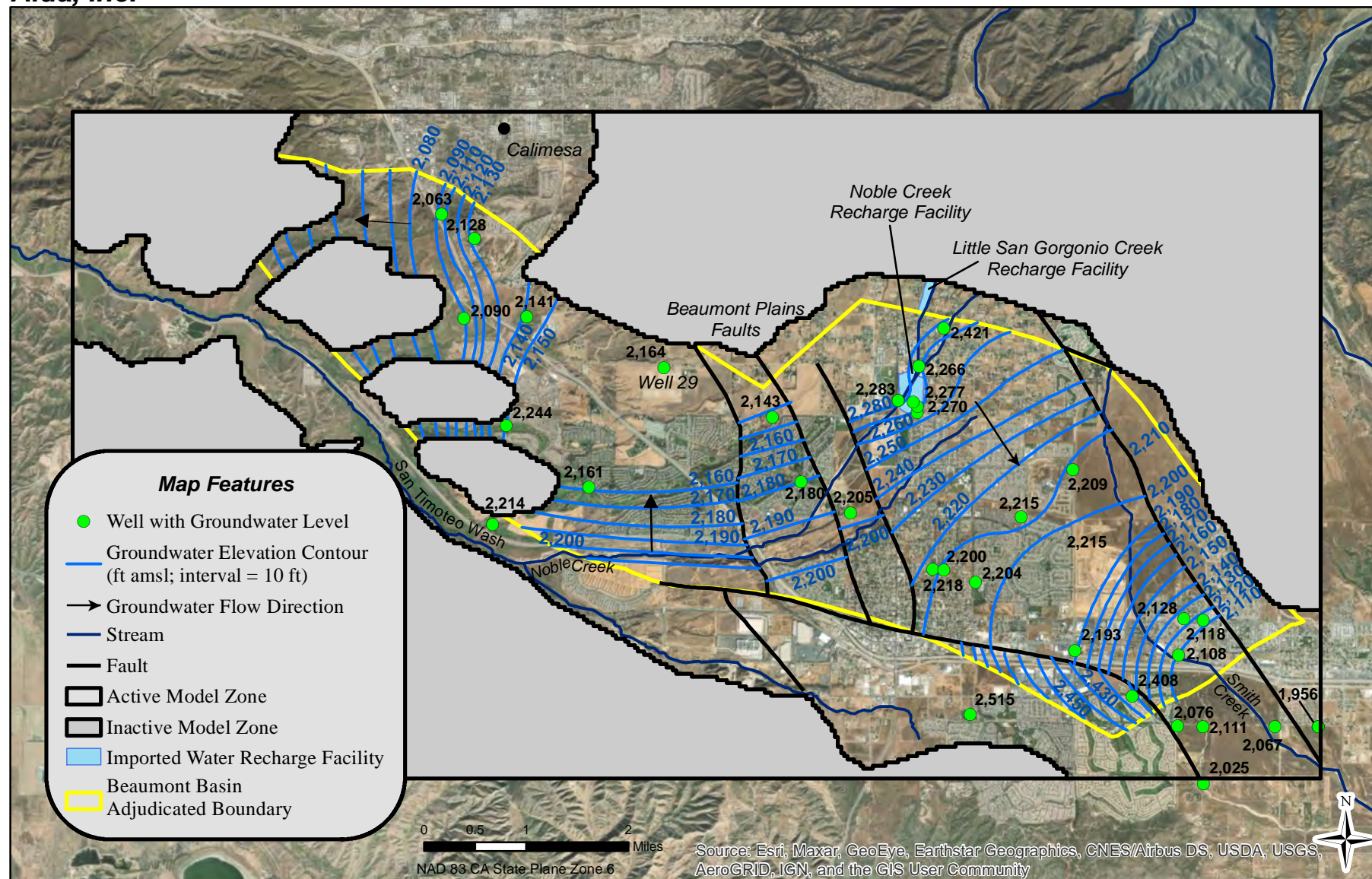
0 0.5 1 2  
Miles  
NAD 83 UTM Zone 11

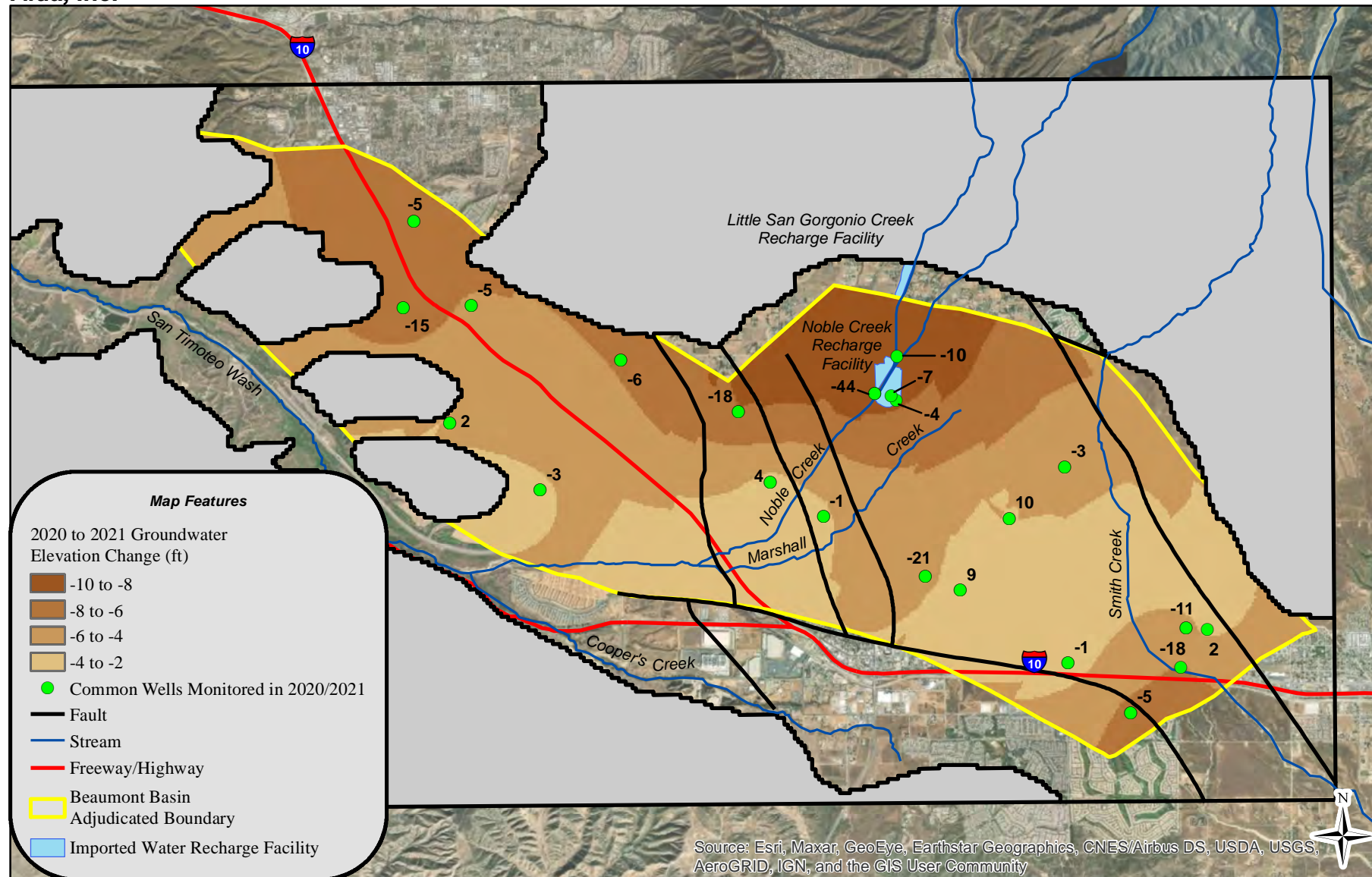
**Groundwater Elevation Contours  
in the Beaumont Basin - December 2020**

**DRAFT  
Figure 3-7**

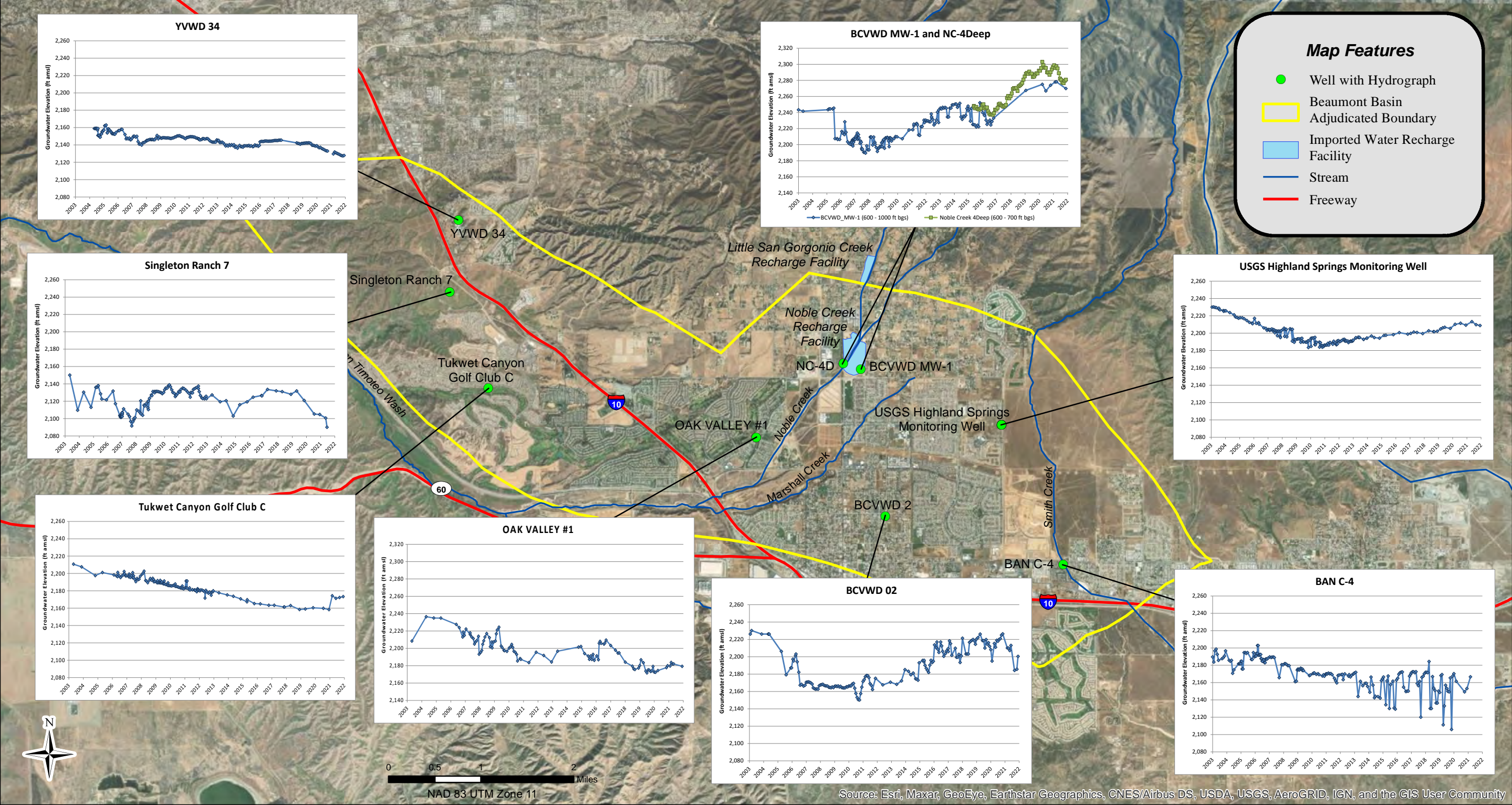


**Alda, Inc.**











**Table 3-1A**  
**Appropriator Producer - Summary of Production for Calendar Year 2017 (ac-ft)**

Owner & Well Name	Water Production by Appropriator (ac-ft) <sup>(1)</sup>												Total Production
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Banning, City of													
Well C2-A	0.8	0.3	0.8	0.3	0.0	4.6	3.8	2.0	0.7	3.7	1.4	0.2	18.6
Well C3	0.9	0.3	1.5	69.3	113.5	87.0	92.5	76.4	49.9	4.6	16.0	0.1	512.1
Well C4	1.2	0.5	48.5	20.8	7.6	73.5	91.4	76.8	73.3	64.2	26.6	14.2	498.4
Well M3	0.0	0.3	0.4	1.5	14.3	76.4	94.3	92.1	87.5	47.2	0.2	0.2	414.4
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 <sup>(2)</sup>	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	3.0	1.4	51.2	91.9	135.4	241.5	282.0	247.2	211.4	119.7	44.1	14.7	1,443.5
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	9.0	10.3	3.6	2.3	50.3	89.4	112.4	113.8	84.6	68.2	78.8	58.0	680.6
Well 21	141.5	87.6	144.2	196.3	39.5	394.9	290.1	294.4	240.9	210.7	196.2	169.5	2,405.7
Well 22	0.0	0.0	2.1	1.6	37.3	111.1	172.9	167.2	140.1	102.8	1.0	2.6	738.6
Well 23	147.7	169.0	113.3	209.2	264.7	265.3	268.8	263.6	178.5	0.0	107.1	256.8	2,244.0
Well 24	0.0	6.9	152.6	227.0	194.4	171.2	129.7	121.1	187.7	212.5	149.0	159.0	1,711.1
Well 25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	232.4	120.2	0.0	352.6
Well 26	9.0	10.4	57.8	133.6	154.5	163.9	174.9	170.0	152.5	161.1	127.4	130.1	1,445.1
Well 29	54.7	54.3	95.7	161.8	174.9	221.8	324.2	255.6	231.5	189.2	144.2	142.7	2,050.5
Egg Ranch Well	0.0	1.9	11.6	8.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.4
To Banning <sup>(2)</sup>	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	361.8	340.4	580.9	940.7	915.5	1,417.6	1,472.8	1,385.7	1,215.8	1,176.9	923.8	918.7	11,650.7
South Mesa Water Company													
Well 4	15.7	12.9	17.7	25.0	36.7	41.9	45.6	51.0	37.1	34.7	27.6	22.2	368.1
Subtotal	15.7	12.9	17.7	25.0	36.7	41.9	45.6	51.0	37.1	34.7	27.6	22.2	368.1
Yucaipa Valley Water District													
Well 35	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Well 48	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1
Subtotal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1
Total	380.5	354.8	649.8	1,057.6	1,087.7	1,700.9	1,800.4	1,684.0	1,464.2	1,331.4	995.5	955.6	13,462.4

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

(2) - Pursuant to Part I, Paragraph 3B of the Judgment, and a separate Agreement (a copy of which is on file with the Watermaster). A portion of the production from certain wells, operated by BCVWD and co-owned by the City of Banning and BCVWD, is delivered to the City of Banning at two connections, Sun Lakes and Highland Springs where flow meters are read.

**Table 3-1B**  
**Appropriator Producer - Summary of Production for Calendar Year 2018 (ac-ft)**

Owner & Well Name	Water Production by Appropriator (ac-ft) <sup>(1)</sup>												Total Production
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Banning, City of													
Well C2-A	3.2	1.1	0.5	0.5	0.4	22.8	24.8	37.9	69.0	11.0	4.0	0.1	175.5
Well C3	0.0	0.9	0.2	0.2	0.7	68.6	67.8	79.1	79.8	103.7	107.2	13.4	521.7
Well C4	0.6	4.3	3.2	30.6	66.6	58.2	87.2	100.5	118.3	135.0	139.7	109.2	853.4
Well M3	0.2	0.2	0.1	56.6	86.7	81.5	89.4	86.6	86.0	56.6	46.6	0.1	590.5
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 <sup>(2)</sup>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	38.6	52.6	28.6	119.7
Subtotal	4.1	6.5	4.0	87.9	154.4	231.2	269.2	304.1	353.0	344.9	350.1	151.5	2,260.8
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	7.8	99.0	19.0	0.0	0.0	0.0	0.0	0.0	125.9
Well 16	20.6	6.3	15.6	12.7	12.7	54.5	22.5	21.2	2.8	5.5	0.8	0.6	176.0
Well 21	193.0	163.9	179.2	215.1	258.0	284.3	294.3	294.0	284.3	196.7	242.6	186.1	2,791.4
Well 22	0.7	18.6	16.8	80.4	155.1	53.2	0.0	0.0	0.0	0.0	0.0	0.0	324.9
Well 23	247.9	177.8	125.8	189.6	201.8	214.9	268.5	248.1	237.7	208.8	157.3	81.0	2,359.3
Well 24	72.9	147.1	110.0	201.9	166.2	237.9	261.0	237.9	217.0	206.1	222.4	142.0	2,222.5
Well 25	0.0	0.0	2.5	108.9	227.8	261.2	272.7	251.9	273.4	224.5	247.7	190.3	2,060.8
Well 26	94.1	75.3	6.1	0.0	0.0	0.0	88.1	183.6	159.8	120.7	111.6	50.0	889.4
Well 29	112.3	119.8	89.5	111.2	0.0	94.5	233.3	238.8	185.5	150.2	29.8	13.9	1,378.7
Egg Ranch Well	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
To Banning <sup>(2)</sup>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-38.6	-52.6	-28.6	-119.7
Subtotal	741.6	708.9	545.4	919.9	1,029.6	1,299.5	1,459.3	1,475.6	1,360.7	1,074.0	959.5	635.3	12,209.2
South Mesa Water Company													
Well 4	20.1	14.5	14.4	26.9	30.0	42.7	51.4	46.5	44.0	31.4	26.9	16.1	364.9
Subtotal	20.1	14.5	14.4	26.9	30.0	42.7	51.4	46.5	44.0	31.4	26.9	16.1	364.9
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	0.0	0.0	92.1	0.0	0.0	0.1	60.8	0.2	7.7	30.3	0.0	191.2
Subtotal	0.0	0.0	0.0	92.1	0.0	0.0	0.1	60.8	0.2	7.7	30.3	0.0	191.2
Total	765.7	729.9	563.9	1,126.8	1,214.0	1,573.3	1,779.9	1,886.9	1,757.9	1,458.0	1,366.8	802.9	15,026.1

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

(2) - Pursuant to Part I, Paragraph 3B of the Judgment, and a separate Agreement (a copy of which is on file with the Watermaster). A portion of the production from certain wells, operated by BCVWD and co-owned by the City of Banning and BCVWD, is delivered to the City of Banning at two connections, Sun Lakes and Highland Springs where flow meters are read.

**Table 3-1C**  
**Appropriator Producer - Summary of Production for Calendar Year 2019 (ac-ft)**

Owner & Well Name	Water Production by Appropriator (ac-ft) <sup>(1)</sup>												Total Production
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Banning, City of													
Well C2-A	6.0	25.4	17.5	0.6	3.7	11.2	25.7	39.0	44.8	26.3	0.9	1.4	202.4
Well C3	0.8	0.4	0.2	1.3	0.0	38.3	78.8	53.2	0.0	0.0	0.0	0.0	172.8
Well C4	105.4	7.4	15.8	146.7	144.5	110.0	100.0	109.9	118.0	61.6	80.7	6.4	1,006.4
Well M3	4.9	50.2	51.1	32.0	4.4	56.2	84.0	82.8	79.7	81.8	77.0	74.8	679.0
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 <sup>(2)</sup>	16.9	1.0	4.8	10.0	5.4	6.5	6.0	3.6	0.5	3.6	0.7	1.6	60.7
Subtotal	133.9	84.3	89.3	190.6	157.9	222.2	294.5	288.5	243.0	173.3	159.3	84.2	2,121.3
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	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6
Well 16	0.1	0.0	0.4	1.2	0.0	3.1	0.0	8.3	9.2	20.8	6.2	1.9	51.1
Well 21	186.1	168.1	71.1	240.8	206.3	237.4	256.9	242.5	227.1	256.6	237.3	158.7	2,488.8
Well 22	0.0	0.0	0.0	7.5	6.1	123.1	116.2	106.4	91.5	90.7	65.1	5.0	611.7
Well 23	82.1	106.1	42.6	85.9	27.3	113.3	240.6	280.6	229.9	189.5	176.2	172.3	1,746.4
Well 24	89.9	21.6	133.9	211.0	108.1	179.7	201.9	249.7	206.6	195.4	186.7	86.6	1,871.1
Well 25	196.2	95.2	201.4	216.7	249.4	244.6	307.7	298.4	280.5	277.1	171.9	59.1	2,598.4
Well 26	15.7	0.0	26.2	130.2	57.6	130.1	125.9	155.4	151.2	139.3	113.9	17.3	1,062.7
Well 29	6.3	5.4	1.6	0.0	4.4	49.7	194.9	224.4	167.0	76.5	30.1	10.4	770.8
Egg Ranch Well	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
To Banning <sup>(2)</sup>	-16.9	-1.0	-4.8	-10.0	-5.4	-6.5	-6.0	-3.6	-0.5	-3.6	-0.7	-1.6	-60.7
Subtotal	560.2	395.5	472.5	883.2	653.9	1,074.5	1,438.0	1,562.1	1,362.5	1,242.4	986.5	509.7	11,140.9
South Mesa Water Company													
Well 4	12.8	11.8	14.2	25.5	22.5	38.9	53.6	54.4	39.8	22.9	20.7	13.5	330.7
Subtotal	12.8	11.8	14.2	25.5	22.5	38.9	53.6	54.4	39.8	22.9	20.7	13.5	330.7
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	0.0	0.0	0.0	0.0	0.0	0.0	148.0	110.4	83.6	76.7	110.0	528.6
Subtotal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	148.0	110.4	83.6	76.7	110.0	528.6
Total	706.9	491.6	576.1	1,099.3	834.3	1,335.5	1,786.1	2,053.0	1,755.8	1,522.2	1,243.2	717.4	14,121.5

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

(2) - Pursuant to Part I, Paragraph 3B of the Judgment, and a separate Agreement (a copy of which is on file with the Watermaster). A portion of the production from certain wells, operated by BCVWD and co-owned by the City of Banning and BCVWD, is delivered to the City of Banning at two connections, Sun Lakes and Highland Springs where flow meters are read.



**Table 3-1D**  
**Appropriator Producer - Summary of Production for Calendar Year 2020 (ac-ft)**

Owner & Well Name	Water Production by Appropriator (ac-ft) <sup>(1)</sup>												Total Production
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Banning, City of													
Well C2-A	4.0	20.3	2.7	0.5	7.8	16.8	27.6	23.5	17.8	13.4	19.5	4.8	158.8
Well C3	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 C4	25.1	90.6	101.3	106.1	115.8	133.3	146.6	149.0	142.6	135.1	125.6	137.4	1,408.7
Well M3	80.9	0.1	0.3	0.3	72.1	77.9	85.1	82.8	82.8	52.1	40.2	42.3	616.8
Well M9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
From BCVWD <sup>(2)</sup>	1.9	6.4	2.5	0.6	0.0	0.0	0.0	84.5	98.3	110.8	43.2	16.1	364.4
Subtotal	111.9	117.5	106.9	107.6	195.7	228.0	259.4	339.7	341.5	311.4	228.5	200.6	2,548.6
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	3.0	26.3	47.7	50.7	113.0	126.8	165.9	163.7	61.1	59.8	34.7	852.6
Well 16	0.0	9.1	19.0	4.0	18.2	52.6	21.2	56.4	8.9	9.3	0.5	2.0	201.1
Well 21	157.8	129.3	19.4	0.0	0.0	0.0	69.9	221.0	199.9	218.0	125.2	113.2	1,253.7
Well 22	0.5	5.6	17.0	35.6	134.4	160.7	106.7	71.2	172.7	149.7	86.7	75.8	1,016.5
Well 23	256.7	145.4	64.9	163.0	209.7	271.2	273.1	276.1	269.4	236.8	178.5	159.2	2,504.0
Well 24	164.9	144.1	120.2	155.8	186.9	153.0	225.1	130.2	1.9	57.1	0.0	2.1	1,341.3
Well 25	55.9	74.2	33.5	29.8	144.8	151.6	182.1	151.6	145.7	160.0	122.5	125.0	1,376.7
Well 26	0.0	139.6	191.8	123.7	251.1	178.6	280.3	300.0	307.6	297.6	226.1	210.7	2,507.1
Well 29	5.9	59.6	44.4	0.0	185.2	209.0	224.8	286.9	291.9	212.7	166.9	163.4	1,850.7
Egg Ranch Well	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
To Banning <sup>(2)</sup>	-1.9	-6.4	-2.5	-0.6	0.0	0.0	0.0	-84.5	-98.3	-110.8	-43.2	-16.1	-364.4
Subtotal	639.8	703.4	533.9	558.9	1,181.0	1,289.7	1,509.9	1,574.8	1,463.4	1,291.5	923.0	870.0	12,539.2
South Mesa Water Company													
Well 4	17.1	14.9	13.0	16.9	26.2	24.7	36.6	44.8	26.7	0.0	0.0	8.3	229.2
Subtotal	17.1	14.9	13.0	16.9	26.2	24.7	36.6	44.8	26.7	0.0	0.0	8.3	229.2
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	152.2	142.1	83.4	122.9	133.1	158.5	167.4	148.1	127.2	119.7	53.3	0.0	1,407.7
Subtotal	152.2	142.1	83.4	122.9	133.1	158.5	167.4	148.1	127.2	119.7	53.3	0.0	1,407.7
Total	920.9	977.9	737.1	806.2	1,536.0	1,700.8	1,973.2	2,107.5	1,958.8	1,722.6	1,204.9	1,078.9	16,724.7

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

(2) - Pursuant to Part I, Paragraph 3B of the Judgment, and a separate Agreement (a copy of which is on file with the Watermaster). A portion of the production from certain wells, operated by BCVWD and co-owned by the City of Banning and BCVWD, is delivered to the City of Banning at two connections, Sun Lakes and Highland Springs where flow meters are read.

**Table 3-1E**  
**Appropriator Producer - Summary of Production for Calendar Year 2021 (ac-ft)**

Owner & Well Name	Water Production by Appropriator (ac-ft) <sup>(1)</sup>												Total Production
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Banning, City of													
Well C2-A	18.6	14.4	14.5	3.3	1.2	44.0	93.3	82.1	88.5	62.8	36.9	48.0	507.7
Well C3	0.0	10.5	37.7	109.9	111.3	110.9	107.9	95.4	103.9	61.9	76.4	13.1	838.9
Well C4	110.9	123.0	95.0	138.3	141.5	138.7	133.2	133.5	135.6	136.7	129.7	49.4	1,465.4
Well M3	25.3	18.8	41.3	48.0	65.8	57.2	58.4	59.5	9.2	4.3	8.3	10.9	407.0
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 <sup>(2)</sup>	4.2	0.0	0.0	0.3	0.0	1.8	73.5	71.4	71.7	76.1	73.4	76.6	449.0
Subtotal	159.1	166.7	188.5	299.9	319.8	352.6	466.3	441.9	408.9	341.8	324.7	198.1	3,668.1
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	0.8	15.5	4.0	38.4	154.2	162.0	156.6	167.1	100.6	60.3	91.3	39.9	990.7
Well 16	4.5	5.6	1.0	7.6	59.4	70.2	86.4	100.5	83.4	73.7	58.4	21.9	572.5
Well 21	126.6	98.2	99.4	147.1	175.4	200.4	209.1	193.0	169.1	137.6	177.4	151.9	1,885.2
Well 22	26.1	5.7	2.7	23.9	92.0	153.6	146.7	170.8	135.6	88.9	145.1	110.7	1,101.8
Well 23	108.4	121.0	117.9	139.8	222.4	284.0	347.8	360.2	290.7	201.9	106.9	3.1	2,304.1
Well 24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	106.9	119.7	213.1	215.5	655.2
Well 25	77.7	64.8	69.4	124.4	155.7	111.7	165.9	154.4	149.1	132.0	113.0	39.0	1,357.3
Well 26	220.4	173.0	216.3	186.4	48.0	294.2	370.8	321.0	257.7	242.5	51.8	141.6	2,523.7
Well 29	152.4	148.5	154.6	235.5	265.6	78.8	143.7	160.1	148.5	74.7	79.6	26.2	1,668.0
Egg Ranch Well	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
To Banning <sup>(2)</sup>	-4.2	0.0	0.0	-0.3	0.0	-1.8	-73.5	-71.4	-71.7	-76.1	-73.4	-76.6	-449.0
Subtotal	712.7	632.4	665.3	902.9	1,172.7	1,353.1	1,553.4	1,555.7	1,369.9	1,055.1	963.2	673.3	12,609.5
South Mesa Water Company													
Well 4	24.6	20.7	23.3	26.6	37.6	36.3	46.7	56.6	54.3	52.9	49.8	36.8	466.0
Subtotal	24.6	20.7	23.3	26.6	37.6	36.3	46.7	56.6	54.3	52.9	49.8	36.8	466.0
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	54.5	81.7	59.6	109.1	142.3	135.2	137.7	145.5	138.9	92.0	1.5	0.0	1,097.9
Calimesa Irrigation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.8	21.7	8.7	3.0	1.4	62.6
Subtotal	54.5	81.7	59.6	109.1	142.3	135.2	137.7	173.2	160.6	100.7	4.5	1.4	1,160.5
Total	950.8	901.4	936.7	1,338.3	1,672.4	1,877.2	2,204.1	2,227.4	1,993.6	1,550.5	1,342.1	909.6	17,904.2

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

(2) - Pursuant to Part I, Paragraph 3B of the Judgment, and a separate Agreement (a copy of which is on file with the Watermaster). A portion of the production from certain wells, operated by BCVWD and co-owned by the City of Banning and BCVWD, is delivered to the City of Banning at two connections, Sun Lakes and Highland Springs where flow meters are read.

**Table 3-2A**  
**Overlying Producer - Summary of Production for Calendar Year 2017 (ac-ft)**

Owner and Well Name	Metered	Monthly Water Production by Overlying Producer <sup>1</sup>												Total <sup>2</sup> Production	Overlying Water Right	Unused Overlying Allocation
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
<b>Beckman, Walter M.</b> <sup>(3)</sup>	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
<b>California Oak Valley Golf and Resort LLC</b> <sup>(4)</sup>																
Oak Valley #1	Yes	0.0	0.0	0.0	0.0	0.0	0.0	38.9	88.3	40.8	0.0	0.0	0.0	168.1		
Oak Valley #2	Yes	6.3	6.5	125.4	54.7	61.6	75.0	129.4	0.0	52.7	10.1	80.1	60.1	661.9		
<b>Subtotal</b>		<b>6.3</b>	<b>6.5</b>	<b>125.4</b>	<b>54.7</b>	<b>61.6</b>	<b>75.0</b>	<b>168.3</b>	<b>88.3</b>	<b>93.5</b>	<b>10.1</b>	<b>80.1</b>	<b>60.1</b>	<b>830.0</b>	<b>735.8</b>	<b>0.0</b>
<b>Merlin Properties</b>	No	Water Duty Method Used to Estimate Annual Production												1.6	426.0	424.4
<b>Oak Valley Partners, LP</b> <sup>(5)</sup>														2.5	1,398.87	1,396.4
<b>Plantation on the Lake LLC</b>	Yes	11.7	9.0	9.6	20.2	26.9	28.9	35.8	38.6	73.5	55.6	61.1	47.1	417.8	450.0	32.2
<b>Rancho Calimesa Mobile Home Park</b> <sup>(6)</sup>																
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		
<b>Subtotal</b>		<b>1.7</b>	<b>1.6</b>	<b>1.1</b>	<b>2.9</b>	<b>2.5</b>	<b>3.3</b>	<b>3.0</b>	<b>3.4</b>	<b>3.7</b>	<b>2.8</b>	<b>3.1</b>	<b>2.0</b>	<b>31.2</b>	<b>116.2</b>	<b>85.0</b>
<b>Roman Catholic Bishop of San Bernardino</b>		Water Duty Method Used to Estimate Annual Production												0.0	119.3	119.3
<b>Sharondale Mesa Owners Association</b> <sup>(6)</sup>																
Well No.1	Yes	1.4	1.3	4.2	5.4	5.2	8.4	10.5	9.2	9.1	8.7	6.0	5.4	74.7		
Well No.2	Yes	1.4	1.2	3.3	4.0	3.8	4.1	4.0	3.7	3.9	4.3	5.1	4.4	43.2		
<b>Subtotal</b>		<b>2.7</b>	<b>2.5</b>	<b>7.4</b>	<b>9.3</b>	<b>9.0</b>	<b>12.5</b>	<b>14.5</b>	<b>13.0</b>	<b>13.0</b>	<b>13.0</b>	<b>11.2</b>	<b>9.8</b>	<b>117.9</b>	<b>154.9</b>	<b>37.0</b>
<b>Tukwet Canyon Golf Club</b> <sup>(7)</sup>																
Well A	Yes	0.4	0.8	0.6	7.9	6.2	15.4	12.3	6.1	2.9	12.4	0.7	0.5	66.3		
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	0.0	4.7	48.3	94.9	111.7	130.5	58.2	137.6	112.1	101.8	58.4	67.1	925.1		
<b>Subtotal</b>		<b>0.4</b>	<b>5.5</b>	<b>48.8</b>	<b>102.8</b>	<b>117.9</b>	<b>145.9</b>	<b>70.5</b>	<b>143.7</b>	<b>115.0</b>	<b>114.1</b>	<b>59.1</b>	<b>67.6</b>	<b>991.4</b>	<b>1,704.0</b>	<b>712.7</b>
<b>Stearns, Leonard M. and Dorothy D.</b>	No	Water Duty Method Used to Estimate Annual Production												0.7	154.9	154.2
<b>Sunny-Cal Egg and Poultry Company</b>	No	Water Duty Method Used to Estimate Annual Production												4.3	1,115.0	1,110.6
<b>Albor Properties III, LP</b>	No	Water Duty Method Used to Estimate Annual Production												2.4	232.4	229.9
<b>Nikodinov, Nick</b>	No	Water Duty Method Used to Estimate Annual Production												0.8	15.5	14.7
<b>McAmis, Ronald L.</b>	No	Water Duty Method Used to Estimate Annual Production												0.6	3.9	3.3
<b>Aldama, Nicolas and Amalia</b>	No	Water Duty Method Used to Estimate Annual Production												0.9	5.4	4.6
<b>Gutierrez, Hector, et al.</b>	No	Water Duty Method Used to Estimate Annual Production												1.4	7.7	6.3
<b>Darmont, Boris and Miriam</b>	No	Water Duty Method Used to Estimate Annual Production												0.4	1.9	1.6
<b>TOTAL</b>														<b>2,404.7</b>	<b>6,700.0</b>	<b>4,389.4</b>

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.- Mr. Beckman has not provided production information since 2014.

4.- Monthly production provided by BCVWD.

5.- Starting in 2008, the parcels owned by Oak Valley Partners (OVP) were no longer used for agricultural purposes. An annual production of 2.5 ac-ft has been estimated since.

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

7.- Monthly production provided by the Morongo Band of Mission Indians.

**Table 3-2B**  
**Overlying Producer - Summary of Production for Calendar Year 2018 (ac-ft)**

Owner and Well Name	Metered	Monthly Water Production by Overlying Producer <sup>1</sup>												Total <sup>2</sup> Production	Overlying Water Right	Unused Overlying Allocation
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
<b>Beckman, Walter M.</b> <sup>(3)</sup>	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
<b>California Oak Valley Golf and Resort LLC</b> <sup>(4)</sup>																
Oak Valley #1	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		
Oak Valley #2	Yes	34.8	8.7	23.1	16.3	39.5	72.5	76.2	91.6	68.0	75.2	53.8	13.4	573.0		
<b>Subtotal</b>		<b>34.8</b>	<b>8.7</b>	<b>23.1</b>	<b>16.3</b>	<b>39.5</b>	<b>72.5</b>	<b>76.2</b>	<b>91.6</b>	<b>68.0</b>	<b>75.2</b>	<b>53.8</b>	<b>13.4</b>	<b>573.1</b>	<b>735.8</b>	<b>162.8</b>
<b>Merlin Properties</b>	No	Water Duty Method Used to Estimate Annual Production												1.6	426.0	424.4
<b>Oak Valley Partners, LP</b> <sup>(5)</sup>														2.5	1,218.47	1,216.0
<b>Plantation on the Lake LLC</b>	Yes	42.0	44.5	27.6	23.0	30.6	33.1	40.8	44.1	83.9	63.6	33.7	4.2	471.2	450.0	-21.2
<b>Rancho Calimesa Mobile Home Park</b> <sup>(6)</sup>																
Well No.1	Yes	2.3	2.0	2.1	2.7	2.4	2.9	3.9	3.7	2.9	3.3	2.3	2.2	32.7		
Well No.2	No	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		
<b>Subtotal</b>		<b>2.3</b>	<b>2.0</b>	<b>2.1</b>	<b>2.7</b>	<b>2.4</b>	<b>2.9</b>	<b>3.9</b>	<b>3.7</b>	<b>2.9</b>	<b>3.3</b>	<b>2.3</b>	<b>2.2</b>	<b>32.7</b>	<b>116.2</b>	<b>83.4</b>
<b>Roman Catholic Bishop of San Bernardino</b>		Water Duty Method Used to Estimate Annual Production												0.0	119.3	119.3
<b>Sharondale Mesa Owners Association</b> <sup>(6)</sup>																
Well No.1	Yes	3.2	4.4	2.4	5.4	8.0	8.5	8.0	10.4	12.8	10.9	7.6	3.8	85.4		
Well No.2	Yes	2.7	3.2	2.1	3.9	2.4	2.9	5.1	3.1	1.3	0.0	1.4	2.8	31.0		
<b>Subtotal</b>		<b>5.9</b>	<b>7.7</b>	<b>4.4</b>	<b>9.3</b>	<b>10.4</b>	<b>11.4</b>	<b>13.1</b>	<b>13.5</b>	<b>14.2</b>	<b>10.9</b>	<b>9.0</b>	<b>6.6</b>	<b>116.4</b>	<b>154.9</b>	<b>38.5</b>
<b>Tukwet Canyon Golf Club</b> <sup>(7)</sup>																
Well A	Yes	0.9	0.5	0.7	1.4	0.9	4.1	13.6	13.5	7.5	2.9	0.7	0.8	47.5		
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	37.3	40.8	18.3	88.3	78.9	124.6	149.1	133.8	120.0	81.4	67.6	23.4	963.5		
<b>Subtotal</b>		<b>38.2</b>	<b>41.2</b>	<b>19.0</b>	<b>89.8</b>	<b>79.8</b>	<b>128.7</b>	<b>162.7</b>	<b>147.3</b>	<b>127.5</b>	<b>84.2</b>	<b>68.3</b>	<b>24.2</b>	<b>1,010.9</b>	<b>1,704.0</b>	<b>693.1</b>
<b>Stearns, Leonard M. and Dorothy D.</b>	No	Water Duty Method Used to Estimate Annual Production												0.7	154.9	154.2
<b>Sunny-Cal Egg and Poultry Company</b>	No	Water Duty Method Used to Estimate Annual Production												4.3	1,115.0	1,110.6
<b>Albor Properties III, LP</b>	No	Water Duty Method Used to Estimate Annual Production												2.4	232.4	229.9
<b>Nikodinov, Nick</b>	No	Water Duty Method Used to Estimate Annual Production												0.8	15.5	14.7
<b>McAmis, Ronald L.</b>	No	Water Duty Method Used to Estimate Annual Production												0.6	3.9	3.3
<b>Aldama, Nicolas and Amalia</b>	No	Water Duty Method Used to Estimate Annual Production												0.9	5.4	4.6
<b>Gutierrez, Hector, et al.</b>	No	Water Duty Method Used to Estimate Annual Production												1.4	7.7	6.3
<b>Darmont, Boris and Miriam</b>	No	Water Duty Method Used to Estimate Annual Production												0.4	1.9	1.6
<b>TOTAL</b>														<b>2,220.7</b>	<b>6,519.6</b>	<b>4,298.9</b>

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.- Mr. Beckman has not provided production information since 2014.

4.- Monthly production provided by BCVWD.

5.- Starting in 2008, the parcels owned by Oak Valley Partners (OVP) were no longer used for agricultural purposes. An annual production of 2.5 ac-ft has been estimated since. As part of Resolution 2017-02, OVP transferred 180.40 ac-ft of its Overlying rights to YVWD in 2018; OVP's rights were reduced to 1,218.47 ac-ft.

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

7.- Monthly production provided by the Morongo Band of Mission Indians.

**Table 3-2C**  
**Overlying Producer - Summary of Production for Calendar Year 2019 (ac-ft)**

Owner and Well Name	Metered	Monthly Water Production by Overlying Producer <sup>1</sup>												Total <sup>2</sup> Production	Overlying Water Right	Unused Overlying Allocation
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
<b>Beckman, Walter M.</b> <sup>(3)</sup>	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	<b>0.9</b>	<b>58.1</b>	<b>57.2</b>
<b>California Oak Valley Golf and Resort LLC</b> <sup>(4)</sup>																
Oak Valley #1	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		
Oak Valley #2	Yes	8.9	3.6	8.1	24.1	36.7	58.9	69.3	102.7	63.1	59.0	55.2	0.0	489.6		
<b>Subtotal</b>		<b>8.9</b>	<b>3.6</b>	<b>8.1</b>	<b>24.1</b>	<b>36.7</b>	<b>58.9</b>	<b>69.3</b>	<b>102.7</b>	<b>63.1</b>	<b>59.0</b>	<b>55.2</b>	<b>0.0</b>	<b>489.6</b>	<b>735.8</b>	<b>246.3</b>
<b>Merlin Properties</b>	No	Water Duty Method Used to Estimate Annual Production												<b>1.6</b>	<b>426.0</b>	<b>424.4</b>
<b>Oak Valley Partners, LP</b> <sup>(5)</sup>														<b>2.5</b>	<b>1,215.82</b>	<b>1,213.3</b>
<b>Plantation on the Lake LLC</b>	Yes	12.4	7.8	18.1	25.3	21.3	32.1	34.4	39.0	34.4	8.7	10.1	14.9	<b>258.7</b>	<b>450.0</b>	<b>191.3</b>
<b>Rancho Calimesa Mobile Home Park</b> <sup>(6)</sup>																
Well No.1	Yes	1.5	1.6	1.2	1.4	1.6	1.9	2.8	3.2	3.3	3.1	2.6	2.4	26.7		
Well No.2	No	0.5	0.5	0.8	0.8	0.7	1.5	0.0	0.0	0.0	0.0	0.0	0.6	5.4		
<b>Subtotal</b>		<b>2.0</b>	<b>2.1</b>	<b>2.0</b>	<b>2.2</b>	<b>2.3</b>	<b>3.4</b>	<b>2.8</b>	<b>3.2</b>	<b>3.3</b>	<b>3.1</b>	<b>2.6</b>	<b>3.0</b>	<b>32.1</b>	<b>116.2</b>	<b>84.1</b>
<b>Roman Catholic Bishop of San Bernardino</b>		Water Duty Method Used to Estimate Annual Production												<b>0.0</b>	<b>119.3</b>	<b>119.3</b>
<b>Sharondale Mesa Owners Association</b> <sup>(6)</sup>																
Well No.1	Yes	2.8	2.5	1.5	7.1	3.3	6.2	7.8	7.4	6.9	10.1	8.2	4.0	67.8		
Well No.2	Yes	2.2	1.7	1.8	1.0	2.6	3.9	4.5	3.7	5.2	1.8	0.0	2.0	30.4		
<b>Subtotal</b>		<b>5.0</b>	<b>4.2</b>	<b>3.4</b>	<b>8.1</b>	<b>5.9</b>	<b>10.1</b>	<b>12.3</b>	<b>11.1</b>	<b>12.1</b>	<b>12.0</b>	<b>8.2</b>	<b>6.0</b>	<b>98.3</b>	<b>154.9</b>	<b>56.6</b>
<b>Tukwet Canyon Golf Club</b> <sup>(7)</sup>																
Well A	Yes	0.4	0.7	0.9	1.6	0.9	8.2	6.8	0.0	1.4	0.9	0.8	0.9	23.4		
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	9.8	0.1	1.7	85.7	29.4	103.2	169.2	155.5	128.1	104.1	64.5	4.2	855.5		
<b>Subtotal</b>		<b>10.2</b>	<b>0.8</b>	<b>2.5</b>	<b>87.3</b>	<b>30.3</b>	<b>111.4</b>	<b>176.0</b>	<b>155.5</b>	<b>129.5</b>	<b>105.0</b>	<b>65.3</b>	<b>5.0</b>	<b>878.8</b>	<b>1,704.0</b>	<b>825.2</b>
<b>Stearns, Leonard M. and Dorothy D.</b>	No	Water Duty Method Used to Estimate Annual Production												<b>0.7</b>	<b>154.9</b>	<b>154.2</b>
<b>Sunny-Cal Egg and Poultry Company</b>	No	Water Duty Method Used to Estimate Annual Production												<b>4.3</b>	<b>1,115.0</b>	<b>1,110.6</b>
<b>Albor Properties III, LP</b>	No	Water Duty Method Used to Estimate Annual Production												<b>2.4</b>	<b>232.4</b>	<b>229.9</b>
<b>Nikodinov, Nick</b>	No	Water Duty Method Used to Estimate Annual Production												<b>0.8</b>	<b>15.5</b>	<b>14.7</b>
<b>McAmis, Ronald L.</b>	No	Water Duty Method Used to Estimate Annual Production												<b>0.6</b>	<b>3.9</b>	<b>3.3</b>
<b>Aldama, Nicolas and Amalia</b>	No	Water Duty Method Used to Estimate Annual Production												<b>0.9</b>	<b>5.4</b>	<b>4.6</b>
<b>Gutierrez, Hector, et al.</b>	No	Water Duty Method Used to Estimate Annual Production												<b>1.4</b>	<b>7.7</b>	<b>6.3</b>
<b>Darmont, Boris and Miriam</b>	No	Water Duty Method Used to Estimate Annual Production												<b>0.4</b>	<b>1.9</b>	<b>1.6</b>
<b>TOTAL</b>														<b>1,773.9</b>	<b>6,517.0</b>	<b>4,743.0</b>

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.- Mr. Beckman has not provided production information since 2014.

4.- Monthly production provided by BCVWD.

5.- Starting in 2008, the parcels owned by Oak Valley Partners (OVP) were no longer used for agricultural purposes. An annual production of 2.5 ac-ft has been estimated since. As part of Resolution 2017-02, OVP transferred 180.40 ac-ft of its Overlying rights to YVWD in 2018, an additional 2.65 ac-ft were transferred in 2019. These transfers have reduced OVP's Overlying rights to 1,215.82 ac-ft.

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

7.- Monthly production provided by the Morongo Band of Mission Indians.

**Table 3-2D**  
**Overlying Producer - Summary of Production for Calendar Year 2020 (ac-ft)**

Owner and Well Name	Metered	Monthly Water Production by Overlying Producer <sup>1</sup>												Total <sup>2</sup> Production	Overlying Water Right	Unused Overlying Allocation
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
<b>Beckman, Walter M.</b> <sup>(3)</sup>	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	<b>0.9</b>	<b>58.1</b>	<b>57.2</b>
<b>California Oak Valley Golf and Resort LLC</b> <sup>(4)</sup>																
Oak Valley #1	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		
Oak Valley #2	Yes	17.3	18.6	8.6	13.0	54.5	70.0	132.0	49.5	83.6	57.8	39.8	32.6	577.3		
<b>Subtotal</b>		<b>17.3</b>	<b>18.6</b>	<b>8.6</b>	<b>13.0</b>	<b>54.5</b>	<b>70.0</b>	<b>132.0</b>	<b>49.5</b>	<b>83.6</b>	<b>57.8</b>	<b>39.8</b>	<b>32.6</b>	<b>577.3</b>	<b>735.8</b>	<b>158.6</b>
<b>Merlin Properties</b>	No	Water Duty Method Used to Estimate Annual Production												<b>1.6</b>	<b>426.0</b>	<b>424.4</b>
<b>Oak Valley Partners, LP</b> <sup>(5)</sup>		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	<b>0.0</b>	<b>1,215.82</b>	<b>1,215.8</b>
<b>Plantation on the Lake LLC</b>	Yes	21.3	20.2	7.6	21.1	33.2	38.3	38.9	14.7	0.0	0.0	0.0	0.0	<b>195.2</b>	<b>450.0</b>	<b>254.8</b>
<b>Rancho Calimesa Mobile Home Park</b> <sup>(6)</sup>																
Well No.1	Yes	1.1	0.0	0.0	0.0	0.0	2.0	2.6	3.2	2.6	2.0	2.1	2.1	17.7		
Well No.2	No	0.7	1.8	1.8	2.8	1.3	0.6	0.9	0.4	0.5	1.2	0.0	0.4	12.4		
<b>Subtotal</b>		<b>1.9</b>	<b>1.8</b>	<b>1.8</b>	<b>2.8</b>	<b>1.3</b>	<b>2.5</b>	<b>3.4</b>	<b>3.5</b>	<b>3.2</b>	<b>3.2</b>	<b>2.2</b>	<b>2.6</b>	<b>30.1</b>	<b>116.2</b>	<b>86.1</b>
<b>Roman Catholic Bishop of San Bernardino</b>		Water Duty Method Used to Estimate Annual Production												<b>0.0</b>	<b>119.3</b>	<b>119.3</b>
<b>Sharondale Mesa Owners Association</b> <sup>(6)</sup>																
Well No.1	Yes	3.5	6.4	3.6	2.5	6.6	8.2	5.8	11.3	11.9	13.1	7.3	7.4	87.6		
Well No.2	Yes	3.5	1.9	1.7	2.3	4.5	4.4	4.3	5.3	0.7	0.0	5.3	4.5	38.3		
<b>Subtotal</b>		<b>6.9</b>	<b>8.2</b>	<b>5.3</b>	<b>4.8</b>	<b>11.1</b>	<b>12.6</b>	<b>10.1</b>	<b>16.6</b>	<b>12.6</b>	<b>13.2</b>	<b>12.6</b>	<b>11.9</b>	<b>125.8</b>	<b>154.9</b>	<b>29.1</b>
<b>Tukwet Canyon Golf Club</b> <sup>(7)</sup>																
Well A	Yes	1.1	0.8	0.7	0.9	0.7	0.8	1.1	1.6	1.5	1.5	1.9	3.0	15.5		
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	18.1	35.9	27.9	35.6	14.0	120.7	173.2	162.5	153.0	88.1	67.8	57.0	953.7		
<b>Subtotal</b>		<b>19.1</b>	<b>36.6</b>	<b>28.6</b>	<b>36.4</b>	<b>14.7</b>	<b>121.5</b>	<b>174.3</b>	<b>164.2</b>	<b>154.5</b>	<b>89.6</b>	<b>69.7</b>	<b>60.0</b>	<b>969.3</b>	<b>1,704.0</b>	<b>734.8</b>
<b>Stearns, Leonard M. and Dorothy D.</b>	No	Water Duty Method Used to Estimate Annual Production												<b>0.7</b>	<b>154.9</b>	<b>154.2</b>
<b>Sunny-Cal Egg and Poultry Company</b>	No	Water Duty Method Used to Estimate Annual Production												<b>4.2</b>	<b>1,115.0</b>	<b>1,110.8</b>
<b>Albor Properties III, LP</b>	No	Water Duty Method Used to Estimate Annual Production												<b>2.4</b>	<b>232.4</b>	<b>230.0</b>
<b>Nikodinov, Nick</b>	No	Water Duty Method Used to Estimate Annual Production												<b>0.8</b>	<b>15.5</b>	<b>14.7</b>
<b>McAmis, Ronald L.</b>	No	Water Duty Method Used to Estimate Annual Production												<b>0.6</b>	<b>3.9</b>	<b>3.3</b>
<b>Aldama, Nicolas and Amalia</b>	No	Water Duty Method Used to Estimate Annual Production												<b>0.9</b>	<b>5.4</b>	<b>4.6</b>
<b>Gutierrez, Hector, et al.</b>	No	Water Duty Method Used to Estimate Annual Production												<b>1.4</b>	<b>7.7</b>	<b>6.3</b>
<b>Darmont, Boris and Miriam</b>	No	Water Duty Method Used to Estimate Annual Production												<b>0.4</b>	<b>1.9</b>	<b>1.6</b>
<b>TOTAL</b>														<b>1,911.4</b>	<b>6,517.0</b>	<b>4,605.6</b>

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.- Mr. Beckman has not provided production information since 2014.

4.- Monthly production provided by BCVWD.

5.- Starting in 2008, the parcels owned by Oak Valley Partners (OVP) were no longer used for agricultural purposes. An annual production of 2.5 ac-ft was estimated through 2019; there was no groundwater production in 2020. As part of Resolution 2017-02, OVP transferred 180.40 ac-ft of its Overlying rights to YVWD in 2018, an additional 2.65 ac-ft were transferred in 2019. These transfers reduced OVP's Overlying rights to 1,215.82 ac-ft. No additional transfers took place in 2020.

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

7.- Monthly production provided by the Morongo Band of Mission Indians.



**Table 3-2E**  
**Overlying Producer - Summary of Production for Calendar Year 2021 (ac-ft)**

Owner and Well Name	Metered	Monthly Water Production by Overlying Producer <sup>1</sup>												Total <sup>2</sup> Production	Overlying Water Right	Unused Overlying Allocation
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
<b>Beckman, Walter M.</b> <sup>(3)</sup>	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	<b>0.9</b>	<b>58.1</b>	<b>57.2</b>
<b>California Oak Valley Golf and Resort LLC</b> <sup>(4)</sup>																
Oak Valley #1	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		
Oak Valley #2	Yes	20.7	18.7	16.0	37.4	7.0	49.6	98.0	98.0	69.1	47.8	47.8	21.3	531.3		
<b>Subtotal</b>		<b>20.7</b>	<b>18.7</b>	<b>16.0</b>	<b>37.4</b>	<b>7.0</b>	<b>49.6</b>	<b>98.0</b>	<b>98.0</b>	<b>69.1</b>	<b>47.8</b>	<b>47.8</b>	<b>21.3</b>	<b>531.3</b>	<b>735.8</b>	<b>204.5</b>
<b>Merlin Properties</b>	No	Water Duty Method Used to Estimate Annual Production												<b>1.6</b>	<b>426.0</b>	<b>424.4</b>
<b>Oak Valley Partners, LP</b> <sup>(5)</sup>		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	<b>0.0</b>	<b>1,215.82</b>	<b>1,215.8</b>
<b>Plantation on the Lake LLC</b>	Yes	0.0	0.0	0.0	0.0	0.0	0.0	18.5	41.3	34.0	28.7	27.9	11.0	<b>161.5</b>	<b>450.0</b>	<b>288.5</b>
<b>Rancho Calimesa Mobile Home Park</b> <sup>(6)</sup>																
Well No.1	Yes	1.3	1.8	1.6	2.5	2.2	2.3	0.0	0.0	1.1	1.4	2.0	1.8	18.1		
Well No.2	No	0.7	1.0	0.0	0.4	0.3	0.5	0.2	0.8	0.8	1.1	0.5	0.5	6.9		
<b>Subtotal</b>		<b>2.0</b>	<b>2.7</b>	<b>1.6</b>	<b>2.9</b>	<b>2.6</b>	<b>2.9</b>	<b>0.2</b>	<b>0.8</b>	<b>1.9</b>	<b>2.5</b>	<b>2.5</b>	<b>2.3</b>	<b>25.0</b>	<b>116.2</b>	<b>91.2</b>
<b>Roman Catholic Bishop of San Bernardino</b>		Water Duty Method Used to Estimate Annual Production												<b>0.0</b>	<b>119.3</b>	<b>119.3</b>
<b>Sharondale Mesa Owners Association</b> <sup>(6)</sup>																
Well No.1	Yes	4.0	4.8	4.7	7.2	5.8	7.3	7.9	8.4	7.8	6.0	5.7	3.3	72.9		
Well No.2	Yes	3.3	3.7	4.0	5.0	4.2	5.3	5.1	5.1	5.0	4.4	4.2	2.6	51.8		
<b>Subtotal</b>		<b>7.3</b>	<b>8.5</b>	<b>8.7</b>	<b>12.2</b>	<b>9.9</b>	<b>12.6</b>	<b>13.0</b>	<b>13.5</b>	<b>12.8</b>	<b>10.4</b>	<b>9.9</b>	<b>5.9</b>	<b>124.7</b>	<b>154.9</b>	<b>30.2</b>
<b>Tukwet Canyon Golf Club</b> <sup>(7)</sup>																
Well A	Yes	2.3	1.3	1.8	2.2	2.2	1.4	1.6	5.2	2.3	1.7	1.9	1.7	25.7		
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	27.3	26.7	39.2	98.8	130.9	158.7	151.7	153.6	122.7	71.2	86.1	85.3	1,152.2		
<b>Subtotal</b>		<b>29.5</b>	<b>28.1</b>	<b>41.1</b>	<b>101.0</b>	<b>133.1</b>	<b>160.2</b>	<b>153.3</b>	<b>158.7</b>	<b>125.1</b>	<b>72.8</b>	<b>88.0</b>	<b>87.0</b>	<b>1,177.9</b>	<b>1,704.0</b>	<b>526.1</b>
<b>Stearns, Leonard M. and Dorothy D.</b>	No	Water Duty Method Used to Estimate Annual Production												<b>0.7</b>	<b>154.9</b>	<b>154.2</b>
<b>Sunny-Cal Egg and Poultry Company</b>	No	Water Duty Method Used to Estimate Annual Production												<b>4.3</b>	<b>1,115.0</b>	<b>1,110.7</b>
<b>Albor Properties III, LP</b>	No	Water Duty Method Used to Estimate Annual Production												<b>2.4</b>	<b>232.4</b>	<b>230.0</b>
<b>Nikodinov, Nick</b>	No	Water Duty Method Used to Estimate Annual Production												<b>0.8</b>	<b>15.5</b>	<b>14.7</b>
<b>McAmis, Ronald L.</b>	No	Water Duty Method Used to Estimate Annual Production												<b>0.6</b>	<b>3.9</b>	<b>3.3</b>
<b>Aldama, Nicolas and Amalia</b>	No	Water Duty Method Used to Estimate Annual Production												<b>0.9</b>	<b>5.4</b>	<b>4.6</b>
<b>Gutierrez, Hector, et al.</b>	No	Water Duty Method Used to Estimate Annual Production												<b>1.4</b>	<b>7.7</b>	<b>6.3</b>
<b>Darmont, Boris and Miriam</b>	No	Water Duty Method Used to Estimate Annual Production												<b>0.4</b>	<b>1.9</b>	<b>1.6</b>
<b>TOTAL</b>														<b>2,034.1</b>	<b>6,517.0</b>	<b>4,482.9</b>

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.- Mr. Beckman has not provided production information since 2014.

4.- California Oak Valley Golf and Resort meter has been inconsistent and may be faulty. Monthly production provided by BCVWD through August 2021. Production for Sept to Dec was not available and was estimated based on 2017-20 records.

5.- Starting in 2008, the parcels owned by Oak Valley Partners (OVP) were no longer used for agricultural purposes. An annual production of 2.5 ac-ft was estimated through 2019; there was no groundwater production in 2020 and 2021. As part of Resolution 2017-02, OVP transferred 180.40 ac-ft of its Overlying rights to YVWD in 2018, an additional 2.65 ac-ft were transferred in 2019. These transfers reduced OVP's Overlying rights to 1,215.82 ac-ft. No additional transfers took place in 2021.

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

7.- Monthly production provided by the Morongo Band of Mission Indians.

**Table 3-3A**  
**Production Summary for Appropriator and Overlying Producers in the Beaumont Basin**  
**2003 through 2011 - Calendar Year Accounting (ac-ft)**

	Annual Production (ac-ft)								
	2003 <sup>1</sup>	2004	2005	2006	2007	2008	2009	2010	2011
<b>Appropriator Parties</b>									
Banning, City of	2,174	3,397	1,809	1,828	2,773	2,934	2,095	1,144	1,342
Beaumont-Cherry Valley Water District	3,512	6,874	7,026	9,054	11,383	10,710	10,134	9,421	9,431
South Mesa Water Company	223	483	663	616	666	471	382	405	420
Yucaipa Valley Water District	1,162	1,834	1,281	2,027	1,683	572	504	672	534
<b>Subtotal</b>	<b>7,072</b>	<b>12,587</b>	<b>10,779</b>	<b>13,525</b>	<b>16,505</b>	<b>14,687</b>	<b>13,116</b>	<b>11,642</b>	<b>11,727</b>
<b>Overlying Parties</b>									
Beckman, Walter M	16.2	27.0	22.4	11.5	8.3	12.7	12.9	6.4	9.0
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
Merlin Properties	3.6	1.6	1.6	1.6	1.6	1.6	1.6	1.5	1.6
Oak Valley Partners, LP	301.2	440.7	350.2	312.1	312.1	310.5	310.5	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
Rancho Calimesa Mobile Home Park	35.4	68.3	68.3	68.3	69.3	69.3	69.3	69.3	69.3
Roman Catholic Bishop of San Bernardino	46.8	59.1	55.6	59.0	0.7	0.7	0.7	0.0	-
Sharondale Mesa Owners Association	104.3	158.0	181.0	188.6	182.3	193.3	154.3	132.3	133.0
Tukwet Canyon Golf Club <sup>2</sup>	791.4	1,346.7	1,213.1	1,753.4	1,599.1	1,137.6	1,158.6	851.8	882.9
Stearns, Leonard M. and Dorothy D.	1.1	1.1	1.1	1.1	1.1	1.1	1.1	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
Albor Properties III, LP <sup>3</sup>				13.2	2.3	2.3	2.3	2.1	2.3
Nikodinov, Nick				0.7	0.8	0.8	0.7	0.7	0.8
McAmis, Ronald L.				0.5	0.6	0.6	0.5	0.5	0.6
Aldama, Nicolas and Amalia				0.8	0.8	0.9	0.8	0.8	0.9
Gutierrez, Hector, et. al.				1.4	1.4	1.4	1.4	1.3	1.4
Darmont, Boris and Miriam				0.4	0.4	0.4	0.4	0.4	0.4
<b>Subtotal</b>	<b>2,440.8</b>	<b>3,576.3</b>	<b>3,292.6</b>	<b>3,596.7</b>	<b>3,306.5</b>	<b>2,871.6</b>	<b>2,838.2</b>	<b>1,976.5</b>	<b>1,971.4</b>
<b>Total</b>	<b>9,512.5</b>	<b>16,163.6</b>	<b>14,071.3</b>	<b>17,121.6</b>	<b>19,811.1</b>	<b>17,558.6</b>	<b>15,953.7</b>	<b>13,618.8</b>	<b>13,698.4</b>

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 3-3B**  
**Production Summary for Appropriator and Overlying Producers in the Beaumont Basin**  
**2012 through 2021 - Calendar Year Accounting (ac-ft)**

	Annual Production (ac-ft)									
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
<b>Appropriator Parties</b>										
Banning, City of	1,038	2,101	2,585	1,678	1,473	1,443	2,261	2,121	2,549	3,668
Beaumont-Cherry Valley Water District	10,162	11,097	10,806	8,973	10,160	11,651	12,209	11,141	12,539	12,610
South Mesa Water Company	449	308	474	317	353	368	365	331	229	466
Yucaipa Valley Water District	700	1,031	1,198	119	5	0	191	529	1,408	1,161
<b>Subtotal</b>	<b>12,349</b>	<b>14,537</b>	<b>15,063</b>	<b>11,087</b>	<b>11,990</b>	<b>13,462</b>	<b>15,026</b>	<b>14,121</b>	<b>16,725</b>	<b>17,904</b>
<b>Overlying Parties</b>										
Beckman, Walter M	9.0	2.1	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
California Oak Valley Golf and Resort LLC	517.3	625.8	417.0	751.1	552.3	830.0	573.1	489.6	577.3	531.3
Merlin Properties	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
Oak Valley Partners, LP	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	0.0	0.0
Plantation on the Lake LLC	344.7	326.7	403.8	302.1	293.4	417.8	471.2	258.7	195.2	161.5
Rancho Calimesa Mobile Home Park	69.3	69.3	16.2	23.4	31.2	31.2	32.7	32.1	30.1	25.0
Roman Catholic Bishop of San Bernardino	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sharondale Mesa Owners Association	145.3	147.0	137.3	94.1	84.8	117.9	116.4	98.3	125.8	124.7
Tukwet Canyon Golf Club <sup>1</sup>	984.3	1,098.4	1,227.9	898.6	958.6	991.4	1,010.9	878.8	969.3	1,177.9
Stearns, Leonard M. and Dorothy D.	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Sunny-Cal Egg and Poultry Company	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.2	4.3
Albor Properties III, LP <sup>2</sup>	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
Nikodinov, Nick	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
McAmis, Ronald L.	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Aldama, Nicolas and Amalia	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Gutierrez, Hector, et. al.	1.4	1.4	1.4	1.4	1.4	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
<b>Subtotal</b>	<b>2,085.4</b>	<b>2,284.8</b>	<b>2,218.7</b>	<b>2,085.7</b>	<b>1,936.7</b>	<b>2,404.7</b>	<b>2,220.7</b>	<b>1,773.9</b>	<b>1,911.4</b>	<b>2,034.1</b>
<b>Total</b>	<b>14,434.3</b>	<b>16,821.9</b>	<b>17,281.5</b>	<b>13,173.1</b>	<b>13,926.4</b>	<b>15,867.1</b>	<b>17,246.8</b>	<b>15,895.4</b>	<b>18,636.1</b>	<b>19,938.3</b>

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

2.- 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 <sup>1</sup>	Beaumont	BCVWD <sup>1</sup>	SGPWA <sup>2</sup>	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
2017	1,350.0	-	13,590.0	-	14,940.0
2018	500.0	-	12,121.0	-	12,621.0
2019	250.0	-	13,645.0	257.8	14,152.8
2020	250.0	-	11,005.0	214.0	11,469.0
2021	-	-	2,468.0	36.0	2,504.0
<b>Totals</b>	<b>13,942.2</b>	<b>-</b>	<b>111,360.2</b>	<b>11,015.6</b>	<b>136,318.0</b>

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

2.- Through 2018, the SGPWA recharged imported water at the Little San Geronio Creek Spreading Ponds, located just to the north of the basin boundary. Starting in 2019, the SGPWA has the ability to recharge at their new spreading basins located at the southwest corner of Beaumont Blvd. and Brookside Ave. Imported water recharged at this location will be credited to the agency in their storage account.

## City of Beaumont Wastewater Treatment Plant - Monthly Discharges Since 2007

## Treatad Wastewater 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	2,789
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	2,896
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	2,901
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	2.22	2,492
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	2,620
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	2,995
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	3,361
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	3,543
2017	3.36	3.26	3.17	3.35	3.22	3.18	3.21	3.31	3.32	3.26	3.29	3.31	3.27	3,663
2018	3.37	3.28	3.33	3.32	3.30	3.31	3.41	3.51	3.47	3.42	3.51	3.47	3.39	3,800
2019	3.61	3.61	3.64	3.66	3.69	3.61	3.59	3.72	3.80	3.64	3.77	3.72	3.67	4,112
2020	3.73	3.75	3.92	4.02	3.82	3.81	3.81	4.09	4.05	3.88	3.66	3.46	3.83	4,305
2021	3.51	3.44	3.70	3.60	3.97	4.55	3.50	3.65	3.61	3.60	3.57	3.72	3.70	4,148

## 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 (2017-21) Average Production (ac-ft)	5-Year (2017-21) Running Avg % of Water Right
California Oak Valley Golf and Resort LLC <sup>(1)</sup>	950.0	735.84	600.2	81.6%
Sharondale Mesa Owners Association	200.0	154.91	116.6	75.3%
Plantation on the Lake LLC	581.0	450.02	300.9	66.9%
Tukwet Canyon Golf Club	2,200.0	1,704.05	1,005.7	59.0%
Rancho Calimesa Mobile Home Park	150.0	116.18	30.2	26.0%
Gutierrez, Hector, et al.	10.0	7.75	1.4	18.4%
Darmont, Boris and Miriam	2.5	1.94	0.4	18.1%
Aldama, Nicolas and Amalia	7.0	5.42	0.9	15.9%
McAmis, Ronald L.	5.0	3.87	0.6	14.4%
Nikodinov, Nick	20.0	15.49	0.8	4.9%
Beckman, Walter M.	75.0	58.09	0.9	1.5%
Albor Properties III, LP	300.0	232.37	2.4	1.0%
Stearns, Leonard M. and Dorothy D.	200.0	154.91	0.7	0.5%
Sunny-Cal Egg and Poultry Company	1,439.5	1,114.99	4.3	0.4%
Merlin Properties	550.0	426.01	1.6	0.4%
Oak Valley Partners, LP <sup>(2)</sup>	1,806.0	1,398.87	1.5	0.1%
Roman Catholic Bishop of San Bernardino	154.0	119.28	0.0	0.0%
	<b>8,650.0</b>	<b>6,700.0</b>	<b>2,069.0</b>	<b>30.9%</b>

(1) - California Oak Valley Golf and Resort LLC exceeded its annual production right in 2017; however, their average five-year production over any five-year period has been below their overlying water right.

(2) - Under Resolution 17-02, adopted August 30, 2017, Oak Valley Partners LP (OVP) agreed to transfer its Overlying water rights to particular development parcels, intending to secure commitment from YVWD to provide water service to development phases of OVP's Summerwind Ranch Specific Plan (Project) located in the Beaumont Basin. In 2018 OVP transferred a combined total of 180.40 ac-ft in overlying rights to YVWD. In a similar manner, an additional 2.65 ac-ft of former OVP's Overlying water rights were transferred to YVWD in early 2019. No additional transfers have been recorded since. These transfers have reduced OVP's Overlying water rights to 1,215.82 ac-ft from its adjusted 1,398.87 ac-ft.

**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	2,285	6,365	2018	2,001	0	2,706	794	864	6,365
2014	6,700	2,219	4,481	2019	1,408	0	1,905	559	609	4,481
2015	6,700	2,086	4,614	2020	1,450	0	1,962	576	627	4,614
2016	6,700	1,937	4,763	2021	1,497	0	2,025	594	647	4,763
2017	6,700	2,405	4,295	2022	1,350	0	1,826	536	583	4,295
2018 <sup>1</sup>	6,520	2,221	4,299	2023	1,351	0	1,827	536	584	4,299
2019 <sup>2</sup>	6,517	1,774	4,743	2024	1,491	0	2,016	592	644	4,743
2020	6,517	1,911	4,606	2025	1,448	0	1,958	575	625	4,606
2021	6,517	2,034	4,483	2026	1,409	0	1,906	559	609	4,483

1.- In 2018, Oak Valley Partners, through three assignments, transferred a combined total of 180.40 ac-ft of Overlying Rights to the YVWD to serve certain parcels in the Beaumont Basin.

2.- In 2019, Oak Valley Partners, through a single assignment, transferred an additional 2.65 ac-ft of Overlying Rights to the YVWD to serve certain parcels in the Beaumont Basin.



**Table 3-8**  
**Consolidation of Appropriator Production and Storage Accounts**  
**Calendar Year Accounting (ac-ft) 2003 through 2021**

Calendar Year	Storage Account Balance at Beginning of CY	Share of Surplus Water	Appropriative Rights	Production	Additions to Storage Account							Ending Account Balance
					Under / Over Production <sup>(1)</sup>	Overlying Users Parcel Conversion	Unused Overlying Production Allocation	Transfers Among Appropriators/ SGPWA	SWP Water Recharge	Local Recharge	Total Additions to Storage Account	
City of Banning - Authorized Storage Account: 80,000 ac-ft												
2003	0.0	2,514.5	0.0	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	0.0	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	0.0	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	0.0	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	0.0	2,772.6	2,256.4	0.0	0.0	1,500.0	0.0	0.0	3,756.4	12,150.3
2008	12,150.3	5,029.0	0.0	2,933.6	2,095.4	0.0	592.2	0.0	1,534.0	0.0	4,221.6	16,371.9
2009	16,371.9	5,029.0	0.0	2,095.0	2,934.0	0.0	1,594.7	0.0	2,741.2	0.0	7,269.8	23,641.8
2010	23,641.8	5,029.0	0.0	1,143.6	3,885.4	0.0	1,683.8	0.0	1,338.0	0.0	6,907.2	30,549.0
2011	30,549.0	5,029.0	0.0	1,341.7	3,687.3	0.0	1,588.2	0.0	800.0	0.0	6,075.5	36,624.5
2012	36,624.5	5,029.0	0.0	1,038.3	3,990.7	0.0	1,679.5	0.0	1,200.0	0.0	6,870.2	43,494.7
2013	43,494.7	2,514.5	0.0	2,100.7	413.8	0.0	1,816.1	0.0	1,200.0	0.0	3,430.0	46,924.7
2014	46,924.7	0.0	0.0	2,585.1	-2,585.1	0.0	1,826.7	0.0	608.0	0.0	-150.4	46,774.2
2015	46,774.2	0.0	0.0	1,678.3	-1,678.3	0.0	2,097.5	0.0	694.0	0.0	1,113.2	47,887.5
2016	47,887.5	0.0	0.0	1,472.7	-1,472.7	0.0	2,099.1	0.0	1,477.0	0.0	2,103.4	49,990.8
2017	49,990.8	0.0	0.0	1,443.5	-1,443.5	0.0	2,063.2	0.0	1,350.0	0.0	1,969.8	51,960.6
2018	51,960.6	0.0	0.0	2,260.8	-2,260.8	0.0	2,000.6	0.0	500.0	0.0	239.8	52,200.4
2019	52,200.4	0.0	0.0	2,121.3	-2,121.3	0.0	1,408.5	0.0	250.0	0.0	-462.8	51,737.5
2020	51,737.5	0.0	0.0	2,548.6	-2,548.6	0.0	1,450.3	0.0	250.0	0.0	-848.4	50,889.2
2021	50,889.2	0.0	0.0	3,668.1	-3,668.1	0.0	1,497.1	0.0	0.0	0.0	-2,171.0	48,718.1

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

**Table 3-8**  
**Consolidation of Appropriator Production and Storage Accounts**  
**Calendar Year Accounting (ac-ft) 2003 through 2021**

Calendar Year	Storage Account Balance at Beginning of CY	Share of Surplus Water	Appropriative Rights	Production	Additions to Storage Account							Ending Account Balance
					Under / Over Production <sup>(1)</sup>	Overlying Users Parcel Conversion	Unused Overlying Production Allocation	Transfers Among Appropriators/ SGPWA	SWP Water Recharge	Local Recharge	Total Additions to Storage Account	
Beaumont Cherry Valley Water District - Authorized Storage Account: 80,000 ac-ft												
2003	0.0	3,401.0	0.0	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	0.0	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	0.0	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	0.0	9,054.1	-2,252.1	0.0	0.0	0.0	3,501.0	0.0	1,248.9	842.5
2007	842.5	6,802.0	0.0	11,383.3	-4,581.3	0.0	0.0	1,500.0	4,501.0	0.0	1,419.7	2,262.2
2008	2,262.2	6,802.0	0.0	10,710.5	-3,908.5	0.0	801.0	2,500.0	2,399.0	0.0	1,791.5	4,053.7
2009	4,053.7	6,802.0	0.0	10,133.9	-3,331.9	0.0	2,156.8	2,000.0	2,741.2	0.0	3,566.1	7,619.8
2010	7,619.8	6,802.0	0.0	9,421.3	-2,619.3	0.0	2,277.4	0.0	5,727.0	0.0	5,385.1	13,004.9
2011	13,004.9	6,802.0	0.0	9,431.3	-2,629.3	0.0	2,148.1	3,500.0	7,979.0	0.0	10,997.8	24,002.8
2012	24,002.8	6,802.0	0.0	10,162.0	-3,360.0	0.0	2,271.5	0.0	7,783.0	0.0	6,694.5	30,697.3
2013	30,697.3	3,401.0	0.0	11,097.4	-7,696.4	0.0	2,456.4	0.0	7,403.0	0.0	2,163.0	32,860.3
2014	32,860.3	0.0	0.0	10,805.5	-10,805.5	0.0	2,470.6	0.0	4,405.0	0.0	-3,929.9	28,930.4
2015	28,930.4	0.0	0.0	8,972.8	-8,972.8	0.0	2,836.9	0.0	2,773.0	0.0	-3,362.8	25,567.6
2016	25,567.6	0.0	0.0	10,159.8	-10,159.8	0.0	2,839.1	0.0	9,319.0	0.0	1,998.3	27,565.9
2017	27,565.9	0.0	0.0	11,650.7	-11,650.7	0.0	2,790.6	0.0	13,590.0	0.0	4,729.9	32,295.8
2018	32,295.8	0.0	0.0	12,209.2	-12,209.2	0.0	2,705.9	0.0	12,121.0	0.0	2,617.7	34,913.4
2019	34,913.4	0.0	0.0	11,140.9	-11,140.9	0.0	1,905.0	0.0	13,645.0	0.0	4,409.1	39,322.5
2020	39,322.5	0.0	0.0	12,539.2	-12,539.2	0.0	1,961.5	0.0	11,005.0	0.0	427.3	39,749.8
2021	39,749.8	0.0	0.0	12,609.5	-12,609.5	0.0	2,024.9	0.0	2,468.0	0.0	-8,116.6	31,633.2

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

**Table 3-8**  
**Consolidation of Appropriator Production and Storage Accounts**  
**Calendar Year Accounting (ac-ft) 2003 through 2021**

Calendar Year	Storage Account Balance at Beginning of CY	Share of Surplus Water	Appropriative Rights	Production	Additions to Storage Account							Ending Account Balance
					Under / Over Production <sup>(1)</sup>	Overlying Users Parcel Conversion	Unused Overlying Production Allocation	Transfers Among Appropriators/ SGPWA	SWP Water Recharge	Local Recharge	Total Additions to Storage Account	
City of Beaumont - Authorized Storage Account: 30,000 ac-ft												
2003	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2004	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2005	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2006	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2007	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2008	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2009	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2010	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2011	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2012	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2013	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2014	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2015	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2016	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2017	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2018	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2019	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2020	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2021	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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

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**Calendar Year Accounting (ac-ft) 2003 through 2021**

Calendar Year	Storage Account Balance at Beginning of CY	Share of Surplus Water	Appropriative Rights	Production	Additions to Storage Account							Ending Account Balance
					Under / Over Production <sup>(1)</sup>	Overlying Users Parcel Conversion	Unused Overlying Production Allocation	Transfers Among Appropriators/ SGPWA	SWP Water Recharge	Local Recharge	Total Additions to Storage Account	
South Mesa Water Company - Authorized Storage Account: 20,000 ac-ft												
2003	0.0	998.0	0.0	223.2	774.8	0.0	0.0	0.0	0.0	0.0	774.8	774.8
2004	774.8	1,996.0	0.0	482.5	1,513.5	0.0	0.0	0.0	0.0	0.0	1,513.5	2,288.3
2005	2,288.3	1,996.0	0.0	663.2	1,332.8	0.0	0.0	0.0	0.0	0.0	1,332.8	3,621.1
2006	3,621.1	1,996.0	0.0	616.0	1,380.0	0.0	0.0	0.0	0.0	0.0	1,380.0	5,001.1
2007	5,001.1	1,996.0	0.0	665.8	1,330.2	0.0	0.0	-3,000.0	0.0	0.0	-1,669.8	3,331.3
2008	3,331.3	1,996.0	0.0	470.9	1,525.2	0.0	235.2	-2,500.0	0.0	0.0	-739.7	2,591.6
2009	2,591.6	1,996.0	0.0	382.2	1,613.8	0.0	633.2	-2,000.0	0.0	0.0	247.0	2,838.6
2010	2,838.6	1,996.0	0.0	405.0	1,591.0	0.0	668.6	0.0	0.0	0.0	2,259.6	5,098.2
2011	5,098.2	1,996.0	0.0	419.9	1,576.1	0.0	630.6	-3,500.0	0.0	0.0	-1,293.3	3,805.0
2012	3,805.0	1,996.0	0.0	448.5	1,547.5	0.0	666.9	0.0	0.0	0.0	2,214.4	6,019.4
2013	6,019.4	998.0	0.0	308.4	689.7	0.0	721.1	0.0	0.0	0.0	1,410.8	7,430.2
2014	7,430.2	0.0	0.0	473.7	-473.7	0.0	725.3	0.0	0.0	0.0	251.6	7,681.7
2015	7,681.7	0.0	0.0	317.2	-317.2	0.0	832.9	0.0	0.0	0.0	515.7	8,197.5
2016	8,197.5	0.0	0.0	352.6	-352.6	0.0	833.5	0.0	0.0	0.0	480.9	8,678.3
2017	8,678.3	0.0	0.0	368.1	-368.1	0.0	819.3	0.0	0.0	0.0	451.2	9,129.5
2018	9,129.5	0.0	0.0	364.9	-364.9	0.0	794.4	0.0	0.0	0.0	429.5	9,559.0
2019	9,559.0	0.0	0.0	330.7	-330.7	0.0	559.3	0.0	0.0	0.0	228.6	9,787.5
2020	9,787.5	0.0	0.0	229.2	-229.2	0.0	575.9	0.0	0.0	0.0	346.7	10,134.2
2021	10,134.2	0.0	0.0	466.0	-466.0	0.0	594.5	0.0	0.0	0.0	128.4	10,262.7

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

**Table 3-8**  
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**Calendar Year Accounting (ac-ft) 2003 through 2021**

Calendar Year	Storage Account Balance at Beginning of CY	Share of Surplus Water	Appropriative Rights	Production	Additions to Storage Account							Ending Account Balance
					Under / Over Production <sup>(1)</sup>	Overlying Users Parcel Conversion	Unused Overlying Production Allocation	Transfers Among Appropriators/ SGPWA	SWP Water Recharge	Local Recharge	Total Additions to Storage Account	
<i><b>Morongo Band of Mission Indians - Authorized Storage Account: 20,000 ac-ft</b></i>												
2013	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2014	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2015	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2016	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2017	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2018	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2019	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2020	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2021	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<i><b>San Gorgonio Pass Water Agency - Authorized Storage Account: 10,000 ac-ft</b></i>												
2018	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2019	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	257.8	0.0	257.8	257.8
2020	257.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	214.0	0.0	214.0	471.8
2021	471.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	36.0	0.0	36.0	507.8

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

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**Calendar Year Accounting (ac-ft) 2003 through 2021**

Calendar Year	Storage Account Balance at Beginning of CY	Share of Surplus Water	Appropriative Rights	Production	Additions to Storage Account							Ending Account Balance
					Under / Over Production <sup>(1)</sup>	Overlying Users Parcel Conversion	Unused Overlying Production Allocation	Transfers Among Appropriators/ SGPWA	SWP Water Recharge	Local Recharge	Total Additions to Storage Account	
Yucaipa Valley Water District - Authorized Storage Account: 50,000 ac-ft												
2003	0.0	1,086.5	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	572.0	1,601.0	0.0	255.9	0.0	0.0	0.0	1,856.8	3,647.8
2009	3,647.8	2,173.0	0.0	504.4	1,668.6	0.0	689.0	0.0	0.0	0.0	2,357.6	6,005.4
2010	6,005.4	2,173.0	0.0	672.4	1,500.6	0.0	727.5	0.0	0.0	0.0	2,228.1	8,233.5
2011	8,233.5	2,173.0	0.0	534.1	1,638.9	0.0	686.2	0.0	0.0	0.0	2,325.1	10,558.6
2012	10,558.6	2,173.0	0.0	700.1	1,472.9	0.0	725.6	0.0	0.0	0.0	2,198.5	12,757.2
2013	12,757.2	1,086.5	0.0	1,030.8	55.7	0.0	784.7	0.0	0.0	0.0	840.4	13,597.6
2014	13,597.6	0.0	0.0	1,198.5	-1,198.5	0.0	789.2	0.0	0.0	0.0	-409.2	13,188.4
2015	13,188.4	0.0	0.0	119.2	-119.2	0.0	906.3	0.0	0.0	0.0	787.1	13,975.5
2016	13,975.5	0.0	0.0	4.6	-4.6	0.0	907.0	0.0	0.0	0.0	902.4	14,877.9
2017	14,877.9	0.0	0.0	0.1	-0.1	0.0	891.5	0.0	0.0	0.0	891.3	15,769.2
2018	15,769.2	0.0	0.0	191.2	-191.2	180.4	864.4	0.0	0.0	0.0	853.6	16,622.8
2019	16,622.8	0.0	0.0	528.6	-528.6	183.1	608.6	0.0	0.0	0.0	263.0	16,885.8
2020	16,885.8	0.0	0.0	1,407.7	-1,407.7	183.1	626.6	0.0	0.0	0.0	-598.1	16,287.7
2021	16,287.7	0.0	0.0	1,160.5	-1,160.5	183.1	646.9	0.0	0.0	0.0	-330.6	15,957.1

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

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**Consolidation of Appropriator Production and Storage Accounts**  
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Calendar Year	Storage Account Balance at Beginning of CY	Share of Surplus Water	Appropriative Rights	Production	Additions to Storage Account							Ending Account Balance
					Under / Over Production <sup>(1)</sup>	Overlying Users Parcel Conversion	Unused Overlying Production Allocation	Transfers Among Appropriators/ SGPWA	SWP Water Recharge	Local Recharge	Total Additions to Storage Account	
Totals - All Agencies with Storage Accounts												
2003	0.0	8,000.0	0.0	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	0.0	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	0.0	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	0.0	13,524.9	2,475.1	0.0	0.0	0.0	3,501.0	0.0	5,976.1	15,538.3
2007	15,538.3	16,000.0	0.0	16,504.6	-504.6	0.0	0.0	0.0	4,501.0	0.0	3,996.4	19,534.8
2008	19,534.8	16,000.0	0.0	14,687.0	1,313.0	0.0	1,884.2	0.0	3,933.0	0.0	7,130.2	26,665.0
2009	26,665.0	16,000.0	0.0	13,115.6	2,884.4	0.0	5,073.7	0.0	5,482.4	0.0	13,440.6	40,105.6
2010	40,105.6	16,000.0	0.0	11,642.3	4,357.7	0.0	5,357.4	0.0	7,065.0	0.0	16,780.0	56,885.6
2011	56,885.6	16,000.0	0.0	11,727.0	4,273.0	0.0	5,053.3	0.0	8,779.0	0.0	18,105.3	74,990.9
2012	74,990.9	16,000.0	0.0	12,348.9	3,651.1	0.0	5,343.5	0.0	8,983.0	0.0	17,977.6	92,968.6
2013	92,968.6	8,000.0	0.0	14,537.2	-6,537.2	0.0	5,778.4	0.0	8,603.0	0.0	7,844.2	100,812.7
2014	100,812.7	0.0	0.0	15,062.8	-15,062.8	0.0	5,811.8	0.0	5,013.0	0.0	-4,237.9	96,574.8
2015	96,574.8	0.0	0.0	11,087.4	-11,087.4	0.0	6,673.5	0.0	3,467.0	0.0	-946.9	95,628.0
2016	95,628.0	0.0	0.0	11,989.7	-11,989.7	0.0	6,678.6	0.0	10,796.0	0.0	5,484.9	101,112.9
2017	101,112.9	0.0	0.0	13,462.4	-13,462.4	0.0	6,564.6	0.0	14,940.0	0.0	8,042.2	109,155.0
2018	109,155.0	0.0	0.0	15,026.1	-15,026.1	180.4	6,365.2	0.0	12,621.0	0.0	4,140.5	113,295.6
2019	113,295.6	0.0	0.0	14,121.5	-14,121.5	183.1	4,481.3	0.0	14,152.8	0.0	4,695.6	117,991.2
2020	117,991.2	0.0	0.0	16,724.7	-16,724.7	183.1	4,614.3	0.0	11,469.0	0.0	-458.4	117,532.8
2021	117,532.8	0.0	0.0	17,904.2	-17,904.2	183.1	4,763.3	0.0	2,504.0	0.0	-10,453.8	107,078.9

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 2017-2021 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 (as N) 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.

### Sources and Availability of Water Quality Information

There are two main sources of data used in the assessment of water quality conditions in the Beaumont Basin and near surroundings: namely, the California Department of Public Health database, as part of the Groundwater Ambient Monitoring and Assessment (GAMA) program, and the Beaumont Management Zone Maximum Benefit Monitoring Program. The GAMA database obtained from the State Water Resources Control Board focuses on drinking water sources; it contains 2,760 water quality results for the 2017-2021 reporting period. Water quality from the BMZ Maximum Benefit Monitoring Program was also available for the same 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 (as N) 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 as N concentration of 230 mg/L and 1.5 mg/L respectively.

Maximum benefit objectives were adopted by the Regional Board in 2004 at the request of STWMA and the City of 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 (as 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 (as N) concentration exceeds the BMZ maximum benefit objectives.

#### 4.1.1 Total Dissolved Solids

Figure 4-2 shows the maximum TDS concentrations for 59 wells measured within and in the vicinity of the Beaumont Basin wells during the 2017-2021 reporting period. A total of 31 wells are located inside the Beaumont Basin, 17 in the Singleton Basin / Edgar Canyon and the remaining 11 in the South Beaumont Basin.

The maximum TDS concentrations for wells owned by appropriators within the basin ranged from 170 to 350 mg/L and averaged 225 mg/L; this average of maximum values at each well is 30 mg/L lower than the average maximum TDS concentration reported in the 2008-11 Engineering Report of 255 mg/L. Of the 13 overlying wells, maximum TDS concentrations ranged from 100 to 320 mg/L and average 245 mg/L, 20 mg/L higher than the average for appropriator's wells.

In the Singleton Basin / Edgar Canyon area, the maximum TDS concentration ranged from 210 to 400 mg/L and averaged 277 mg/L. The average TDS concentration for all samples in this area was 266 mg/L.

In the South Beaumont Basin, the maximum TDS concentration ranged from 270 to 870 mg/L and averaged 491 mg/L. The average TDS concentration for all samples in this basin was 428 mg/L.

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

Well Classification	Count	Samples	Average Concentration	Avg Max Concentration
<b>Beaumont Groundwater Basin</b>				
Appropriators	15	25	219	225
Overliers	12	50	231	245
Others	4	22	262	278
Total	31	97	229	239
<b>Singleton Basin / Edgar Canyon Area</b>				
All Wells	17	40	266	277
<b>South Beaumont Basin</b>				
All Wells	11	78	428	491

Of the 27 wells owned by appropriators and overlayers, 14 wells had a maximum concentration equal to or below the anti-degradation objective of 230 mg/L, 12 wells were between the anti-degradation and maximum benefit objective of 330 mg/L, and one (BCVWD No. 16) exceeded the maximum benefit objective for the BMZ at 350 mg/L. 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, only one well had a maximum concentration below the anti-degradation objective, 15 wells were between the anti-degradation and maximum benefit objective of 330 mg/L, and the remaining well exceeded the maximum objective, no wells exceeded the secondary drinking standard.

In the South Beaumont Basin, none of the wells had a maximum TDS concentration below the anti-degradation objective, three wells were 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.

### 4.1.2 Nitrate as N

Figure 4-3 shows the maximum Nitrate concentrations for 59 wells measured within and in the vicinity of the Beaumont Basin wells during the 2017-2021 reporting period. A total of 31 wells are located inside the basin, 17 wells in the Singleton Basin / Edgar Canyon and the remaining 11 in the South Beaumont Basin.

Maximum Nitrate concentrations for domestic wells owned by Appropriators ranged from 0.89 to 7.00 mg/L (BCVWD No. 16) and averaged 2.51 mg/L. Maximum concentrations for overlying wells were slightly higher as they ranged from 0.25 to 6.50 mg/L and averaged 3.51 mg/L. The average concentration for all potable wells was 2.62 mg/L.

In the Singleton Basin / Edgar Canyon area, the maximum Nitrate concentration ranged from 0.61 to 14.0 mg/L and averaged 3.29 mg/L. The average concentration for all samples in this area was 2.78 mg/L.

In the South Beaumont Basin, the maximum Nitrate concentration ranged from 3.10 to 22.0 mg/L and averaged 11.06 mg/L. The average concentration for all samples in this area was 9.97 mg/L.

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

Well Classification	No. of Wells	Samples	Average Concentration	Avg Max Concentration
<b>Beaumont Groundwater Basin</b>				
Appropriators	15	108	2.11	2.51
Overliers	12	109	2.92	3.51
Other	4	22	1.07	1.20
Total	31	239	2.29	2.73
<b>Singleton Basin / Edgar Canyon Area</b>				
All Wells	17	64	2.78	3.29
<b>South Beaumont Basin</b>				
All Wells	11	79	9.97	11.06

Of the 27 wells owned by appropriators and overlayers, six wells had a maximum concentration below the anti-degradation objective of 1.5 mg/L, 15 wells were between this objective and maximum benefit objective of 5.0 mg/L; six wells 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 of 10 mg/L.

In the Singleton Basin / Edgar Canyon area, four wells had a maximum concentration below the anti-degradation objective, another ten wells had concentrations between the anti-degradation and maximum objective while three wells exceeded the maximum benefit objective of 5.0 mg/L.

In the South Beaumont Basin, only two wells had a maximum concentration below the maximum objective while the remaining nine exceed it with seven of these wells also exceeding drinking water standards. There were no wells with nitrate concentrations below the anti-degradation limit.

### **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 are 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 render 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 Gorgonio Spreading Ponds. Human waste from homes and business in this zone is primarily disposed of in on-site waste disposal systems.

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

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

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

According to the study,

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

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

The report indicates that there are statistically significant differences between groundwater in areas with septic systems and groundwater where sewer service is available. The concentrations of PPCPs, TDS, Nitrate-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 suggests 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 was recently incorporated into the Groundwater Ambient Monitoring and Assessment (GAMA) program. The GAMA program is California's comprehensive groundwater quality monitoring program that was created by the State Water Resources Control Board in 2000. The program was later expanded by Assembly Bill 559, also known as the Groundwater Quality Monitoring Act of 2001.

Chemical information for drinking water sources is grouped in the GAMA program in various databases depending on the year(s) of information desired. This annual report documents water quality conditions for the 2017-21 period. To gather pertinent information, the 2015-19 and 2020-Present databases in the State of California Water Resources Control Board website were accessed. Accessing the water quality information in the GAMA program has been significantly enhanced compared to previous databases run through the CDPH website; it is better organized and easier to access and compile. The 2020 and earlier annual reports documented water quality information using databases from the CDPH website.

The objective of this water quality analysis was to determine whether any of the potable wells in the Beaumont Basin exceeded the Primary or Secondary Federal and State standards or the Notification Levels (NL) set by the state. Federal standards are set by the United States Environmental Protection Agency (USEPA). These standards determine the maximum concentration allowable for a specific contaminant in drinking water. States have the option to

adopt more stringent standards, or develop standards regulations for contaminants that the federal government has not acted on. In California the State Water Resources Control Board's Division of Drinking Water is responsible for regulated public water systems that provide drinking water across the State and for establishing drinking water standards for contaminants that threaten our water supply.

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 others. Contaminants with a secondary MCL are not considered to present a risk to human health at the established maximum level. Notification levels are not enforceable standards; however, they require that municipal water suppliers notify the public if the NL for a specific chemical has been exceeded.

A total of 2,760 water quality results were extracted from the GAMA database for all domestic production wells in the Beaumont Basin. Results were obtained for 31 minerals and inorganic chemicals and over 108 organic compounds sampled between 2017 and 2021. The results of the analysis indicate that not a single well exceeded the primary Federal or State MCL for any of the analytes tested. However, the California Notification Limit for Vanadium (100 ug/day) was exceeded by SMWC's 4 and by YVWD's 48 during the reporting period.

Appendix F contains summary statistics of the analytical results for the 2017-2021 period for selected chemicals that have a federal or state drinking water standard as reported in the GAMA database.

#### **4.2.1 Nitrate (as NO<sub>3</sub>) and Total Dissolved Solids (TDS)**

A total of 176 samples were collected and analyzed for Nitrate; 28 of these samples were also analyzed for TDS. The current primary MCL for Nitrate (as NO<sub>3</sub>) is 45 ppm (mg/L); the secondary MCL for TDS is 500 mg/L. Table 4-1 presents a summary of Nitrate and TDS concentration, including the number of samples taken, average and maximum concentrations recorded, for all 22 domestic wells in the Beaumont Basin. This table indicates that none of the domestic wells in the Beaumont Basin are near the MCL or the notification level of 80 percent MCL, 36 mg/L for Nitrate and 400 mg/L for TDS. Highest concentrations during the reporting period were recorded at BCVWD Well No. 16 with 31.5 mg/L of Nitrates and 350 mg/L of dissolved solids.

#### **4.2.2 Trace Metals**

As indicated earlier, not a single domestic well exceeded the primary 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 as in the 2004-2008 initial reporting five-year period. Trace metals are briefly discussed here and compared to previous reporting periods.

**Table 4-1**  
**Nitrate (NO<sub>3</sub>) and TDS Summary for Domestic Wells (2017-21)**

Agency/ Well No.	Nitrate as NO <sub>3</sub>			Total Dissolved Solids (TDS)		
	Count	Avg	Max	Count	Ave	Max
<b>City of Banning</b>						
Well C-2A	5	8.2	9.0	1	220	220
Well C-3	4	7.9	8.1	1	170	170
Well C-4	6	4.2	5.0	2	195	200
Well M-3	6	9.7	10.4	2	270	280
<b>Beaumont Cherry Valley Water District</b>						
Well 03	2	2.9	3.8	1	190	190
Well 16	20	27.5	31.5	1	350	350
Well 21	19	14.4	16.2	1	270	270
Well 22	3	4.1	4.2	1	220	220
Well 23	12	10.7	13.1	1	260	260
Well 24	4	7.0	8.1	1	200	200
Well 25	5	5.1	7.2	1	230	230
Well 26	3	3.4	4.0	1	180	180
Well 29	4	9.3	10.8	1	210	210
<b>South Mesa Water Company</b>						
Well 4	8	17.2	22.1	1	180	180
<b>Yucaipa Valley Water District</b>						
Well 48	5	9.9	14.0	2	165	200
<b>Overlying Users</b>						
Sharondale 1	18	21.6	29.3	1	320	320
Sharondale 2	16	23.2	26.6	1	320	320
Plantation 1	4	9.0	9.9	2	265	270
RCMHP 1	8	21.7	24.8	1	260	260
RCMHP 2	15	24.7	29.7	1	270	270
Tukwet A	4	6.2	6.8	2	170	180
Tukwet D	5	9.5	10.4	2	215	230

**Aluminum.** There were 28 water samples taken during the reporting period and tested for aluminum. Aluminum concentration at all wells, except the city of Banning M-3 Well, was below 50 ug/L, significantly below the secondary MCL of 200 ug/L. Banning M-3 had a maximum concentration of 57 ug/L. Aluminum above the MCL can add color to water. One well exceeded the MCL during the FY 2004-08 reporting period.

**Arsenic.** The current MCL for Arsenic has been set to 10 ug/L. There were 30 water samples collected and tested for arsenic during the reporting period with most wells reporting under 2.0 ug/L. The highest arsenic concentration was observed at Tukwet Well A at 6.5 ug/L and SMWC's Well No. 4 at 3.8 ug/L. The rise in arsenic concentration at Tukwet's A from 3.7 ug/L in June 2017 to 6.5 ug/L in August 2020 is relatively a new event. Arsenic at SMWC's 4 has increased from 4.2 ug/L in 2009, to 4.6 ug/L in 2012, to the highest value of 5.2 ug/L in April 2013. Latest value, recorded in April 2019, arsenic concentration was down to 3.8 ug/L. YVWD reported a concentration of 2.5 ug/L in July 2017 at Well No. 48; however, the latest analysis (Jul 2020) did not show the presence of Arsenic. Based on the latest values reported, arsenic continues to be a non-issue in the Beaumont basin.

**Iron.** A total of 28 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, in August 2016, BCVWD Well No. 3 showed a concentration of 450 ug/L, exceeding the secondary MCL. Iron concentration at this well was below 100 ug/L in the latest sample taken (Dec 2020). City of Banning Well M3 had the highest concentration of iron during the reporting period at 120 ug/L. Iron at a concentration above the MCL can impact color, odor, and taste in water. Five wells exceeded the secondary MCL during the FY 2004-08 reporting period.

**Lead.** There were 28 water samples collected and tested for lead during the reporting period. Lead concentrations were all below 0.005 mg/L (5 ppb), which is well below the current primary MCL of 0.015 mg/L (15 ppb). Slightly higher concentrations were reported before 2014 at BCVWD Well No. 25 (0.0065 mg/L) and at Rancho Calimesa Mobile Home Park Well No. 1 (0.0058 mg/L). Lead concentration at these two wells were below 0.005 mg/L from the latest sample available. One well exceeded the MCL during the FY 2004-08 reporting period.

**Manganese.** There were 26 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. A concentration of 20ug/L (Dec 2019) was mistakenly reported in previous annual reports at BCVWD Well No. 16; actual concentration was below 20ug/L. Manganese can significantly impact color and taste in water at concentrations above the MCL. One monitoring well exceeded the secondary MCL during the FY 2004-08 reporting period.

**Total Chromium.** A total of 28 water samples were taken during the reporting period and tested for total chromium. The highest reported concentrations of total chromium were observed in December 2018 at BCVWD Well 26 at 16 ug/L and in March 2020 at Banning C-2A and Banning C-04 also at 16 ug/L. 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 SMWC Well 4 has been consistently above the state Notification Level of 50 ug/L; latest test indicates a concentration of 72 ug/L. Vanadium concentration at YVWD No. 48 was 25 ug/L in 2014, increasing to 90 ug/L in the summer of 2017. Latest concentration was down to 22 ug/L (Jul 2020).

**Copper.** There were 28 water samples collected and tested for copper during the reporting period. None of the wells tested during the reporting period exceeded the detection limit of 50 ug/L. This concentration is significantly below the state secondary MCL of 1,000 ug/L. This is consistent with previous reporting periods.

**Zinc.** There were 35 water samples collected and tested for zinc during the reporting period. Zinc concentration in all wells was below 50 ug/L (ppb), which is significantly lower than the current secondary MCL of 5.0 mg/l (ppm).

### 4.2.3 Organic Compounds

There were over 1,500 lab results for 93 organic compounds during the reporting period. Concentrations of these compounds in most cases were below the detection limit for purpose of reporting or just above it. Organics of special concern include the following:

- ✓ TCE – Trichloroethylene (TCE) – 23 samples collected all reported below detection limit of 0.5 ug/L. Current MCL is 5 ug/L.
- ✓ Tetrachloroethylene (PCE) - 23 samples collected all reported below detection limit of 0.5 ug/L. Current MCL is 5 ug/L.
- ✓ Dibromo-chloropropane (DBCP) - 17 samples collected with most below the detection limit of 0.01 ug/L; just two samples above this limit at BCVWD Well No. 23 at 0.048 ug/L (Jun 2019) and 0.044 ug/L (Dec 2018). These concentrations are significantly below the current MCL of 0.2 ug/L.

### 4.2.4 pH

There are two secondary standards for pH, a lower limit of 6.5 and an upper limit of 8.5. There were three wells exceeding the upper MCL for pH during the reporting period, SMWC' 4 at 9.0 (April 2019), Tukwet's A at 8.8 (Aug 2020) and YVWD's 48 at 8.7 (Jul 2017). In addition, there are a number of wells with pH in the 8.0 to 8.4 range including SMHOA Well No. 1 at 8.4, BCVWD's No. 23, 25, and 26 and Sharondale MHOA's 2 at 8.3; BCVWD Wells No. 16, 21, 24 and 29, Banning Well C-2A, C04, and M-3, Tukwet's D and SMHOA's 1 at 8.2. The lowest pH was reported from Plantation No. 1 at 7.5. Four wells in the basin exceeded the upper limit for pH during the FY 2004-08 reporting period.

### 4.2.5 Turbidity

Turbidity is a measure of the cloudiness of water and is used to indicate water quality and filtration effectiveness. Previous annual reports reported that all production wells in the Basin



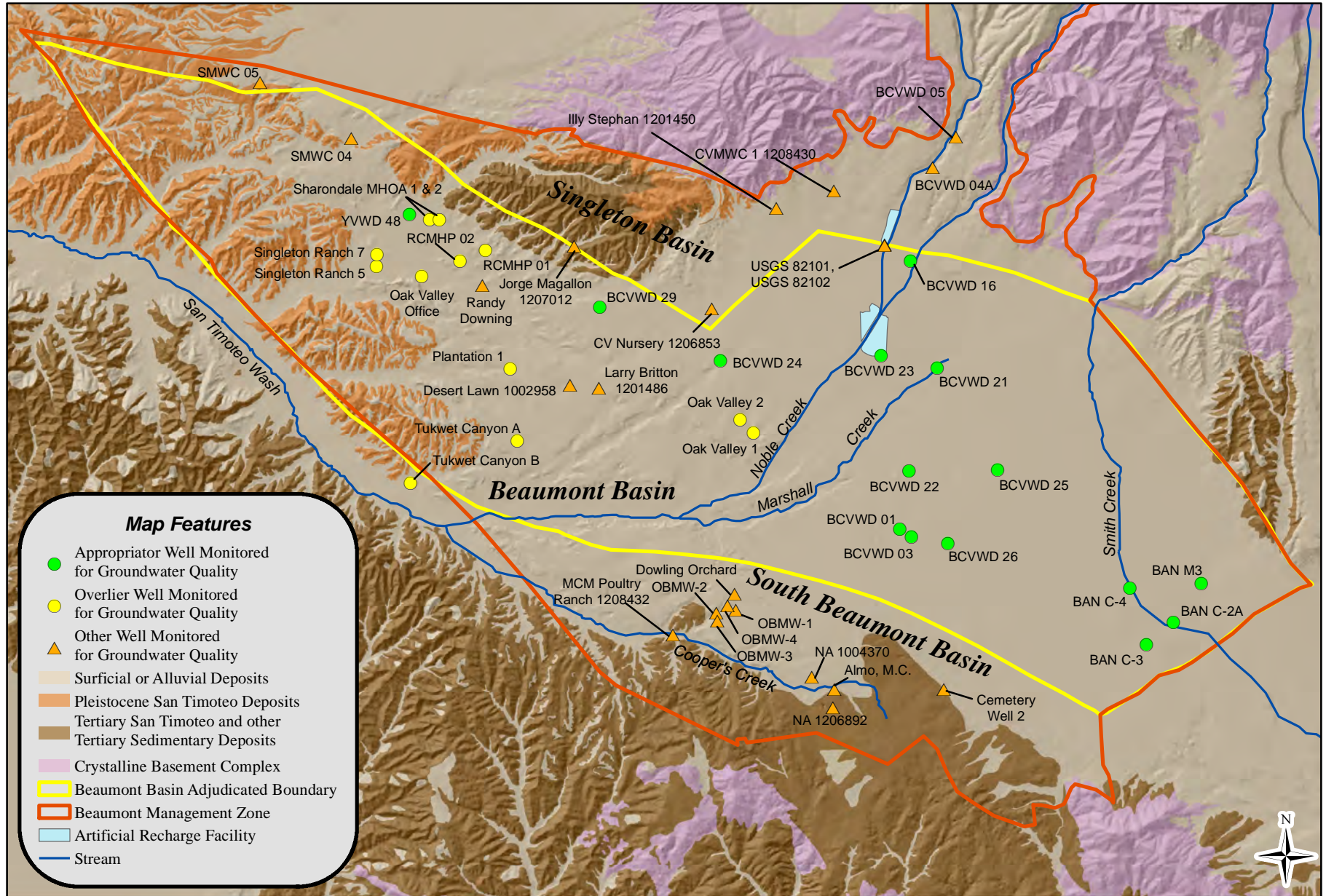
tested for turbidity none exceeded the primary federal and state MCL of 5 NTU. However, the new GAMA database does not contain information on turbidity.

### **4.3 Historical Nitrate (as N) Concentrations for Selected Wells in the Beaumont, Singleton, and South Beaumont Basins**

Historical water quality records since 1974 from The California Department of Health Services GAMA database and water quality collected as part of the Beaumont Management Zone Maximum Benefit Monitoring Program were combined to develop historical nitrate concentrations. The following figures illustrate historical water quality for selected wells around the basin.

- ✓ Figure 4-4 – Noble Creek Area
- ✓ Figure 4-5 – East of Marshall Creek
- ✓ Figure 4-6 – Banning Area
- ✓ Figure 4-7 – West of Noble Creek
- ✓ Figure 4-8 – Northwest Area
- ✓ Figure 4-9 – Singleton Basin
- ✓ Figure 4-10 – South Beaumont Basin

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**Thomas Harder & Co.**  
Groundwater Consulting

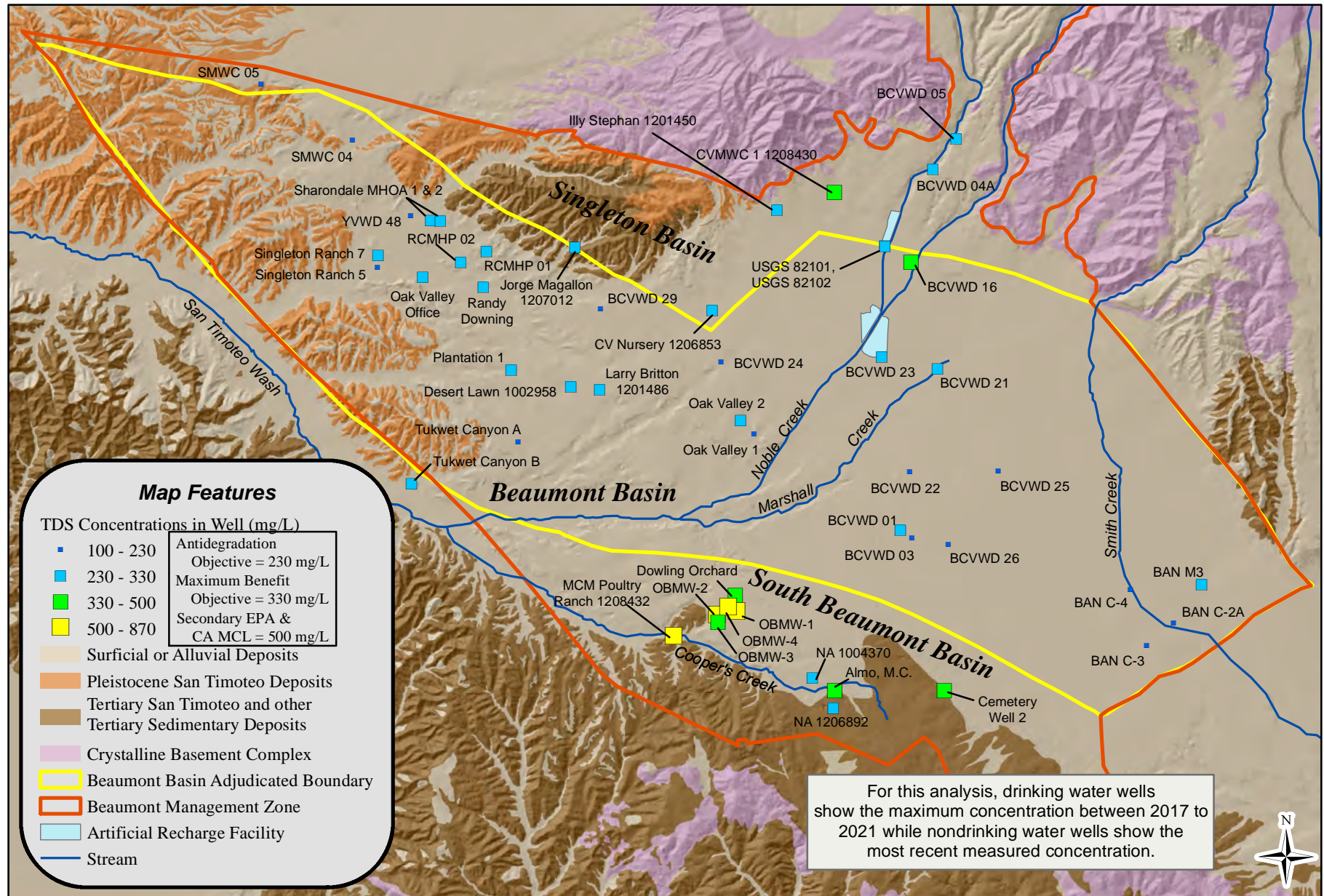
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**Wells with Groundwater Quality Data  
in the Beaumont Basin**

**Figure 4-1**



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**Thomas Harder & Co.**  
Groundwater Consulting

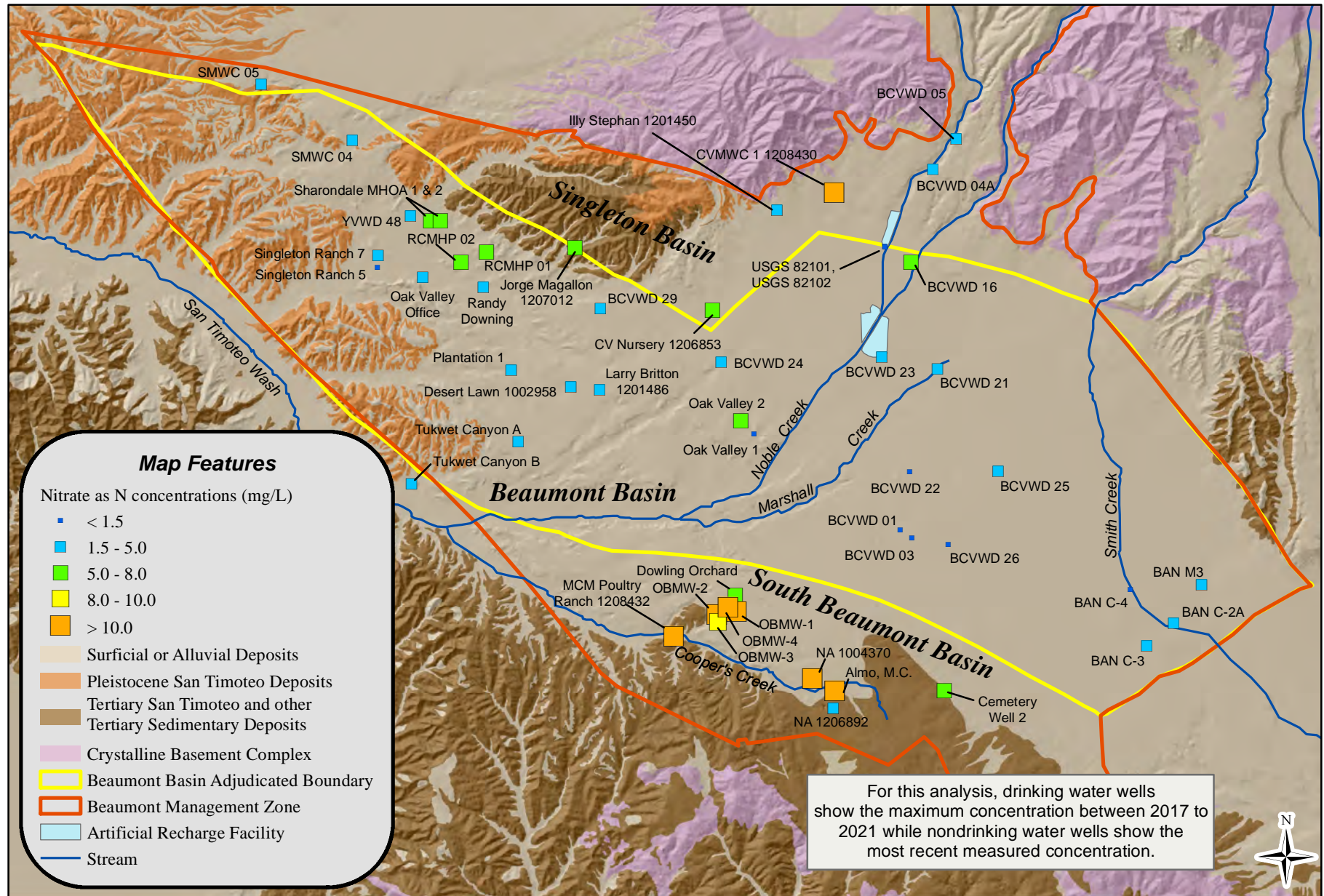
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***Total Dissolved Solids in Groundwater  
(Maximum Concentrations 2017 to 2021)***

**Figure 4-2**



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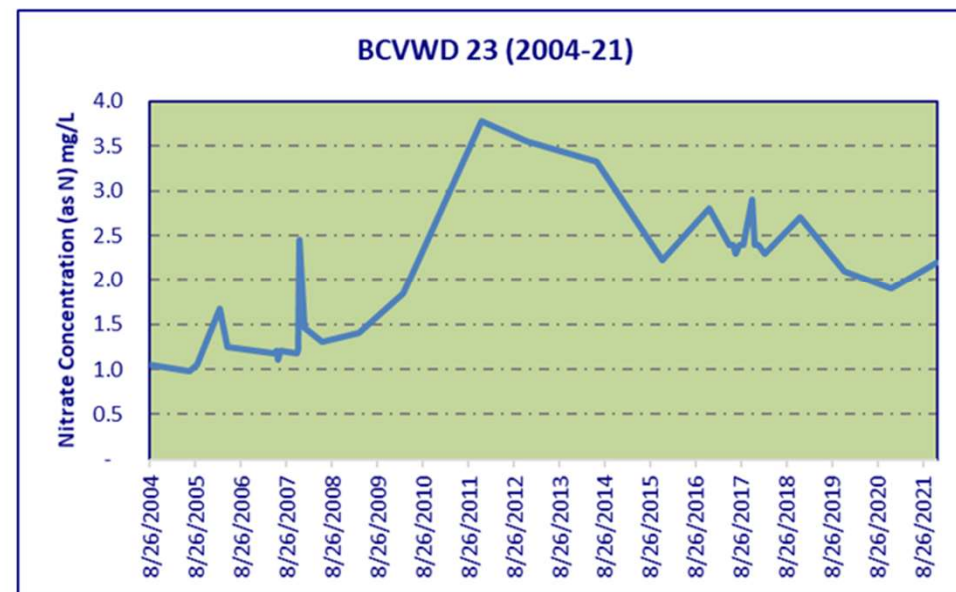
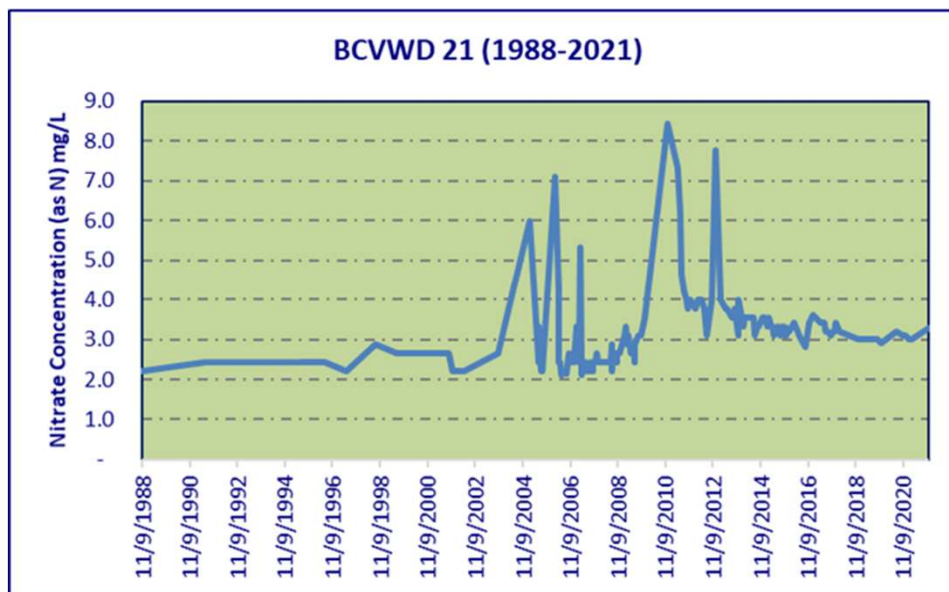
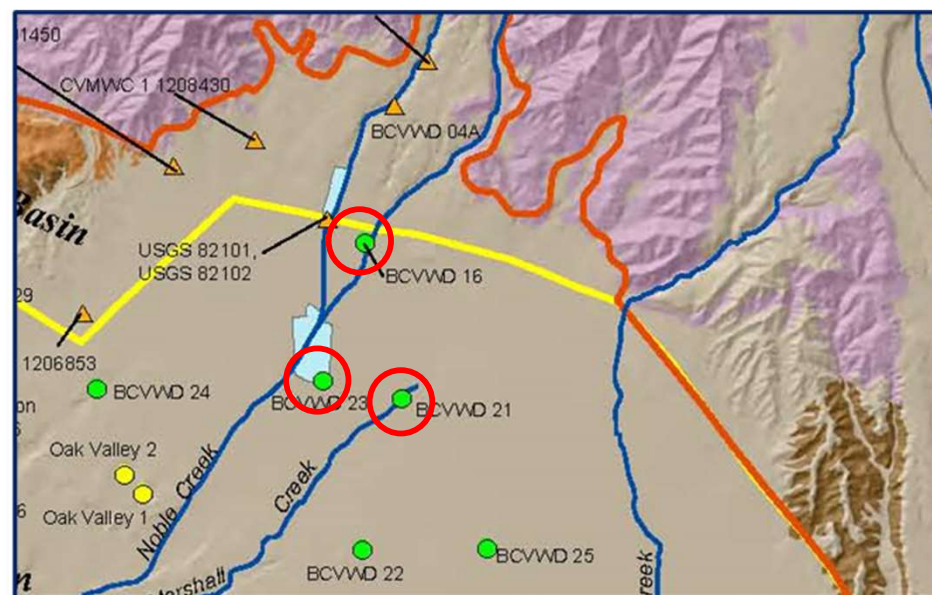
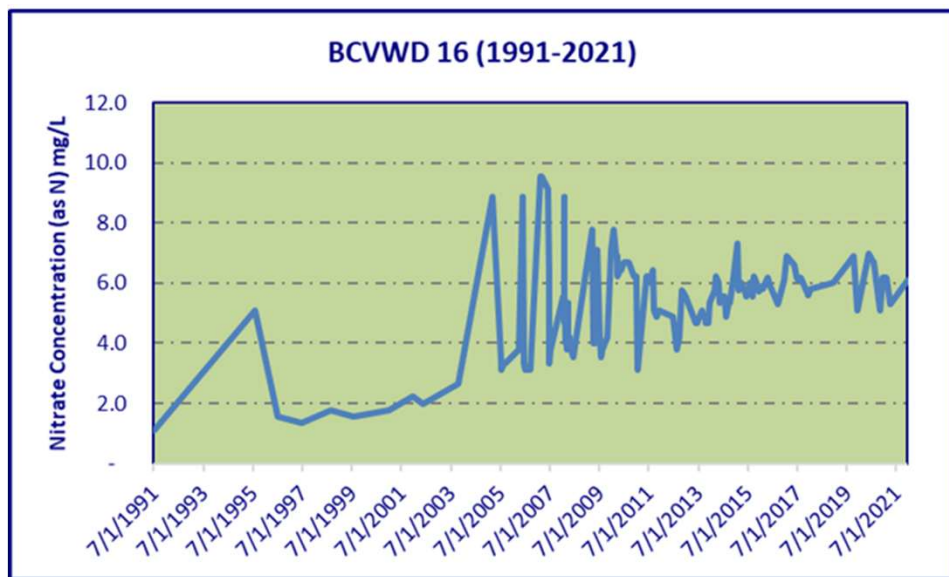
**Alda, Inc.** in association with

**Thomas Harder & Co.**  
Groundwater Consulting

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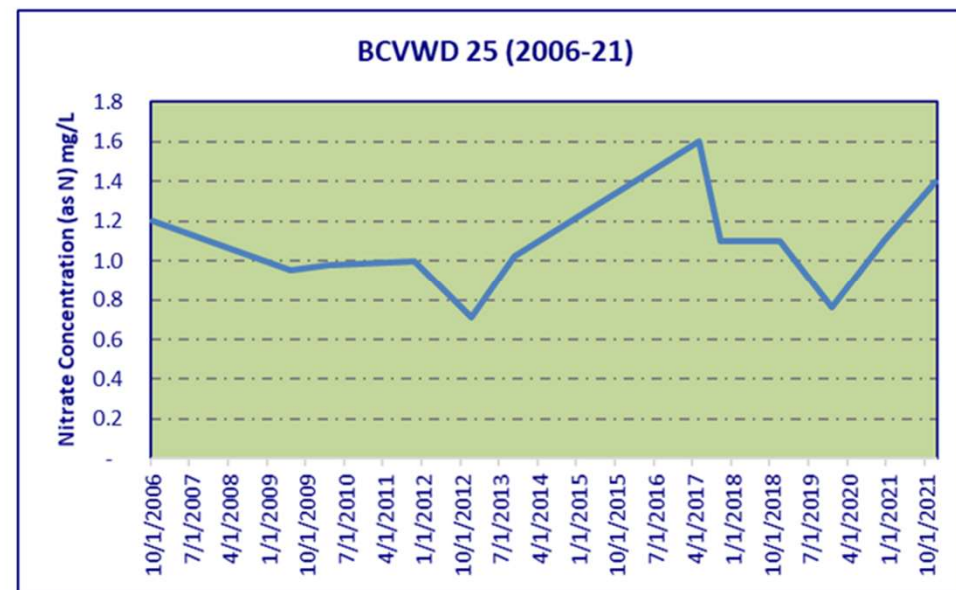
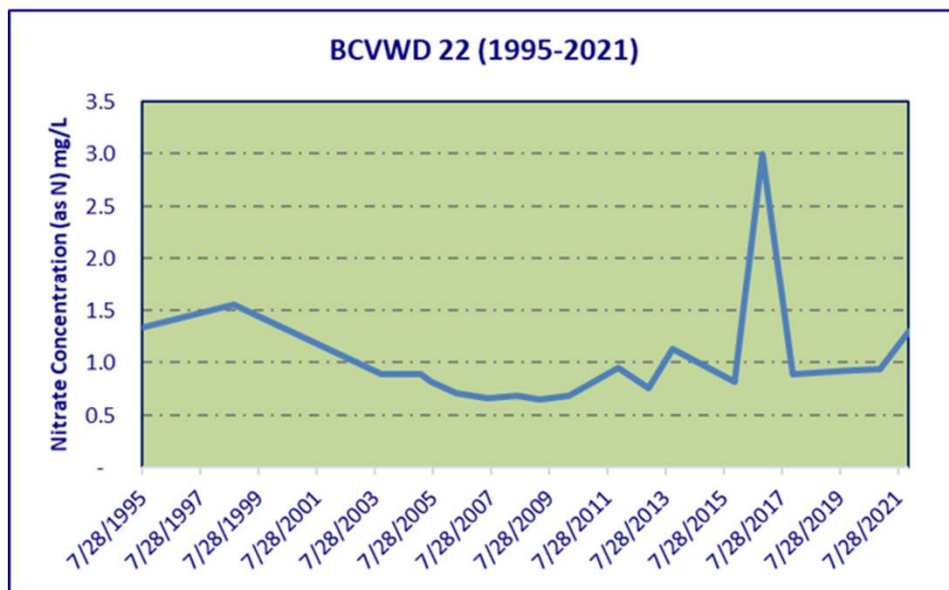
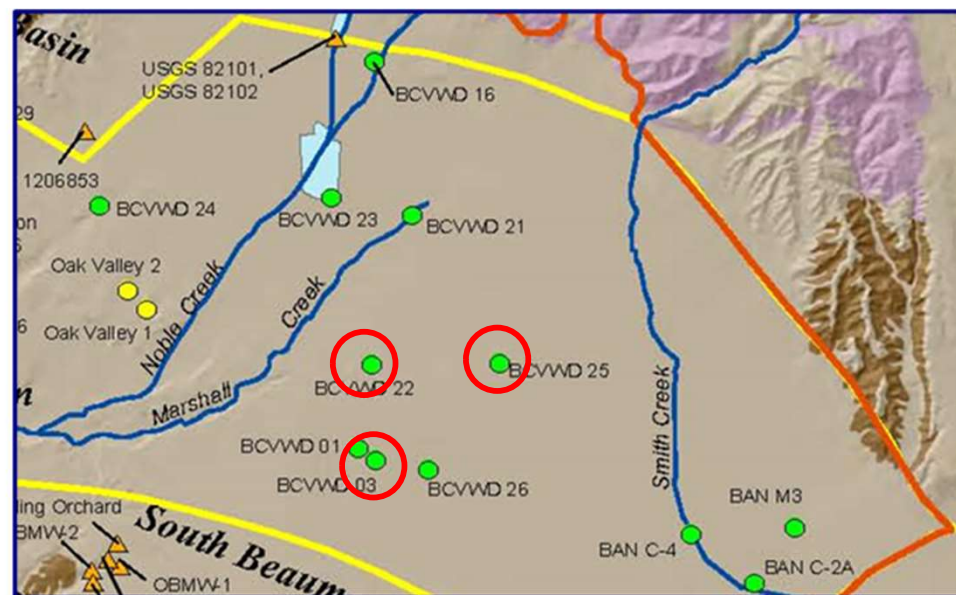
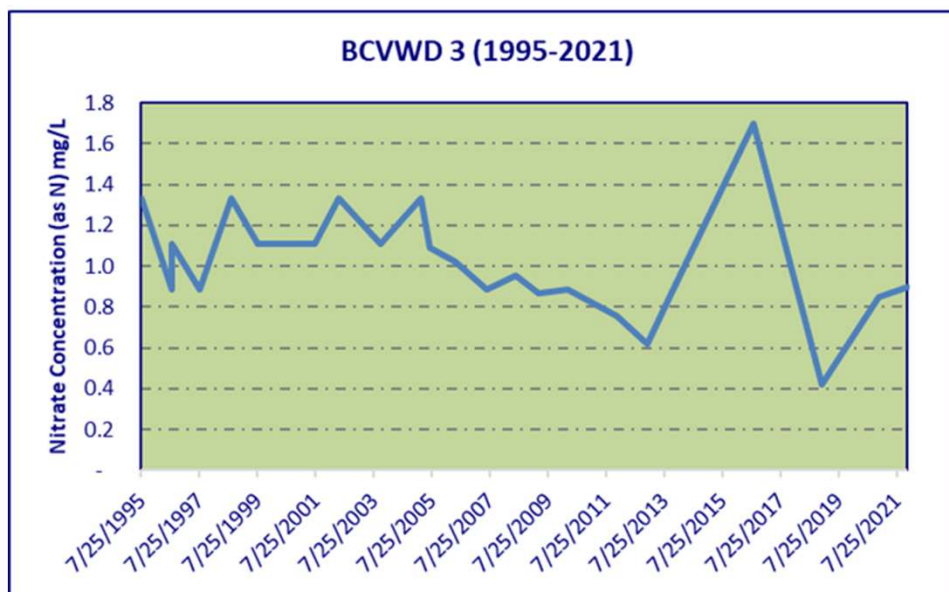
**Nitrate in Groundwater**  
**(Maximum Concentrations 2017 to 2021)**

Figure 4-3



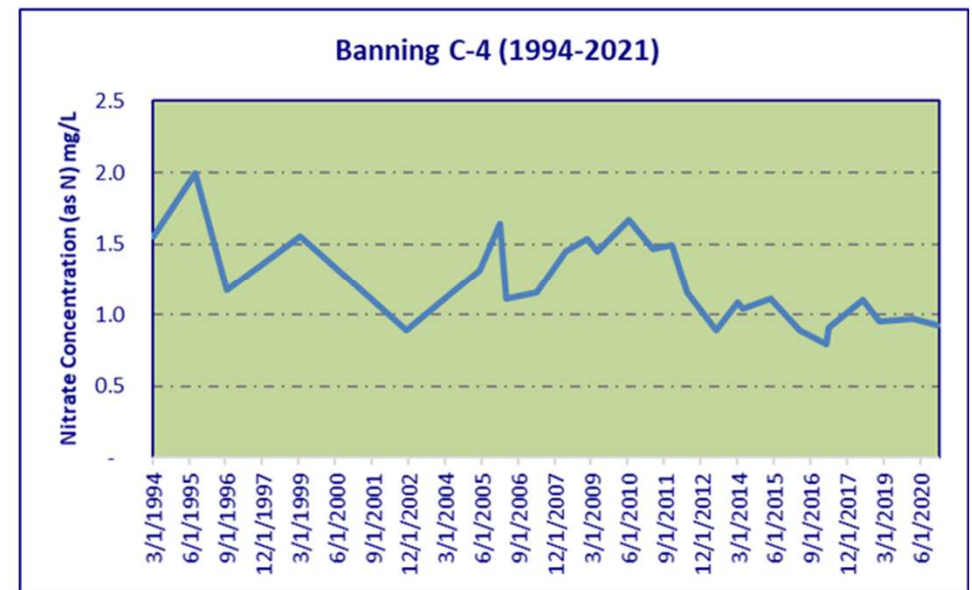
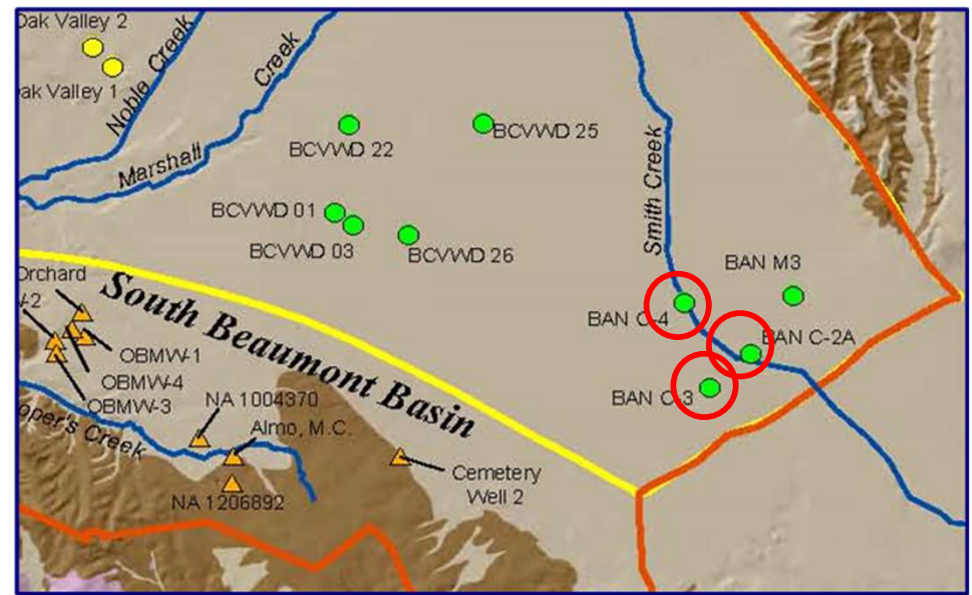
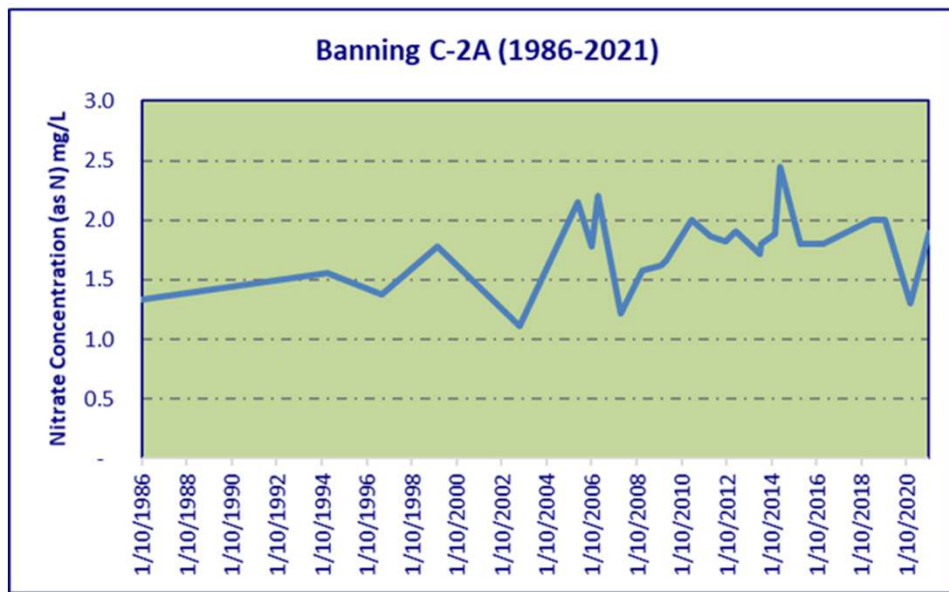
**Figure 4-4**  
**Noble Creek Area – Historical Nitrate Concentration**



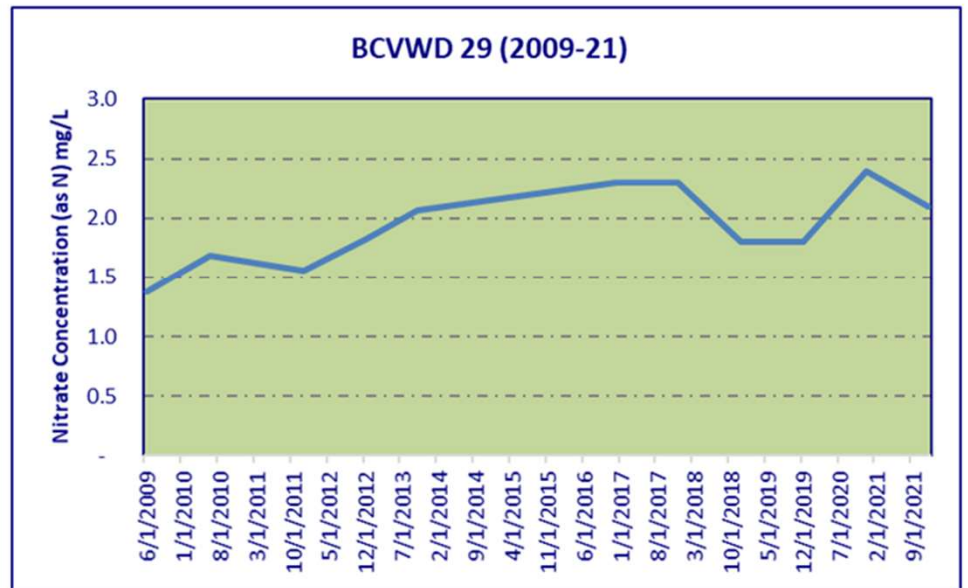
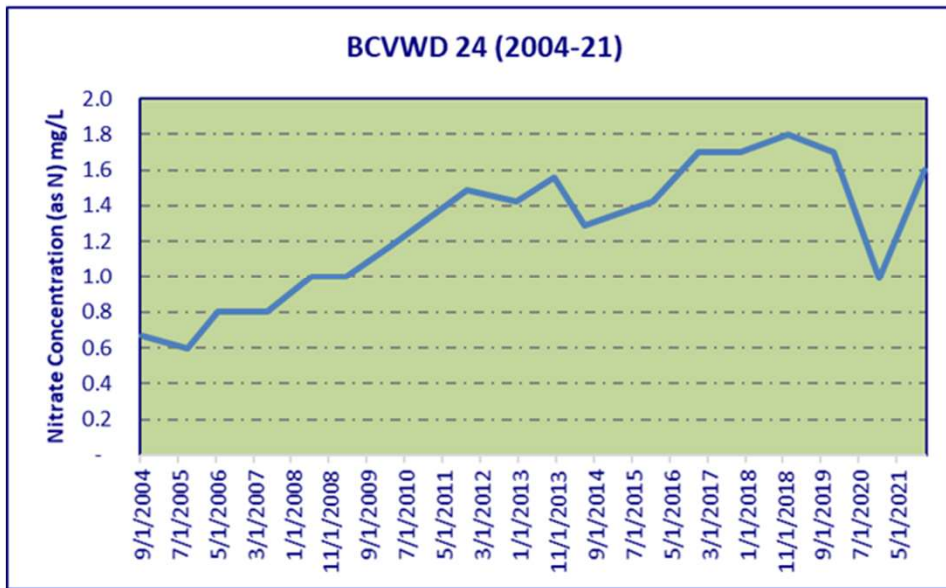
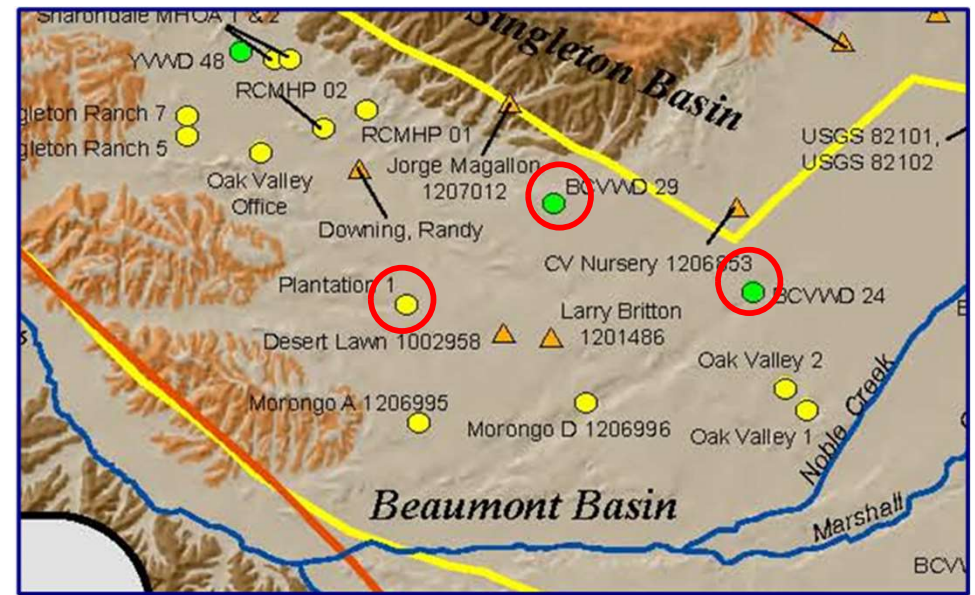
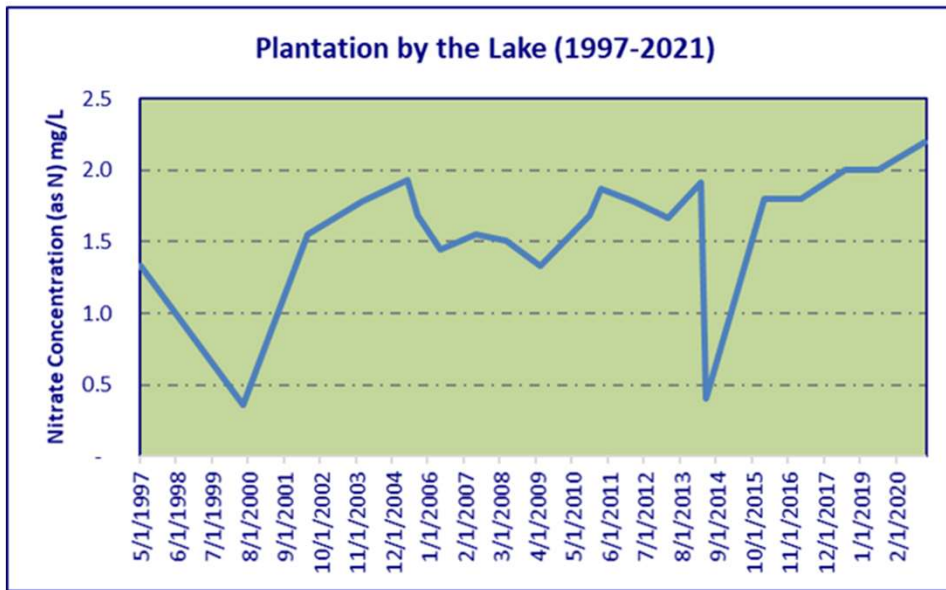


**Figure 4-5**  
**East of Marshall Creek – Historical Nitrate Concentration**



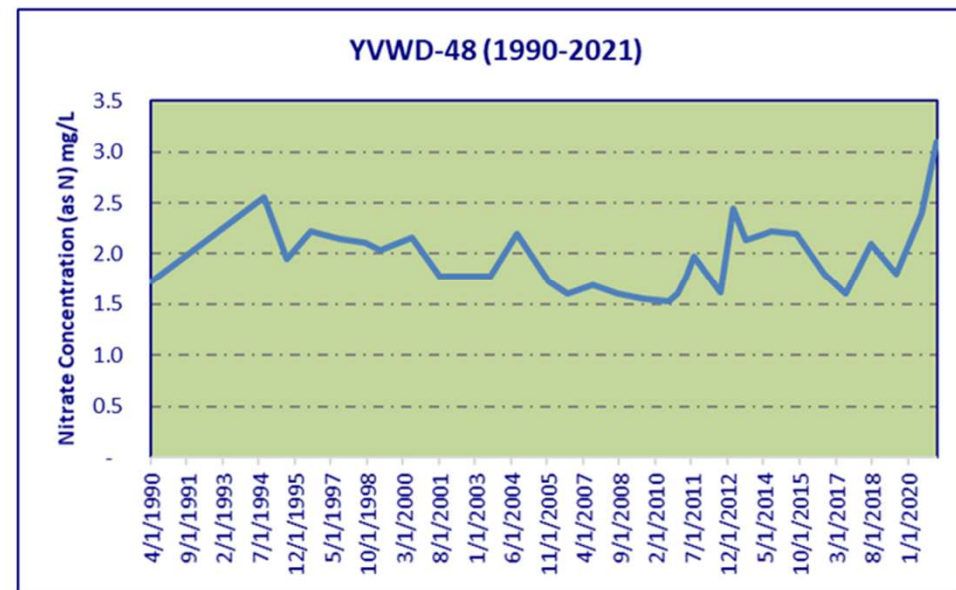
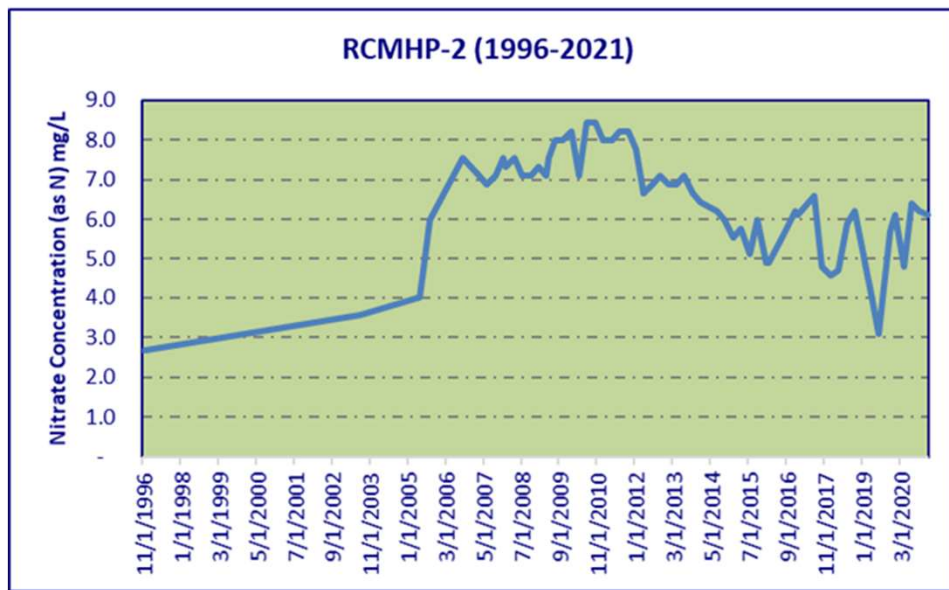
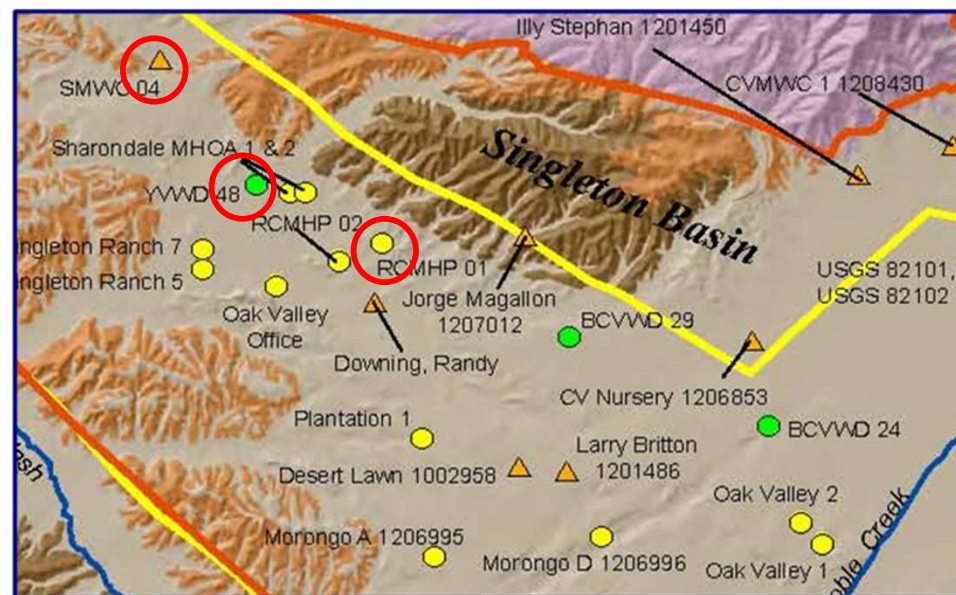
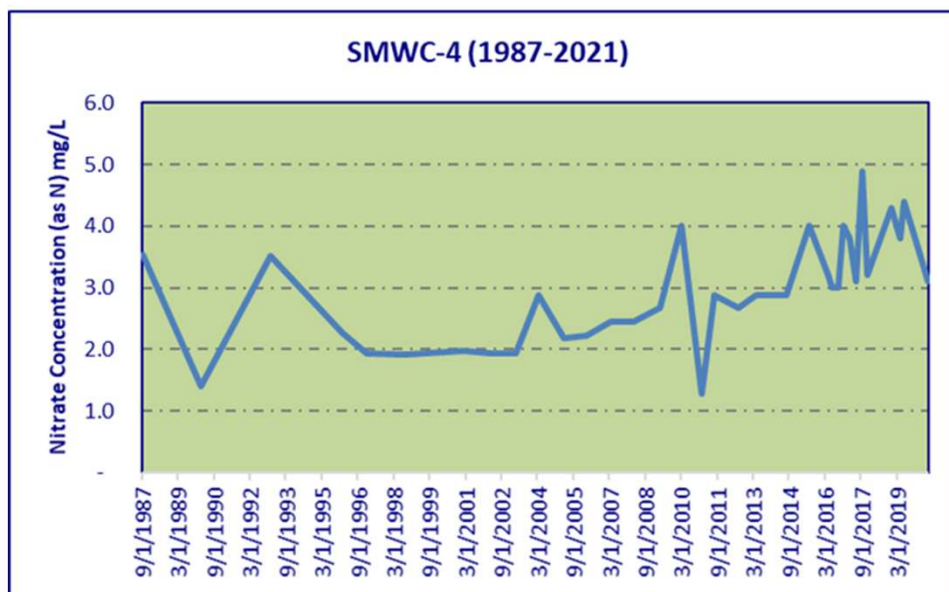


**Figure 4-6**  
**Banning Area – Historical Nitrate Concentration**

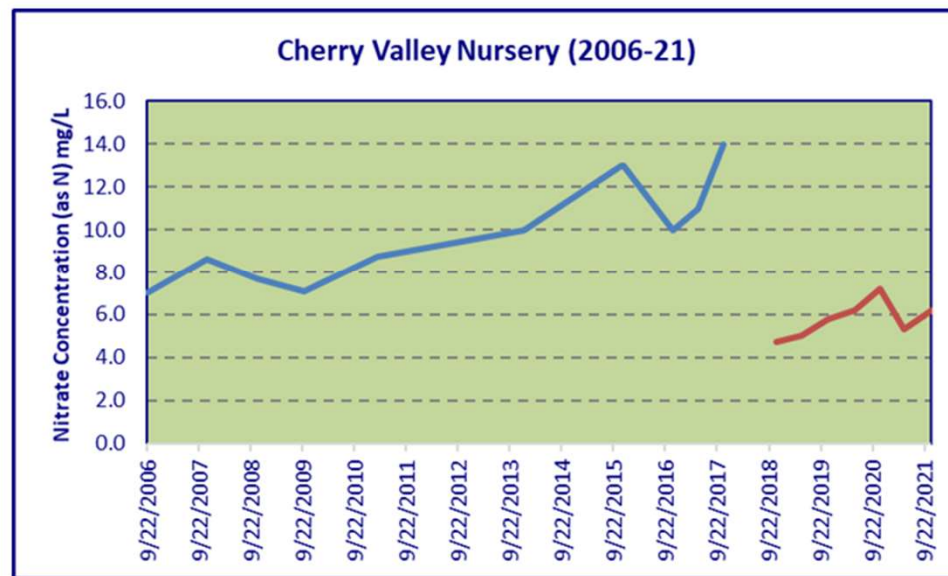
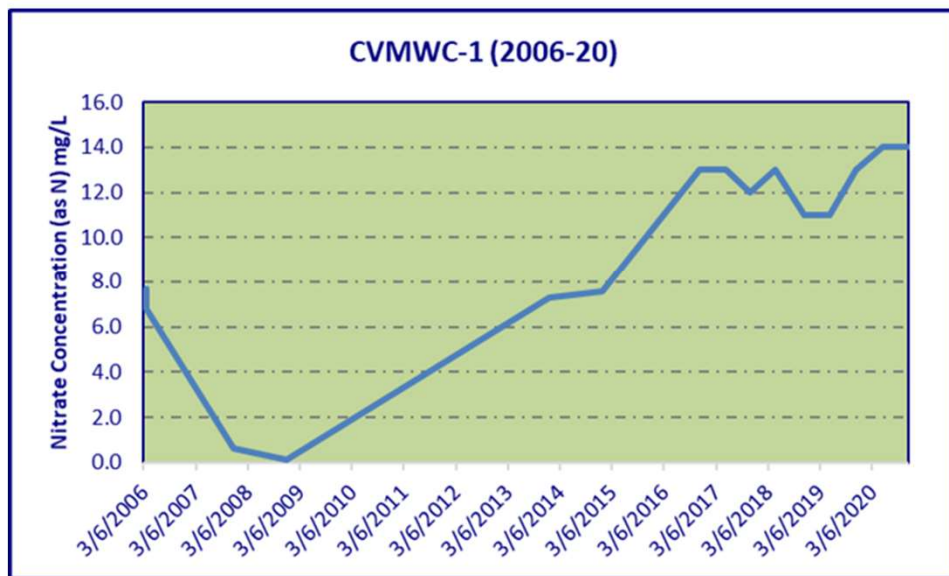
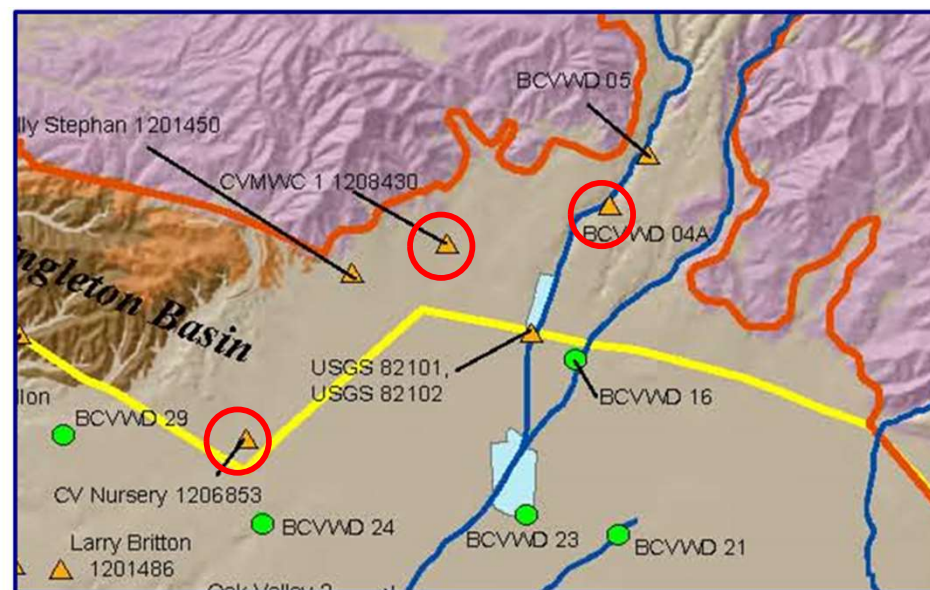
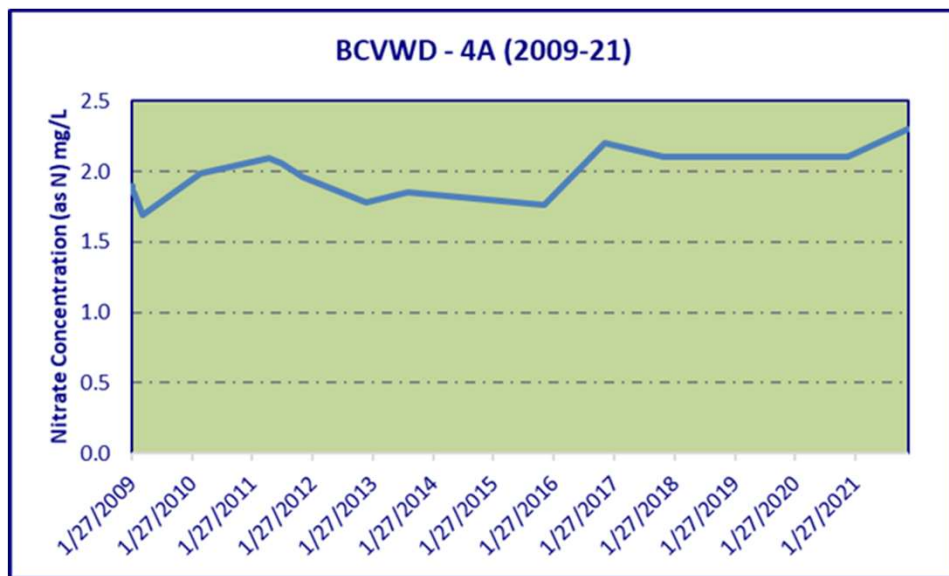


**Figure 4-7**  
**West of Noble Creek – Historical Nitrate Concentration**



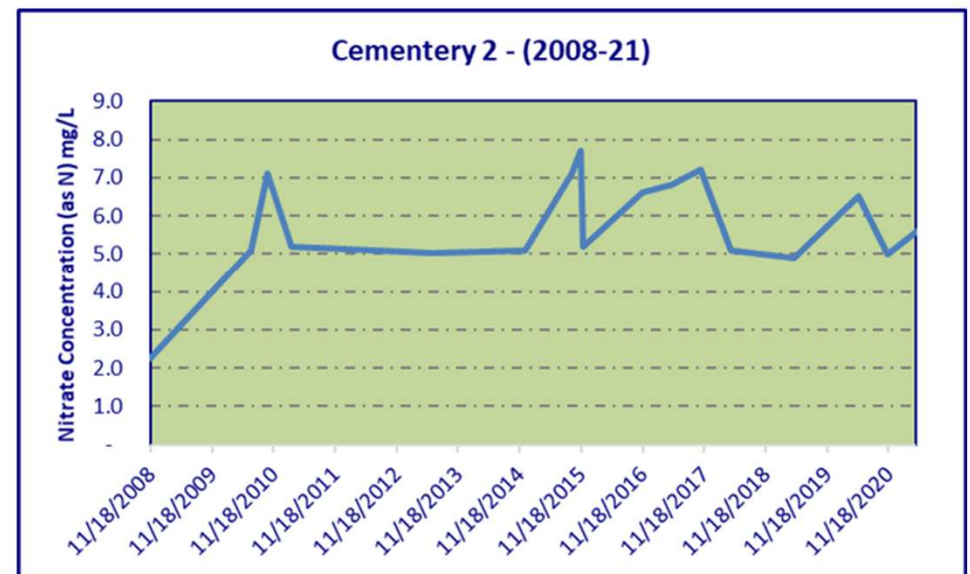
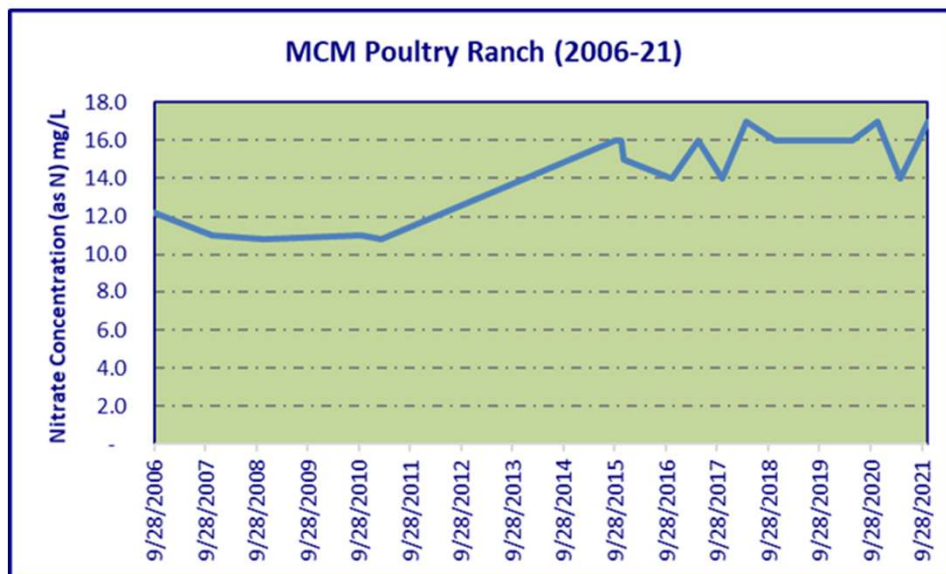
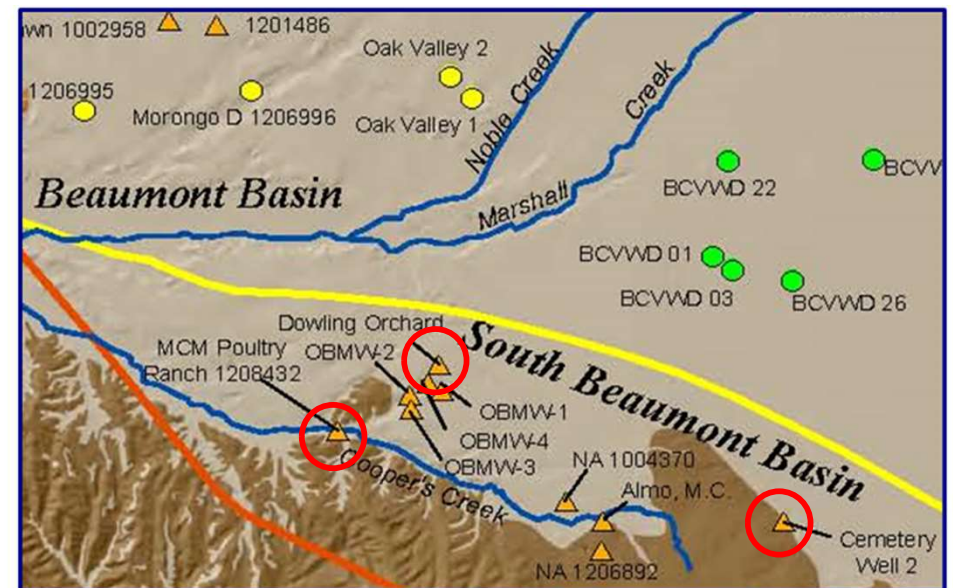
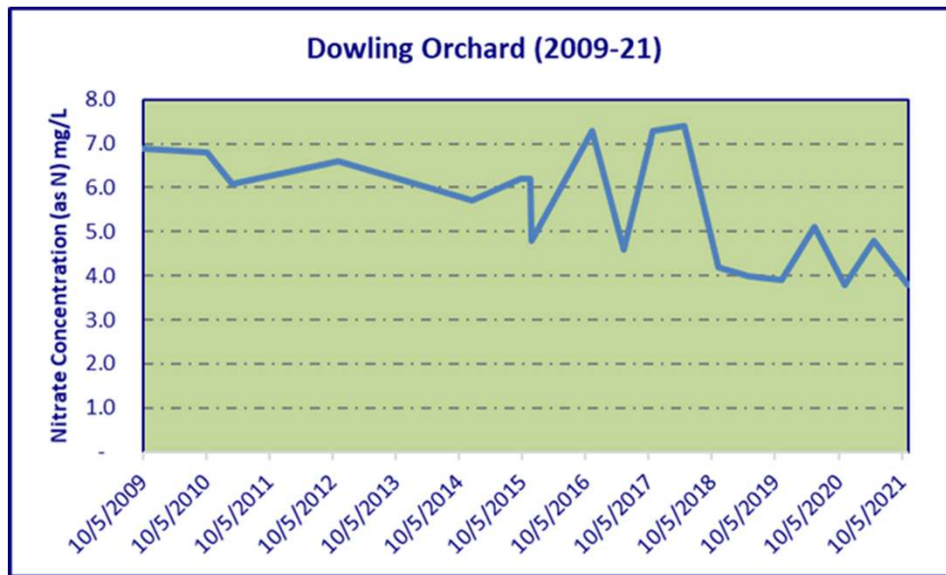


**Figure 4-8**  
**Northwest Area – Historical Nitrate Concentration**



**Figure 4-9**  
**Singleton Basin – Historical Nitrate Concentration**





**Figure 4-10**  
**South Beaumont Basin – Historical Nitrate Concentration**

## 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 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**

### **Notice of Entry of Order Regarding Yucaipa Valley Water District's Motions**

ORIGINAL

FILED  
SUPERIOR COURT OF CALIFORNIA  
COUNTY OF RIVERSIDE

SEP 14 2021

K. Thomsen

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SEP 14 2021  
R

1 KEITH E. MCCULLOUGH (CA Bar No. 142519)  
kmccullough@AlvaradoSmith.com  
2 THIERRY R. MONTOYA (CA Bar No. 158400)  
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5 Tel: (714) 852-6800  
Fax: (714) 852-6899

6 Attorneys for Defendant  
7 BEAUMONT BASIN WATERMASTER

EXEMPT FROM FILING FEES  
GOV'T CODE § 6103

8  
9  
10 SUPERIOR COURT OF THE STATE OF CALIFORNIA  
11 FOR THE COUNTY OF RIVERSIDE HALL OF JUSTICE

BY FAX

12 SAN TIMOTEO WATERSHED  
13 MANAGEMENT AUTHORITY, a public  
agency,

CASE NO.: RIC389197

14 Plaintiff,

15 v.

16 CITY OF BANNING, a municipal  
17 corporation; BEAUMONT-CHERRY  
VALLEY WATER DISTRICT, an irrigation  
18 district; YUCAIPA VALLEY WATER  
DISTRICT, a county water District;  
19 PLANTATION ON THE LAKE LLC, a  
California limited liability Company;  
20 SHARONDALE MESA OWNERS  
ASSOCIATION; an unincorporated  
21 association; SOUTH MESA MUTUAL  
22 WATER COMPANY, a mutual water  
company, CALIFORNIA OAK VALLEY  
23 GOLF AND RESORT LLC, a California  
limited liability company; OAK VALLEY  
24 PARTNERS LP, a Texas limited Partnership;  
25 SOUTHERN CALIFORNIA SECTION OF  
THE PROFESSIONAL GOLFERS  
26 ASSOCIATION OF AMERICA, a California  
Corporation; SUNNY-CAL EGG AND  
27 POULTRY COMPANY, a California  
corporation; MANHEIM, MANHEIM &  
28

NOTICE OF ENTRY OF ORDER RE  
YUCAIPA VALLEY WATER  
DISTRICT'S MOTIONS SEEKING: I)  
AN ORDER DIRECTING THE  
BEAUMONT BASIN WATERMASTER  
TO AMEND THE 2019 ANNUAL  
REPORT TO ADJUST OAK VALLEY  
PARTNER LP'S OVERLYING WATER  
RIGHTS AND YVWD APPROPRIATIVE  
WATER RIGHTS, AND II) AN ORDER  
RESCINDING BEAUMONT BASIN  
WATERMASTER RULE 7.3

Assigned for All Purposes to:  
Hon. Judge Irma Poole Asberry, Dept. 05

Date: August 31, 2021

Time: 8:30 a.m.

Dept.: Dept. 5

Action Filed: February 20, 2003  
Trial Date: N/A

BERMAN, a California General Partnership;  
WALTER M. BECKMAN, individually and  
as Trustee of the BECKMAN FAMILY  
TRUST dated December 11, 1990; THE  
ROMAN CATHOLIC BISHOP OF SAN  
BERNARDINO, a California Corporation;  
MERLIN PROPERTIES, LLC; LEONARD  
M. STEARNS AND DOROTHY D.  
STEARNS, individually and as Trustees of the  
LEONARD M. STEARNS FAMILY TRUST  
OF 1991; and DOES 1 through 500, inclusive

Defendants.

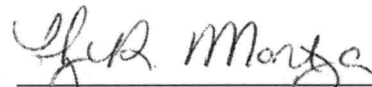
TO ALL PARTIES AND THEIR ATTORNEYS OF RECORD:

**PLEASE TAKE NOTICE** that the Court has entered the Order Re Yucaipa Valley Water District's Motions Seeking: I) An Order Directing The Beaumont Basin Watermaster To Amend The 2019 Annual Report To Adjust Oak Valley Partner LP's Overlying Water Rights And YVWD Appropriative Water Rights, And II) An Order Rescinding Beaumont Basin Watermaster Rule 7.3. A copy of said Orders are attached hereto as Exhibit "A." The Tentative Ruling is attached hereto as Exhibit "B."

Dated: September 13, 2021

ALVARADOSMITH APC

By:



KEITH E. MCCULLOUGH  
THIERRY R. MONTOYA  
Attorneys for Defendant  
BEAUMONT BASIN  
WATERMASTER

# EXHIBIT A

# SUPERIOR COURT OF CALIFORNIA, COUNTY OF RIVERSIDE

Historic Court House

Hearing re: Motion for an Order Directing the Beaumont Basin Watermaster to Amend the Beaumont Basin Watermaster 2019 Annual Report to Adjust Oak Valley Partners LP's Overlying Water Rights and Yucaipa Valley Water District's Appropriative Water Rights

08/31/2021  
8:30 AM  
Department 5

**RIC389197**

**SAN TIMOTEO WATERHSED MANAGEMENT AUTHORITY vs CITY OF BANNING**

Honorable Irma Asberry, Judge  
M. Vargas, Courtroom Assistant  
Court Reporter: None

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## APPEARANCES:

CITY OF BANNING [DEF] represented by Barbara Brenner .  
BEAUMONT-CHERRY VALLEY WATER DISTRICT [DEF] represented by James Lee Markman.  
BEAUMONT BASIN WATERMASTER [TP] represented by Thierry Montoya .  
SOUTH MESA MUTUAL WATER COMPANY [DEF] represented by Derek Hoffman and Paige Gosney.  
YUCAIPA VALLEY WATER DISTRICT [DEF] represented by Gregory Newmark and Bryan Brown.  
Wes Miliband, representing Morongo Band is telephonically present.  
John Covington is telephonically present.  
Joseph Zoba is telephonically present.  
Court Reporter George Dominguez is telephonically present.

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The court has published instructions for public access (including Livestream) to this hearing on the court website which can be found under the banner COVID-19 information and court operations. If it is your responsibility to provide notice, the notice is to include the Web-Ex information for Department 5.

This matter is being live streamed for public access

At 10:06 AM, the following proceedings were held:

Motion by Yucaipa Valley Water District regarding Motion for an Order Directing the Beaumont Basin Watermaster to Amend the Beaumont Basin Watermaster 2019 Annual Report to Adjust Oak Valley Partners LP's Overlying Water Rights and Yucaipa Valley Water District's Appropriative Water Rights is called for hearing.

After issuance of tentative ruling oral argument(s) was requested

Counsel presents argument.

Court makes the following order(s):

# SUPERIOR COURT OF CALIFORNIA, COUNTY OF RIVERSIDE

Historic Court House

Hearing re: Motion for an Order Directing the Beaumont Basin Watermaster to Amend the Beaumont Basin Watermaster 2019 Annual Report to Adjust Oak Valley Partners LP's Overlying Water Rights and Yucaipa Valley Water District's Appropriative Water Rights

08/31/2021  
8:30 AM  
Department 5

**RIC389197**

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Honorable Irma Asberry, Judge  
M. Vargas, Courtroom Assistant  
Court Reporter: None

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Tentative ruling shall become the ruling of the court.

Motion for an Order Directing the Beaumont Basin Watermaster to Amend the Beaumont Basin Watermaster 2019 Annual Report to Adjust Oak Valley Partners LP's Overlying Water Rights and Yucaipa Valley Water District's Appropriative Water Rights is denied without prejudice

Request for Judicial Notice: BCVWD and SMMWC request judicial notice of the Chino Basin Judgment, which YVWD objects to. The court declines to take judicial notice of the judgment as it is not relevant. That judgment is not binding in this court and has no persuasive value. The requests are granted as to SMMWC's remaining request for judicial notice, pursuant to Evidence Code § 452(b).

Factual and procedural background: On 2/20/03, Plaintiff San Timoteo Watershed Management Authority filed this action for an adjudication of groundwater rights in the Beaumont Basin. On 11/25/03, Plaintiff filed the First Amended Complaint. Plaintiff is a joint powers public agency, with Defendants City of Beaumont, Beaumont-Cherry Valley Water District, Yucaipa Valley Water District and South Mesa Mutual Water Company. The remaining Defendants claim a right to the groundwater, but there was an overdraft of the water. On 2/4/04, the parties entered into a stipulated judgment which would limit the amount of water drawn (i.e. safe yield) and the creation of a Watermaster to develop and implement a groundwater management plan. An amended judgment was filed nunc pro tunc to 2/4/04. Since entry of judgment, the court has been involved in enforcing various portions of the judgment, and appoint members.

Yucaipa Valley Water District (YVWD) has filed two related motions. The first is to rescind Watermaster Rule 7.3 (formerly Rule 7.8) and the second is to order the Watermaster to recognize Oak Valley Partners, LP's transfer of overlying water rights. YVWD argues that under the Judgment, Section III.3, overlying partners have the right to transfer their adjudicated water rights to an Appropriator. But the Watermaster issued Rule 7.3 which permanently reallocates unused overlying water to Appropriator Storage Accounts after five years without compensation or commitment to provide water. Accordingly, the Watermaster has refused to recognize YVWD's interests in Oak Valley's water rights. YVWD complains that the Watermaster has been making these allocations without determining the regional water conditions in the basin because the Watermaster does not track use of stored water by Appropriators or losses of water from the basin. As such, on 2/3/21,



# SUPERIOR COURT OF CALIFORNIA, COUNTY OF RIVERSIDE

Historic Court House

Hearing re: Motion for an Order Directing the Beaumont Basin Watermaster to Amend the Beaumont Basin Watermaster 2019 Annual Report to Adjust Oak Valley Partners LP's Overlying Water Rights and Yucaipa Valley Water District's Appropriative Water Rights

08/31/2021  
8:30 AM  
Department 5

**RIC389197**

**SAN TIMOTEO WATERHSED MANAGEMENT AUTHORITY vs CITY OF BANNING**

Honorable Irma Asberry, Judge  
M. Vargas, Courtroom Assistant  
Court Reporter: None

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YVWD proposed Watermaster Resolution 21-01 to rescind Rule 7.3 and to update the annual report. In the second motion, it contends that the Watermaster refuses to acknowledge the earmark for agreeing to provide water service to Oak Valley under the Judgment, contending that it does not apply until the water is delivered—which is not in the judgment. As such, this results in a hoarding by the other Appropriators in the storage accounts. It asserts that limiting in this will permanently transfer rights to the other Appropriators while restricting their water rights, and causing major financial losses for it.

The Watermaster has filed an opposition, contending that YVWD's motion is untimely as it is filed beyond the 90 days for challenging any decisions. It contends that the rule is consistent with the Watermaster's powers under the Judgment to account for water rights transfers and storage, which includes the ability to reclassify overlying water rights based on non-use. It argues that previously, YVWD complied with Rule 7 to obtain water transfer credits when it provided water service to Oak Valley, but now seeks credit to the water storage account in the full amount of Oak Valley's former overlying water rights. It argues that YVWD speculates about any harm. For both motions, it argues that if YVWD complies with Resolution 2017-02, i.e. providing water service, it will obtain the credit. It asserts that YVWD's contract with Oak Valley is a lease and not a water transfer.

Beaumont-Cherry Valley Water District (BCVWD) submits an omnibus opposition and contends to allow YVWD's transfer would violate the Judgment of allowing appropriators on an equitable basis. It argues that the Judgment does not allow for transferability of rights between overlying owners and appropriators. It contends that YVWD improperly seeks to reallocate unpumped overlying rights, which would allow it to profit by leasing the overlying water rights. It points to a comparable scenario under the Chino Judgment, which specifically allows transfers, but no such provision is allowed here.

South Mesa Water Company (SMWC) also contends that the motion is untimely. It contends that it was YVWD who developed and recommended the rules it now wants to invalidate. It asserts Rule 7.3 is consistent with common law regarding reclassification of overlying water rights. At the time of the adoption of the Rule, then Watermaster Engineer (Wildermuth Engineering) analyzed the purpose of the rule and noted that for appropriators to obtain access to the safe yield, it would have to be based

# SUPERIOR COURT OF CALIFORNIA, COUNTY OF RIVERSIDE

Historic Court House

Hearing re: Motion for an Order Directing the Beaumont Basin Watermaster to Amend the Beaumont Basin Watermaster 2019 Annual Report to Adjust Oak Valley Partners LP's Overlying Water Rights and Yucaipa Valley Water District's Appropriative Water Rights

08/31/2021  
8:30 AM  
Department 5

**RIC389197**

**SAN TIMOTEO WATERHSED MANAGEMENT AUTHORITY vs CITY OF BANNING**

Honorable Irma Asberry, Judge  
M. Vargas, Courtroom Assistant  
Court Reporter: None

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on overlying parties to under produce. It argues that the Rule is consistent with the Physical Solution and the California Constitutional requirement to prevent waste. It asserts that there is no evidence that the Rule harms the Basin, as YVWD has an interest in trying to obtain more water from the Basin since it is relying more and more on outside water sources. If YVWD is successful, that it would have to replace the water source it needs. For the second motion, it argues that YVWD is improperly trying to effectuate a backdated transfer without actually providing water services to Oak Valley. On the second motion, it argues that water service is actually required. It repeats that YVWD approved Resolution 2019-02, but it was YVWD who backdated the form of an effective date of 10/9/18 in order to receive Oak Valley's entire water allotment.

The City of Banning filed a joinder to the oppositions filed by the other parties.

YVWD filed separate replies to address each of the oppositions, but they provide primarily similar arguments. It argues that when Resolution 2017-02 that water service would be provided, it did not understand that this would support only rights transferred on a parcel by parcel basis, rather than the entire development. It points out that Form 5 changed by removing references to specific parcels, and that transfers were made to the overlying owner rather than parcel. It contends that under Rule 7.1, the Watermaster's actions are merely ministerial, which was to comport with the Judgment. It contends that the Judgment acknowledges that the Oak Valley development would apply to the property as a whole. For Rule 7.3, it argues that the Watermaster created new rights not contemplated by the Judgment. It contends that there can be no storage of water other than supplemental water. It asserts that current droughts are not sufficient to depart from the Judgment. It contends that it creates a windfall for the other appropriators.

The Morongo Band of Mission Indians filed a positional statement on 8/12/21. It wants to preserve its overlying rights (via the Tukwet Canyon Golf Course). It contends that transfers do not occur until water service is actually provided, and supports the Rule in that respect. It argues that the requirement of beneficial use should allow it to transfer rights to unused water to other parties inexchange for compensation. The Watermaster's response to the Morongo Band, contends that the Morongo Band has not identified an actual harm from Rule 7.3 to require adjudication by the court

# SUPERIOR COURT OF CALIFORNIA, COUNTY OF RIVERSIDE

Historic Court House

Hearing re: Motion for an Order Directing the Beaumont Basin Watermaster to Amend the Beaumont Basin Watermaster 2019 Annual Report to Adjust Oak Valley Partners LP's Overlying Water Rights and Yucaipa Valley Water District's Appropriative Water Rights

08/31/2021  
8:30 AM  
Department 5

**RIC389197**

**SAN TIMOTEO WATERHSED MANAGEMENT AUTHORITY vs CITY OF BANNING**

Honorable Irma Asberry, Judge  
M. Vargas, Courtroom Assistant  
Court Reporter: None

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and there is no indication that the Morongo Band's right to pump has been affected. To the extent it challenges Rule 7.3, the Watermaster contends that it is time barred nor can the court take any action that intrudes on the Watermaster's rule making authority.

As to timeliness of the motions and procedural issues:

Under the judgment:

Any action, decision, rule or procedure of the Watermaster pursuant to this Judgment shall be subject to review by the court on its own motion or on timely motion by any Party, as follows:

...

C. Time for Motion: A motion to review any Watermaster action or decision shall be filed within 90 days after such Watermaster action or decision, except that motions to review Watermaster assessments, hereunder shall be filed within 30 days of mailing of notice of the assessment.

(Judgment, ¶VII.6.) YVWD does not dispute that the Watermaster passed Rule 7.3 in 2008 and did not bring a motion with the court to challenge the rule—despite the fact that Joseph Zoba on behalf of YVWD dissented to the rule. (Zoba Decl. ¶26.) Under the Judgment, the Watermaster consists of a committee of persons nominated by the City of Banning, City of Beaumont, BCVWD, SMMWC, and YVWD. (Judgment ¶VI.4.) Under YVWD's interpretation, any time the Watermaster adopts a rule, it can be challenged by a subsequent challenge trying to rescind the rule—which is exactly what YVWD did. This attempt would render the time limitations meaningless since YVWD has the ability via its nominee on the Watermaster to introduce resolutions to challenge rules and restart the clock on challenging years-old decisions. This appears an attempt to get around the time limitations. However, YVWD is correct that the court apparently has jurisdiction on its own motion to consider these issues.

As to the Morongo Band's "statement," to the extent that Morongo seeks affirmative relief, it should file its own motion. Based on the information provided, Morongo has no current controversy to adjudicate. To the extent that Morongo seeks to sell its surplus water, that issue is not currently before the court.

Tentative Ruling to be filed.

# **SUPERIOR COURT OF CALIFORNIA, COUNTY OF RIVERSIDE**

Historic Court House

Hearing re: Motion for an Order Directing the Beaumont Basin Watermaster to Amend the Beaumont Basin Watermaster 2019 Annual Report to Adjust Oak Valley Partners LP's Overlying Water Rights and Yucaipa Valley Water District's Appropriative Water Rights

08/31/2021

8:30 AM

Department 5

**RIC389197**

**SAN TIMOTEO WATERHSED MANAGEMENT AUTHORITY vs CITY OF BANNING**

Honorable Irma Asberry, Judge  
M. Vargas, Courtroom Assistant  
Court Reporter: None

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# EXHIBIT B

questions are referring to. The original motion does include, though, a copy of the interrogatories sent to Defendant which includes interrogatory number 34. This is a minor issue and does not warrant denying the entire motion or continuing this hearing.

Interrogatory No. 2 asks Securitas to confirm it made a complete search of all records and a diligent inquiry in attempting to discover all available information relating to this action. In response, Defendant objected to the relevance of this interrogatory arguing that it is not directed at discovering information permitted under CCP §2030.010(b).

CCP §2030.010(b) provides that “[a]n interrogatory may relate to whether another party is making a certain contention, or to the facts, witnesses, and writings on which a contention is based. An interrogatory is not objectionable because an answer to it involves an opinion or contention that relates to fact or the application of law to fact, or would be based on information obtained or legal theories developed in anticipation of litigation or in preparation for trial.” Whether or not Defendant has conducted a diligent search and thorough inquiry in searching for documents to provide in discovery relates to the facts, witnesses, and writings on which Defendant’s contentions are based. Whether Defendant has performed a diligent search is relevant. If they haven’t, more discovery would certainly be required. Further response is required.

Interrogatories 34 – 41 and 43 as for all information related to claims made within the last ten years by persons alleging injury due to improper conduct by a guard employed by Securitas. The requests are relevant to the causes of action. However they are overboard in scope. Evidence from other similar cases may help the parties and/or the court in determining whether or not this particular security guard was acting within the course and scope of his duties and shed light on other information relevant to prove or disprove the claims and defenses. Securitas’ has stated objections and argues that these interrogatories are burdensome and oppressive as they do not maintain an informational database regarding claims of improper conduct by its security guards. This is a fair objection. As illustrated in Securitas’ Opposition, the sheer number of security guards employed by Securitas (potentially up to 100,000 nationwide) makes answering this interrogatory as worded burdensome. The court therefore limits the scope as described above.

Securitas also argues the term “improper conduct” is vague. This is well taken, as improper conduct could range from verbal assault to theft to sexual misconduct. A claim for theft is not analogous to the instant claim for physical assault and would force Securitas to unnecessarily review and provide irrelevant documents. Thus, the scope is limited as described above.

Securitas also asserts a privacy rights argument as to the privacy of third parties who are not part of this lawsuit. Thus, the parties are ordered to meet and confer regarding a protective order.

6.

RIC389197	SAN TIMOTEO WATERHSED MANAGEMENT AUTHORITY vs CITY OF BANNING	Joinder to Motion for Order Directing the Beaumont Basin Watermaster to Rescind Beaumont Basin Watermaster Rule 7.3
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**Tentative Ruling:** See Tentative Ruling No. 9 below.

7.

RIC389197	SAN TIMOTEO WATERHSED MANAGEMENT AUTHORITY vs CITY OF BANNING	Joinder to Motion for Order Directing the Beaumont Basin Watermaster to Amend the Beaumont Basin Watermaster’s 2019 Annual Report
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**Tentative Ruling:** See Tentative Ruling No. 9 below.



8.

RIC389197	SAN TIMOTEO WATERHSED MANAGEMENT AUTHORITY vs CITY OF BANNING	Corrected Motion for an Order Directing the Beaumont Basin Watermaster to Rescind Beaumont Basin Watermaster Rule 7.3
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**Tentative Ruling:** See Tentative Ruling No. 9 below.

9.

RIC389197	SAN TIMOTEO WATERHSED MANAGEMENT AUTHORITY vs CITY OF BANNING	Motion for an Order Directing the Beaumont Basin Watermaster to Amend the Beaumont Basin Watermaster 2019 Annual Report to Adjust Oak Valley Partners LP's Overlying Water Rights and Yucaipa Valley Water District's Appropriative Water Rights
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**Tentative Ruling:** Denied without prejudice. The discussion of matters in this Ruling also apply to Nos. 6 – 8 above.

Request for Judicial Notice: BCVWD and SMMWC request judicial notice of the Chino Basin Judgment, which YVWD objects to. The court declines to take judicial notice of the judgment as it is not relevant. That judgment is not binding in this court and has no persuasive value. The requests are granted as to SMMWC's remaining request for judicial notice, pursuant to Evidence Code § 452(b).

Factual and procedural background: On 2/20/03, Plaintiff San Timoteo Watershed Management Authority filed this action for an adjudication of groundwater rights in the Beaumont Basin. On 11/25/03, Plaintiff filed the First Amended Complaint. Plaintiff is a joint powers public agency, with Defendants City of Beaumont, Beaumont-Cherry Valley Water District, Yucaipa Valley Water District and South Mesa Mutual Water Company. The remaining Defendants claim a right to the groundwater, but there was an overdraft of the water. On 2/4/04, the parties entered into a stipulated judgment which would limit the amount of water drawn (i.e. safe yield) and the creation of a Watermaster to develop and implement a groundwater management plan. An amended judgment was filed nunc pro tunc to 2/4/04. Since entry of judgment, the court has been involved in enforcing various portions of the judgment, and appoint members.

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South Mesa Water Company (SMWC) also contends that the motion is untimely. It contends that it was YVWD who developed and recommended the rules it now wants to invalidate. It asserts Rule 7.3 is consistent with common law regarding reclassification of overlying water rights. At the time of the adoption of the Rule, then Watermaster Engineer (Wildermuth Engineering) analyzed the purpose of the rule and noted that for appropriators to obtain access to the safe yield, it would have to be based on overlying parties to under produce. It argues that the Rule is consistent with the Physical Solution and the California Constitutional requirement to prevent waste. It asserts that there is no evidence that the Rule harms the Basin, as YVWD has an interest in trying to obtain more water from the Basin since it is relying more and more on outside water sources. If YVWD is successful, that it would have to replace the water source it needs. For the second motion, it argues that YVWD is improperly trying to effectuate a backdated transfer without actually providing water services to Oak Valley. On the second motion, it argues that water service is actually required. It repeats that YVWD approved Resolution 2019-02, but it was YVWD who backdated the form of an effective date of 10/9/18 in order to receive Oak Valley's entire water allotment.

The City of Banning filed a joinder to the oppositions filed by the other parties.

YVWD filed separate replies to address each of the oppositions, but they provide primarily similar arguments. It argues that when Resolution 2017-02 that water service would be provided, it did not understand that this would support only rights transferred on a parcel by parcel basis, rather than the entire development. It points out that Form 5 changed by removing references to specific parcels, and that transfers were made to the overlying owner rather than parcel. It contends that under Rule 7.1, the Watermaster's actions are merely ministerial, which was to comport with the Judgment. It contends that the Judgment acknowledges that the Oak Valley development would apply to the property as a whole. For Rule 7.3, it argues that the Watermaster created new rights not contemplated by the Judgment. It contends that there can be no storage of water other than supplemental water. It asserts that current droughts are not sufficient to depart from the Judgment. It contends that it creates a windfall for the other appropriators.

The Morongo Band of Mission Indians filed a positional statement on 8/12/21. It wants to preserve its overlying rights (via the Tukwet Canyon Golf Course). It contends that transfers do not occur until water service is actually provided, and supports the Rule in that respect. It argues that the requirement of beneficial use should allow it to transfer rights to unused water to other parties in

exchange for compensation. The Watermaster's response to the Morongo Band, contends that the Morongo Band has not identified an actual harm from Rule 7.3 to require adjudication by the court and there is no indication that the Morongo Band's right to pump has been affected. To the extent it challenges Rule 7.3, the Watermaster contends that it is time barred nor can the court take any action that intrudes on the Watermaster's rule making authority.

As to timeliness of the motions and procedural issues:

Under the judgment:

Any action, decision, rule or procedure of the Watermaster pursuant to this Judgment shall be subject to review by the court on its own motion or on timely motion by any Party, as follows:

...

C. Time for Motion: A motion to review any Watermaster action or decision shall be filed within 90 days after such Watermaster action or decision, except that motions to review Watermaster assessments, hereunder shall be filed within 30 days of mailing of notice of the assessment.

(Judgment, ¶VII.6.) YVWD does not dispute that the Watermaster passed Rule 7.3 in 2008 and did not bring a motion with the court to challenge the rule—despite the fact that Joseph Zoba on behalf of YVWD dissented to the rule. (Zoba Decl. ¶26.) Under the Judgment, the Watermaster consists of a committee of persons nominated by the City of Banning, City of Beaumont, BCVWD, SMMWC, and YVWD. (Judgment ¶VI.4.) Under YVWD's interpretation, any time the Watermaster adopts a rule, it can be challenged by a subsequent challenge trying to rescind the rule—which is exactly what YVWD did. This attempt would render the time limitations meaningless since YVWD has the ability via its nominee on the Watermaster to introduce resolutions to challenge rules and restart the clock on challenging years-old decisions. This appears an attempt to get around the time limitations. However, YVWD is correct that the court apparently has jurisdiction on its own motion to consider these issues.

As to the Morongo Band's "statement," to the extent that Morongo seeks affirmative relief, it should file its own motion. Based on the information provided, Morongo has no current controversy to adjudicate. To the extent that Morongo seeks to sell its surplus water, that issue is not currently before the court.

Legal authorities and analysis: The California Constitution, Article X, §2, limits water rights to reasonable and beneficial uses. (City of Santa Maria v. Adam (2012) 211 Cal.App.4th 266, 277-278.) The state owns the groundwater in that it has the right to supervise and regulate water use, while water rights holders do not own the water, but rather, have the right to use the water as long as they do not waste it. (Ibid. at 278.) The reasonable and beneficial use "consideration applies to all water users, regardless of the source from which their rights are grounded [citation], because no party has a protectable interest in the unreasonable use of water." (Antelope Valley Groundwater Cases (2021) 62 Cal.App.5th 992, 1024–1025, review denied (July 21, 2021).)

Water rights in an underground basin are classified as overlying, appropriative or prescriptive. (City of Barstow v. Mojave Water Agency (2000) 23 Cal.4th 1224, 1240.) An overlying right is based on land ownership and provides the right to take underground water for use on his land, similar to a riparian owner. (Ibid.) An overlying rights holder has superior and priority rights over those who do not have priority but are limited "to a reasonable beneficial use." (Ibid.) An appropriator right is the actual taking of surplus water, but yield to the overlying right holder when there is a shortage. (Id. at 1241.) A prescriptive right is the taking of water (that is not surplus) that is "actual, open and notorious, hostile and adverse to the original owner, continuous and uninterrupted for the statutory period of five years, and under claim of right." (Id.)

As to Rule 7.3, under the Judgment, the court's review is de novo, and the decision is final and binding on the Watermaster and parties. (Amended Judgment, ¶VII.6.D.)

The Judgment creates the "Physical Solution," in which the purpose "is to establish a legal and practical means for making the maximum reasonable beneficial use of the waters of Beaumont Basin, to facilitate conjunctive utilization of surface, ground and Supplemental Waters, and to satisfy the requirements of water users having rights in, or who are dependent upon, the Beaumont Basin. Such Physical Solution requires the definition of the individual rights of all Parties within the Beaumont Basin in a manner which will fairly allocate the native water supplies and which will provide for equitable sharing of costs of Supplemental water." (Amended Judgment, ¶V.1.) It requires flexibility. (Amended Judgment, ¶V.2.) It is to address all production and storage within the Basin. (Amended Judgment, ¶V.3.) "Because the Beaumont Basin is at or near a condition of Overdraft, any Production outside the framework of this Judgment and Physical Solution will potentially damage the Beaumont Basin, injure the rights of all Parties, result in the waste of water and interfere with the Physical Solution." (Ibid.) The Judgment created the Watermaster, who has "discretionary powers to develop and implement a groundwater management plan and program." (Amended Judgment, ¶VI.2.) Except for the overlying parties exercising their rights, "groundwater extractions and the replenishment thereof, and the storage of Supplemental Water, shall be subject to procedures established and administered by the Watermaster." (Ibid.) This includes "[t]he monitoring of groundwater levels, ground levels, storage, and water quality." (Amended Judgment, ¶VI.5.G.) While YVWD asserts that the Judgment did not allow for the creation of Rule 7.3, the Judgment gave the Watermaster broad discretion to implement a groundwater management plan. Rule 7.3 is merely the process. The issue is whether in implementing Rule 7.3 does it currently violate the goals of the physical solution.

"A physical solution is an equitable remedy designed to alleviate overdrafts and the consequential depletion of water resources in a particular area, consistent with the constitutional mandate to prevent waste and unreasonable water use and to maximize the beneficial use of this state's limited resource. (Cal. Const., art. X, § 2.) Courts are vested with not only the power but also the affirmative duty to suggest a physical solution where necessary, and it has 'the power to enforce such solution regardless of whether the parties agree.' " (California American Water v. City of Seaside (2010) 183 Cal.App.4th 471, 480.)

Rule 7.3 provides:

Except as provided for in Section 7.0 herein, to the extent that groundwater pumping by an overlying party to the Judgment does not exceed five times the share of safe yield assigned to the overlying party during any five- year period (see column 4 of Exhibit B to the Judgment), the amount of groundwater not produced by such overlying party pursuant to its rights under the Judgment shall be available for allocation to the appropriator parties in accordance with their respective percentage shares of unused safe yield (see column 3 of Exhibit C to the Judgment). The availability and allocation of any such groundwater not produced by the overlying parties in accordance with their rights under the Judgment shall be first determined in fiscal year 2008/09 and every year thereafter.

...

Groundwater not produced by the overlying parties in accordance with their rights under the Judgment and determined to be available for allocation to the appropriator parties pursuant hereto may be utilized by the appropriator parties in accordance with the terms of the Judgment and these Rules and Regulations. Neither this rule nor its operation shall be deemed or construed in any way to change, limit, or otherwise affect any rights awarded to and held by the overlying parties pursuant to the Judgment. Nor shall this rule or its operation result in any liability to the overlying parties or be deemed or construed as a



transfer, assignment, forfeiture, or abandonment of any overlying rights under the Judgment.

(Zoba Decl., Ex. J.)

Under the Amended Judgment, overlying parties have the right to exercise their overlying rights. (Amended Judgment, ¶¶III.1 and ¶¶III.3.A.) The only limitation is if an overlying party seeks water service from an appropriator party (i.e. the four public entities—City of Banning, BCVWD, SMWC and YVWD ), “an equivalent volume of potable groundwater shall be earmarked by the Appropriator Party which will serve the Overlying Party, up to the volume of the Overlying Water Right...for the purpose of serving the Overlying Party. The intent of this provision is to ensure that the Overlying Party is given credit towards satisfying the water availability assessment provisions of Government Code, Section 66473.7 et seq. and Water Code, Section 10910 et seq. or other similar provisions of law, equal to the amount of groundwater earmarked hereunder.” (Amended Judgment, ¶¶III.3.B.) Both Government Code §66473.7 and Water Code §10910 et seq. require specific water supplies to be identified during specific phases of development. (Preserve Wild Santee v. City of Santee (2012) 210 Cal.App.4th 260, 283.) The Amended Judgment further provides that once the water is earmarked for the appropriator, the overlying party forbears the use of that water, and the appropriator has the right to produce that foregone water of the overlying party. (Amended Judgment, ¶¶III.3.C.)

The Amended Judgment specifically also addresses Oak Valley, which was developing the property. (Amended Judgment, ¶¶III.3.G.) It acknowledged that the future water supply needs will exceed their production. As a result, YVWD asserts that this violates the storage limitations because storage within the Beaumont Basin is limited to supplemental water. (Rule 7.3 Motion, opening memo., p. 11.) Supplemental water is imported water. (Amended Judgment, ¶¶I.3.Z.) The parties are enjoined from storing supplemental water in the Basin for withdrawal, or causing withdrawal of water stored by that party except pursuant to a written groundwater storage agreement with the Watermaster (i.e. “stored water” which is defined as supplemental water stored in the basin pursuant to a groundwater storage agreement with the Watermaster) and in accordance with the Watermaster Rules and Regulations. (Amended Judgment, ¶¶I.3.Y, ¶¶II.2.) Supplemental water not stored pursuant to a Groundwater Storage Agreement is deemed abandoned and not stored water. (Amended Judgment, ¶¶II.2.)

Thus, while the Amended Judgment specifically contemplates storage of supplemental water pursuant to a written agreement and abandoned water, it does not preclude the storage of unused surplus water—it is merely silent. However, as discussed above, the Watermaster has broad discretion to implement a groundwater management plan. The Amended Judgment permits the court “to make such further or supplemental order or directions as may be necessary or appropriate...for interpretation, or enforcement or carrying out of this Judgment, and to modify, amend or amplify any of the provisions of this Judgment or to add to the provisions hereof consistent with the rights herein decreed....” (Amended Judgment, ¶¶IV.) The only limitation to the court’s jurisdiction is a redetermination of the safe yield during the first ten years and the fractional shares of each appropriator. (Ibid.)

YVWD also argues that because the Appropriators are not required to use the reallocated water, it accumulates in their storage accounts and has not been put to benefit use, i.e. an improper stockpile. There is nothing per se improper about carry over surplus water. For example, in Antelope Valley Groundwater Cases (2021) 62 Cal.App.5th 992, 1039-1040 (review denied 7/21/21), the judgment imposed a limitation on transfers of waters, which the appellant contended violated the reasonable and beneficial use requirements because the water was being stored rather than provided to appellant. The court rejected that argument contending that there was evidence that the transfer and storage maximized available water as it was essential in the management of the basin and restore groundwater levels. (Id.) Here, YVWD provides no



evidence that the long-term management of the Beaumont Basin is mismanaging the replenishment of the water. Furthermore, as it is clear from the request for judicial notice, California is currently in a historic drought. While YVWD asserts that this is a red herring, it provides no evidence that in light of the current drought, replenishment and maintaining supplies of water is not reasonable and beneficial to the long term health of the basin.

What YVWD appears to have an issue is that with the accumulation of storage "credits" without a reflection of the actual amount of water stored in the basin since water losses were not accounted. First, YVWD's position is still speculative. While it is no doubt concerning that the Watermaster has not yet determined the rules for what would happen if this occurred, it has yet to occur. Second, it is not clear how storage credits is a terrible solution, when compared to YVWD's solution. YVWD's intent, based on its concurrent motion, is to obtain all of Oak Village's overlay water rights as of now because the development's water usage will increase and cause a financial burden to it. (Zoba Decl. ¶¶20-22, 25.) Either YVWD intends to use all of Oak Village's allotment of 1,398.90 AF now, or seek credit for the unused allotment. Under the latter, it is the same scenario currently in place—with the only distinction is that the credit goes solely to YVWD and not the other appropriators. Under the former, it is not clear to me how this is a reasonable and beneficial use (as will be discussed in regards to the next motion).

There is currently no evidence presented that the other appropriators are using the credits. There is no evidence that the use of storage credits rather than allowing immediate withdrawal of the water is reasonable and beneficial use. As such, YVWD's motion to rescind Rule 7.3 is denied.

As to amending the 2019 Annual Report to Adjust Water Rights

The main issue presented by this motion is whether YVWD is entitled to Oak Valley's full amount of overlying water rights allocation. The parties dispute whether the Amended Judgment provides limitations. While the various opposing appropriator parties contend that there are limitations, quoting various provisions, including: "To the extent any Overlying Party requests, and uses its Exhibit "B", Column 4 water to obtain water service from an Appropriator Party...." (Amended Judgment, ¶III.3.B.) Such limitations do not appear in the Amended Judgment. The Amended Judgment was written broadly to provide flexibility.

The dispute is on the impact of Resolutions 2017-02 and 2019-02. Resolution 2017-02 acknowledged Oak Valley's intent to have its overlying rights listed in parcels to YVWP when water service is provided to those parcels. (Zoba Decl., Ex. E.) The Watermaster approved the transfer of the overlying water rights to the parcels. There is no dispute that YVWP supported this resolution. Zoba, in reply, asserts he interpreted this as overlying rights to be transferred as a group and not specific parcels. (Reply Zoba Decl. ¶7.) However, that does not appear to be a reasonable interpretation because the resolution specifically states, "OVP's property consists of numerous assessor parcels....Section III, 3(G) of the Adjudication [i.e. Judgment] outlines OVP's intended development of its property and specifies the process that OVP may utilize to arrange the transfer of its Overlying Water Rights to particular development parcels eventually to be serviced by one or more retail water service providers upon annexation..." Throughout the resolution, the specific parcels are mentioned by APN numbers. It also provides "Once OVP...secures commitments from the Yucaipa Valley Water District to provide water service to the development phases of the Project, and when water service is provided to the designated Project parcels, then the overlying water rights for those Project parcels shall be transferred to YVWD. YVWD shall report to Watermaster when it has provided retail water service to various properties making up portions of the Project...." Thereafter, YVWD sent letters confirming transfer of the overlying rights based on specific tracts. (Zoba Decl., Ex. G-H.)

In 2019, the Watermaster adopted Resolution 2019-02 which replaced Section 7 of the Watermaster Rules and Regulations, and adopted Form 5. (Zoba Decl., Ex. J.) Rule 7.0 merely reiterates the Judgment, ¶III.3.) When there is an adjustment of rights, Rule 7.1 requires overlying parties and appropriators to file Form 5 with the Watermaster, who then maintains an accounting.

Form 5 merely identifies the overlying party and appropriator, and how much earmarked water is transferred to the appropriator when the overlying party receives service. YVWD asserts that this demonstrates that it is development specific rather than parcel specific, and that there is no discretion on the Watermaster. The Watermaster has broad discretion under the Amended Judgment, and Resolution 2017-2 was never rescinded or modified. The only issue is the discrepancy between Resolution 2017-2 and Form 5, as the latter does not identify parcel numbers and merely indicates service. The lack of clarity in Form 5 does not suggest that the requirements of Resolution 2017-2 were not sufficient. By YVWD's admission, it complied with Resolution 2017-2 up until Form 5 was adopted.

The Amended Judgment provides discretion in the implementation and management of the Physical Solution. Under YVWD's proposed interpretation, as long as it began service anywhere in the development, it is entitled to the entire allotment of Oak Valley's overlying rights even if only a small portion of the land was actually being developed. Water rights, even overlying rights holders, are subject to reasonable and beneficial use. By linking it to the specific parcels, it ensures that the water will be used in a reasonable and beneficial manner.

The Amended Judgment provides that the overlying party's "groundwater shall be earmarked to the Appropriator Party...for the purpose of serving the Overlying Party." (Amended Judgment, ¶III.3.B (emphasis added).) "When an overlying Party receives water service...the Overlying Party shall forebear the use of that volume of the Overlying Water Right earmarked by the Appropriator Party." (Amended Judgment, ¶III.3.C.) Here, YVWD asserts it entered into an agreement with Oak Valley to provide service. (Zoba Decl. ¶¶7-17, Ex. J.) Based on the first sentence, the water earmarked is for the purpose of serving the overlying party, i.e. Oak Valley. YVWD asserts it is entitled to the entire allocation of Oak Valley's water since 10/9/18, i.e. the date it commenced service to Oak Valley. (Zoba Decl. ¶14.) Assuming arguendo that the earmarks are triggered merely by service to the development rather than individual parcels, YVWD fails to demonstrate that the entire 1,398.90 AF could even be used for the Oak Valley development. In 2018 and 2019, only .11 AF and 63.92 AF were used respectively. Even in 2020, only 215.49 AF was used. (Zoba Decl. ¶20.) It is not clear why YVWD would be entitled to use the excess water. The only reasonable explanation is that YVWD intends to use Oak Valley's overlying rights to support the entire district—not just Oak Valley which is a limitation based on the Amended Judgment. YVWD fails to explain how using the entire 1,398.90 AF is reasonable and beneficial when the Oak Valley development does not need the entire amount based on YVWD's own estimate. YVWD's estimates indicate that at most, 2022 may use almost nearly the entire overlying rights water demand, but it is reduced by 2023. (Zoba Decl. ¶20.) While actual use and overlying rights are not the same concept and do not need to be identical, here there are too many concerns to provide the full allotment of Oak Valley's overlying rights to YVWD.

The proposed draft of 2019 Annual Report indicates that the allocations for the four assignments between 2018-2019 total 183.05 AF, which is what YVWD seeks to amend. There does not appear to be reason to amend the report in light of these issues.

**PROOF OF SERVICE**

**STATE OF CALIFORNIA, COUNTY OF ORANGE**

*San Timoteo Watershed Management Authority v. City of Banning, et al.*

Case No. RIC389197

I am employed in the County of Orange, State of California. I am over the age of 18 years and not a party to the within action. My business address is **AlvaradoSmith, 1 MacArthur Place, Santa Ana, CA 92707.**

On September 13, 2021, I served the foregoing document described as **NOTICE OF ENTRY OF ORDER RE YUCAIPA VALLEY WATER DISTRICT'S MOTIONS SEEKING: I) AN ORDER DIRECTING THE BEAUMONT BASIN WATERMASTER TO AMEND THE 2019 ANNUAL REPORT TO ADJUST OAK VALLEY PARTNER LP'S OVERLYING WATER RIGHTS AND YVWD APPROPRIATIVE WATER RIGHTS, AND II) AN ORDER RESCINDING BEAUMONT BASIN WATERMASTER RULE 7.3**

on the interested parties in this action.

☒ by placing the original and/or a true copy thereof enclosed in (a) sealed envelope(s), addressed as follows:

**SEE ATTACHED SERVICE LIST**

☒ **BY REGULAR MAIL:** I deposited such envelope in the mail at 1 MacArthur Place, Santa Ana, California. The envelope was mailed with postage thereon fully prepaid.

I am "readily familiar" with the firm's practice of collection and processing correspondence for mailing. It is deposited with the U.S. Postal Service on that same day in the ordinary course of business. I am aware that on motion of the party served, service is presumed invalid if postal cancellation date or postage meter date is more than one (1) day after date of deposit for mailing in affidavit.

**BY THE ACT OF FILING OR SERVICE, THAT THE DOCUMENT WAS PRODUCED ON PAPER PURCHASED AS RECYCLED.**

☒ **BY ELECTRONIC SERVICE:** Based on a court order or an agreement of the parties to accept service by electronic transmission, I caused the documents to be sent to the persons at the electronic notification address listed in the Service List.

☐ **BY FACSIMILE MACHINE:** I Tele-Faxed a copy of the original document to the above facsimile numbers.

☐ **BY OVERNIGHT MAIL:** I deposited such documents at the GLS Overnight or Federal Express Drop Box located at 1 MacArthur Place, Santa Ana, California 92707. The envelope was deposited with delivery fees thereon fully prepaid.

☐ **BY PERSONAL SERVICE:** I caused such envelope(s) to be delivered by hand to the above addressee(s).

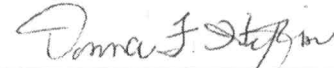
☒ (State) I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

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(Federal) I declare that I am employed in the office of a member of the Bar of this Court, at whose direction the service was made.

Executed on September 13, 2021, at Santa Ana, California.



DONNA F. HEFLIN

## SERVICE LIST

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## **Appendix B**

### **Beaumont Basin Watermaster Minutes for the Regular and Special Committee Meetings held in 2021**

**Record of the Minutes of the  
Beaumont Basin Committee Meeting of the  
Beaumont Basin Watermaster  
Regular Meeting  
Wednesday, February 3, 2021**

**Meeting Location:**

*There was no public physical meeting location due to the coronavirus pandemic.  
Meeting held via video teleconference pursuant to:  
California Government Code Section 54950 et. seq. and  
California Governor's Executive Orders N-29-20 and N-33-20*

**I. Call to Order**

*Chairman Arturo Vela called the meeting to order at 10:01 a.m.*

**II. Roll Call**

<i>City of Banning</i>	<i>Arturo Vela</i>	<i>Present</i>
<i>City of Beaumont</i>	<i>Jeff Hart</i>	<i>Present</i>
<i>Beaumont-Cherry Valley Water District</i>	<i>Daniel Jagers</i>	<i>Present</i>
<i>South Mesa Water Company</i>	<i>George Jorritsma</i>	<i>Present</i>
<i>Yucaipa Valley Water District</i>	<i>Joseph Zoba</i>	<i>Present</i>

*Thierry Montoya was present representing legal counsel for the Beaumont Basin Watermaster (BBWM). Hannibal Blandon and Thomas Harder were present as engineers for the BBWM.*

*Members of the public who registered and / or attended:*

Lance Eckhart, San Geronio Pass Water Agency  
Mark Swanson, Beaumont-Cherry Valley Water District  
Erica Gonzales, Beaumont-Cherry Valley Water District  
Allison Edmisten, Yucaipa Valley Water District  
Luis Cardenas, City of Banning  
Michele Staples  
Steve Anderson  
Jennifer Ayres, Yucaipa Valley Water District  
Steven Lehtonen, San Geronio Pass Water Agency  
Brian Rupp  
Todd Parton, City of Beaumont  
David Fenn, Councilmember, City of Beaumont  
John Ohanian, Oak Valley Partners  
Greg Newmark  
Lloyd White, City of Beaumont  
Loni Granlund, Yucaipa Valley Water District  
John Bakker  
Brandy Llanes, Beaumont-Cherry Valley Water District



Kristine Day, City of Beaumont  
Ashley Gibson  
Larry Smith, San Geronio Pass Water Agency

### **III. Pledge of Allegiance**

*Chair Vela led the pledge.*

### **IV. Public Comments:**

*None.*

### **V. Consent Calendar**

1. Meeting Minutes for December 2, 2020

*It was moved by Member Jagers and seconded by Chair Vela to approve the Meeting Minutes of December 2, 2020:*

AYES:	Hart, Jagers, Jorritsma, Vela, Zoba
NOES:	None.
ABSTAIN:	None.
ABSENT:	None.
STATUS:	Motion Approved

### **VI. Reports**

- A. Report from Engineering Consultant – Hannibal Blandon, ALDA Engineering

*Mr. Blandon recommended including in the annual report a section to document and track the changes that have occurred in previous years.*

- B. Report from Hydrogeological Consultant – Thomas Harder, Thomas Harder & Co.

*Mr. Harder noted he would be reporting later in the meeting.*

- C. Report from Legal Counsel – Thierry Montoya, Alvarado Smith

*Mr. Montoya said that since the last meeting, he had conversations with Michele Staples regarding the water transfer request of Brian Rupp and the I-10 entities, which has now been taken off calendar.*

## VII. Discussion Items

- A. Reorganization of the Beaumont Basin Watermaster Committee – Chairman, Vice Chairman, Secretary and Treasurer

Recommendation: That the members of the Watermaster either reaffirm the existing officers or conduct nominations for the appointment of new officers of the Beaumont Basin Watermaster.

*It was moved by Member Jaggars and seconded by Member Zoba to continue with the current officers:*

- *Chair Arturo Vela*
- *Vice Chair George Jorritsma*
- *Secretary Dan Jaggars*
- *Treasurer Joe Zoba*

*and approved by the following vote:*

AYES:	Hart, Jaggars, Jorritsma, Vela, Zoba
NOES:	None.
ABSTAIN:	None.
ABSENT:	None.
STATUS:	Motion Approved

- B. Status Report on Water Level Monitoring throughout the Beaumont Basin through January 18, 2021

Recommendation: Presentation - No recommendation

*Mr. Bandon reviewed the report and advised the Committee that Yucaipa Well No. 34 experienced a sudden drop in water level likely due to a probe malfunction. A similar drop was recorded at Banning Well M-9, likely due to a communications cable issue, he said. Mr. Jaggars asked Mr. Bandon to document the data discrepancies and to report on the follow up to the repairs.*

*Mr. Bandon advised the Committee that the level logger at Yucaipa Well No. 34 which had disappeared has now been replaced. There are no equipment needs at this time, he said.*

*Mr. Zoba indicated that at Well 34, some of the equipment may have dropped down into the well.*

C. Monitoring Sites – Safety and Security

Recommendation: No recommendation; informational only

*Mr. Blandon explained the parts and workings of the monitoring mechanisms. He provided the Committee with a PowerPoint tour of well locations and reassured that all the locations are very secure.*

*Ms. Jennifer Ayres of YVWD acknowledged the extra security measure at Well 34 to prevent the equipment from falling into the well. She indicated that YVWD may be able to retrieve the other items from the bottom of the well. Mr. Jagers made recommendations.*

D. A Comparison of Production and Allowable Extractions for Calendar Year 2020

Recommendation: No recommendation; informational only

*Mr. Blandon shared the table of Production vs. Allowable Extractions and pointed out the Transfer of Overlying Rights from 2015 of 4,614 acre-feet (AF) and the Transfer of Overlying Rights from Oak Valley Partners to YVWD of 183 AF.*

*Blandon noted due to overproduction of the allowable extractions, 672 AF will have to come from the storage account. Chair Vela explained that historically, the City of Banning had not overproduced its allotment, but this storage impact may be the new norm for the City of Banning as there has been more housing production in the last two months that was seen in the last decade.*

*Production of 16,725 AF by appropriators in 2020 is the highest production in the Basin in recent years, Blandon stated. Mr. Jagers reminded that BCVWD has validated numbers for production from wells co-owned with the City of Banning and those numbers will be forthcoming. Mr. Blandon confirmed that the adjustments will be reflected in this table, but the overall production will be the same.*

*Member Zoba pointed out that the table reflects a new concept. He said he had always seen the Watermaster as the accounting entity for reporting water in and water out at the end of the year. He said the table seems to imply that the transfer of overlying water rights from 2015 are actually the water utilized in 2020. He said he did not recall the Committee setting that forth as a policy and noted that it impacts the storage account.*

*Mr. Blandon pointed to the last item on the agenda (proposed Resolution 2021-01) and said this has been a carry-on since the beginning; in which underproduction by overliers is distributed among the various agencies. The annual report documents it back to 2004, with implementation for 2009 continuing to this day, Blandon explained.*

*Member Zoba asked if it was a policy of the Committee indicating it had agreed that the right is being consumed straightaway in the year that it is received – five years after the overliers do not use it. Mr. Blandon reiterated it has been like this since the beginning. Member Zoba responded that this table is only a couple of years old.*

*Chair Vela indicated that Member Zoba had made a good point that the 183 acre-feet inclusion in the table reflects the transfer but does not necessarily reflect the extraction of that water. Mr. Blandon explained he had developed the table about two and a half years ago to give appropriators an idea of where they are throughout the year. Mr. Blandon said the initial table did not include the lines related to the 183 acre-feet, or the storage impact line in the initial table as those items were not previously at issue.*

*Mr. Zoba suggested a table or discussion that tabulates the accrual of overlying water rights and consumption versus other stored water in the agencies' storage accounts. He noted that consumption is not broken out from storage, which implies that water is being utilized in the year it is received by the appropriator. Mr. Blandon explained the inclusion of the transferred overlying rights and storage impact lines and disagreed that the Table implied the water was actually consumed, which would be impossible to determine. The Table indicates how the storage accounts are closed at the end of the year, he said.*

*The table included in the Annual Report is different and summarizes this on a year-by-year basis, and calculates what the ending storage should be, Blandon continued. Member Zoba suggested future discussion on how the water is used at the storage accounts. He suggested that with overlying rights and unused overlying water rights transferred in, and the addition of supplemental water, that this is not put into a general fund and consumed in whatever proportions, but instead showing where the water is coming in and creating a table that shows from where the appropriators are pulling that water to better track what is happening in the basin and what supplies exist, where they exist from, and how that fits into the judgment.*

*Chair Vela pointed to the Facts About the Beaumont Basin Watermaster that had been included in previous agendas and Member Zoba said he would include it in the next packet.*

*Mr. Blandon said he was surprised by the higher production and shared a comparison of prior years. The 2020 production of 16,725 was the highest on record, he noted, and acknowledged Member Jaggers' point that it was probably significantly related to the fact that people are at home as the result of COVID-19. Mr. Jaggers added that there was a significant amount of grading going on for home sites, which is a one-time use of water and is not a long-term projection.*

E. Task Order No. 17 – Progress Report

Recommendation: Presentation - No recommendation

*Mr. Tom Harder provided brief background on the proposed amendment to Return Flow Methodology and addressed the comments received. He detailed the uncertainty in indoor/outdoor water use and recommended the continued use of the methodology described in the draft Technical Memorandum. He noted that the impacts will average over time and said he did not recommend accounting for sewer pipeline losses as the estimates vary widely and there is not a method available to quantify those losses.*

*Mr. Harder also posited that water use efficiency will be reflected in the ratio of delivered water to the wastewater treatment plant inflows. If there is less irrigation, then indoor water use will more closely match what is delivered to the treatment plant.*

*Harder described additional studies of the City of Banning and YVWD and explained the re-evaluation of landscape irrigation efficiency, recommending use of the single 75 percent efficiency value.*

*Member Zoba requested the opinion of engineers and legal counsel on the relationship to the judgment regarding which agency receives the return flow credit and why in order to produce policy.*

*Chair Vela asked about opportunity to fine-tune outdoor use estimates given the current ongoing work on Department of Water Resources residential landscape area measurement. Mr. Harder cautioned that with too much detail, uncertainty could become too great and the numbers meaningless, and said he would have to see what was proposed. Member Jaggers pointed to Beaumont's landscape ordinances and noted that there will be change over time. He said he would share data sets with this information.*



F. 2019 Task Order No. 22

Recommendation: No recommendation; informational only

*Mr. Harder reminded the Committee that the Board authorized ALDA to conduct an analysis of the potential impacts of return flow on groundwater quality in the Beaumont Basin, focused on total dissolved solids (TDS) or salts. He explained the analysis process and noted that the water quality in the Basin is very good with all wells in the range of 250 to 330 milligrams per liter (mg/L) which is low, and historically has changed very little.*

*Considered in the analysis was the exception of BCVWD Well No. 16 at the north part of the Basin in an area of active individual sewer systems, known to have impacted the groundwater quality, Harder stated.*

*Harder presented the preliminary water quality results and explained the projections. Basin-wide, he advised, the average is not projected to reach the 330 mg/L maximum benefit objective. Member Jaggars clarified that the septic system contribution to the groundwater basin around well No. 16 is what is exceeding the maximum objective. BCVWD is still extracting water and it is still within the drinking water standards, he stated. Harder agreed.*

*Member Zoba suggested that an agency credited with the return flow should absorb the liability of salt removal and make a contribution to maintain the TDS of the Basin to achieve the Basin Plan Objective. He suggested this would demonstrate to the Regional Water Quality Control Board that the Beaumont Basin is ahead of the curve in attaining the Maximum Benefit Objectives. He recommended keeping this concept together with the return flow analysis rather than just looking at the volume of wet water.*

*Member Jaggars agreed with Member Zoba and suggested attuned treatment to blend to a point of non-negative balance. He noted that each district recharges in the area differently and BCVWD is bringing in a salt-balancing component via imported water from a Basin-blended perspective.*

*Chair Vela acknowledged the relationship of the two task orders and asked about time frame for completion. Mr. Harder estimated that the Technical Memorandum would be finalized, or at least another draft ready, by the end of February to inform any potential policy concerns.*

G. 2019 Revised Draft of the Beaumont Basin Watermaster Annual Report

Recommendation: No recommendation.

*Mr. Jagers made a point of order indicating that a communication from YVWD related to the 2019 Revised Draft was made available to the Board members but not made available to the public in potential violation of the Brown Act. Legal Counsel Montoya agreed and recommended it be re-agendized.*

Chair Vela tabled the 2019 Revised Draft of the Beaumont Basin Watermaster Annual Report to a special meeting on February 18, 2021 at 10 a.m.

H. Discussion Regarding Task Order No. 23 with ALDA Inc. for the Preparation of the 2020 Consolidated Annual Report, Estimate of the Basin Safe Yield, Update of the Groundwater Model, and Associated Consulting Services for 2021

Recommendation: That the Watermaster authorizes up to 90 percent of the initial budget of \$95,970 and uses the remaining 10 percent as a contingency.

*Engineer Blandon reminded the Committee of discussion at the December 2, 2020 meeting and concerns raised about the cost. He explained the activities included at the same fee since 2017.*

*In the last few years, actual expenditures for similar tasks averaged 90 percent of the budget, Blandon explained. He recommended the Committee authorize up to 90 percent of the budget and use the remaining amount as contingency. Chair Vela indicated support.*

*It was moved by Member Jagers and seconded by Member Jorritsma authorizing up to 90 percent of the initial budget of \$95,970 and use of the remaining 10 percent as a contingency as outlined in Memorandum 21-08. The motion was approved by the following vote:*

AYES:	Hart, Jagers, Jorritsma, Vela, Zoba
NOES:	None.
ABSTAIN:	None.
ABSENT:	None.
STATUS:	Motion Approved

- I. Consideration of Resolution 2021-01 Amending Section 7 of the Rules and Regulations of the Watermaster by eliminating Rule 7.3<sup>1</sup> Availability of Unused Overlying Production and Allocation to the Appropriator Parties

Recommendation: That the Watermaster Committee adopts Resolution No. 2021-01.

The Resolution was NOT adopted.

*Member Joe Zoba advised that the retailers in the San Geronio Pass Water Agency are beginning to develop the Regional Urban Water Management Plan that is due later this year and have been asked to look at ways to reduce reliance on the Delta.*

*In 2008, the Watermaster Committee approved Rule 7.8 to lay claim to unproduced groundwater from the overlying parties and allocating that water supply to the appropriators, Zoba explained. Water not used by an overlier, five years later gets distributed per the allocation table.*

*Zoba expressed concern that there is claim to groundwater supplies that is increasing. He reminded the Watermaster Committee that that there has been previous discussion about transfer and acquisition of overlying water rights. He read from Rule 7.8:*

*Neither this rule nor its operation shall be deemed or constructed in any way to change, limit or otherwise affect any rights awarded to and held by the overlying parties pursuant to the Judgment. Nor shall this rule or its operation result in any liability to the overlying parties or be deemed or construed as a transfer, assignment, forfeiture, or abandonment of any overlying rights under the Judgment.*

*Mr. Zoba opined that the Committee has seen some of that in past discussions and said the application of the rule concerns him from an application and use perspective. He pointed to the staff report of September 9, 2008 and pointed out there were last minute changes as recommended by Best Best & Krieger (BB&K), counsel for the overlying parties, regarding the change of the word "transfer" to "allocate" throughout.*

*He pointed out that via allocation using the table in Rule 7.8, there is now close to 90,000 AF of water in the Basin that has been claimed through this methodology, waiting to be extracted by the appropriators,*

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<sup>1</sup> Resolution 2019-02 modified the Rules and Regulations of the Beaumont Basin Watermaster resulting in a numbering change of former Rule 7.8 to current Rule 7.3.

*but the water levels are not going up. He questioned whether there would be adverse impacts as each one of the appropriators tries to extract the water to meet future demands.*

*Zoba presented four charts of unused overlying water and indicated concern that if no additional water were added, by 2022 the full storage account could theoretically be made up of the unused overlying water right. He suggested that Rule 7.8 as now stated should be rescinded as it does not serve its purpose and is not consistent with the Judgment, and said he is concerned with the overall operational health of the Basin.*

*Mr. Zoba made the motion to adopt Resolution 2021-01. Member Hart requested legal counsel input.*

*Counsel Thierry Montoya indicated he had no concern with the legality of Rule 7.8 or 7.3: an appropriative right, as a matter of law, is limited to what is surplus in the Basin, he explained. An overlying party does not necessarily lose its overlying right but can lose amounts of water not pumped, which then go to the appropriators based on their allocation. That is legal, he advised, and is consistent with the purpose and intent of the Judgment. The purpose of the Judgment is to have a legal and practical means for making maximum, reasonable beneficial use of the Beaumont Basin for the benefit of all of those who have rights, he stated. Rule 7.8 was vetted by the public as noted and commented on by Pater Garcia of BB&K, and there has been no overlying party objection, Montoya continued.*

*Mr. Montoya reminded the Committee about an ad hoc group meeting two years ago to go over the rules and regulations, and modifications were presented to the Watermaster noting that all were of the opinion that it was consistent with the Judgment. Mr. Montoya added that he is still of the opinion that Rule 7 is consistent with the Judgment and explained it is consistent with water rights law. He said he sees no harm to the Basin and said he did not concur with the recommendation. Montoya further stated that he did not think that anything improper had happened, and the appropriator should continue to have the right to pick up surplus to the extent that it exists and to put it to use.*

*Member Jorritsma asked how the original 160,000 AF of temporary surplus under the Judgment relates to the current question and reflects on the charts provided by Member Zoba. Member Zoba referred to the table 3-8 tracking the additions to the storage accounts and noted that it was mentioned earlier that extractions (i.e., the water being consumed) are not tracked. Overliers will lose their water and it is claimed by the appropriators after five years, but there is no tracking or demonstration that shows it is being put to beneficial use, Zoba noted. He asked why the overliers lose this after five years but there is no similar rule for the appropriators who are not putting the water to*

*beneficial use? The temporary surplus was a separate item, Zoba said, but similarly was not tracked for beneficial use or if it is still in storage accounts at all.*

*Chair Vela suggested that the table accounting for each agency's production is tracking beneficial use. Zoba responded that the increase in the storage accounts is largely associated with the unused overlying water rights so that if the water was being used, there would not be 90,000 AF in storage. A positive number remaining over the years means it is not being put to use, he opined. Member Zoba added that he believes the water is not being tracked appropriately to be able to make statements about putting water to beneficial use and about some people losing water and others not losing water.*

*Chair Vela posited that the amount of unused overlying water right moving into the future is going to be less than today as transfers move forward due to overlying water right transfers. Mr. Zoba said he agreed in theory. He said he believes that the filing of the Form 5 by Oak Valley Partners is consistent with the Judgment and should be removed from the table but is instead allocated to the other appropriators. Member Jagers pointed out the analysis is over simplistic and pointed to the Urban Water Management Plan. He said this table allows for the Basin to be understood moving through time to assure there is not more extraction. Jagers indicated that his thoughts parallel those of Mr. Montoya.*

*Member Jagers made an alternative motion to reject Resolution 2021-01 based on legal counsel's recommendation.*

*Chair Vela pointed out there are many unknowns not reflected in the graphs such as development trends.*

*Chair Vela invited public comment.*

*City of Beaumont Councilmember David Fenn said he believes that unused water from the Basin should continue to be allocated back to the other overlayers within the Basin with the purpose that Basin water should be used within Basin boundaries only. As a Beaumont resident, he continued, he is concerned that any water from the Basin could ultimately end up being used outside of the boundaries and that could cause problems with sustainability. He said he agreed with counsel and suggested that if it were to move forward, there should be additional information and research done, and perhaps discussion with water rights owners to assure parallel with the adjudication and if changes made may open up that adjudication for other changes. He recommended following the advice of counsel and not delete Rule 7.3.*



*Mr. Harder said that as a hydrogeologist and from a water balance perspective, Mr. Zoba has brought up some good points, one that has been on his mind for quite a while. The annual reports look at physical storage in the Basin and indicated concern with comparing what is physically changing in the Basin with what is actually going on paper in terms of storage accounts. Additionally, water losses are not accounted for, he pointed out. He said he pictures this as a "run on the bank" where all the water was removed. He wondered what would happen physically in the basin if everybody drew their storage accounts to zero and if there would be undesirable results. He explained that potential adverse circumstances should be thought about so as to be avoided. Mr. Harder also noted that while current groundwater levels in the Basin are stable and going up, they are not going up commensurately with artificial recharge and accounting for storage accounts.*

*Mr. Blandon said his thoughts are aligned with Mr. Harder's and acknowledged Mr. Zoba's point in terms of whether the storage accounts are real water. He said that he and Mr. Harder had discussed this issue in terms of storage losses. He pointed out that the issue of accounting for water storage losses as a result of imported water spreading has been a "future agenda item" for two years but hasn't been addressed. It is a delicate issue because it implies loss of water which was paid for, he noted, but the issue of overlying transfers combined with the issue of storage losses is an issue that must be addressed sooner or later and must be faced by the Basin managers because the water may not physically be there. He wondered if the basin would be impacted negatively.*

*Mr. Montoya referred to comments by Councilmember Fenn and said he did not think the Judgment would accommodate a use outside of the Basin boundaries. Pursuant to the Judgment, if there was an attempt to do that, it could be enjoined, he opined.*

*Chair Vela acknowledged Member Zoba's point and indicated this is something at which the Committee should continue to look, but at this point it is not appropriate to jump to approval of the resolution relating to elimination of the Rule as a whole.*

*It was moved by Member Zoba to adopt Resolution 2021-01 Amending Section 7 of the Rules and Regulations of the Watermaster by eliminating Rule 7.3 Availability of Unused Overlying Production and Allocation to the Appropriator Parties. The motion died for lack of a second.*

#### *Alternative Motion*

*It was moved by Member Jagers and seconded by Member Hart to reject Resolution 2021-01 Amending Section 7 of the Rules and*

*Regulations of the Watermaster by eliminating Rule 7.3 Availability of Unused Overlying Production and Allocation to the Appropriator Parties. The motion was approved 4-1 by the following vote:*

AYES:	Hart, Jaggars, Jorritsma, Vela
NOES:	Zoba
ABSTAIN:	None.
ABSENT:	None.
STATUS:	Motion Approved

*Resolution 2021-01 was NOT adopted.*

#### **VIII. Topics for Future Meetings**

- a. Development of a methodology and policy to account for groundwater storage losses in the basin resulting from the artificial recharge of water resources.
- b. Development of a methodology and policy to account for recycled water recharge.
- c. Develop policies and procedures to formalize the process for agenda preparation.
- d. 2020 initial draft Annual Report (April 7, 2021)

#### **IX. Comments from the Watermaster Committee Members**

*None.*

#### **X. Announcements**

- a. The next regular meeting of the Beaumont Basin Watermaster is scheduled for Thursday, February 18, 2021 at 10:00 a.m.
- b. Future Meeting Dates:
  - i. Wednesday, April 7, 2021 at 10:00 a.m.
  - ii. Wednesday, June 2, 2021 at 10:00 a.m.
  - iii. Wednesday, August 4, 2021 at 10:00 a.m.
  - iv. Wednesday, October 6, 2021 at 10:00 a.m.
  - v. Wednesday, December 1, 2021 at 10:00 a.m.

## **XI. Adjournment**

*Chairman Vela adjourned the meeting at 12:15 p.m.*

Attest:



Daniel Jaggers, Secretary  
Beaumont Basin Watermaster

**Record of the Minutes of the  
Beaumont Basin Committee Meeting of the  
Beaumont Basin Watermaster  
Special Meeting  
Thursday, February 18, 2021**

**Meeting Location:**

*There was no public physical meeting location due to the coronavirus pandemic.  
Meeting held via video teleconference pursuant to:  
California Government Code Section 54950 et. seq. and  
California Governor's Executive Orders N-29-20 and N-33-20*

**I. Call to Order**

*Chairman Arturo Vela called the meeting to order at 10:00 a.m.*

**II. Roll Call**

<i>City of Banning</i>	<i>Arturo Vela</i>	<i>Present</i>
<i>City of Beaumont</i>	<i>Jeff Hart</i>	<i>Present</i>
<i>Beaumont-Cherry Valley Water District</i>	<i>Daniel Jagers</i>	<i>Present</i>
<i>South Mesa Water Company</i>	<i>Dave Armstrong</i>	<i>Present</i>
<i>Yucaipa Valley Water District</i>	<i>Joseph Zoba</i>	<i>Present</i>

*Thierry Montoya was present representing legal counsel for the Beaumont Basin Watermaster (BBWM). Hannibal Blandon was present as engineer for the BBWM.*

*Members of the public who registered and / or attended:*

*Lance Eckhart, San Geronio Pass Water Agency  
Mark Swanson, Beaumont-Cherry Valley Water District  
Erica Gonzales, Beaumont-Cherry Valley Water District  
Jennifer Ares, Yucaipa Valley Water District  
Robert Vestal, City of Beaumont  
Bryan Brown  
Greg Newmark  
Logan Largent  
Madeline Blua  
Mike Kastelecky  
Thaxton Van Belle, City of Beaumont*

**III. Pledge of Allegiance**

*Chair Vela led the pledge.*

**IV. Public Comments: None.**

## **V. Consent Calendar**

1. Meeting Minutes for February 3, 2021

*BBWM Secretary Dan Jagers reported that comments on the minutes were received and recommended continuance of this item to the next meeting. The item was continued to the next meeting.*

## **VI. Reports**

- A. Report from Engineering Consultant – Hannibal Blandon, ALDA Engineering

*Mr. Blandon reported that the water level probes at YVWD No. 34 and Banning M9 were replaced as discussed at the last meeting and are now working fine.*

- B. Report from Hydrogeological Consultant – Thomas Harder, Thomas Harder & Co.

*No report.*

- C. Report from Legal Counsel – Thierry Montoya / Keith McCollough - Alvarado Smith

*Mr. Montoya reported that he provided an opinion to Mr. Jagers to ensure that requirements of the Brown Act are being met regarding documents available to the public.*

## **VII. Discussion Items**

- A. 2019 Revised Draft of the Beaumont Basin Watermaster Annual Report – Presentation of Comments

Recommendation: That the Watermaster Committee approve the Revised Draft of the 2019 Annual Report

*Member Jagers pointed to the report section on Comments by the YVWD, and expressed concern that some of the referenced attachments to Mr. Zoba's February 1, 2021 letter were not available to the public on the website. Member Zoba indicated the draft minutes are available in the meeting packets and are posted to the website once approved. He noted that in addition to YVWD, other agencies provided comments which were summarized by Mr. Blandon in Memorandum 21-12.*

*Mr. Blandon clarified that the attachments represented 168 pages and made the file too large to email, hence the reference to the BBWM website. Member Jagers stated for the record that the August 27, 2020 draft special meeting minutes and the October 7, 2020 draft meeting*



*minutes are attached to the December 2, 2020 agenda packet; and the December 2, 2020 draft meeting minutes are attached to the February 3, 2021 packet.*

*In response to Mr. Jagers, Member Zoba indicated that he was confident that accurate draft minutes were included in the packets and were provided to the public. Mr. Montoya stated that if the documents are publicly available, the Brown Act requirements have been met. He advised that the YVWD comments and letter in entirety is part of the record. He suggested using a BBWM DropBox account and providing a link and recommended full and complete attachments as part of the meeting materials. Mr. Zoba suggested attaching all agencies' comments to the annual report to build an administrative record. Mr. Jagers indicated he was satisfied that the Brown Act requirements have been met and Counsel Montoya concurred. Engineer Blandon advised that he will now include relevant pages related to comments received.*

*Mr. Blandon provided an overview of documentation and concerns about the transfer of the Oak Valley Partners, L.P. (OVP) 183.5 acre-feet of overlying water rights to YVWD in 2018 and 2019 as addressed in the Revised Draft Report dated December 12, 2020. He noted that the OVP transfer to YVWD available for 2019 remained as initially documented in the initial draft.*

*Comments were received on the Revised Draft, Blandon noted, and were categorized as related or unrelated to Annual Report Section 3.4.2. He highlighted the comments unrelated which were storage issues, the Basin southern boundary, and changes in production numbers for Banning C4 and BCVWD deliveries allocated to Banning in 2018 and 2019.*

*Blandon reviewed Production Tables and pointed out a discrepancy of less than 1 acre-foot between the numbers submitted by BCVWD and Banning, which will be addressed in the next few days. The changes affect storage balances, he explained, and reviewed the Storage Summary for 2019.*

*Mr. Blandon detailed comments related to Section 3.4.2 provided by the City of Beaumont, City of Banning, BCVWD and YVWD and explained the edited Report. Transfers of overlying rights from OVP to YVWD available for 2019 remained as initially documented in the initial draft at a combined total of 183.05 acre-feet, he stated. All meeting minutes for 2019 plus a copy of the Form 5 will be included in the Report, Blandon noted.*

*Mr. Blandon summarized comments submitted by Member Zoba (YVWD) and detailed ALDA's responses. He opined that consistent with the approval of the 2018 Annual Report, the Watermaster Committee should*

*consider approving the 2019 Annual Report based on the documentation of 183.05 acre-feet of overlying rights transferred from OVP to YVWD during 2018 and early 2019. He noted that the discussion of YVWD's submittal of the Form 5 and the transfer of all OVP's rights to YVWD is yet to be resolved, and suggested that upon resolution, adjustments may be made to the 2018 and 2019 annual reports if needed.*

*Blandon explained there are two competing and mutually exclusive positions and requested guidance from the Committee to complete the report.*

*Member Zoba pointed to Rule 7.1, the submission of Form 5, and the documentation from OVP indicating forbearance of the production of the water and suggested the Annual Report allocates the overlying water that was acquired by YVWD to a category of unused overlying water rights that is not in the judgment. He suggested ALDA take a fresh look despite ongoing discussion, and indicated concern that documentation is not being followed and action is inconsistent with the Rules and Regulations. Zoba advised that he believes it is wrong that the Watermaster would consider a report that does not adequately transfer the water rights from OVP to YVWD when YVWD has followed all rules but is held up by ongoing discussion of the Watermaster Committee.*

*Mr. Blandon reminded the Committee of discussion related to the approval of the 2018 Annual Report. He noted that there is disagreement between the parties and that guidance, and the approval of the Report must be provided by the Committee.*

*Member Jagers opined that the 2019 Annual Report is consistent with the Rules and Regulations of the Beaumont groundwater basin and with Resolution 2017-02, and the activities of 2019 are fairly and accurately represented other than the minor discrepancy between the production reporting between BCVWD and the City of Banning.*

*Chair Vela acknowledged that Engineer Blandon is caught in the middle and that he has done a good job of revising the Annual Report per direction received from the Committee. There has been extensive discussion and it will continue until the issue is worked out, he said, and concurred that the 2019 Annual Report is accurate.*

*Member Armstrong indicated that Counsel Montoya's advice has been followed and agreed with moving forward.*

*It was moved by Member Jagers and seconded by Member Armstrong to approve the 2019 Revised Draft of the Beaumont Basin Watermaster Annual Report with de minimus changes related to the storage accounts of the Beaumont-Cherry Valley Water District and the City of Banning. The motion was approved by the following roll-call vote:*

AYES:	Hart, Jagers, Armstrong, Vela
NOES:	Zoba
ABSTAIN:	None.
ABSENT:	None.
STATUS:	Motion Approved 4-1

#### **VIII. Topics for Future Meetings**

- a. Development of a methodology and policy to account for groundwater storage losses in the basin resulting from the artificial recharge of water resources.
- b. Development of a methodology and policy to account for recycled water recharge.
- c. Amendment to the Rules and Regulations for addition of a policy and procedure for adding agenda items
- d. Addition of one monitoring well south of the Basin, and one north of the Basin as part of water loss monitoring

#### **IX. Comments from the Watermaster Committee Members**

*Member Hart requested a list of open contracts and a project accounting.*

*Member Hart asked about filing of the Annual Report. Mr. Blandon explained that the report had been significantly delayed due to COVID-19 issues. Copies are submitted to all members and to legal counsel, and it is filed with the Riverside County Court. A report consisting of total Basin production, total amount of imported water, and change in storage is filed with the Department of Water Resources.*

*In response to Member Hart, Member Zoba explained that financial records are maintained by YVWD and BCVWD has copies of the contracts. He said he would provide a report at the next meeting.*

#### **X. Announcements**

- a. The next regular meeting of the Beaumont Basin Watermaster is scheduled for Wednesday, April 7, 2021 at 10:00 a.m.

b. Future Meeting Dates:

- i. Wednesday, June 2, 2021 at 10:00 a.m.
- ii. Wednesday, August 4, 2021 at 10:00 a.m.
- iii. Wednesday, October 6, 2021 at 10:00 a.m.
- iv. Wednesday, December 1, 2021 at 10:00 a.m.

**XI. Adjournment**

*Chairman Vela adjourned the meeting at 11:06 a.m.*

Attest:

  
Daniel Jagers, Secretary  
Beaumont Basin Watermaster

**Record of the Minutes of the  
Beaumont Basin Committee Meeting of the  
Beaumont Basin Watermaster  
Regular Meeting  
Wednesday, April 7, 2021**

**Meeting Location:**

*There was no public physical meeting location due to the coronavirus pandemic.  
Meeting held via video teleconference pursuant to:  
California Government Code Section 54950 et. seq. and  
California Governor's Executive Orders N-29-20 and N-33-20*

**I. Call to Order**

*Chairman Arturo Vela called the meeting to order at 10:00 a.m.*

**II. Roll Call**

<i>City of Banning</i>	<i>Arturo Vela</i>	<i>Present</i>
<i>City of Beaumont</i>	<i>Jeff Hart</i>	<i>Present</i>
<i>Beaumont-Cherry Valley Water District</i>	<i>Daniel Jagers</i>	<i>Present</i>
<i>South Mesa Water Company</i>	<i>George Jorritsma</i>	<i>Present</i>
<i>Yucaipa Valley Water District</i>	<i>Joseph Zoba</i>	<i>Present</i>

*Thierry Montoya was present representing legal counsel for the Beaumont Basin Watermaster (BBWM). Hannibal Blandon and Thomas Harder were present as engineers for the BBWM.*

*Members of the public who registered and / or attended:*

Lance Eckhart, San Geronio Pass Water Agency  
Mark Swanson, Beaumont-Cherry Valley Water District  
Erica Gonzales, Beaumont-Cherry Valley Water District  
Jennifer Ares, Yucaipa Valley Water District  
Dave Armstrong, South Mesa Water Company  
Lonni Granlund, Yucaipa Valley Water District  
Logan Largent  
Joyce McIntire  
Allison Edmisten, Yucaipa Valley Water District  
John Covington, Beaumont-Cherry Valley Water District / Morongo Band of Mission Indians  
Kyle Warsinski, City of Beaumont  
James Bean, Beaumont-Cherry Valley Water District  
Michele Staples

**III. Pledge of Allegiance**

*Chair Vela led the pledge.*

#### **IV. Public Comments:**

*None.*

#### **V. Consent Calendar**

1. Meeting Minutes for October 7, 2020
2. Meeting Minutes for February 3, 2021
3. Meeting Minutes for February 18, 2021

*It was moved by Member Zoba and seconded by Member Hart to approve the Meeting Minutes.*

AYES:	Hart, Jaggars, Jorritsma, Vela, Zoba
NOES:	None.
ABSTAIN:	None.
ABSENT:	None.
STATUS:	Motion Approved

#### **VI. Reports**

- A. Report from Engineering Consultant – Hannibal Blandon, ALDA Engineering

*Mr. Blandon reported that the 2019 Annual Report was approved at the last meeting, and differences between the water transfer from BCVWD to the City of Banning has been addressed and the final report will be submitted to Mr. Zoba for uploading to the BBWM website by this Friday.*

- B. Report from Hydrogeological Consultant – Thomas Harder, Thomas Harder & Co.

*Mr. Harder said he will be providing an update later in the meeting.*

- C. Report from Legal Counsel – Thierry Montoya, Alvarado Smith

*Mr. Montoya advised of a conversation with Michele Staples related to the parcel gifted to the Beaumont-Cherry Valley Recreation and Parks District, and whether its well could be used to provide water for grading on the adjacent parcel. Generally speaking, entities can lease their water rights to another party, he said, and noted that he asked Ms. Staples to put the request in writing.*

*In response to Chair Vela, Mr. Montoya indicated this may not be something in which the Watermaster would need to be involved since it is not a water transfer. Mr. Jaggars pointed out that an overliar leasing rights to a non-overliar / non-appropriator parcel may have ramifications.*



## VII. Discussion Items

### A. Certification of Groundwater Production and Imported Water Use during Calendar Year 2020

Recommendation: That the Watermaster Committee certify groundwater production, imported water spreading, and change in storage in the Beaumont Groundwater Basin during Calendar Year 2021.

Engineer Hannibal Blandon reminded the Committee that the Final Groundwater Production and Imported Water and Water Use for 2020 is required to be filed with the State by April 1. Because that is not possible, a letter has been written documenting the groundwater production of 18,600, 14 acre-feet of which is unmetered, and a total of 11,469 acre-feet (af) imported in 2020. Total water use in the Basin was 18,636 af and a negative change in storage of 5,577 af, he noted.

Member Jagers confirmed that the report was uploaded to the State on April 1. A copy of the final annual report must be certified and submitted later in the year, Blandon advised.

*It was moved by Member Jagers and seconded by Member Jorritsma to certify groundwater production, imported water spreading, and change in storage in the Beaumont Groundwater Basin during Calendar Year 2021 and approved by the following vote:*

AYES:	Hart, Jagers, Jorritsma, Vela, Zoba
NOES:	None.
ABSTAIN:	None.
ABSENT:	None.
STATUS:	Motion Approved

### B. Presentation of the 2020 Consolidated Annual Report and Engineering Report

Recommendation: That the Watermaster Committee consider approving the Draft Report depending on the nature of the comments.

*Mr. Blandon reviewed the report. No resolutions were adopted in 2020, he noted. He described historical precipitation in the Basin with an average of 13.97 inches per year between 1996 and 2020, compared to the hundred-year average of 17.04. Blandon compared annual production in 2020 to the 2016-2020 average for each appropriator,*

*noting total production was 17.2 percent higher than the five-year average and was the highest on record.*

*Blandon noted that overliers produced 138 af less than the average between 2016-2020 and there is a continued downward trend. The overliers have been producing on average 30.6 percent of the overlying right. None of the overliers are close to producing 100 percent of their right, and their 2020 production was the lowest on record, he said.*

*The City of Banning, BCVWD and SGPWA imported 11,469 af in 2020, for an overall running total in excess of 126,000 af since 2003, Blandon reported.*

*Recycled water recharge from the City of Beaumont Wastewater Treatment Plant shows a continued increase to an annual total of 4,305 af, Blandon explained. All discharge has been to Coopers Canyon.*

*In 2020, Blandon continued, there were no transfers of water between appropriators. Allocated conversion of underproduction to 2020 from 2015 was 4,614 af, he noted. Under Resolution 17-02, the conversion of Oak Valley Partners LP (OVP) overlying right to YVWD started in 2018, continued in 2019, but there are no conversions for 2020 at this point, Blandon said.*

*A total of 183.05 af have been transferred from OVP to YVWD, Blandon stated, and cited Section 3.4.2, the stipulated judgment, Resolution 17-02, CY 2020 meeting minutes and the Form 5 submitted on Nov. 19, 2019 by YVWD.*

*Blandon reviewed the 2020 production vs allowable extractions and noted that total production exceeded the amount of storage by 673 af. Member Zoba clarified that on a calendar year basis YVWD had not produced more than allowed. He suggested adding a row to the table to indicate storage account balances.*

*Blandon presented the 2020 storage balance and noted that overall, the storage decreased by 458 af. Chair Vela pointed out differing numbers for the City of Banning; Mr. Blandon indicated it is a rounding issue – probably about 1/10<sup>th</sup> acre-foot. Overall, water in storage accounts equals 40.5 percent of total potential storage, he said. In 2020, 4,606 af of unused overlying water rights were distributed among the agencies from 2015 according to the percentages provided in the judgment, Blandon reported.*

*Engineer Thomas Harder gave a presentation on the operating safe yield including flow patterns and changes in groundwater levels. He estimated that overall, the basin lost about 5,577 af of storage from 2019-2020, which is the largest drop in storage on a year over year basis. The effects*

*of the dry period are being felt in the basin, he added. Member Jagers pointed out that BCVWD pumping affects the groundwater levels.*

*Mr. Harder stated that this basin is by no means in overdraft. These are temporary changes in groundwater levels; the long-term trend is still relatively stable, he said, but the effects of drought are being seen. He explained the calculation of the 2020 estimated operating safe yield of 1,590 af which is the lowest seen in the last 10 years, primarily due to the relatively large negative change in storage.*

*Mr. Blandon reviewed the water quality evaluation, noting that no primary standards were exceeded. He recommended the Committee develop a policy to account for groundwater storage losses, new yield, and recycled water recharge, develop a protocol to increase accuracy and consistency of data reporting, and file the annual reports with the Court.*

*Member Zoba noted that the customers within the adjudicated area of the overlying water rights of OVP have now exceeded the 183 af as referenced in the report and has climbed to 215. He said he anticipates this will continue to climb, and asked how Blandon anticipates incorporating that data from 2020 into the report. Blandon noted he had not before heard this information, and said that based on Resolution 17-02, OVP has transferred 183.05 and that the issue of the Form 5 continues to be debated, he would have to say that it is 183.05. Zoba said he would provide written documentation for consideration.*

*Chair Vela asked that if the transfer had been exceeded, would the overage not come from another source of supply. Zoba said it is an issue of OVP not producing any water but is now being made up by appropriate use over those same parcels.*

*Jagers said there have been submittals in the past from new tracts developing and transfer of those overlying rights, and suggested clarification of the actual production in the previously transferred areas more than was transferred, or whether there are new areas that are also in the overall consumption area. Zoba said the consumption is all within the parcels of the consolidated overlying water rights and consistent with Form 5.*

*In response to a question from Jagers, Zoba assured the Committee that the Form 5 has been filed to document all of the overlying water rights, so it includes the area consistent with the Watermaster regulation for the transfer and use of overlying water rights. Chair Vela reminded that the Watermaster received a couple of letters specifically that identified certain tract numbers and a certain amount of water that was going to be transferred (the 183.05). He noted the question of whether there are now additional tracts and asked if the consumption in*

*excess of the 183.05 also includes recycled water. Zoba said it is both potable and recycled water. It is in addition to the original tracts received by the Watermaster, he noted, but superseded with the filing of the Form 5.*

*Mr. Jagers acknowledged and referenced the Form 5 transfer, stating he continues to reference Resolution 17-02 as the format. He recommended documentation to be provided to Mr. Blandon and said that if the water is being used, he is supportive of that as it converts over. Zoba said he would send his notes to Blandon, and Blandon advised he would coordinate with legal counsel as to how the data is to be presented in the report.*

*Mr. Jagers acknowledged the concerns of YVWD and suggested the approval of the 2020 Consolidated Annual Report and Engineering Report be continued. He pointed out some potential terminology clarification. Chair Vela agreed and indicated need for fine-tuning the 2020 numbers. Jagers proposed that the Committee show transfers with a bi-monthly report.*

*Mr. Blandon indicated he would delay submitting the final 2019 report until numbers had been finalized between BCVWD and the City of Banning. Chair Vela indicated he would respond.*

*Chair Vela continued the 2020 Consolidated Annual Report and Engineering Report to the meeting on June 2, 2021 at 10 a.m.*

C. A Comparison of Production and Allowable Extractions through February 2021

Recommendation: No recommendation; informational only

*Mr. Blandon shared the table of Production vs. Allowable Extractions through February 2021 and pointed out a total of 4,763 af of overlying rights transferred from 2016, the transfer of overlying rights of OVP to YVWD of 183 and imported 479 af totaling 5,425. Production was 46.2 percent of the 5,425 resulting in a positive storage impact, he said.*

*Blandon presented alternate ways to look at storage as an informational item, resulting in water in storage at 117,533 af. Production is not even touching the unused overlying production, he noted. Overall, extractions from the Beaumont Basin could continue for another seven years before the water in storage was exhausted, he noted.*

*Member Zoba pointed out that unused overlying water right transfers remain a big issue. It is not supplemental water as identified in the judgment; it was a creation of this group, he said, and that is*

*problematic. Representing that there is a lot of water, inconsistent with the judgment, Zoba said, indicates a problem that needs to be tended to immediately. Member Jaggars pointed out that the judgment identifies that once the overlier rights are satisfied in a particular year, the remainder gets redistributed or is available to the appropriators as outlined. BCVWD's takeaway is that each year, the first water pumped is allocated back to the District, and everything else is a balance of storage vs. usage. During any particular year, if the overlies' needs are met, the rest of the water becomes available to the appropriators at the percentage outlined in Table C of the judgement, Jaggars stated, and said he is interested in resolving the issue. Blandon pointed out that there is no distinction as to which water is to be used first.*

*Jaggars requested a future agenda item on the issue.*

D. Status Report on Water Level Monitoring throughout the Beaumont Basin through March 21, 2021

Recommendation: Presentation - No recommendation

*Mr. Blandon presented a report and noted anomalies with the level monitoring at YVWD Well 34. He reported a jump of 0.7 feet in water level seven hours prior to a March 12 earthquake, and a jump of 0.8 feet seven hours after a March 18 earthquake. Member Zoba indicated that all equipment has been restored to the Well.*

*In response to Member Jaggars, Mr. Harder assured that data is examined and outliers are weeded out to make sense of the information in a larger context. Mr. Blandon indicated he would continue to dig into the data.*

*Mr. Blandon explained he is investigating fluctuating levels at Banning Well M9 and said there are no equipment needs at this time.*

E. Financial Status Report

Recommendation: Presentation Only - No recommendation

*Member Zoba reminded the Committee that this overview was requested at the last meeting. He detailed the process for invoicing and payments and noted that the bank account balance is slightly below \$200,000. He noted that information on operating expenses is included in the agenda packet. Administrative expenses such as legal are not billed out but there are enough funds to cover those expenses for the time being and for next year, Zoba reported.*

*Per consensus, this report will be added to the consent calendar monthly.*

F. Independent Accountant's Financial Report of Agreed-Upon Procedures for the Beaumont Basin Watermaster

Recommendation: That the Watermaster Committee receive and file the Independent Accountant's Financial Report for the period ending June 30, 2020.

*Member Zoba presented the report showing long term trends and reminded the Committee that the public had originally asked for this tally of the operation's expenditures. He noted that everything appears to be in order and said that auditor Rogers, Anderson, Malody and Scott will be coming in again this year.*

*It was moved by Member Jaggars and seconded by Member Jorritsma to receive and file the Independent Accountant's Financial Report for the period ending June 30, 2020. The motion was approved by the following vote:*

AYES:	Hart, Jaggars, Jorritsma, Vela, Zoba
NOES:	None.
ABSTAIN:	None.
ABSENT:	None.
STATUS:	Motion Approved

G. Consideration of the Watermaster Budget for Fiscal Year 2021-2022

Recommendation: That the Watermaster approve the budget for Fiscal Year 2021-2022.

*Member Zoba advised that invoices are sent out as each task order is approved and through each agency's financial departments Watermaster year-to-year spending trends can be followed. Administration is working to ensure that expenses do not cross over the fiscal year, he explained.*

*Zoba explained the proposed budget of \$246,700.*

*It was moved by Chair Vela and seconded by Member Hart to approve the budget for Fiscal Year 2021-2022. The motion was approved by the following vote:*



AYES:	Hart, Jagggers, Jorritsma, Vela, Zoba
NOES:	None.
ABSTAIN:	None.
ABSENT:	None.
STATUS:	Motion Approved

#### H. Discussion Regarding Proposed Revisions to Section 2.2 of the Rules and Regulations

*Member Jagggers advised that the proposal to bolster Section 2.2 was prompted by receipt of a request from an overlying party for a special Committee meeting over the Christmas holidays. In trying to resolve the request, Jagggers determined that the process was not clearly defined.*

*The proposal is for a process on how to approach getting an item on the agenda while assuring there is enough time for preparation of the agenda packet without burden of a last-minute request, Jagggers explained.*

*Member Zoba indicated concern related to the Brown Act and suggested a companion document that would allow addition of agenda items freely based on the needs of the particular agency. Any one of the managers should have the ability to add items to the agenda, he noted.*

*Member Jagggers assured that the proposal is merely to clarify a process. Legal Counsel Montoya acknowledged the potential Brown Act issue and said he favors Member Zoba's approach.*

*Chair Vela said it would be helpful to have the process defined a little more in Section 2.2. Zoba suggested working together to define one document for the Board to consider. Member Hart advocated for inclusion of timing for submittals to be agendized.*

#### **VIII. Topics for Future Meetings**

- a. Development of a methodology and policy to account for groundwater storage losses in the basin resulting from the artificial recharge of water resources.
- b. Development of a methodology and policy to account for recycled water recharge.
- c. Discussion of changes in storage accounts vs. production.

## **IX. Comments from the Watermaster Committee Members**

*None.*

## **X. Announcements**

- a. The next regular meeting of the Beaumont Basin Watermaster is scheduled for Wednesday, June 2, 2021 at 10:00 a.m.
- b. Future Meeting Dates:
  - i. Wednesday, August 4, 2021 at 10:00 a.m.
  - ii. Wednesday, October 6, 2021 at 10:00 a.m.
  - iii. Wednesday, December 1, 2021 at 10:00 a.m.

## **XI. Adjournment**

*Chairman Vela adjourned the meeting at 11:54 p.m.*

Attest:

  
Daniel Jagers, Secretary  
Beaumont Basin Watermaster

**Record of the Minutes of the  
Beaumont Basin Committee Meeting of the  
Beaumont Basin Watermaster  
Regular Meeting  
Wednesday, June 2, 2021**

**Meeting Location:**

*There was no public physical meeting location due to the coronavirus pandemic.  
Meeting held via video teleconference pursuant to:  
California Government Code Section 54950 et. seq. and  
California Governor's Executive Orders N-29-20 and N-33-20*

**I. Call to Order**

*Chairman Arturo Vela called the meeting to order at 10:00 a.m.*

**II. Roll Call**

<i>City of Banning</i>	<i>Arturo Vela</i>	<i>Present</i>
<i>City of Beaumont</i>	<i>Jeff Hart</i>	<i>Present</i>
<i>Beaumont-Cherry Valley Water District</i>	<i>Daniel Jagers</i>	<i>Present</i>
<i>South Mesa Water Company</i>	<i>George Jorritsma</i>	<i>Present</i>
<i>Yucaipa Valley Water District</i>	<i>Joseph Zoba</i>	<i>Present</i>

*Hannibal Blandon and Thomas Harder were present as engineers for the BBWM.*

*Members of the public who registered and / or attended:*

*Lance Eckhart, San Geronio Pass Water Agency  
Mark Swanson, Beaumont-Cherry Valley Water District  
Erica Gonzales, Beaumont-Cherry Valley Water District  
John Covington, Beaumont-Cherry Valley Water District / Morongo Band of  
Mission Indians*

**III. Pledge of Allegiance**

*Chair Vela led the pledge.*

**IV. Public Comments:**

*None.*

**V. Consent Calendar**

1. Meeting Minutes for April 7, 2021

*It was moved by Member Jagers and seconded by Member Hart to approve the Meeting Minutes.*

AYES:	Hart, Jagers, Jorritsma, Vela, Zoba
NOES:	None.
ABSTAIN:	None.
ABSENT:	None.
STATUS:	Motion Approved

## **VI. Reports**

- A. Report from Engineering Consultant – Hannibal Blandon, ALDA Engineering

*Mr. Blandon reported that the 2019 Consolidated Annual Report and Engineering Report was submitted on April 21, 2021 but has not been posted.*

*Blandon advised that Member Hart had requested copies of all annual reports and all files related to the groundwater model of the Beaumont Basin. Due to the expense of compiling the files, the item would have been agendaized for approval by the Committee. After discussion, consensus was to provide the requested information as the time should be minimal. Mr. Blandon will complete the work under the open Task Order for On Call Engineering Services.*

- B. Report from Hydrogeological Consultant – Thomas Harder, Thomas Harder & Co.

*No report.*

- C. Report from Legal Counsel – Thierry Montoya, Alvarado Smith

*No report.*

## **VII. Discussion Items**

- A. Financial Status Report

Recommendation: No recommendation. Presentation only

Member Zoba provided an overview. After payment of invoices, the bank balance is \$93,000, he noted, and pointed to the Operating expenses. At the next meeting, the fiscal year will be closed out and a year end report will be provided.

- B. Status Report on Water Level Monitoring throughout the Beaumont Basin through May 13, 2021

Recommendation: No recommendation.

*Mr. Blandon reviewed the report. He reminded the Committee of anomalies reported at the last meeting and said that the jump in level had been determined to be correct.*

*He noted that Banning Well M-9 has declined by more than 30 feet over the last two years, and BCVWD Wells No. 2 and 25 show significant fluctuations.*

*New monitoring wells were being considered in the northern portion of the Basin, and three wells were evaluated, Blandon explained. Since levels measured were flat it was decided there is no need to have observation wells monitored on an hourly basis, he said.*

C. A Comparison of Production and Allowable Extractions through April 2021

Recommendation: No recommendation; informational only

*Mr. Blandon shared the table of Production vs. Allowable Extractions through April 2021. He noted that 6,617 acre-feet of imported water has been spread in the Basin. Production through April has been 4,126 af and the total allowable production considering the transfers of overlying rights since 2016 is 6,171, he stated. The numbers change daily as the agencies continue to pump, he added.*

*Member Jagers suggested adding the Morongo Band of Mission Indians and the San Geronio Pass Water Agency to the report to memorialize the data. Mr. Blandon suggested a footnote indicating that they, along with the City of Beaumont, have water storage accounts but no water in storage.*

D. Discussion Regarding Task Order No. 25 with ALDA Inc. for On-Call Engineering Services

Recommendation: That the Watermaster Committee approve Task Order No. 25 for a sum not to exceed \$25,000

*Mr. Blandon reminded the Committee about Task Order No. 8 approved in October 2015 for \$20,000. Six tasks have been completed and \$18,062 spent, with a remainder of about \$1,900. A portion of that will be used to pull the data requested by Member Hart, he noted.*

*New Task Order No. 25 is requesting an additional \$25,000, Blandon explained. In response to Chair Vela, Blandon indicated that Task Order 8 would be exhausted or closed. Member Zoba recommended adding Task 25 which would take over once the amount in Task 8 is expended.*

*It was moved by Member Vela and seconded by Member Jaggars to approve Task Order No. 25 for a sum not to exceed \$25,000 and to send out invoices to the Watermaster Committee members and was approved by the following vote:*

AYES:	Hart, Jaggars, Jorritsma, Vela, Zoba
NOES:	None.
ABSTAIN:	None.
ABSENT:	None.
STATUS:	Motion Approved

E. Development of a Policy to Account for Storage Losses in the Beaumont Basin – Initial Approach

Recommendation: That the Watermaster Committee authorize the expenditure of \$10,000 under Task 25 On-Call Services, to cover the expense associated with this task

*Tom Harder of Thomas Harder and Associates reminded the Committee of the discussion regarding comparison of the storage accounts and the written accounts which appears to show the groundwater level response is not commensurate with the storage accounts that are accruing. It is a complicated matter and is worthwhile to evaluate to assure the physical water budget in the Basin is commensurate with what is on paper, he noted.*

*Harder said analyses show that groundwater flows to the southeast, and most of the losses are occurring in that area. Some limited losses are occurring at the western part of the Basin, he added. Issues are outlined in the Technical Memo along with a summary of what other basins are doing to address storage losses.*

*Basin losses are sensitive to imported recharge, and the location and pumping rate of pumping wells, Harder advised. The conclusion was that loss can be limited on the east side of the Basin via strategic pumping. Pumping outside the Basin is also influencing the loss, he noted.*

*Harder said that accounting for Basin losses is necessary to maintain a representative water balance, and it behooves the Committee to*



*evaluate those losses and develop a methodology and policy to account for them, otherwise, safe yield assessments may have a discrepancy.*

*Harder recommended development of a framework to account for storage losses based on the hydrogeology of the Basin via an initial budget of \$10,000 Under Task Order 25.*

*Member Jagers clarified that in addition to potential losses there are potential gains due to operational activity. BCVWD has increased pumping on the east side to capture those losses and has shut down Well 29 in the winter to stimulate in-lieu recharge on the western side of the Basin, he explained. The framework would want to make an understanding of those operations, he noted. He pointed out that Tukwet Canyon pumps (mostly irrigation water) in the area, also.*

*Member Zoba suggested the work be rolled into the redetermination of safe yield. Harder agreed and said it would be helpful to have the Committee's input ahead of the process to vet the ideas and issues.*

*Mr. Lance Eckhart of the San Geronimo Pass Water Agency (SGPWA) pointed out this is a big deal for a managed basin, and \$10,000 might get it started, but moving into basin optimization and how to minimize losses will be an ongoing effort. He also pointed out the current drought conditions and noted that the Committee will want to aggressively store more water and do more active conjunctive use moving forward. He stated there should not be a disincentive to bring imported water into the Basin and touted a thoughtful, collaborative process. This is core to the mission of the SGPWA, and the Agency would be happy to participate in answering these important questions.*

*In response to Mr. John Covington of the Morongo Band of Mission Indians, Member Jagers explained the location of Well 29 near the old Sunny Cal Egg Ranch.*

*Committee members concurred regarding communication with SGPWA regarding participation.*

*It was moved by Member Zoba and seconded by Member Jagers to create Task Order No. 26 for a sum not to exceed \$10,000 and to send out invoices to the Watermaster Committee members and was approved by the following vote:*

AYES:	Hart, Jagers, Jorritsma, Vela, Zoba
NOES:	None.
ABSTAIN:	None.
ABSENT:	None.
STATUS:	Motion Approved

F. Update on Development of a Return Flow Accounting Methodology

Recommendation: That the Watermaster Committee receive the Draft Report and provide comments that will be addresses at the August 2021 regular meeting

*Mr. Harder reminded the Committee that a draft of the Return Flow Methodology was prepared in 2019, comments were received, and results were presented in February. A draft Technical Memo is included in the Board packet along with a water quality analysis on TDS concentrations in the Basin into the future, he added. He requested Committee member comments by July 21.*

G. 2020 Consolidated Annual Report and Engineering Report – Presentation of Comments Received on Draft Report

Recommendation: That the Watermaster Committee consider Approving the 2020 Annual Report after comments received on the Draft Report are Presented and Discussed.

*Mr. Blandon highlighted comments that were received and changes made to the Report in response.*

*It was moved by Member Jorritsma and seconded by Member Jaggars to approve the 2020 Consolidated Annual Report and Engineering Report. The motion was approved 4-1 by the following vote:*

AYES:	Hart, Jaggars, Jorritsma, Vela
NOES:	Zoba
ABSTAIN:	None.
ABSENT:	None.
STATUS:	Motion Approved

**VIII. Topics for Future Meetings**

- a. Development of a methodology and policy to account for groundwater storage losses in the basin resulting from the artificial recharge of water resources.
- b. Development of a methodology and policy to account for recycled water recharge.
- c. Discussion regarding the addition of various topics to future meetings.

## **IX. Comments from the Watermaster Committee Members**

*Member Zoba commented on recycled water recharge, which is not an indirect discharge of treated wastewater, and said he agreed with Member Jaggars regarding re-titling of the Annual Report sections, but recommended keeping the agenda related to recycled water recharge.*

*Member Jaggars added that the City of Beaumont is approaching recycled water and noted two components: treated tertiary wastewater and recycled water.*

*Zoba indicated that the judgment discusses recharge of recycled water and appears to require the filing of an application through the Watermaster. Jaggars concurred and added there are minimum standards outlined in the judgment.*

## **X. Announcements**

- a. The next regular meeting of the Beaumont Basin Watermaster is scheduled for Wednesday, August 4, 2021 at 10:00 a.m.
- b. Future Meeting Dates:
  - i. Wednesday, October 6, 2021 at 10:00 a.m.
  - ii. Wednesday, December 1, 2021 at 10:00 a.m.

## **XI. Adjournment**

*Chairman Vela adjourned the meeting at 10:48 a.m.*

Attest:

  
Daniel Jaggars, Secretary  
Beaumont Basin Watermaster

**Record of the Minutes of the  
Beaumont Basin Committee Special Meeting of the  
Beaumont Basin Watermaster  
Regular Meeting  
Monday, June 28, 2021**

**Meeting Location:**

*There was no public physical meeting location due to the coronavirus pandemic.  
Meeting held via video teleconference pursuant to:  
California Government Code Section 54950 et. seq. and  
California Governor's Executive Orders N-29-20, N-33-20, and N-08-21*

**I. Call to Order**

*Chairman Arturo Vela called the meeting to order at 10:02 a.m.*

**II. Roll Call**

<i>City of Banning</i>	<i>Arturo Vela</i>	<i>Present</i>
<i>City of Beaumont</i>	<i>Jeff Hart</i>	<i>Present</i>
<i>Beaumont-Cherry Valley Water District</i>	<i>Daniel Jagers</i>	<i>Present</i>
<i>South Mesa Water Company</i>	<i>George Jorritsma</i>	<i>Present</i>
<i>Yucaipa Valley Water District</i>	<i>Joseph Zoba</i>	<i>Present</i>

*Hannibal Blandon was present as engineer for the BBWM. Thierry Montoya was present as legal counsel for the BBWM.*

*Members of the public who registered and / or attended:  
Mark Swanson and Erica Gonzales, Beaumont-Cherry Valley Water District*

**III. Public Comments:**

*None.*

**IV. Closed Session**

Chair Vela recessed the meeting to Closed Session at 10:07 a.m.

**CONFERENCE WITH LEGAL COUNSEL – EXISTING LITIGATION**

Pursuant to *Government Code* section 54956.9(a)

Yucaipa Valley Water District

- i) Motion for an Order Directing the Beaumont Basin Watermaster to Amend the Beaumont Basin Watermaster 2019 Annual Report to Adjust Oak Valley Partners LP's Overlying Water Rights and Yucaipa Valley Water District's Appropriative Water Rights;

ii) Motion for an Order Directing the Beaumont Basin Watermaster to Rescind Beaumont Basin Watermaster Rule 7.3

both currently pending before the Hon. Judge Irma Poole Asberry, Riverside Superior Court, Department 05.

**Reconvene in Open Session: 10:48 a.m.**

**Report on Action Taken During Closed Session:**

Counsel Thierry Montoya reported that there is ongoing litigation in the form of the two motions. Discussed were:

The briefing schedule

The new Court hearing date is August 19, 2021

The substance of the BBWM responses in the form of oppositions to the two motions.

**V. Comments from the Watermaster Committee Members**

The Committee chose to resume hybrid in-person/ videoconference meetings in August.

**VI. Announcements**

- a. The next regular meeting of the Beaumont Basin Watermaster is scheduled for Wednesday, August 4, 2021 at 10:00 a.m.
- b. Future Meeting Dates:
  - i. Wednesday, October 6, 2021 at 10:00 a.m.
  - ii. Wednesday, December 1, 2021 at 10:00 a.m.

**XI. Adjournment**

*Chairman Vela adjourned the meeting at 10:51 a.m.*

Attest:



Daniel Jagers, Secretary  
Beaumont Basin Watermaster

**Record of the Minutes of the  
Beaumont Basin Committee Meeting of the  
Beaumont Basin Watermaster  
Regular Meeting  
Wednesday, August 4, 2021**

**Meeting Location:**

*There was no public physical meeting location due to the coronavirus pandemic.  
Meeting held via video teleconference pursuant to:  
California Government Code Section 54950 et. seq. and  
California Governor's Executive Orders N-29-20, N-33-20, and N-08-21*

**I. Call to Order**

*Chairman Arturo Vela called the meeting to order at 10:00 a.m.*

**II. Roll Call**

<i>City of Banning</i>	<i>Arturo Vela</i>	<i>Present</i>
<i>City of Beaumont</i>	<i>Jeff Hart</i>	<i>Present</i>
<i>Beaumont-Cherry Valley Water District</i>	<i>Daniel Jagers</i>	<i>Present</i>
<i>South Mesa Water Company</i>	<i>George Jorritsma</i>	<i>Present</i>
<i>Yucaipa Valley Water District</i>	<i>Joseph Zoba</i>	<i>Present</i>

*Hannibal Blandon and Thomas Harder were present as engineers for the BBWM.*

*Members of the public who registered and / or attended:  
Mark Swanson, Beaumont-Cherry Valley Water District  
Erica Gonzales, Beaumont-Cherry Valley Water District  
Daniel Baguyo, Beaumont-Cherry Valley Water District  
Evan Ward, Beaumont-Cherry Valley Water District  
John Covington, BVCWD / Morongo Band of Mission Indians  
Dave Armstrong, South Mesa Water Company  
Jennifer Ares, Yucaipa Valley Water District  
John Ohanian, Oak Valley Partners*

***Due to technical difficulties, the meeting was immediately adjourned and canceled, to be rescheduled.***

Attest:

  
\_\_\_\_\_  
Daniel Jagers, Secretary  
Beaumont Basin Watermaster



**Record of the Minutes of the  
Beaumont Basin Committee Meeting of the  
Beaumont Basin Watermaster  
Regular Meeting  
Tuesday, August 17, 2021**

**Meeting Location:**

*There was no public physical meeting location due to the coronavirus pandemic.  
Meeting held via video teleconference pursuant to:  
California Government Code Section 54950 et. seq. and  
California Governor's Executive Orders N-29-20, N-33-20, and N-08-21*

*This meeting was rescheduled from August 4, 2021.*

**I. Call to Order**

*Chairman Arturo Vela called the meeting to order at 1:40 p.m.*

**II. Roll Call**

<i>City of Banning</i>	<i>Arturo Vela</i>	<i>Present</i>
<i>City of Beaumont</i>	<i>Jeff Hart</i>	<i>Present</i>
<i>Beaumont-Cherry Valley Water District</i>	<i>Daniel Jagers</i>	<i>Present</i>
<i>South Mesa Water Company</i>	<i>George Jorritsma</i>	<i>Present</i>
<i>Yucaipa Valley Water District</i>	<i>Joseph Zoba</i>	<i>Present</i>

*Hannibal Blandon and Thomas Harder were present as engineers for the BBWM.*

*Thierry Montoya was present as BBWM legal counsel.*

*Members of the public who registered and / or attended:*

*Thaxton Van Belle, Chief Plant Operator, City of Beaumont*

*Julio Martinez, City Councilmember, City of Beaumont*

*Madeline Blua, Yucaipa Valley Water District*

*Allison Edmisten, Yucaipa Valley Water District*

*Jennifer Ares, Yucaipa Valley Water District*

*David Armstrong, South Mesa Water Company*

*Lance Eckhart, San Geronio Pass Water Agency*

*Daniel Baguyo, Beaumont-Cherry Valley Water District*

*Mark Swanson, Beaumont-Cherry Valley Water District*

*Erica Gonzales, Beaumont-Cherry Valley Water District*

*Evan Ward, Beaumont-Cherry Valley Water District*

*Madeline Chen*

*Steve Anderson*

*Steve Stuart*

*Ty Muli*

### III. Pledge of Allegiance

*Chair Vela led the pledge.*

### IV. Public Comments:

*None.*

### V. Consent Calendar

1. Meeting Minutes for June 2, 2021
2. Meeting Minutes for June 28, 2021

*It was moved by Member Zoba and seconded by Member Jagers to approve the Meeting Minutes.*

AYES:	Hart, Jagers, Jorritsma, Vela, Zoba
NOES:	None.
ABSTAIN:	None.
ABSENT:	None.
STATUS:	Motion Approved

### VI. Reports

- A. Report from Engineering Consultant – Hannibal Blandon, ALDA Engineering

*Mr. Blandon reported two issues on Task Order No. 26 regarding a framework to address storage losses from the basin. A presentation will be made at the October 21 meeting.*

*Development of a new production well at YVWD is a candidate as a new monitoring site, he said. Mr. Blandon identified an issue with the transfer of water rights. Mr. Zoba clarified this is an existing well and does not result in a transfer of water rights; the rights belong to Beaumont-Cherry Valley Recreation and Park District.*

- B. Report from Hydrogeological Consultant – Thomas Harder, Thomas Harder & Co.

*No report.*

- C. Report from Legal Counsel – Thierry Montoya, Alvarado Smith

*Mr. Montoya noted that the hearing on YVWD's motions has been continued to August 31, 2021 at 830 a.m. He advised that he had received a memo from John Pinkney on behalf of the City of Beaumont requesting an update on when Beaumont will receive all the technical reports and public records requested. He advised it is in the works.*

*In response to a request from Mr. Zoba, Mr. Montoya will send a copy of the request made by the City of Beaumont to all Committee members.*

## **VII. Discussion Items**

- A. Status Report on Water Level Monitoring throughout the Beaumont Basin through July 26, 2021

Recommendation: No recommendation.

*Mr. Blandon reviewed the report. Water levels at several observation wells continue to decline he noted. He advised the Committee of a cable under warranty replaced at no charge.*

*Blandon described seasonal fluctuations and year-to-year decline at BCVWD Well 25, and the impact of pumping at BCVWD Well 3 on levels at Well 2.*

*Equipment issues at BCVWD Well 29 will be investigated in the fall, Blandon noted, and said BCVWD has indicated they will be fully responsible for the replacement of the cable and the probe.*

- B. Production and Allowable Extractions through June 2021

Recommendation: No recommendation; informational only

*Mr. Blandon shared the table of Production vs. Allowable Extractions through June 2021. He noted that 6,617 acre-feet of imported water has been spread in the Basin.*

*Production through the end of June has been 7,600 af which exceeds the total allowable production by 16 percent. As of December, 2020 over 117,000 af was in storage in the Basin, Blandon noted.*

*Member Jagers said BCVWD understands it is withdrawing from storage and proposed that the table be revised.*

- C. Return Flow Accounting Methodology presentation of final Technical Memorandum and comments

Recommendation: That the Watermaster Committee accept the final Technical Memorandum, findings, and recommendations

*Mr. Thomas Harder reviewed the recommended return flow accounting methodology and comments received on the Technical Memo. Data records from each appropriator would be obtained via a spreadsheet document. Information from the entire service area would be gathered and compared to wastewater treatment plant inflows, he explained. Those ratios can be applied to those parcels within the adjudication area.*

*Implementing the plan, estimated return flow for each appropriator on an annual basis, reporting previous year and applying the return flow to each appropriator per the lag time schedule, he explained. It takes the water in some areas 50 to 50 years to get down to the water table.*

*Harder recommended reevaluating the methodology every five to 10 years to assure it is representative of what is happening.*

*Mr. Harder responded to comments and questions submitted by the City of Banning.*

*Member Jagers pointed to water activities moving forward such as the grading along Cherry Valley Boulevard and questioned the evaporation factor. Mr. Harder advised that the State does not publish a return flow factor for applied water for construction use. Short of anything else, the 25 percent factor will be applied. These are not significant, as historically there has not been much construction water delivered, Harder noted, and suggested reevaluating in five years.*

*Member Hart added that production numbers for wells belonging to the Parks District for the grading would be interesting to analyze. Ten acre-feet seems low, he opined, considering the growth being seen. Mr. Vela agreed that construction is very active.*

*Mr. Harder discussed the projected impact of return flow on groundwater quality in the Beaumont Basin.*

*Member Jagers advised that BCVWD intends to contribute recycled water and asked about detail of the model. Mr. Harder responded that there is no history of recycled water recharge in the adjudicated area, so the model includes only return flow of implied irrigation water is included in the model. The imported water was included as an average of historic delivered concentrations, he stated. Jagers suggested there is some refinement to move toward to fully understand the application of recycled water.*

*Member Zoba pointed out that the Basin Plan Objective is required to be met. Chair Vela pointed out that the intent was to better understand and model the return flow and implement from a policy perspective. He*

*inquired about formal steps for implementation and requested member input.*

*Mr. Jagers said it is important to project the health of the basin overall and have an opportunity to improve the model as cause and effect is seen. He pointed to future solutions based on data collected.*

*Member Jorritsma indicated neutrality on moving forward, as South Mesa has no return flow.*

*Member Hart concurred with the methodology and suggested a deeper dive into analysis of rate of return on construction water.*

*Chair Vela touched on water quality saying that the City of Beaumont is planning to discharge recycled water over the basin and is looking at different technologies. The intent is to meet the requirements of the Beaumont Management Zone, he said. The review of this analysis will help understand impacts to the Basin from recycled water, he noted, and supported.*

*Member Zoba asked how the issue with overlies will be addressed, as they may also want to receive return flow credit. Mr. Montoya noted there are multiple parties and multiple viewpoints, and suggested an ad hoc committee to examine the various standpoints. Member Vela pointed to the Morongo golf course and their storage account. Mr. Harder said golf courses will be watering and have more regular return flow. It would be relatively easy to quantify and there is information on return flow factors for golf courses that can be incorporated into the accounting; the methodology would be the same.*

*Mr. Montoya indicated the constituent elements should be determined before the policy. Following comments from Mr. Jagers and Mr. Zoba, he indicated there is not enough information at this point to get to the policy development stage. Roles of overlies and issues must be developed further, he said.*

*In response to Chair Vela, Mr. Zoba suggested tabling the item as at this time it may be incomplete. Mr. Harder said it is easy to add a single golf course, but to extend to other overlying uses may be more involved. Counsel Montoya advised that the development of policy needs further consideration. He suggested consideration of the impact of a single golf course.*

*Mr. Harder indicated he could report back on addition of a single golf course. Mr. Jagers pointed out that most production for the Tukwet Golf Course is from the Beaumont Basin, however a number of the greens lie outside the Basin and therefore part of the water leaves the Basin and does not return. In response to Member Zoba, Mr. Harder*

*advised that the methodology is geared toward appropriators, and it has not been considered how it might be applied to overlies. Mr. Jagers requested legal counsel's opinion and discussion on related overlie rights. Mr. Zoba agreed, pointed to upcoming uses such as a park, and suggested a table of multipliers to provide for the accounting.*

*Mr. Blandon pointed out there are other types of overlies without storage accounts which are contributing return flows to the Basin. Mr. Jagers pointed back to the Basin safe yield.*

*Chair Vela requested legal counsel opinion and tabled the item for further discussion.*

**D. Task Order No. 27 to Provide Electronic Files of the Groundwater Model of the Beaumont Basin to the City of Beaumont**

**Recommendation:** That the Watermaster Committee considers the approval of this task order at a cost not to exceed \$15,000

*Mr. Hannibal Blandon requested a new Task Order be opened and reminded the Committee about the request from the City of Beaumont, which was completed at a cost of \$2,765. The new information requested by the City includes electronic files that will take an estimated 84 hours of mostly Mr. Harder's time for a cost of \$10,790. Blandon requested \$15,000 in case the City may have other miscellaneous requests.*

*Member Hart advised that he did not request this Task Order. He said his interpretation of the contract with ALDA indicates this is information to which the owner is entitled and has paid, and he objected to the additional compensation required to fulfill the task. Mr. Blandon reiterated this requires significant effort of the part of the consultant.*

*Mr. Hart pointed out the requesting agency is an owner and is party to the contract, and said he was having a hard time seeing the significant time and effort for delivering data that has already been created and compiled. Mr. Harder offered detail.*

*In response to Member Hart, Mr. Blandon noted the ALDA contract is on a time and materials basis. Mr. Hart indicated this seems excessive. Mr. Zoba and Mr. Jagers concurred that the data would be helpful to have in a clear and consistent form.*

*In response to Chair Vela, Mr. Harder described the data and work involved. Mr. Jagers noted that with all agencies participating, the cost*



*is \$3,000 apiece. He pointed out that nothing happens in a public records request without effort, and supported the Task Order.*

*The cost is to prepare the data requested, and does not include updating the data, Harder stated.*

*It was moved by Member Zoba and seconded by Member Jagers to approve Task Order No. 27 to be split between the five members and to send out invoices to the Watermaster Committee members. The motion was approved by the following vote:*

AYES:	Hart, Jagers, Jorritsma, Vela, Zoba
NOES:	None.
ABSTAIN:	None.
ABSENT:	None.
STATUS:	Motion Approved

#### E. Electronic Delivery of Annual Report

Recommendation: That the Watermaster Committee considers the delivery of annual reports, both draft and final, in electronic format unless an individual member or agency would prefer hard copies of individual reports

*Mr. Blandon noted that reports have been delivered and comments provided electronically for the past year and longer due to COVID-19 and business is moving toward paperless. The cost of annual reports is approximately \$2,000 for 12 copies of the draft and 12 copies of the final report, he advised.*

*It was moved by Member Hart and seconded by Member Jagers to deliver the annual reports in electronic format. The motion was approved 5-0 by the following vote:*

AYES:	Hart, Jagers, Jorritsma, Vela, Zoba
NOES:	None.
ABSTAIN:	None.
ABSENT:	None.
STATUS:	Motion Approved

#### F. Discussion Regarding the Date and Time of Regular Meetings of the Beaumont Basin Watermaster

*Member Zoba requested comment for scheduling the next year's meetings. Discussion ensued. Member Zoba will prepare a resolution for adoption at the next meeting on October 6, 2021 at 11 a.m.*

#### **G. Financial Status Report**

*Member Zoba presented the update and indicated the Task Orders will be updated to include the approved Task Order 27. He advised that he is engaging with the auditor to prepare the review of financial documents, which may be ready for the next meeting.*

### **VIII. Topics for Future Meetings**

- a. Development of a methodology and policy to account for groundwater storage losses in the basin resulting from the artificial recharge of water resources.
- b. Development of a methodology and policy to account for recycled water recharge.
- c. Discussion regarding the addition of various topics to future meetings.
- d. Process to place an item on the Watermaster Committee agenda.
- e. Establishment of an ad hoc committee to produce a procurement policy.

### **IX. Comments from the Watermaster Committee Members**

*Member Hart inquired about interest in creating a procurement policy. Member Jagers suggested creation of an ad hoc committee. Member Zoba pointed out that most activities are consultant based and have been via Requests for Proposal. Member Hart clarified the policy would include other procurement types.*

*Member Hart requested that presentations be provided on Mondays prior to the meetings. Mr. Jagers suggested 72 hours or 24 hours in advance in accordance with the Brown Act.*

### **X. Announcements**

- a. The next regular meeting of the Beaumont Basin Watermaster is scheduled for Wednesday, October 6, 2021 at 11:00 a.m.
- b. Future Meeting Dates:

i. Wednesday, December 1, 2021 at 11:00 a.m.

## **XI. Adjournment**

*Chairman Vela adjourned the meeting at 3:31 p.m.*

Attest:

  
\_\_\_\_\_  
Daniel Jagers, Secretary  
Beaumont Basin Watermaster

**Record of the Minutes of the  
Beaumont Basin Committee Meeting of the  
Beaumont Basin Watermaster  
Regular Meeting  
Tuesday, October 6, 2021**

**Meeting Location:**

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

**I. Call to Order**

*Chairman Arturo Vela called the meeting to order at 11:02 a.m.*

**II. Roll Call**

<i>City of Banning</i>	<i>Arturo Vela</i>	<i>Present</i>
<i>City of Beaumont</i>	<i>Jeff Hart</i>	<i>Present</i>
<i>Beaumont-Cherry Valley Water District</i>	<i>Daniel Jagers</i>	<i>Present</i>
<i>South Mesa Water Company</i>	<i>George Jorritsma</i>	<i>Present</i>
<i>Yucaipa Valley Water District</i>	<i>Joseph Zoba</i>	<i>Present</i>

*Hannibal Blandon and Thomas Harder were present as engineers for the BBWM.*

*Thierry Montoya was present as BBWM legal counsel.*

*Members of the public who registered and / or attended:*

Joyce McIntire, Yucaipa Valley Water District  
Matt Porras, Yucaipa Valley Water District  
Jennifer Ares, Yucaipa Valley Water District  
Logan Largent, California Association of Mutual Water Companies  
Mark Swanson, Beaumont-Cherry Valley Water District  
Erica Gonzales, Beaumont-Cherry Valley Water District  
Lynda Kerney, Beaumont-Cherry Valley Water District  
Robert Rasha, Beaumont-Cherry Valley Water District  
Allison Edmisten, Yucaipa Valley Water District  
Larry Smith, San Geronio Pass Water Agency  
Lance Eckhart, San Geronio Pass Water Agency  
Todd Parton, City of Beaumont  
Bryan Brown  
Greg Newmark, Meyers Nave  
John Covington, Morongo Band of Mission Indians  
David Armstrong, South Mesa Water Company

### III. Pledge of Allegiance

*Chair Vela led the pledge.*

### IV. Public Comments:

Mr. Lance Eckhart, general manager of the San Geronio Pass Water Agency offered the partnership of the Agency.

### V. Consent Calendar

1. Meeting Minutes for August 4, 2021
2. Meeting Minutes for August 17, 2021

*It was moved by Member Zoba and seconded by Member Jaggars to approve the Meeting Minutes.*

AYES:	Hart, Jaggars, Jorritsma, Vela, Zoba
NOES:	None.
ABSTAIN:	None.
ABSENT:	None.
STATUS:	Motion Approved

### VI. Reports

- A. Report from Engineering Consultant – Hannibal Blandon, ALDA Engineering

*Mr. Blandon reported that the groundwater modeling files were delivered as requested.*

- B. Report from Hydrogeological Consultant – Thomas Harder, Thomas Harder & Co.

*Mr. Harder reported on the Committee's request for the return flow from overliers. Golf courses: Total production of 1,370 acre-feet (af) of which 25 percent is assumed to be return flow (342 af annually). Others total 50 af (production assuming 50 percent of outdoor use and 25 percent indoor).*

- C. Report from Legal Counsel – Thierry Montoya, Alvarado Smith

*Mr. Montoya reported that on August 31, 2021, Riverside Superior Court heard arguments on the Yucaipa Valley Water District motion for an order to amend the Watermaster's 2019 annual report and adjust water rights, and companion motion to rescind Watermaster Rule 7.3. The Court denied both motions without prejudice.*

## VII. Discussion Items

- A. Discussion Regarding the Date and Time of Regular Meetings of the Beaumont Basin Watermaster

*It was moved by Member Vela and seconded by Member Hart to change the time of the Watermaster Committee meetings to 11 a.m. and add the text of Resolution 2012-01 to the Watermaster Rules and Regulations. The motion was approved by the following vote:*

AYES:	Hart, Jagggers, Jorritsma, Vela, Zoba
NOES:	None.
ABSTAIN:	None.
ABSENT:	None.
STATUS:	Motion Approved

- B. Discussion Regarding the Assignment of an Ad Hoc Committee for the Development of a Procurement Policy

Recommendation: That the Watermaster Committee appoint an Ad Hoc Committee

*Mr. Hart reminded the Committee that there is no procurement policy for the Committee and volunteered to serve on an ad hoc committee. Mr. Jagggers also volunteered.*

*It was moved by Member Zoba and seconded by Chair Vela to establish the Ad Hoc Committee on Procurement Policy. The motion was approved by the following vote:*

AYES:	Hart, Jagggers, Jorritsma, Vela, Zoba
NOES:	None.
ABSTAIN:	None.
ABSENT:	None.
STATUS:	Motion Approved

- C. Financial Status Report

Recommendation: Presentation only

*Member Zoba presented the update. There were no questions or comments.*

- D. Discussion Regarding the Development and Inclusion of Items on a Meeting Agenda

Recommendation: Pending



*Member Zoba explained that consultants submit their memorandums approximately one week in advance of the meeting, and the agenda packet is compiled from there. He suggested making available the template for the memorandum for any member who wants to sponsor and present an item.*

*This allows all members to put proposals before the Committee, Zoba noted. Member Jagers indicated that the concern was for others who may want to approach the Committee. He noted that as the Secretary for the Watermaster, the Beaumont-Cherry Valley Water District was approached during a holiday period about calling a special meeting and was unable to find an outline of a process for overliers or other agencies to place an item on the Watermaster agenda.*

*Mr. Zoba indicated willingness to follow the regular process of submission for any group. Chair Vela indicated preference for a process to assure the Committee agreed on agendaing of an item.*

*Chair Vela suggested the Committee Secretary and Chair collaborate to determine whether an agenda item submitted by an outside entity is appropriate. Chair Vela advocated for agility in being able to address issues, but Member Hart indicated preference for a process.*

*Member Jagers will draft a potential process for Committee evaluation.*

E. Status Report on Water Level Monitoring throughout the Beaumont Basin through September 22, 2021

Recommendation: No recommendation.

*Mr. Blandon reviewed the report. He noted the potential for a monitoring well at the development above Cherry Valley Boulevard.*

F. A Comparison of Production vs Extraction Credits through August 2021

Recommendation: No recommendation. Informational only.

*Mr. Blandon explained that previous reports used the term, "allowable extractions" which was confusing. The new concept of "extraction credits" is reported for Committee consideration, he stated.*

*At the beginning of the year, each agency has certain credit which comes from the transfer of unused production by the overliers in the previous 5<sup>th</sup> year, i.e., credits for 2021 are from 2016, and are spread among the various appropriators based on the certain percentages in*

*the judgment, Bandon explained. The other initial credit comes from permanent transfer of overlying water rights. Appropriators can increase their extraction credits by spreading imported water, he added.*

*If production exceeds credits, the excess must be drawn from storage, and if production is less than credits, water remains in storage at the end of the year, Bandon explained.*

*Bandon reviewed the report and noted that imported water has been delivered only to the Beaumont-Cherry Valley Water District. Production has totaled 12,079 af and noted some agencies have exceeded their credits.*

*Member Zoba asked about rollover of extraction credits. Mr. Bandon assured that those overlying rights and extraction credits are accounted for and roll over at the end of the year. Mr. Zoba pointed out that the water must be used on the property. Mr. Bandon suggested an annual accounting for parcels, and Zoba requested a separate chart to clarify.*

*Being that the Court ruling is new, Member Jaggars suggested bringing this back as an agenda item.*

#### G. Storage Accounting Issues – Preliminary Framework

*Recommendation: No recommendation. Informational only.*

*Mr. Bandon advised that it has been brought to attention that the historic amount of water may not be commensurate with the amount of water that is in the Basin. He presented historic hydrological conditions of the Beaumont Basin.*

*The 2003 basin adjudication assigned production to the overlies based on the 1997 to 2001 period, he explained. There is no documentation regarding the determination of the initial safe yield of 8,650 af and water rights assigned to overlies, he said.*

*Overlies have been producing one-third to one-half of the amount they are allowed to produce, Bandon said. This has been documented on a monthly basis, and is the reason there is a significant amount of water being transferred to the appropriators on a five-year lag, he noted.*

*In response to a question from Chair Vela, Mr. Bandon explained that the concept of managed overdraft was introduced to allow the extraction of 16,000 af per year over a 10-year period. All appropriators and overlies had the right to extract a certain amount of water.*

*Mr. Harder pointed out that there is no operating safe yield defined in the judgment. The term is used to present the annualized safe yield.*

*The safe yield was recalculated in 2013 as 6,700 af, Blandon noted. The ten-year control of overdraft terminated in 2013 and is no longer available to appropriators. He pointed to significant production above the safe yield, and stated that figures show the western and central portions of the basin in decline, while the eastern portion is trending up.*

*Additions to the storage accounts in the Basin are the unused overlying production with a five-year lag, a temporary surplus of 16,000 af per year, contribution of imported water, and determining transfers to appropriators. On the subtraction side, there is groundwater production by appropriators. Overlying underproduction transfer by appropriators is equivalent to 5,000 to 6,000 af per year, resulting in underproduction by 69,680 af by overliers that has been transferred.*

*The concept of temporary surplus is defined in the judgment as the amount of groundwater that can be pumped annually in excess of the safe yield from the groundwater basin necessary to create enough additional storage capacity to prevent the waste of water, Blandon continued. In 2003, the idea was that the appropriators would be able to pump a certain amount of water and begin a controlled overdraft of the basin to minimize basin losses. These 16,000 af were split between the various appropriators, with Beaumont Cherry Valley Water District allocated the largest percentage at 42.15 percent. ~~One of the objectives~~ The intent was to create a depression into which water from the San Timoteo wash would move into the Basin (controlled overdraft).*

*There is no documentation regarding how the 16,000 af was determined at the time, Blandon stated.*

*In response to a question from Chair Vela, Mr. Blandon explained that the amount of water moved into the depression from the San Timoteo wash has never been quantified, but through groundwater modeling, there are estimates.*

*The annual imported water deliveries began in 2006 when 3,500 af were spread, and have continued over the years. The maximum was in 2017 when close to 15,000 af were spread, and cumulative, the contribution is 123,000 af with Beaumont Cherry Valley Water District having acquired and used 91 percent.*

*Water in storage consists of unused overlying production, surplus allocation, imported water, permanent transfers, and groundwater production, all of which have been documented, Blandon continued.*

*There was a significant rise in storage prior to 2013, then slowing. This is due to the controlled overdraft: whatever was not produced was stored. Although it was given to appropriators, this does not mean that water was created physically in the basin, but it gave the appropriators*

*the right to produce and overdraft up to that amount, Blandon explained.*

*The City of Banning has the largest amount in its storage account with close to 51,000 af, followed by Beaumont Cherry Valley Water District with 40,000 af, South Mesa Water Company with 10,000, and Yucaipa Valley Water District with 16,000, San Geronio Pass Water Agency with 500 af. The Morongo Band and the City of Beaumont also have accounts but neither have water in storage. A total of 290,000 af of storage has been allocated to the storage accounts since the inception of the judgment.*

*Mr. Thomas Harder continued the presentation. He reviewed change in groundwater levels over time and explained the hydrological conditions on the basin map.*

*In the fall of 2013, 10 years into the judgment, the northeast part of the Basin including the Noble Creek spreading basins show the recharge beginning in 2006. In 2003, water from the San Timoteo wash was already flowing into the west end basin, he said. The idea was to capture more of that water, Harder surmised.*

*The contrasted changes shown on the 2020 contour map include areas of mounding and pumping depressions, and trends of groundwater levels. Much of the decline is on the west and northwest sides, and on the east side, levels are rising while the south side is staying the same or having some drop.*

*The change in storage from 2003 to 2013 basin-wide was approximately negative 64,000 af. Between 2013 and 2020, it was 22,000 af to the positive, Harder noted, mainly due to managed recharge in the east part of the basin. Of the negative 42,000 af change in the basin from 2003 to 2020, all of it is occurring in the west side of the basin, Harder stated. Due to overdraft, storage space has been created on the west side, and it is time to put some water in the ground there, Harder recommended.*

*The overall change in storage from 2003 to 2020 was between negative 42,000 af and negative 59,000 af basin-wide, Harder continued. For comparison, he said, the total groundwater (usable amount of water) in storage in the basin is approximately 1.4 million af, which is a little higher than the previous estimate by Wildermuth.*

*Member Jagers pointed to return flow and suggested that 2,500 af may be in transit to the basin. He also noted use for grading water and new development. Chair Vela noted these figures are through 2020.*

*Member Zoba indicated that the production of Yucaipa Valley Water District and South Mesa Water Company have not changed much over*

*the period. He pointed to the water levels in the Well 29 area and asked if recharge was working. Mr. Harder noted that the west side is much more sensitive to precipitation trends and since 2011, may have been influenced by drought. Based on this trend, and pumping in Calimesa, the water level will decrease on the west side, Zoba posited; Mr. Harder confirmed that would be the case without recharge.*

*Member Zoba asked about the amount of water accessible by wells today. Mr. Harder said that based on current well settings, the 1.4 million af is not entirely accessible, and noted that pumping past the usable water at the San Timoteo formation (model layer 1) would likely create some major negative effects. Zoba requested determination of the accessible water level above the bowls; Harder said it would be possible to determine using data from the appropriators' pump settings.*

*Jaggers pointed out some active management activity but posited that the drought has had some significant effects. The 10-year safe yield update will inform that, Harder noted.*

*Harder continued detailing the physical change in storage. Supplemental recharge has been a major benefit to the basin to stabilize the storage change, he stated, but there is a balance of recharge issue. Pumping in the basin has not changed very much, still approximately 15,000 af per year. Zoba acknowledged the consistency of pumping and noted that the change in storage plummeted. Harder said that was because there was no recharge occurring between 2003 and 2006, then took a while to ramp up, and it takes a while for that water to manifest in groundwater levels.*

*In terms of management of the basin, and the negative change in storage at 60,000 af, Zoba noted that to return to the zero point would cost around \$20 million and there is probably not enough State Project Water. Harder agreed and indicated that the Committee must make the decision as to significance in the overdraft, i.e., are there undesirable results due to the overdraft, should the overage be partially filled, or other option. He noted that there may be legal obligations to fill the hole. He discussed options from a physical operational standpoint, and suggested there is more analysis to be done.*

*Jaggers pointed to a more sophisticated model to examine data such as return flows and precipitation. He discussed the basin imbalance and needs to be determined. Harder noted the language in the judgment regarding waste of water is subjective. Chair Vela added that it appears there needs to be some true up of the storage accounts related to the basin losses and previous analysis.*

*Harder showed a graph depicting increases in storage accounts, with physical groundwater storage decreasing. In 2013, there was*

*approximately 130,000 af (close to the 160,000), but by 2020 it was 180,000 af. There are additional things not being accounted for, Harder explained, such as precipitation and drought. He noted that unpumped overlier water is being added to accounts although the safe yield is lower than that would indicate, and there are losses occurring in the basin, which increase with additional recharge. Those components can be identified, then the Committee can decide what to do, he stated.*

*In response to Chair Vela, Mr. Harder indicated that, ideally, the storage accounts would be tied to physical water, but that is not the case. The 160,000 was more of a controlled overdraft deficit. He pointed to the comparison of the storage accounts with the physical storage, and indicated that something needs to be done about it. Jagers described a component in the judgment that may have led to the 160,000 number.*

*Member Zoba pointed to the original concept of marketing the basin for water storage, a scheme that has since fallen apart. He suggested some change in the chart of Comparison of Appropriator Storage Accounts and Storage Change Estimates and said the issue pertains to management of the basin and action to maintain the status quo.*

*The seriousness of the issue is a judgment call, Harder noted. Impact would be felt after pumping for three or four years, he said. Zoba added that logistically, there would be no way to refill the basin.*

*Harder suggested workshops to a) address the balance of recharge and discharge issue, b) look at the significance and what is to be done about it, c) examine losses. Some discussion ensued and support for the workshops was expressed.*

*Vela pointed to geology and suggested that impacts will not be the same across the basin. Harder emphasized support of each other's projects to bring in new water and noted that water in addition to return flow will be needed to turn around the decline.*

*Mr. Blandon returned to the graph. He explained that legally the Beaumont Basin is one basin, but hydrologically, the basin behaves as two separate basins. The west side has no recharge, and the east side has benefitted from all the recharge over the years, he explained. The engineers were tasked with creating a framework and identified preliminary issues: the clearly demonstrated recharge imbalance between the eastern and western portions of the basin; the storage account balances appear in conflict with evidence of the physical storage in the basin; and the current storage accounting does not account for storage losses. These need to be addressed sooner rather than later, Blandon advised.*



*As of now, storage accounts continue to accumulate without consideration of losses – nothing is subtracted from the account, but potentially there could be significant losses of 15 to 20 percent, Blandon stated, and pointed out that the cost of imported water is hundreds of dollars per acre-foot. There is an imbalance, and potential for additional losses which are not being accounted for at this time, he warned.*

*To address the imbalance, recharge facilities need to be developed on the western portion of the basin, Blandon stated. The storage account balances are paper, rather than actuals, he said. He proposed as Task No. 2 of this Task Order, to conduct a series of workshops to begin discussion regarding what can or cannot be done, and to develop a policy to account for the storage losses.*

*To arrest the recharge imbalance and bring water to the western side of the basin, there is some potential for enhanced stormwater capture, spreading of imported water in existing and in new basins, and use of recycled water, Blandon offered. He detailed two areas for capture that have been identified, extension of the San Gorgonio pipeline to the State Water Project, and the location of the City of Beaumont wastewater treatment plant with the potential for recycled water. Groundwater modeling will need to be done, he advised.*

*Blandon suggested that workshop agenda items may include further articulation of the issues, preliminary identification and discussion of potential projects and management actions to arrest the issues including needs for individual appropriators, discussion of next steps to arrest the issues which may include further concepts, and outline of an implementation plan.*

*Blandon advised that the initial budget of \$10,000 for this task was underestimated and current expenditures are \$16,700, with the goal to provide a complete picture to the Committee.*

*In response to Member Zoba and Chair Vela, Mr. Harder further discussed safe yield. Zoba posited that a potential solution in order to keep the basin in balance, is to retain storage accounts, but limit the maximum production to the operating safe yield, to not damage anyone else. He pointed out that extraction of unused water rights results in depletion of the basin.*

*Jaggers suggested adding wells to the east side and moving water to the western portion of the basin, turning off the wells on the west. Long term goals would be to balance and manage the basin, and determine what water is in the return flow zone, he added.*

*Jaggers advocated for workshops and identified that the San Gorgonio Pass Water Agency has a hydrogeologist who may be helpful. He pointed*

*to the cumulative storage credit of 117,553 af which is the volumetric availability across the basin, but Zoba noted that if all of that were extracted, it must be subtracted from the already negative basin storage. There is no time to fill up the basin, Zoba posited. The basin will always be depleted, it needs to be determined who will be the most impacted by the dropped water levels, he noted.*

*The intent is to manage to keep the basin in balance to the best of the ability of the Watermaster and there will be give and take over time, Jagers said. Who pays the price to establish the balance, Zoba continued. The transition has been made from depletion to filling to depletion, and this is a big deal, Zoba said. He reminded the Committee that this group was established as a result of lawsuits regarding getting a fair share. The intent in 2004 was not to go negative, it was to check each other to assure all have a share of the basin and keep operating.*

*Jagers pointed to the Urban Water Management Plan and indicated the goal is not to deplete the basin. Zoba suggested establishing a management objective in terms of change in storage and advocated scheduling the workshops quickly. Mr. Bandon proposed the first to be held in November.*

*Member Hart requested further definition of the workshops to make them fruitful and to assure that allocating additional budget is necessary. Mr. Bandon provided detail on the process and emphasized that much more work is needed. Discussion ensued regarding prioritizing topics for the workshops.*

*Mr. Zoba suggested a water sustainability consultant and will provide a sample RFP at the next meeting. Mr. Bandon suggested quantification of losses and impacts to storage accounts.*

H. Consideration of Change Order No. 1 for Task Order No. 26 for the Development of a Framework to Address Storage Accounting Issues

*Recommendation: That the Watermaster Committee consider approving Change Order No. 1 to Task Order No. 26 for the sum not to exceed \$20,000 and to direct the Treasurer to invoice specific Appropriators based on anticipated benefits.*

*Mr. Bandon reviewed the request for change order but noted that the workshops will delay the need for this work. The initial task was to develop a framework, which is what was presented in the last agenda item. This is to facilitate further analysis and work on the issue.*

*The Committee discussed needs and the potential for a workshop facilitator. Mr. Eckhart requested the ability for the San Geronio Pass*

*Water Agency to participate and offered to participate financially in the workshops. Member Jorritsma welcomed the request.*

*It was moved by Member Jaggars and seconded by Chair Vela to approve amendment of the budget for Task 1 of Task Order No. 26 to add \$6,700. The motion was approved by the following vote:*

AYES:	Hart, Jaggars, Jorritsma, Vela, Zoba
NOES:	None.
ABSTAIN:	None.
ABSENT:	None.
STATUS:	Motion Approved

#### **VIII. Topics for Future Meetings**

- a. Development of a methodology and policy to account for groundwater storage losses in the basin / Groundwater management
- b. Scope of work and Request for Proposal for a workshop facilitator / consultant
- c. Incidental discharge
- d. Effect of Court ruling on Production vs Extraction Credits
- e. Development of a recycled water policy

#### **IX. Comments from the Watermaster Committee Members**

*Chair Vela recommended establishment of a Consent Calendar on the agenda.*

#### **X. Announcements**

- a. The next regular meeting of the Beaumont Basin Watermaster is scheduled for Wednesday, December 1, 2021 at 11:00 a.m.
- b. Future Meeting Dates:
  - i. February 2, 2022 at 11:00 a.m.
  - ii. April 6, 2022 at 11:00 a.m.
  - iii. June 1, 2022 at 11:00 a.m.

#### **XI. Adjournment**

*Chairman Vela adjourned the meeting at 2:46 p.m.*

Attest:

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Daniel Jaggers, Secretary  
Beaumont Basin Watermaster

**Record of the Minutes of the  
Beaumont Basin Committee Meeting of the  
Beaumont Basin Watermaster  
Regular Meeting  
Wednesday, December 1, 2021**

**Meeting Location:**

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

**I. Call to Order**

*Chairman Arturo Vela called the meeting to order at 11:02 a.m.*

**II. Roll Call**

<i>City of Banning</i>	<i>Arturo Vela</i>	<i>Present</i>
<i>City of Beaumont</i>	<i>Jeff Hart</i>	<i>Present</i>
<i>Beaumont-Cherry Valley Water District</i>	<i>Daniel Jagers</i>	<i>Present</i>
<i>South Mesa Water Company</i>	<i>George Jorritsma</i>	<i>Present</i>
<i>Yucaipa Valley Water District</i>	<i>Jennifer Ares</i>	<i>Present</i>

*Hannibal Blandon and Thomas Harder were present as engineers for the BBWM.*

*Thierry Montoya was present as BBWM legal counsel.*

*Members of the public who registered and / or attended:*

Ron Duncan, San Geronio Pass Water Agency  
Cenica Smith, Beaumont-Cherry Valley Water District  
Mark Swanson, Beaumont-Cherry Valley Water District  
Robert Rasha, Beaumont-Cherry Valley Water District  
Joyce McIntire, Yucaipa Valley Water District  
Steve Anderson  
John Covington, Morongo Band of Mission Indians  
Thaxton Van Belle, City of Beaumont  
Steve Stewart  
Logan Largent, California Association of Mutual Water Companies

**III. Pledge of Allegiance**

*Chair Vela led the pledge.*

**IV. Public Comments:**

None.

## V. Consent Calendar

- B. Status Report on Water Level Monitoring throughout the Beaumont Basin through November 17, 2021
- C. A Comparison of Production versus Extraction Credits through October 2021

*It was moved by Member Jaggars and seconded by Member Jorritsma to approve items B and C.*

AYES:	Hart, Jaggars, Jorritsma, Vela, Ares
NOES:	None.
ABSTAIN:	None.
ABSENT:	None.
STATUS:	Motion Approved

- A. Meeting Minutes for October 6, 2021

Member Jaggars suggested some corrections to the October 6, 2021 minutes as noted by ALDA Consultants, to be verified via the meeting recording. Ms. Ares requested that in the future, such items be checked ahead of time to avoid delay in approval of the minutes. Mr. Jaggars indicated that would be possible if comments were received in time prior to publication. The October 6, 2021 minutes were tabled to the next meeting.

## VI. Reports

- A. Report from Engineering Consultant – Hannibal Blandon, ALDA Engineering  
*Mr. Blandon requested early review of the meeting minutes.*
- B. Report from Hydrogeological Consultant – Thomas Harder, Thomas Harder & Co.  
*No report.*
- C. Report from Legal Counsel – Thierry Montoya, Alvarado Smith  
*Nothing to report.*

## VII. Discussion Items

- A. Storage Accounting Issues

Recommendation: Information only. No recommendation.

*Mr. Blandon reviewed issues raised and information discussed in October and reminded the Committee that storage accounts collectively contain approximately 117,000 acre-feet (af). However, Blandon continued, the changing groundwater storage that Mr. Harder investigated indicates that the change between 2003 and 2020 could be anywhere between 42,000 af and 59,000 af depending on the way that the water levels are interpreted by hand or through the flow model. Mr. Harder also concluded that there is approximately 1.4 million af of water in the basin, and noted that most of the depletion (40,000 af) was on the west side of the basin, Blandon said.*

*Preliminary issues include the recharge imbalance between the eastern and western portions of the basin, the storage account balances appear to be in conflict with evidence of the physical storage of the basin, and current storage accounting does not account for losses, Blandon reminded. He said he reviewed the documentation at the time of the judgment and advised there was no documentation as to how the determination of the safe yield was made, but newly available court documents related to the August 2021 ruling provide clarification.*

*The tentative ruling settles the water rights and storage issues in the basin for supplemental water as well as unused surplus water; the judgment does not preclude the storage of unused surplus water; and there is nothing improper about carryover surplus water, Blandon explained. All water in the storage accounts is valid and available for use, he said, and the basin must be managed accordingly.*

*Temporary Surplus is defined in the judgment as, "the amount of groundwater that can be pumped annually in excess of the Safe Yield from a Groundwater Basin necessary to create enough additional storage capacity to prevent the waste of water," Blandon read. He advised that the intent was to pump up to 160,000 af from the basin to create space to bring more imported water or to produce additional water from the basin, and the judgment defines 16,000 af per year as percentages and amounts distributed to the four water agencies. Blandon pointed to the storage account amounts as of the end of 2020, totaling 117,533 af.*

*Blandon reviewed tables comparing the agencies' temporary surplus allocations and all extraction rights to actual 2003-2020 production. The appropriators have the right to produce another 117,533 af up to the 160,000 af initially anticipated, he stated. To be determined over the next few meetings will be how to manage the basin in a way that does not negatively affect some producers, consideration of the issues of spreading imported water on the west side of the basin, and*



*ascertaining that appropriators can safely store and extract their production rights, he stated.*

*To address the recharge imbalance, Blandon recommended capture of additional stormwater, spreading of additional imported water in existing and new basins, and use of recycled water. He pointed to potential project areas and offered suggestions.*

*Member Jagers noted that the results noticed are reasonable with what is set forth in the judgment for extraction. He recalled discussion at the prior meeting about precipitation and the reduced average over the last 10 years, and pointed to impact on the basin. He indicated that BCVWD could assist with basin management from an operational perspective. He said he calculated that basin losses could be in the range of 10,000 to 20,000 af, and pointed to continued drought.*

*Chair Vela noted that it will get to a point where agencies will have to rely on the surplus water, and basin management practices and implementation to ensure the basin is in good condition should be discussed, along with a policy on storage losses.*

*Member Hart suggested a workshop to identify mission, vision, and goals and how to proceed as to the best interests of the sustainability of the basin.*

*Chair Vela invited public comment. There was none.*

**B. Use of On-Call Task Order No. 8 and 25 to Provide Engineering Services related to evaluation of Storage Issues in the Beaumont Groundwater Basin**

**Recommendation:** That the Beaumont Basin Watermaster Committee approves ALDA Inc. / TH&Co. to use available funds in On-Call Task Order No. 8 and Task Order No. 25 to continue providing technical support to Watermaster on issues related to the storage evaluation and management of the groundwater basin

*Mr. Blandon explained that additional work was discussed at the October meeting but there is currently no budget approved for continuing activities. He shared the current budget remaining on Task Orders 8 and 25. After Committee discussion of upcoming work, continuing task orders, and the Request for Proposal process, Legal counsel Thierry Montoya suggested bringing back a request for services and a specific contract. A special meeting and a workshop will be scheduled in January.*

*Chair Vela tabled the item.*

C. Discussion Regarding Amendment of Engineering Services Contract with ALDA Inc. for Calendar Year 2022

Recommendation: That the Watermaster Committee approves the contract extension with ALDA Inc. through December 31, 2022

*Mr. Blandon provided history of the Agreement for Engineering Services, originally signed on May 10, 2012, and extended through December 31, 2021. He shared the proposed billing rates for ALDA Inc. and Thomas Harder & Company and reminded the Committee that the rates had not changed over the last five-year period.*

*Mr. Blandon advised that most of the work for the task orders takes place in the first three months of the year as the annual report and engineering analysis of the basin is prepared. He recommended extension of the contract through December 31, 2022, at the listed 2022 rates, or a five-year extension with rates updated annually.*

*Member Hart pointed to the active task order and recommended extension of the existing contract until a procurement policy is established. In response to a question from Chair Vela, Mr. Montoya recommended determining what specific services are sought as opposed to extension of contracts and task orders remaining open.*

*Mr. Jagers pointed to production of the annual report, ongoing tasks, and need to create a vehicle to move forward and complete the 2021 work. Mr. Blandon detailed the annual report process and Mr. Jagers added the required report submission dates.*

*Following discussion of upcoming work and the RFP process, the majority of the Committee concurred on extension of the contract. Mr. Jagers pointed out that an amendment will be required for signature, but the document is not yet herewith. Mr. Montoya indicated that he would produce an amendment to come back for Committee approval.*

*It was moved by Member Ares and seconded by Chair Vela to approve the contract extension with ALDA Inc. through December 31, 2022. The motion was approved by the following vote:*

AYES:	Jagers, Jorritsma, Vela, Ares
NOES:	Hart
ABSTAIN:	None
ABSENT:	None
STATUS:	Motion Approved

- D. Discussion Regarding Task Order No. 28 with ALDA Inc. for the Preparation of the 2021 Consolidated Annual Report, Estimate of the Basin Safe Yield, Update of the Groundwater Model, and Associated Consulting Services for 2022

Recommendation: That the Watermaster Committee approves Task Order No. 28 for a sum not to exceed \$103,600.00 and considers the approval of a 10 percent contingency

*Mr. Blandon explained that this is the basic task order as provided each year to prepare the consolidated annual report for 2021, estimate the operating safe yield, and to provide general consulting services during 2022. He reviewed the costs and prior year expenditures, averaging 90 percent of the budget on this task.*

*The economic impact is \$20,7020 for each Watermaster Committee member, Blandon noted, and addition of the recommended 10 percent contingency would result in a proportionate increase.*

*Member Hart recommended this item be tabled to the workshop in January; Member Jagers concurred, but acknowledged the challenge of submitting the report by the April 1 deadline. Chair Vela pointed out the need for continuing the work.*

*Member Jorritsma acknowledged the work of ALDA and recommended not delaying the approval for the annual report work. It was moved by Member Hart to approve Task 2 of Task 28 and bring back the remaining items. The motion died for lack of second.*

*It was moved by Chair Vela and seconded by Member Jorritsma to approve Task Order No. 28 for a sum not to exceed \$103,600.00 and considers the approval of a 10 percent contingency. The motion was approved by the following vote:*

AYES:	Jagers, Jorritsma, Vela, Ares
NOES:	Hart
ABSTAIN:	None
ABSENT:	None
STATUS:	Motion Approved

- E. Discussion Regarding Task Order No. 29 with ALDA Inc, for the Installation, Maintenance, and Data Collection of Water Level Monitoring Equipment in 2022

Recommendation: That the Watermaster Committee approves Task Order No. 29 for a sum not to exceed \$24,975.

*Mr. Blandon reviewed the work and announced the availability of two additional wells. The cost represents approximately \$4,995 for each Committee member.*

*In response to Member Hart, Mr. Blandon explained that data is collected approximately two weeks before each Committee meeting to prepare the report. Other issues are addressed between readings such as equipment needs, he added.*

*It was moved by Member Jorritsma and seconded by Chair Vela to approve Task Order No. 29 for a sum not to exceed \$24,975. The motion was approved by the following vote:*

AYES:	Hart, Jaggars, Jorritsma, Vela, Zoba
NOES:	None
ABSTAIN:	None
ABSENT:	None
STATUS:	Motion Approved

#### **VIII. Topics for Future Meetings**

- a. Development of a methodology and policy to account for groundwater storage losses in the basin / Groundwater management
- b. Scope of work and Request for Proposal for a workshop facilitator / consultant
- c. Incidental discharge
- d. Effect of Court ruling on Production vs Extraction Credits
- e. Development of a recycled water policy

#### **IX. Comments from the Watermaster Committee Members**

*None.*

## **X. Announcements**

- a. Tentative special meeting January 5, 2022 at 11 a.m. to address the contract amendment and topics for the workshop
- b. The next regular meeting of the Beaumont Basin Watermaster is scheduled for Wednesday, February 2, 2022 at 11:00 a.m.
- c. Future Meeting Dates:
  - i. April 6, 2022 at 11:00 a.m.
  - ii. June 1, 2022 at 11:00 a.m.
  - iii. August 3, 2022 at 11:00 a.m.
  - iv. October 5, 2022 at 11:00 a.m.

## **XI. Adjournment**

*Chairman Vela adjourned the meeting at 12:45 p.m.*

Attest:

  
Daniel Jagers, Secretary  
Beaumont Basin Watermaster

## **Appendix C**

### **Active and Interested Party List**

**City of Banning**

Arturo Vela - Director of Public Works / City Eng.  
99 E. Ramsey Street  
Banning, CA 92220  
[avela@ci.banning.ca.us](mailto:avela@ci.banning.ca.us)

**Yucaipa Valley Water District**

Joseph Zoba, General Manager  
12770 Second Street  
Yucaipa, CA 92399  
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**South Mesa Mutual Water Company**

George Jorritsma  
Post Office Box 458  
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[smwc@verizon.net](mailto:smwc@verizon.net)

**Beaumont-Cherry Valley Water District**

Dan Jaggars, General Manager  
560 Magnolia Avenue  
Beaumont, CA 92223  
[dan.jaggars@bcvwd.org](mailto:dan.jaggars@bcvwd.org)

**City of Beaumont**

Jeff Hart - Public Works Director  
550 East Sixth Street  
Beaumont, CA 92223  
[jhart@beaumontca.gov](mailto:jhart@beaumontca.gov)

**Oak Valley Partners, LP.**

John Ohanian  
Post Office Box 645  
10410 Roberts Road  
Calimesa, CA 92320

**Sunny Cal Egg and Poultry Company**

Steve Anderson, Esq.  
c/o Best, Best and Krieger  
3750 University Avenue, Suite 400  
Riverside, CA 92501

**Sharondale Mesa Owners Association**

William Wood  
9525 Sharon Way  
Calimesa, CA 92320

**City of Banning**

Luis Cardenas - Senior Engineer  
99 E. Ramsey Street  
Banning, CA 92220  
[lcardenas@ci.banning.ca.us](mailto:lcardenas@ci.banning.ca.us)

**Yucaipa Valley Water District**

Jennifer Ares  
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**South Mesa Mutual Water Company**

Dave Armstrong  
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Calimesa, CA 92320  
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**Beaumont-Cherry Valley Water District**

Mark Swanson - Principal Engineer  
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**City of Beaumont**

Robert Vestal, Principal Engineer  
550 East Sixth Street  
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**Plantation on the Lake**

James Krueger  
10961 Desert Lawn Drive  
Calimesa, CA 92320  
[jimk@mrc1.com](mailto:jimk@mrc1.com)

**Merlin Properties, LLC.**

Fred and Richard Reidman  
6475 East Pacific Coast Highway, Suite 399  
Long Beach, CA 90803  
[riedman@gte.net](mailto:riedman@gte.net)

**Southern California Professional  
Golfers Association of America**

Tom Addis  
36201 Champions Drive  
Beaumont, CA 92223



**Sharondale Mesa Owners Association**

Ira Pace  
9525 Sharon Way  
Calimesa, CA 92320  
[rbnjp@msn.com](mailto:rbnjp@msn.com)

**Morongo Band of Mission Indians**

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---

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## **Appendix D**

### **Fiscal Year 2020-21 Audit Letter**

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

**JUNE 30, 2021**



ROGERS, ANDERSON, MALODY & SCOTT, LLP  
CERTIFIED PUBLIC ACCOUNTANTS, SINCE 1948

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## *Independent Accountant's Report*

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

#### **PARTNERS**

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Jenny W. Liu, CPA, MST

#### **MANAGERS / STAFF**

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John Maldonado, CPA, MSA  
Thao Le, CPA, MBA  
Julia Rodriguez Fuentes, CPA, MSA

We have performed the procedures enumerated below on the Watermaster Schedules (Schedules), attached as Exhibit A and Exhibit B, on the full accrual basis of accounting as of June 30, 2021, and for the year then ended. Yucaipa Valley Water District (District) management, as treasurer of the Beaumont Basin Watermaster (Watermaster), is responsible for the Schedules.

The District has agreed to and acknowledged that the procedures performed are appropriate to meet the intended purpose of evaluating certain amounts reported in the Schedules, attached as Exhibit A and Exhibit B, on the full accrual basis of accounting as of June 30, 2021, and for the year then ended and its compliance with the Rules and Regulations regarding assessments and expenses. Additionally, the Watermaster has agreed to and acknowledged that the procedures performed are appropriate to meet their purposes. This report may not be suitable for any other purpose. The procedures performed may not address all the items of interest to a user of this report and may not meet the needs of all users of this report and, as such, users are responsible for determining whether the procedures performed are appropriate for their purposes.

The procedures and the associated findings are as follows:

#### **MEMBERS**

American Institute of  
Certified Public Accountants

PCPS The AICPA Alliance  
for CPA Firms

Governmental Audit  
Quality Center

Employee Benefit Plan  
Audit Quality Center

California Society of  
Certified Public Accountants

### **1. Procedure**

Agree the unrestricted net position, beginning of year amount on the Schedule of Revenues and Expenses (Exhibit B) to the unrestricted net position, end of year amount noted on the trial balance for the fiscal year ended June 30, 2020.

#### **Finding**

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





## **2. Procedure**

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

### **Finding**

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

## **3. Procedure**

Trace all member agency assessments recorded in the Schedule of Revenues and Expenses (Exhibit B) to the invoices and the bank statements.

### **Finding**

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

## **4. Procedure**

Compare the ending check number for the fiscal year ended June 30, 2020 to the beginning check number for the period beginning on July 1, 2020. Note any breaks in check sequence for the period of July 1, 2020 through June 30, 2021.

### **Finding**

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

## **5. Procedure**

Based on the population of checks issued during July 1, 2020 through June 30, 2021, select all payments and trace the check to supporting invoice noting whether the activity pertains to the Watermaster. Agree the dollar amount and vendor on the invoice to the check for accuracy.

### **Finding**

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

## **6. Procedure**

Obtain the general ledger detail for the period of July 1, 2020 to June 30, 2021. Select all journal entries and trace the transaction to an approved journal entry and documentation supporting the nature and rationale of the journal entry.

### **Finding**

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

We were engaged by the District to perform this agreed-upon procedures engagement and conducted our engagement in accordance with attestation standards established by the AICPA. We were not engaged to and did not conduct an examination or review, the objective of which would be the expression of an opinion or conclusion, respectively, on the schedules of assets, liabilities and net position (Exhibit A) and revenues and expenses (Exhibit B). Accordingly, we do not express such an opinion or conclusion. Had we performed additional procedures, other matters might have come to our attention that would have been reported to you.

We are required to be independent of the District and Watermaster and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements related to our agreed-upon procedures engagement.

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

*Rogers, Anderson, Malody & Scott, LLP.*

September 1, 2021  
San Bernardino, California

**Beaumont Basin Watermaster**  
**Schedule of Assets, Liabilities and Net Position**  
**(Unaudited)**  
**June 30, 2021**

**Assets**

Cash and cash equivalents	\$ 114,371
Accounts receivable	<u>14,000</u>
Total assets	<u>128,371</u>

**Liabilities**

Accounts payable	<u>35,113</u>
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**Net position**

Unrestricted	<u><u>\$ 93,258</u></u>
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**Beaumont Basin Watermaster  
Schedule of Revenues and Expenses  
(Unaudited)  
For the Year Ended June 30, 2021**

**Revenues**

Assessments	\$ 209,813
Interest	<u>43</u>

Total revenues	<u>209,856</u>
----------------	----------------

**Expenses**

Special projects	
Acquisition/computation and annual report	62,497
Engineering	58,015
Monitoring and data acquisition	63,660
Administrative	
Legal and professional	68,434
Bank charges	<u>13</u>

Total expenses	<u>252,619</u>
----------------	----------------

Change in net position	(42,763)
------------------------	----------

Unrestricted net position, beginning of year	<u>136,021</u>
--	----------------

Unrestricted net position, end of year	<u><u>\$ 93,258</u></u>
--	-------------------------

## **Appendix E**

# **Production Estimation Methods for Unmetered Overlying Producers**

University of California Riverside - CIMIS Station 44

Monthly Evapotranspiration Values - 2003 through 2021

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
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	7.84	6.44	4.38	2.72	1.70	62.42
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	7.61	7.77	7.29	6.19	4.52	3.21	2.01	64.02
2015	2.84	3.32	5.85	6.28	5.37	7.46	6.75	7.66	5.81	4.22	2.77	2.35	60.68
2016	2.09	4.29	4.92	6.04	6.21	7.21	7.74	6.88	5.30	3.87	3.18	1.99	59.72
2017	1.81	2.08	5.01	6.13	5.95	6.98	7.11	6.40	4.92	4.54	2.35	3.09	56.37
2018	2.41	3.17	3.81	5.69	5.57	7.61	8.04	7.35	5.86	4.30	3.13	2.24	59.18
2019	2.29	2.37	4.36	5.90	4.95	6.49	8.03	7.68	5.76	5.11	3.05	1.81	57.80
2020	2.65	3.71	3.66	4.83	7.25	6.42	8.17	7.74	6.33	4.81	3.22	2.70	61.49
2021	2.98	3.51	4.66	5.87	6.45	7.41	8.10	7.14	5.86	4.03	3.31	1.52	60.84

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

Indoor Water Use: 0.35 ac-ft/yr/du

Irrigation Efficiency: 70%

Estimated Pumping - All Unmetered Accounts

Year	Total Use
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

Year	Total Use
2013	12.91
2014	13.28
2015	12.84
2016	12.71
2017	12.28
2018	12.64
2019	12.46
2020	12.91
2021	12.83

**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	5.49	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	5.44	5.10	4.33	3.16	2.25	1.41	44.81
2015	1.99	2.32	4.10	4.40	3.76	5.22	4.73	5.36	4.07	2.95	1.94	1.65	42.48
2016	1.46	3.00	3.44	4.23	4.35	5.05	5.42	4.82	3.71	2.71	2.23	1.39	41.80
2017	1.27	1.46	3.51	4.29	4.17	4.89	4.98	4.48	3.44	3.18	1.65	2.16	39.46
2018	1.69	2.22	2.67	3.98	3.90	5.33	5.63	5.15	4.10	3.01	2.19	1.57	41.43
2019	1.60	1.66	3.05	4.13	3.47	4.54	5.62	5.38	4.03	3.58	2.14	1.27	40.46
2020	1.86	2.60	2.56	3.38	5.08	4.49	5.72	5.42	4.43	3.37	2.25	1.89	43.04
2021	2.09	2.46	3.26	4.11	4.52	5.19	5.67	5.00	4.10	2.82	2.32	1.06	42.59

**Estimated Pumping by Merlin Properties**

Year	Parcel Size (acres)	D.U.	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	0.39	0.56	1.61
2016	48	3	1.05	0.11	0.38	0.55	1.60
2017	48	3	1.05	0.11	0.36	0.52	1.57
2018	48	3	1.05	0.11	0.38	0.54	1.59
2019	48	3	1.05	0.11	0.37	0.53	1.58
2020	48	3	1.05	0.11	0.37	0.53	1.58
2021	48	3	1.05	0.11	0.37	0.53	1.58



**Estimated Pumping by Roman Catholic Bishop of San Bernardino**

Year	Parcel Size (acres)	D.U.	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
2017	34	0	0.00	0.00	0.00	0.00	0.00
2018	34	0	0.00	0.00	0.00	0.00	0.00
2019	34	0	0.00	0.00	0.00	0.00	0.00
2020	34	0	0.00	0.00	0.00	0.00	0.00
2021	34	0	0.00	0.00	0.00	0.00	0.00

**Estimated Pumping by Leonard Stearns**

Year	Parcel Size (acres)	D.U.	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
2017	91	2	0.70	0.00	0.00	0.00	0.70
2018	91	2	0.70	0.00	0.00	0.00	0.70
2019	91	2	0.70	0.00	0.00	0.00	0.70
2020	91	2	0.70	0.00	0.00	0.00	0.70
2021	91	2	0.70	0.00	0.00	0.00	0.70

**Estimated Pumping by Sunny Cal**

Year	Parcel Size (acres)	D.U.	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	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	2.50	3.57	4.27
2014	185	2	0.70	0.00	0.00	0.70	2.61	3.73	4.43
2015	185	2	0.70	0.00	0.00	0.70	2.48	3.54	4.24
2016	185	2	0.70	0.00	0.00	0.70	2.44	3.48	4.18
2017	185	2	0.70	0.00	0.00	0.70	2.30	3.29	3.99
2018	185	2	0.70	0.00	0.00	0.70	2.42	3.45	4.15
2019	185	2	0.70	0.00	0.00	0.70	2.36	3.37	4.07
2020	185	2	0.70	0.00	0.00	0.70	2.51	3.59	4.29
2021	185	2	0.70	0.00	0.00	0.70	2.48	3.55	4.25

Water consumption per chicken estimated at 6.0 gal/100 chickens

**Estimated Pumping by Albor Properties**

Year	Parcel Size (acres)	D.U.	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	1.42	2.02	2.37
2016	122	1	0.35	0.40	1.39	1.99	2.34
2017	122	1	0.35	0.40	1.32	1.88	2.23
2018	122	1	0.35	0.40	1.38	1.97	2.32
2019	122	1	0.35	0.40	1.35	1.93	2.28
2020	122	1	0.35	0.40	1.43	2.05	2.40
2021	122	1	0.35	0.40	1.42	2.03	2.38

**Estimated Pumping by Nikodinov**

Year	Parcel Size (acres)	D.U.	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	0.28	0.40	0.75
2017	10	1	0.35	0.08	0.26	0.38	0.73
2018	10	1	0.35	0.08	0.28	0.39	0.74
2019	10	1	0.35	0.08	0.27	0.39	0.74
2020	10	1	0.35	0.08	0.29	0.41	0.76
2021	10	1	0.35	0.08	0.28	0.41	0.76

**Estimated Pumping by McAmis**

Year	Parcel Size (acres)	D.U.	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	0.14	0.20	0.55
2017	0.9	1	0.35	0.04	0.13	0.19	0.54
2018	0.9	1	0.35	0.04	0.14	0.20	0.55
2019	0.9	1	0.35	0.04	0.13	0.19	0.54
2020	0.9	1	0.35	0.04	0.14	0.20	0.55
2021	0.9	1	0.35	0.04	0.14	0.20	0.55

**Estimated Pumping by Aldama**

Year	Parcel Size (acres)	D.U.	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	0.51	0.86
2016	1.4	1	0.35	0.10	0.35	0.50	0.85
2017	1.4	1	0.35	0.10	0.33	0.47	0.82
2018	1.4	1	0.35	0.10	0.35	0.49	0.84
2019	1.4	1	0.35	0.10	0.34	0.48	0.83
2020	1.4	1	0.35	0.10	0.36	0.51	0.86
2021	1.4	1	0.35	0.10	0.35	0.51	0.86

**Estimated Pumping by Gutierrez**

Year	Parcel Size (acres)	D.U.	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	0.50	0.71	1.41
2016	2	2	0.70	0.14	0.49	0.70	1.40
2017	2	2	0.70	0.14	0.46	0.66	1.36
2018	2	2	0.70	0.14	0.48	0.69	1.39
2019	2	2	0.70	0.14	0.47	0.67	1.37
2020	2	2	0.70	0.14	0.50	0.72	1.42
2021	2	2	0.70	0.14	0.50	0.71	1.41

**Estimated Pumping by Damont**

Year	Parcel Size (acres)	D.U.	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
2017	0.5	1	0.35	0.00	0.00	0.00	0.35
2018	0.5	1	0.35	0.00	0.00	0.00	0.35
2019	0.5	1	0.35	0.00	0.00	0.00	0.35
2020	0.5	1	0.35	0.00	0.00	0.00	0.35
2021	0.5	1	0.35	0.00	0.00	0.00	0.35

## **Appendix F**

### **GAMA Water Quality Analysis Summary (2017-2021) for Drinking Water Wells**



**GAMA Water Quality for the 2017-21 Period for Domestic Wells in the Beaumont Basin**

Owner	Date	Chemical	Concentration	Units
RCMHP-01	4/29/2019	Alkalinity, total	190	MG/L
RCMHP-01	4/29/2019	Aluminum	50	UG/L
RCMHP-01	4/29/2019	Antimony	< 6	UG/L
RCMHP-01	4/29/2019	Arsenic	< 2	UG/L
RCMHP-01	4/29/2019	Bicarbonate Alkalinity	190	MG/L
RCMHP-01	4/29/2019	Calcium	42	MG/L
RCMHP-01	4/29/2019	Chloride	23	MG/L
RCMHP-01	4/29/2019	Chromium	10	UG/L
RCMHP-01	4/29/2019	Copper	< 0.05	MG/L
RCMHP-01	4/29/2019	Fluoride	0.55	MG/L
RCMHP-01	4/29/2019	Hardness	170	MG/L
RCMHP-01	4/29/2019	Iron	100	UG/L
RCMHP-01	4/29/2019	Lead	< 5	UG/L
RCMHP-01	4/29/2019	Magnesium	15	MG/L
RCMHP-01	4/29/2019	Manganese	< 20	UG/L
RCMHP-01	4/29/2019	Mercury	< 1	UG/L
RCMHP-01	1/16/2017	Nitrate as N	4.6	MG/L
RCMHP-01	1/22/2018	Nitrate as N	2.9	MG/L
RCMHP-01	1/3/2019	Nitrate as N	5.5	MG/L
RCMHP-01	10/7/2019	Nitrate as N	5.3	MG/L
RCMHP-01	1/13/2020	Nitrate as N	5.2	MG/L
RCMHP-01	7/6/2020	Nitrate as N	4.7	MG/L
RCMHP-01	10/5/2020	Nitrate as N	5.2	MG/L
RCMHP-01	1/18/2021	Nitrate as N	5.2	MG/L
RCMHP-01	4/29/2019	Nitrite as N	0.4	MG/L
RCMHP-01	4/29/2019	pH	8.2	PH UNITS
RCMHP-01	4/29/2019	Sodium	27	MG/L
RCMHP-01	4/29/2019	Specific Conductivity	460	JMHOS/CV
RCMHP-01	4/29/2019	Sulfate	12	MG/L
RCMHP-01	4/29/2019	Total Dissolved Solids	260	MG/L
RCMHP-01	4/29/2019	Zinc	< 0.05	MG/L
RCMHP-02	4/29/2019	Alkalinity, total	190	MG/L
RCMHP-02	4/29/2019	Aluminum	50	UG/L
RCMHP-02	4/29/2019	Antimony	< 6	UG/L
RCMHP-02	4/29/2019	Arsenic	< 2	UG/L
RCMHP-02	4/29/2019	Bicarbonate Alkalinity	190	MG/L
RCMHP-02	4/29/2019	Calcium	43	MG/L
RCMHP-02	4/29/2019	Chloride	25	MG/L
RCMHP-02	4/29/2019	Chromium	10	UG/L
RCMHP-02	1/16/2017	Chromium, Hexavalent (Cr6)	10	UG/L

**GAMA Water Quality for the 2017-21 Period for Domestic Wells in the Beaumont Basin**

Owner	Date	Chemical	Concentration	Units
RCMHP-02	7/10/2017	Chromium, Hexavalent (Cr6)	11	UG/L
RCMHP-02	10/16/2017	Chromium, Hexavalent (Cr6)	11	UG/L
RCMHP-02	1/22/2018	Chromium, Hexavalent (Cr6)	9.1	UG/L
RCMHP-02	4/18/2018	Chromium, Hexavalent (Cr6)	9.5	UG/L
RCMHP-02	7/5/2018	Chromium, Hexavalent (Cr6)	10	UG/L
RCMHP-02	10/1/2018	Chromium, Hexavalent (Cr6)	8.7	UG/L
RCMHP-02	1/4/2019	Chromium, Hexavalent (Cr6)	12	UG/L
RCMHP-02	4/29/2019	Copper	< 0.05	MG/L
RCMHP-02	4/29/2019	Fluoride	0.63	MG/L
RCMHP-02	4/29/2019	Hardness	170	MG/L
RCMHP-02	4/29/2019	Iron	100	UG/L
RCMHP-02	4/29/2019	Lead	< 5	UG/L
RCMHP-02	4/29/2019	Magnesium	15	MG/L
RCMHP-02	4/29/2019	Manganese	< 20	UG/L
RCMHP-02	4/29/2019	Mercury	< 1	UG/L
RCMHP-02	1/16/2017	Nitrate as N	6.1	MG/L
RCMHP-02	7/10/2017	Nitrate as N	6.6	MG/L
RCMHP-02	10/16/2017	Nitrate as N	4.8	MG/L
RCMHP-02	1/22/2018	Nitrate as N	4.6	MG/L
RCMHP-02	4/18/2018	Nitrate as N	4.7	MG/L
RCMHP-02	7/5/2018	Nitrate as N	5.9	MG/L
RCMHP-02	10/1/2018	Nitrate as N	6.2	MG/L
RCMHP-02	1/4/2019	Nitrate as N	5.1	MG/L
RCMHP-02	7/1/2019	Nitrate as N	3.1	MG/L
RCMHP-02	11/25/2019	Nitrate as N	5.7	MG/L
RCMHP-02	1/13/2020	Nitrate as N	6.1	MG/L
RCMHP-02	4/20/2020	Nitrate as N	4.8	MG/L
RCMHP-02	7/7/2020	Nitrate as N	6.4	MG/L
RCMHP-02	10/5/2020	Nitrate as N	6.2	MG/L
RCMHP-02	1/18/2021	Nitrate as N	6.1	MG/L
RCMHP-02	4/29/2019	Nitrite as N	0.4	MG/L
RCMHP-02	4/29/2019	pH	8.1	PH UNITS
RCMHP-02	4/29/2019	Sodium	31	MG/L
RCMHP-02	4/29/2019	Specific Conductivity	460	UMHOS/CN
RCMHP-02	4/29/2019	Sulfate	12	MG/L
RCMHP-02	4/29/2019	Total Dissolved Solids	270	MG/L
RCMHP-02	4/29/2019	Zinc	< 0.05	MG/L
SMHOA-01	8/10/2018	Alkalinity, total	230	MG/L
SMHOA-01	8/10/2018	Aluminum	50	UG/L
SMHOA-01	8/10/2018	Antimony	< 6	UG/L

**GAMA Water Quality for the 2017-21 Period for Domestic Wells in the Beaumont Basin**

Owner	Date	Chemical	Concentration	Units
SMHOA-01	8/10/2018	Arsenic	< 2	UG/L
SMHOA-01	8/10/2018	Bicarbonate Alkalinity	230	MG/L
SMHOA-01	8/10/2018	Calcium	48	MG/L
SMHOA-01	8/10/2018	Chloride	27	MG/L
SMHOA-01	8/10/2018	Chromium	6.3	UG/L
SMHOA-01	8/10/2018	Copper	< 0.05	MG/L
SMHOA-01	8/10/2018	Fluoride	0.5	MG/L
SMHOA-01	8/10/2018	Hardness	190	MG/L
SMHOA-01	8/10/2018	Iron	100	UG/L
SMHOA-01	8/10/2018	Lead	< 5	UG/L
SMHOA-01	8/10/2018	Magnesium	17	MG/L
SMHOA-01	8/10/2018	Manganese	< 20	UG/L
SMHOA-01	8/10/2018	Mercury	< 1	UG/L
SMHOA-01	1/7/2017	Nitrate as N	5.2	MG/L
SMHOA-01	4/7/2017	Nitrate as N	2.5	MG/L
SMHOA-01	7/10/2017	Nitrate as N	4.6	MG/L
SMHOA-01	9/13/2017	Nitrate as N	4.8	MG/L
SMHOA-01	10/16/2017	Nitrate as N	4.4	MG/L
SMHOA-01	1/22/2018	Nitrate as N	5.6	MG/L
SMHOA-01	4/18/2018	Nitrate as N	5	MG/L
SMHOA-01	7/5/2018	Nitrate as N	4.2	MG/L
SMHOA-01	8/10/2018	Nitrate as N	4.8	MG/L
SMHOA-01	10/1/2018	Nitrate as N	4.3	MG/L
SMHOA-01	1/2/2019	Nitrate as N	5	MG/L
SMHOA-01	4/29/2019	Nitrate as N	5.1	MG/L
SMHOA-01	10/7/2019	Nitrate as N	4.6	MG/L
SMHOA-01	1/13/2020	Nitrate as N	4.7	MG/L
SMHOA-01	4/20/2020	Nitrate as N	5.1	MG/L
SMHOA-01	7/6/2020	Nitrate as N	5.2	MG/L
SMHOA-01	10/5/2020	Nitrate as N	4.9	MG/L
SMHOA-01	1/12/2021	Nitrate as N	6.5	MG/L
SMHOA-01	4/18/2018	Nitrite as N	0.1	MG/L
SMHOA-01	8/10/2018	Nitrite as N	0.1	MG/L
SMHOA-01	4/29/2019	Nitrite as N	0.4	MG/L
SMHOA-01	8/10/2018	pH	8.4	PH UNITS
SMHOA-01	8/10/2018	Sodium	44	MG/L
SMHOA-01	8/10/2018	Specific Conductivity	550	JMHOS/CN
SMHOA-01	8/10/2018	Sulfate	20	MG/L
SMHOA-01	4/29/2019	Tetrachloroethene (PCE)	< 0.5	UG/L
SMHOA-01	8/10/2018	Total Dissolved Solids	320	MG/L

**GAMA Water Quality for the 2017-21 Period for Domestic Wells in the Beaumont Basin**

Owner	Date	Chemical	Concentration	Units
SMHOA-01	4/29/2019	Trichloroethene (TCE)	< 0.5	UG/L
SMHOA-01	8/10/2018	Zinc	< 0.05	MG/L
SMHOA-02	8/10/2018	Alkalinity, total	220	MG/L
SMHOA-02	8/10/2018	Aluminum	50	UG/L
SMHOA-02	8/10/2018	Antimony	< 6	UG/L
SMHOA-02	8/10/2018	Arsenic	< 2	UG/L
SMHOA-02	8/10/2018	Bicarbonate Alkalinity	220	MG/L
SMHOA-02	8/10/2018	Calcium	52	MG/L
SMHOA-02	8/10/2018	Chloride	32	MG/L
SMHOA-02	8/10/2018	Chromium	8.9	UG/L
SMHOA-02	8/10/2018	Copper	< 0.05	MG/L
SMHOA-02	8/10/2018	Fluoride	0.59	MG/L
SMHOA-02	8/10/2018	Hardness	200	MG/L
SMHOA-02	8/10/2018	Iron	100	UG/L
SMHOA-02	8/10/2018	Lead	< 5	UG/L
SMHOA-02	8/10/2018	Magnesium	18	MG/L
SMHOA-02	8/10/2018	Manganese	< 20	UG/L
SMHOA-02	8/10/2018	Mercury	< 1	UG/L
SMHOA-02	1/7/2017	Nitrate as N	5.1	MG/L
SMHOA-02	9/13/2017	Nitrate as N	4.9	MG/L
SMHOA-02	10/16/2017	Nitrate as N	4.7	MG/L
SMHOA-02	1/22/2018	Nitrate as N	4.6	MG/L
SMHOA-02	4/18/2018	Nitrate as N	5.2	MG/L
SMHOA-02	7/5/2018	Nitrate as N	5.4	MG/L
SMHOA-02	8/10/2018	Nitrate as N	4.6	MG/L
SMHOA-02	10/1/2018	Nitrate as N	5	MG/L
SMHOA-02	1/2/2019	Nitrate as N	4.6	MG/L
SMHOA-02	4/29/2019	Nitrate as N	5.9	MG/L
SMHOA-02	10/7/2019	Nitrate as N	5.1	MG/L
SMHOA-02	1/13/2020	Nitrate as N	5.5	MG/L
SMHOA-02	4/20/2020	Nitrate as N	5.5	MG/L
SMHOA-02	7/6/2020	Nitrate as N	5.3	MG/L
SMHOA-02	10/5/2020	Nitrate as N	5.6	MG/L
SMHOA-02	1/12/2021	Nitrate as N	5.4	MG/L
SMHOA-02	4/18/2018	Nitrite as N	0.1	MG/L
SMHOA-02	8/10/2018	Nitrite as N	0.1	MG/L
SMHOA-02	4/29/2019	Nitrite as N	0.4	MG/L
SMHOA-02	8/10/2018	pH	8.3	PH UNITS
SMHOA-02	8/10/2018	Sodium	45	MG/L
SMHOA-02	8/10/2018	Specific Conductivity	530	UMHOS/CN

**GAMA Water Quality for the 2017-21 Period for Domestic Wells in the Beaumont Basin**

Owner	Date	Chemical	Concentration	Units
SMHOA-02	8/10/2018	Sulfate	16	MG/L
SMHOA-02	4/29/2019	Tetrachloroethene (PCE)	< 0.5	UG/L
SMHOA-02	8/10/2018	Total Dissolved Solids	320	MG/L
SMHOA-02	4/29/2019	Trichloroethene (TCE)	< 0.5	UG/L
SMHOA-02	8/10/2018	Zinc	< 0.05	MG/L
Plantation-01	3/20/2017	Alkalinity, total	200	MG/L
Plantation-01	3/24/2020	Alkalinity, total	190	MG/L
Plantation-01	3/20/2017	Aluminum	50	UG/L
Plantation-01	3/24/2020	Aluminum	0	UG/L
Plantation-01	3/20/2017	Antimony	< 6	UG/L
Plantation-01	3/24/2020	Antimony	< 6	UG/L
Plantation-01	3/20/2017	Arsenic	< 2	UG/L
Plantation-01	3/24/2020	Arsenic	< 2	UG/L
Plantation-01	3/20/2017	Bicarbonate Alkalinity	240	MG/L
Plantation-01	3/24/2020	Bicarbonate Alkalinity	240	MG/L
Plantation-01	3/20/2017	Calcium	50	MG/L
Plantation-01	3/24/2020	Calcium	52	MG/L
Plantation-01	3/20/2017	Chloride	14	MG/L
Plantation-01	3/24/2020	Chloride	17	MG/L
Plantation-01	3/20/2017	Chromium	5.4	UG/L
Plantation-01	3/24/2020	Chromium	0	UG/L
Plantation-01	3/20/2017	Copper	< 0.05	MG/L
Plantation-01	3/24/2020	Copper	< 0.05	MG/L
Plantation-01	3/20/2017	Fluoride	0.5	MG/L
Plantation-01	3/24/2020	Fluoride	0.41	MG/L
Plantation-01	3/20/2017	Hardness	200	MG/L
Plantation-01	3/24/2020	Hardness	210	MG/L
Plantation-01	3/20/2017	Iron	100	UG/L
Plantation-01	3/24/2020	Iron	0	UG/L
Plantation-01	3/20/2017	Lead	< 5	UG/L
Plantation-01	3/24/2020	Lead	< 5	UG/L
Plantation-01	3/20/2017	Magnesium	17	MG/L
Plantation-01	3/24/2020	Magnesium	18	MG/L
Plantation-01	3/20/2017	Manganese	< 20	UG/L
Plantation-01	3/20/2017	Mercury	< 1	UG/L
Plantation-01	3/24/2020	Mercury	< 1	UG/L
Plantation-01	3/20/2017	Nitrate as N	1.8	MG/L
Plantation-01	7/23/2018	Nitrate as N	2	MG/L
Plantation-01	7/22/2019	Nitrate as N	2	MG/L
Plantation-01	12/16/2020	Nitrate as N	2.2	MG/L

**GAMA Water Quality for the 2017-21 Period for Domestic Wells in the Beaumont Basin**

Owner	Date	Chemical	Concentration	Units
Plantation-01	3/20/2017	Nitrite as N	0.1	MG/L
Plantation-01	3/24/2020	Nitrite as N	0	MG/L
Plantation-01	3/20/2017	pH	7.8	PH UNITS
Plantation-01	3/24/2020	pH	7.5	PH UNITS
Plantation-01	3/20/2017	Sodium	20	MG/L
Plantation-01	3/24/2020	Sodium	19	MG/L
Plantation-01	3/20/2017	Specific Conductivity	450	JMHOS/CN
Plantation-01	3/24/2020	Specific Conductivity	450	JMHOS/CN
Plantation-01	3/20/2017	Sulfate	10	MG/L
Plantation-01	3/24/2020	Sulfate	12	MG/L
Plantation-01	3/20/2017	Total Dissolved Solids	270	MG/L
Plantation-01	3/24/2020	Total Dissolved Solids	260	MG/L
Plantation-01	3/20/2017	Zinc	< 0.05	MG/L
Plantation-01	3/24/2020	Zinc	0	MG/L
Tukwet-A	6/20/2017	Alkalinity, total	130	MG/L
Tukwet-A	8/6/2020	Alkalinity, total	120	MG/L
Tukwet-A	6/20/2017	Aluminum	50	UG/L
Tukwet-A	8/6/2020	Aluminum	50	UG/L
Tukwet-A	6/20/2017	Antimony	< 6	UG/L
Tukwet-A	8/6/2020	Antimony	< 6	UG/L
Tukwet-A	6/20/2017	Arsenic	3.7	UG/L
Tukwet-A	8/6/2020	Arsenic	6.5	UG/L
Tukwet-A	6/20/2017	Bicarbonate Alkalinity	120	MG/L
Tukwet-A	8/6/2020	Bicarbonate Alkalinity	110	MG/L
Tukwet-A	6/20/2017	Calcium	17	MG/L
Tukwet-A	8/6/2020	Calcium	7.8	MG/L
Tukwet-A	6/20/2017	Chloride	14	MG/L
Tukwet-A	8/6/2020	Chloride	17	MG/L
Tukwet-A	6/20/2017	Chromium	9.3	UG/L
Tukwet-A	8/6/2020	Chromium	10	UG/L
Tukwet-A	6/20/2017	Copper	< 0.05	MG/L
Tukwet-A	8/6/2020	Copper	< 0.05	MG/L
Tukwet-A	6/20/2017	Fluoride	0.7	MG/L
Tukwet-A	8/6/2020	Fluoride	0.65	MG/L
Tukwet-A	6/20/2017	Hardness	68	MG/L
Tukwet-A	8/6/2020	Hardness	29	MG/L
Tukwet-A	6/20/2017	Iron	100	UG/L
Tukwet-A	8/6/2020	Iron	100	UG/L
Tukwet-A	6/20/2017	Lead	< 5	UG/L
Tukwet-A	8/6/2020	Lead	< 5	UG/L

**GAMA Water Quality for the 2017-21 Period for Domestic Wells in the Beaumont Basin**

Owner	Date	Chemical	Concentration	Units
Tukwet-A	6/20/2017	Magnesium	5.8	MG/L
Tukwet-A	8/6/2020	Magnesium	2.2	MG/L
Tukwet-A	6/20/2017	Manganese	< 20	UG/L
Tukwet-A	8/6/2020	Manganese	< 20	UG/L
Tukwet-A	6/20/2017	Mercury	< 1	UG/L
Tukwet-A	8/6/2020	Mercury	< 1	UG/L
Tukwet-A	6/20/2017	Nitrate as N	1.5	MG/L
Tukwet-A	8/10/2018	Nitrate as N	1.2	MG/L
Tukwet-A	9/26/2019	Nitrate as N	1.4	MG/L
Tukwet-A	8/6/2020	Nitrate as N	1.4	MG/L
Tukwet-A	6/20/2017	Nitrite as N	0.1	MG/L
Tukwet-A	8/6/2020	Nitrite as N	0.4	MG/L
Tukwet-A	6/20/2017	pH	8.4	PH UNITS
Tukwet-A	8/6/2020	pH	8.8	PH UNITS
Tukwet-A	6/20/2017	Potassium	1.3	MG/L
Tukwet-A	8/6/2020	Potassium	1	MG/L
Tukwet-A	6/20/2017	Sodium	47	MG/L
Tukwet-A	8/6/2020	Sodium	56	MG/L
Tukwet-A	6/20/2017	Specific Conductivity	330	JMHOS/CV
Tukwet-A	8/6/2020	Specific Conductivity	280	JMHOS/CV
Tukwet-A	6/20/2017	Sulfate	6.4	MG/L
Tukwet-A	8/6/2020	Sulfate	5.1	MG/L
Tukwet-A	6/20/2017	Tetrachloroethene (PCE)	< 0.5	UG/L
Tukwet-A	8/6/2020	Tetrachloroethene (PCE)	< 0.5	UG/L
Tukwet-A	6/20/2017	Total Dissolved Solids	180	MG/L
Tukwet-A	8/6/2020	Total Dissolved Solids	160	MG/L
Tukwet-A	6/20/2017	Trichloroethene (TCE)	< 0.5	UG/L
Tukwet-A	8/6/2020	Trichloroethene (TCE)	< 0.5	UG/L
Tukwet-A	6/20/2017	Zinc	< 0.05	MG/L
Tukwet-A	8/6/2020	Zinc	< 0.05	MG/L
Tukwet-D	6/20/2017	Alkalinity, total	150	MG/L
Tukwet-D	8/11/2020	Alkalinity, total	150	MG/L
Tukwet-D	6/20/2017	Aluminum	50	UG/L
Tukwet-D	8/11/2020	Aluminum	50	UG/L
Tukwet-D	6/20/2017	Antimony	< 6	UG/L
Tukwet-D	8/11/2020	Antimony	< 6	UG/L
Tukwet-D	6/20/2017	Arsenic	< 2	UG/L
Tukwet-D	8/11/2020	Arsenic	< 2	UG/L
Tukwet-D	6/20/2017	Bicarbonate Alkalinity	150	MG/L
Tukwet-D	8/11/2020	Bicarbonate Alkalinity	150	MG/L



**GAMA Water Quality for the 2017-21 Period for Domestic Wells in the Beaumont Basin**

Owner	Date	Chemical	Concentration	Units
Tukwet-D	6/20/2017	Calcium	30	MG/L
Tukwet-D	8/11/2020	Calcium	30	MG/L
Tukwet-D	6/20/2017	Chloride	9.2	MG/L
Tukwet-D	8/11/2020	Chloride	11	MG/L
Tukwet-D	6/20/2017	Chromium	6.3	UG/L
Tukwet-D	8/11/2020	Chromium	10	UG/L
Tukwet-D	6/20/2017	Copper	< 0.05	MG/L
Tukwet-D	8/11/2020	Copper	< 0.05	MG/L
Tukwet-D	6/20/2017	Fluoride	0.6	MG/L
Tukwet-D	8/11/2020	Fluoride	0.52	MG/L
Tukwet-D	6/20/2017	Hardness	130	MG/L
Tukwet-D	8/11/2020	Hardness	130	MG/L
Tukwet-D	6/20/2017	Iron	100	UG/L
Tukwet-D	8/11/2020	Iron	100	UG/L
Tukwet-D	6/20/2017	Lead	< 5	UG/L
Tukwet-D	8/11/2020	Lead	< 5	UG/L
Tukwet-D	6/20/2017	Magnesium	14	MG/L
Tukwet-D	8/11/2020	Magnesium	13	MG/L
Tukwet-D	6/20/2017	Manganese	< 20	UG/L
Tukwet-D	8/11/2020	Manganese	< 20	UG/L
Tukwet-D	6/20/2017	Mercury	< 1	UG/L
Tukwet-D	8/11/2020	Mercury	< 1	UG/L
Tukwet-D	6/20/2017	Nitrate as N	2.1	MG/L
Tukwet-D	8/10/2018	Nitrate as N	1.9	MG/L
Tukwet-D	8/13/2019	Nitrate as N	2.2	MG/L
Tukwet-D	9/26/2019	Nitrate as N	2	MG/L
Tukwet-D	8/11/2020	Nitrate as N	2.3	MG/L
Tukwet-D	6/20/2017	Nitrite as N	0.1	MG/L
Tukwet-D	8/11/2020	Nitrite as N	0.4	MG/L
Tukwet-D	6/20/2017	pH	8.2	PH UNITS
Tukwet-D	8/13/2019	pH	8.2	PH UNITS
Tukwet-D	8/11/2020	pH	8.1	PH UNITS
Tukwet-D	6/20/2017	Potassium	1.3	MG/L
Tukwet-D	8/11/2020	Potassium	1.4	MG/L
Tukwet-D	6/20/2017	Sodium	24	MG/L
Tukwet-D	8/11/2020	Sodium	23	MG/L
Tukwet-D	6/20/2017	Specific Conductivity	350	JMHOS/CN
Tukwet-D	8/11/2020	Specific Conductivity	350	JMHOS/CN
Tukwet-D	6/20/2017	Sulfate	8.9	MG/L
Tukwet-D	8/11/2020	Sulfate	9.3	MG/L

**GAMA Water Quality for the 2017-21 Period for Domestic Wells in the Beaumont Basin**

Owner	Date	Chemical	Concentration	Units
Tukwet-D	6/20/2017	Tetrachloroethene (PCE)	< 0.5	UG/L
Tukwet-D	8/11/2020	Tetrachloroethene (PCE)	< 0.5	UG/L
Tukwet-D	6/20/2017	Total Dissolved Solids	230	MG/L
Tukwet-D	8/11/2020	Total Dissolved Solids	200	MG/L
Tukwet-D	6/20/2017	Trichloroethene (TCE)	< 0.5	UG/L
Tukwet-D	8/11/2020	Trichloroethene (TCE)	< 0.5	UG/L
Tukwet-D	6/20/2017	Zinc	< 0.05	MG/L
Tukwet-D	8/11/2020	Zinc	< 0.05	MG/L
BCVWD-03	12/16/2020	1,2-Dibromo-3-chloropropa	< 0.01	UG/L
BCVWD-03	12/16/2020	Alkalinity, total	160	MG/L
BCVWD-03	12/16/2020	Aluminum	50	UG/L
BCVWD-03	12/16/2020	Antimony	< 6	UG/L
BCVWD-03	12/16/2020	Arsenic	< 2	UG/L
BCVWD-03	12/16/2020	Bicarbonate Alkalinity	160	MG/L
BCVWD-03	12/16/2020	Calcium	35	MG/L
BCVWD-03	12/16/2020	Chloride	8	MG/L
BCVWD-03	12/16/2020	Chromium	11	UG/L
BCVWD-03	12/16/2020	Copper	< 0.05	MG/L
BCVWD-03	12/16/2020	Fluoride	0.32	MG/L
BCVWD-03	12/16/2020	Hardness	120	MG/L
BCVWD-03	12/16/2020	Iron	100	UG/L
BCVWD-03	12/16/2020	Lead	< 5	UG/L
BCVWD-03	12/16/2020	Magnesium	8.5	MG/L
BCVWD-03	12/16/2020	Manganese	< 20	UG/L
BCVWD-03	12/16/2020	Mercury	< 1	UG/L
BCVWD-03	12/20/2018	Nitrate as N	0.42	MG/L
BCVWD-03	12/16/2020	Nitrate as N	0.85	MG/L
BCVWD-03	12/16/2020	Nitrite as N	0.4	MG/L
BCVWD-03	12/16/2020	pH	8.1	PH UNITS
BCVWD-03	12/16/2020	Potassium	1.5	MG/L
BCVWD-03	12/16/2020	Sodium	23	MG/L
BCVWD-03	12/16/2020	Specific Conductivity	350	JMHOS/CN
BCVWD-03	12/16/2020	Sulfate	11	MG/L
BCVWD-03	12/16/2020	Tetrachloroethene (PCE)	< 0.5	UG/L
BCVWD-03	12/16/2020	Total Dissolved Solids	190	MG/L
BCVWD-03	12/16/2020	Trichloroethene (TCE)	< 0.5	UG/L
BCVWD-03	12/16/2020	Zinc	< 0.05	MG/L
BCVWD-16	12/4/2019	1,2-Dibromo-3-chloropropa	< 0.01	UG/L
BCVWD-16	12/4/2019	Alkalinity, total	180	MG/L
BCVWD-16	12/4/2019	Aluminum	50	UG/L

**GAMA Water Quality for the 2017-21 Period for Domestic Wells in the Beaumont Basin**

Owner	Date	Chemical	Concentration	Units
BCVWD-16	12/4/2019	Antimony	< 6	UG/L
BCVWD-16	12/18/2018	Arsenic	< 2	UG/L
BCVWD-16	12/4/2019	Arsenic	< 2	UG/L
BCVWD-16	12/4/2019	Bicarbonate Alkalinity	180	MG/L
BCVWD-16	12/4/2019	Calcium	54	MG/L
BCVWD-16	12/4/2019	Chloride	46	MG/L
BCVWD-16	12/4/2019	Chromium	10	UG/L
BCVWD-16	12/4/2019	Copper	< 0.05	MG/L
BCVWD-16	12/4/2019	Fluoride	0.64	MG/L
BCVWD-16	12/4/2019	Hardness	220	MG/L
BCVWD-16	12/4/2019	Iron	100	UG/L
BCVWD-16	12/4/2019	Lead	< 5	UG/L
BCVWD-16	12/4/2019	Magnesium	20	MG/L
BCVWD-16	12/4/2019	Manganese	< 20	UG/L
BCVWD-16	12/4/2019	Mercury	< 1	UG/L
BCVWD-16	1/31/2017	Nitrate as N	6.9	MG/L
BCVWD-16	5/23/2017	Nitrate as N	6.6	MG/L
BCVWD-16	6/19/2017	Nitrate as N	6.2	MG/L
BCVWD-16	7/18/2017	Nitrate as N	6.1	MG/L
BCVWD-16	8/14/2017	Nitrate as N	6.2	MG/L
BCVWD-16	9/11/2017	Nitrate as N	6.1	MG/L
BCVWD-16	10/23/2017	Nitrate as N	5.8	MG/L
BCVWD-16	11/22/2017	Nitrate as N	5.7	MG/L
BCVWD-16	12/11/2017	Nitrate as N	5.6	MG/L
BCVWD-16	1/8/2018	Nitrate as N	5.8	MG/L
BCVWD-16	12/18/2018	Nitrate as N	6	MG/L
BCVWD-16	10/1/2019	Nitrate as N	6.9	MG/L
BCVWD-16	12/4/2019	Nitrate as N	5.1	MG/L
BCVWD-16	5/26/2020	Nitrate as N	7	MG/L
BCVWD-16	6/16/2020	Nitrate as N	6.8	MG/L
BCVWD-16	7/27/2020	Nitrate as N	6.7	MG/L
BCVWD-16	10/27/2020	Nitrate as N	5.1	MG/L
BCVWD-16	12/10/2020	Nitrate as N	6.2	MG/L
BCVWD-16	2/9/2021	Nitrate as N	6.2	MG/L
BCVWD-16	3/23/2021	Nitrate as N	5.3	MG/L
BCVWD-16	12/4/2019	Nitrite as N	0.4	MG/L
BCVWD-16	11/22/2017	pH	8.1	PH UNITS
BCVWD-16	12/4/2019	pH	8.2	PH UNITS
BCVWD-16	12/4/2019	Potassium	1.3	MG/L
BCVWD-16	12/4/2019	Sodium	35	MG/L

**GAMA Water Quality for the 2017-21 Period for Domestic Wells in the Beaumont Basin**

Owner	Date	Chemical	Concentration	Units
BCVWD-16	11/22/2017	Specific Conductivity	550	JMHOS/CN
BCVWD-16	12/4/2019	Specific Conductivity	590	JMHOS/CN
BCVWD-16	12/4/2019	Sulfate	45	MG/L
BCVWD-16	12/4/2019	Tetrachloroethene (PCE)	< 0.5	UG/L
BCVWD-16	12/4/2019	Total Dissolved Solids	350	MG/L
BCVWD-16	12/4/2019	Trichloroethene (TCE)	< 0.5	UG/L
BCVWD-16	12/4/2019	Zinc	< 0.05	MG/L
BCVWD-21	12/4/2019	1,2-Dibromo-3-chloropropene	< 0.01	UG/L
BCVWD-21	12/18/2018	Alkalinity, total	180	MG/L
BCVWD-21	12/18/2018	Aluminum	50	UG/L
BCVWD-21	12/18/2018	Antimony	< 6	UG/L
BCVWD-21	12/18/2018	Arsenic	< 2	UG/L
BCVWD-21	12/18/2018	Bicarbonate Alkalinity	180	MG/L
BCVWD-21	12/18/2018	Calcium	48	MG/L
BCVWD-21	12/18/2018	Chloride	24	MG/L
BCVWD-21	12/18/2018	Chromium	10	UG/L
BCVWD-21	12/18/2018	Copper	< 0.05	MG/L
BCVWD-21	12/18/2018	Fluoride	0.45	MG/L
BCVWD-21	12/18/2018	Hardness	190	MG/L
BCVWD-21	12/18/2018	Iron	100	UG/L
BCVWD-21	12/18/2018	Lead	< 5	UG/L
BCVWD-21	12/18/2018	Magnesium	17	MG/L
BCVWD-21	12/18/2018	Manganese	< 20	UG/L
BCVWD-21	12/18/2018	Mercury	< 1	UG/L
BCVWD-21	1/31/2017	Nitrate as N	3.6	MG/L
BCVWD-21	5/23/2017	Nitrate as N	3.4	MG/L
BCVWD-21	6/19/2017	Nitrate as N	3.4	MG/L
BCVWD-21	7/18/2017	Nitrate as N	3.4	MG/L
BCVWD-21	8/14/2017	Nitrate as N	3.2	MG/L
BCVWD-21	9/11/2017	Nitrate as N	3.2	MG/L
BCVWD-21	10/23/2017	Nitrate as N	3.1	MG/L
BCVWD-21	11/22/2017	Nitrate as N	3.2	MG/L
BCVWD-21	12/11/2017	Nitrate as N	3.2	MG/L
BCVWD-21	1/8/2018	Nitrate as N	3.4	MG/L
BCVWD-21	2/27/2018	Nitrate as N	3.2	MG/L
BCVWD-21	12/18/2018	Nitrate as N	3	MG/L
BCVWD-21	10/1/2019	Nitrate as N	3	MG/L
BCVWD-21	12/4/2019	Nitrate as N	2.9	MG/L
BCVWD-21	7/27/2020	Nitrate as N	3.2	MG/L
BCVWD-21	10/27/2020	Nitrate as N	3.1	MG/L

**GAMA Water Quality for the 2017-21 Period for Domestic Wells in the Beaumont Basin**

Owner	Date	Chemical	Concentration	Units
BCVWD-21	12/10/2020	Nitrate as N	3.1	MG/L
BCVWD-21	2/9/2021	Nitrate as N	3	MG/L
BCVWD-21	3/23/2021	Nitrate as N	3	MG/L
BCVWD-21	12/18/2018	Nitrite as N	0.4	MG/L
BCVWD-21	12/18/2018	pH	8.2	PH UNITS
BCVWD-21	12/18/2018	Potassium	1.6	MG/L
BCVWD-21	12/18/2018	Sodium	24	MG/L
BCVWD-21	12/18/2018	Specific Conductivity	480	JMHOS/CN
BCVWD-21	12/18/2018	Sulfate	28	MG/L
BCVWD-21	12/4/2019	Tetrachloroethene (PCE)	< 0.5	UG/L
BCVWD-21	12/18/2018	Total Dissolved Solids	270	MG/L
BCVWD-21	12/4/2019	Trichloroethene (TCE)	< 0.5	UG/L
BCVWD-21	12/18/2018	Zinc	< 0.05	MG/L
BCVWD-22	12/4/2019	1,2-Dibromo-3-chloropropa	< 0.01	UG/L
BCVWD-22	12/4/2019	Alkalinity, total	180	MG/L
BCVWD-22	12/4/2019	Aluminum	50	UG/L
BCVWD-22	12/4/2019	Antimony	< 6	UG/L
BCVWD-22	12/4/2019	Arsenic	< 2	UG/L
BCVWD-22	12/4/2019	Bicarbonate Alkalinity	180	MG/L
BCVWD-22	12/4/2019	Calcium	38	MG/L
BCVWD-22	12/4/2019	Chloride	8	MG/L
BCVWD-22	12/4/2019	Chromium	10	UG/L
BCVWD-22	12/4/2019	Copper	< 0.05	MG/L
BCVWD-22	12/4/2019	Fluoride	0.31	MG/L
BCVWD-22	12/4/2019	Hardness	160	MG/L
BCVWD-22	12/4/2019	Iron	100	UG/L
BCVWD-22	12/4/2019	Lead	< 5	UG/L
BCVWD-22	12/4/2019	Magnesium	16	MG/L
BCVWD-22	12/4/2019	Manganese	< 20	UG/L
BCVWD-22	12/4/2019	Mercury	< 1	UG/L
BCVWD-22	12/14/2017	Nitrate as N	0.89	MG/L
BCVWD-22	12/4/2019	Nitrate as N	0.93	MG/L
BCVWD-22	12/10/2020	Nitrate as N	0.94	MG/L
BCVWD-22	12/4/2019	Nitrite as N	0.4	MG/L
BCVWD-22	12/4/2019	pH	8.1	PH UNITS
BCVWD-22	12/4/2019	Potassium	1.3	MG/L
BCVWD-22	12/4/2019	Sodium	18	MG/L
BCVWD-22	12/4/2019	Specific Conductivity	380	JMHOS/CN
BCVWD-22	12/4/2019	Sulfate	10	MG/L
BCVWD-22	12/4/2019	Tetrachloroethene (PCE)	< 0.5	UG/L

**GAMA Water Quality for the 2017-21 Period for Domestic Wells in the Beaumont Basin**

Owner	Date	Chemical	Concentration	Units
BCVWD-22	12/4/2019	Total Dissolved Solids	220	MG/L
BCVWD-22	12/4/2019	Trichloroethene (TCE)	< 0.5	UG/L
BCVWD-22	12/4/2019	Zinc	< 0.05	MG/L
BCVWD-23	12/18/2018	1,2-Dibromo-3-chloropropa	0.044	UG/L
BCVWD-23	6/27/2019	1,2-Dibromo-3-chloropropa	0.048	UG/L
BCVWD-23	12/18/2018	Alkalinity, total	170	MG/L
BCVWD-23	12/18/2018	Aluminum	50	UG/L
BCVWD-23	12/18/2018	Antimony	< 6	UG/L
BCVWD-23	12/18/2018	Arsenic	< 2	UG/L
BCVWD-23	12/18/2018	Bicarbonate Alkalinity	170	MG/L
BCVWD-23	12/18/2018	Calcium	47	MG/L
BCVWD-23	12/18/2018	Chloride	21	MG/L
BCVWD-23	12/18/2018	Chromium	10	UG/L
BCVWD-23	12/18/2018	Copper	< 0.05	MG/L
BCVWD-23	12/18/2018	Fluoride	0.37	MG/L
BCVWD-23	12/18/2018	Hardness	180	MG/L
BCVWD-23	12/18/2018	Iron	100	UG/L
BCVWD-23	12/18/2018	Lead	< 5	UG/L
BCVWD-23	12/18/2018	Magnesium	15	MG/L
BCVWD-23	12/18/2018	Manganese	< 20	UG/L
BCVWD-23	12/18/2018	Mercury	< 1	UG/L
BCVWD-23	5/23/2017	Nitrate as N	2.4	MG/L
BCVWD-23	6/19/2017	Nitrate as N	2.4	MG/L
BCVWD-23	7/18/2017	Nitrate as N	2.3	MG/L
BCVWD-23	8/14/2017	Nitrate as N	2.4	MG/L
BCVWD-23	9/11/2017	Nitrate as N	2.4	MG/L
BCVWD-23	11/22/2017	Nitrate as N	2.9	MG/L
BCVWD-23	12/11/2017	Nitrate as N	2.4	MG/L
BCVWD-23	1/8/2018	Nitrate as N	2.4	MG/L
BCVWD-23	2/27/2018	Nitrate as N	2.3	MG/L
BCVWD-23	12/18/2018	Nitrate as N	2.7	MG/L
BCVWD-23	12/4/2019	Nitrate as N	2.1	MG/L
BCVWD-23	12/10/2020	Nitrate as N	1.9	MG/L
BCVWD-23	12/18/2018	Nitrite as N	0.4	MG/L
BCVWD-23	12/18/2018	pH	8.3	PH UNITS
BCVWD-23	12/18/2018	Potassium	1.5	MG/L
BCVWD-23	12/18/2018	Sodium	21	MG/L
BCVWD-23	12/18/2018	Specific Conductivity	440	JMHOS/CV
BCVWD-23	12/18/2018	Sulfate	19	MG/L
BCVWD-23	12/18/2018	Tetrachloroethene (PCE)	< 0.5	UG/L

**GAMA Water Quality for the 2017-21 Period for Domestic Wells in the Beaumont Basin**

Owner	Date	Chemical	Concentration	Units
BCVWD-23	12/18/2018	Total Dissolved Solids	260	MG/L
BCVWD-23	12/18/2018	Trichloroethene (TCE)	< 0.5	UG/L
BCVWD-23	12/18/2018	Zinc	< 0.05	MG/L
BCVWD-24	12/4/2019	1,2-Dibromo-3-chloropropa	< 0.01	UG/L
BCVWD-24	12/4/2019	Alkalinity, total	160	MG/L
BCVWD-24	12/4/2019	Aluminum	50	UG/L
BCVWD-24	12/4/2019	Antimony	< 6	UG/L
BCVWD-24	12/18/2018	Arsenic	< 2	UG/L
BCVWD-24	12/4/2019	Arsenic	< 2	UG/L
BCVWD-24	12/4/2019	Bicarbonate Alkalinity	160	MG/L
BCVWD-24	12/4/2019	Calcium	35	MG/L
BCVWD-24	12/4/2019	Chloride	6.6	MG/L
BCVWD-24	12/4/2019	Chromium	10	UG/L
BCVWD-24	12/4/2019	Copper	< 0.05	MG/L
BCVWD-24	12/4/2019	Fluoride	0.35	MG/L
BCVWD-24	12/4/2019	Hardness	140	MG/L
BCVWD-24	12/4/2019	Iron	100	UG/L
BCVWD-24	12/4/2019	Lead	< 5	UG/L
BCVWD-24	12/4/2019	Magnesium	12	MG/L
BCVWD-24	12/4/2019	Manganese	< 20	UG/L
BCVWD-24	12/4/2019	Mercury	< 1	UG/L
BCVWD-24	11/22/2017	Nitrate as N	1.7	MG/L
BCVWD-24	12/18/2018	Nitrate as N	1.8	MG/L
BCVWD-24	12/4/2019	Nitrate as N	1.7	MG/L
BCVWD-24	12/10/2020	Nitrate as N	0.99	MG/L
BCVWD-24	12/4/2019	Nitrite as N	0.4	MG/L
BCVWD-24	12/4/2019	pH	8.2	PH UNITS
BCVWD-24	12/4/2019	Potassium	1.3	MG/L
BCVWD-24	12/4/2019	Sodium	17	MG/L
BCVWD-24	12/4/2019	Specific Conductivity	350	JMHOS/CV
BCVWD-24	12/4/2019	Sulfate	11	MG/L
BCVWD-24	12/4/2019	Tetrachloroethene (PCE)	< 0.5	UG/L
BCVWD-24	12/4/2019	Total Dissolved Solids	200	MG/L
BCVWD-24	12/4/2019	Trichloroethene (TCE)	< 0.5	UG/L
BCVWD-24	12/4/2019	Zinc	< 0.05	MG/L
BCVWD-25	12/18/2018	1,2-Dibromo-3-chloropropa	< 0.01	UG/L
BCVWD-25	12/18/2018	Alkalinity, total	180	MG/L
BCVWD-25	12/18/2018	Aluminum	50	UG/L
BCVWD-25	12/18/2018	Antimony	< 6	UG/L
BCVWD-25	12/18/2018	Arsenic	< 2	UG/L



**GAMA Water Quality for the 2017-21 Period for Domestic Wells in the Beaumont Basin**

Owner	Date	Chemical	Concentration	Units
BCVWD-25	12/18/2018	Bicarbonate Alkalinity	180	MG/L
BCVWD-25	12/18/2018	Calcium	43	MG/L
BCVWD-25	12/18/2018	Chloride	9.7	MG/L
BCVWD-25	12/18/2018	Chromium	12	UG/L
BCVWD-25	12/18/2018	Copper	< 0.05	MG/L
BCVWD-25	12/18/2018	Fluoride	0.23	MG/L
BCVWD-25	12/18/2018	Hardness	160	MG/L
BCVWD-25	12/18/2018	Iron	100	UG/L
BCVWD-25	12/18/2018	Lead	< 5	UG/L
BCVWD-25	12/18/2018	Magnesium	13	MG/L
BCVWD-25	12/18/2018	Manganese	< 20	UG/L
BCVWD-25	12/18/2018	Mercury	< 1	UG/L
BCVWD-25	5/15/2017	Nitrate as N	1.6	MG/L
BCVWD-25	10/23/2017	Nitrate as N	1.1	MG/L
BCVWD-25	12/18/2018	Nitrate as N	1.1	MG/L
BCVWD-25	12/4/2019	Nitrate as N	0.76	MG/L
BCVWD-25	12/10/2020	Nitrate as N	1.1	MG/L
BCVWD-25	12/18/2018	Nitrite as N	0.4	MG/L
BCVWD-25	12/18/2018	pH	8.3	PH UNITS
BCVWD-25	12/18/2018	Potassium	1.5	MG/L
BCVWD-25	12/18/2018	Sodium	22	MG/L
BCVWD-25	12/18/2018	Specific Conductivity	400	JMHOS/CV
BCVWD-25	12/18/2018	Sulfate	13	MG/L
BCVWD-25	12/18/2018	Tetrachloroethene (PCE)	< 0.5	UG/L
BCVWD-25	12/18/2018	Total Dissolved Solids	230	MG/L
BCVWD-25	12/18/2018	Trichloroethene (TCE)	< 0.5	UG/L
BCVWD-25	12/18/2018	Zinc	< 0.05	MG/L
BCVWD-26	12/18/2018	1,2-Dibromo-3-chloropropa	< 0.01	UG/L
BCVWD-26	12/18/2018	Alkalinity, total	160	MG/L
BCVWD-26	12/18/2018	Aluminum	50	UG/L
BCVWD-26	12/18/2018	Antimony	< 6	UG/L
BCVWD-26	12/18/2018	Arsenic	< 2	UG/L
BCVWD-26	12/18/2018	Bicarbonate Alkalinity	160	MG/L
BCVWD-26	12/18/2018	Calcium	33	MG/L
BCVWD-26	12/18/2018	Chloride	8.8	MG/L
BCVWD-26	12/18/2018	Chromium	16	UG/L
BCVWD-26	12/18/2018	Copper	< 0.05	MG/L
BCVWD-26	12/18/2018	Fluoride	0.28	MG/L
BCVWD-26	12/18/2018	Hardness	120	MG/L
BCVWD-26	12/18/2018	Iron	100	UG/L

**GAMA Water Quality for the 2017-21 Period for Domestic Wells in the Beaumont Basin**

Owner	Date	Chemical	Concentration	Units
BCVWD-26	12/18/2018	Lead	< 5	UG/L
BCVWD-26	12/18/2018	Magnesium	9.2	MG/L
BCVWD-26	12/18/2018	Manganese	< 20	UG/L
BCVWD-26	12/18/2018	Mercury	< 1	UG/L
BCVWD-26	12/18/2018	Nitrate as N	0.89	MG/L
BCVWD-26	12/4/2019	Nitrate as N	0.64	MG/L
BCVWD-26	12/10/2020	Nitrate as N	0.72	MG/L
BCVWD-26	12/18/2018	Nitrite as N	0.4	MG/L
BCVWD-26	12/18/2018	pH	8.3	PH UNITS
BCVWD-26	12/18/2018	Potassium	1.5	MG/L
BCVWD-26	12/18/2018	Sodium	26	MG/L
BCVWD-26	12/18/2018	Specific Conductivity	340	JMHOS/CV
BCVWD-26	12/18/2018	Sulfate	10	MG/L
BCVWD-26	12/18/2018	Tetrachloroethene (PCE)	< 0.5	UG/L
BCVWD-26	12/18/2018	Total Dissolved Solids	180	MG/L
BCVWD-26	12/18/2018	Trichloroethene (TCE)	< 0.5	UG/L
BCVWD-26	12/18/2018	Zinc	< 0.05	MG/L
BCVWD-29	12/18/2018	1,2-Dibromo-3-chloropropane	< 0.01	UG/L
BCVWD-29	12/18/2018	Alkalinity, total	130	MG/L
BCVWD-29	12/18/2018	Aluminum	50	UG/L
BCVWD-29	12/18/2018	Antimony	< 6	UG/L
BCVWD-29	12/18/2018	Arsenic	< 2	UG/L
BCVWD-29	12/18/2018	Bicarbonate Alkalinity	130	MG/L
BCVWD-29	12/18/2018	Calcium	39	MG/L
BCVWD-29	12/18/2018	Chloride	11	MG/L
BCVWD-29	12/18/2018	Chromium	10	UG/L
BCVWD-29	12/14/2017	Chromium, Hexavalent (Cr6)	8	UG/L
BCVWD-29	12/18/2018	Copper	< 0.05	MG/L
BCVWD-29	12/18/2018	Fluoride	0.3	MG/L
BCVWD-29	12/18/2018	Hardness	150	MG/L
BCVWD-29	12/18/2018	Iron	100	UG/L
BCVWD-29	12/18/2018	Lead	< 5	UG/L
BCVWD-29	12/18/2018	Magnesium	13	MG/L
BCVWD-29	12/18/2018	Manganese	< 20	UG/L
BCVWD-29	12/18/2018	Mercury	< 1	UG/L
BCVWD-29	12/14/2017	Nitrate as N	2.3	MG/L
BCVWD-29	12/18/2018	Nitrate as N	1.8	MG/L
BCVWD-29	12/4/2019	Nitrate as N	1.8	MG/L
BCVWD-29	12/10/2020	Nitrate as N	2.4	MG/L
BCVWD-29	12/18/2018	Nitrite as N	0.4	MG/L

**GAMA Water Quality for the 2017-21 Period for Domestic Wells in the Beaumont Basin**

Owner	Date	Chemical	Concentration	Units
BCVWD-29	12/14/2017	pH	8.1	PH UNITS
BCVWD-29	12/18/2018	pH	8.2	PH UNITS
BCVWD-29	12/18/2018	Potassium	1.6	MG/L
BCVWD-29	12/18/2018	Sodium	19	MG/L
BCVWD-29	12/14/2017	Specific Conductivity	400	UMHOS/CM
BCVWD-29	12/18/2018	Specific Conductivity	360	UMHOS/CM
BCVWD-29	12/18/2018	Sulfate	11	MG/L
BCVWD-29	12/18/2018	Tetrachloroethene (PCE)	< 0.5	UG/L
BCVWD-29	12/18/2018	Total Dissolved Solids	210	MG/L
BCVWD-29	12/18/2018	Trichloroethene (TCE)	< 0.5	UG/L
BCVWD-29	12/18/2018	Zinc	< 0.05	MG/L
Banning-C2A	3/17/2020	1,2-Dibromo-3-chloropropene	< 0.01	UG/L
Banning-C2A	3/17/2020	Alkalinity, total	160	MG/L
Banning-C2A	3/17/2020	Aluminum	50	UG/L
Banning-C2A	3/17/2020	Antimony	< 6	UG/L
Banning-C2A	3/17/2020	Arsenic	< 2	UG/L
Banning-C2A	3/17/2020	Bicarbonate Alkalinity	160	MG/L
Banning-C2A	3/17/2020	Calcium	41	MG/L
Banning-C2A	3/17/2020	Chloride	9.2	MG/L
Banning-C2A	3/17/2020	Chromium	16	UG/L
Banning-C2A	11/13/2017	Chromium, Hexavalent (Cr6)	16	UG/L
Banning-C2A	3/17/2020	Copper	< 0.05	MG/L
Banning-C2A	3/17/2020	Fluoride	0.2	MG/L
Banning-C2A	3/17/2020	Hardness	140	MG/L
Banning-C2A	3/17/2020	Iron	100	UG/L
Banning-C2A	3/17/2020	Lead	< 5	UG/L
Banning-C2A	3/17/2020	Magnesium	8.8	MG/L
Banning-C2A	3/17/2020	Manganese	< 20	UG/L
Banning-C2A	3/17/2020	Mercury	< 1	UG/L
Banning-C2A	4/26/2017	Nitrate as N	1.9	MG/L
Banning-C2A	6/13/2018	Nitrate as N	2	MG/L
Banning-C2A	1/23/2019	Nitrate as N	2	MG/L
Banning-C2A	3/17/2020	Nitrate as N	1.3	MG/L
Banning-C2A	1/6/2021	Nitrate as N	1.9	MG/L
Banning-C2A	4/26/2017	Nitrite as N	0.1	MG/L
Banning-C2A	6/13/2018	Nitrite as N	0.1	MG/L
Banning-C2A	1/23/2019	Nitrite as N	0.4	MG/L
Banning-C2A	3/17/2020	Nitrite as N	0.4	MG/L
Banning-C2A	1/6/2021	Nitrite as N	0.4	MG/L
Banning-C2A	3/17/2020	pH	8.2	PH UNITS

**GAMA Water Quality for the 2017-21 Period for Domestic Wells in the Beaumont Basin**

Owner	Date	Chemical	Concentration	Units
Banning-C2A	3/17/2020	Potassium	1.3	MG/L
Banning-C2A	3/17/2020	Sodium	24	MG/L
Banning-C2A	3/17/2020	Specific Conductivity	390	JMHOS/CN
Banning-C2A	3/17/2020	Sulfate	8.5	MG/L
Banning-C2A	3/17/2020	Tetrachloroethene (PCE)	< 0.5	UG/L
Banning-C2A	3/17/2020	Total Dissolved Solids	220	MG/L
Banning-C2A	3/17/2020	Trichloroethene (TCE)	< 0.5	UG/L
Banning-C2A	3/17/2020	Zinc	< 0.05	MG/L
Banning-C3	3/8/2017	1,2-Dibromo-3-chloropropene	< 0.01	UG/L
Banning-C3	3/8/2017	Alkalinity, total	140	MG/L
Banning-C3	3/8/2017	Aluminum	50	UG/L
Banning-C3	3/8/2017	Antimony	< 6	UG/L
Banning-C3	3/8/2017	Arsenic	< 2	UG/L
Banning-C3	3/8/2017	Bicarbonate Alkalinity	160	MG/L
Banning-C3	3/8/2017	Calcium	31	MG/L
Banning-C3	3/8/2017	Chloride	9.9	MG/L
Banning-C3	3/8/2017	Chromium	15	UG/L
Banning-C3	5/12/2017	Chromium, Hexavalent (Cr6)	14	UG/L
Banning-C3	8/14/2017	Chromium, Hexavalent (Cr6)	14	UG/L
Banning-C3	11/13/2017	Chromium, Hexavalent (Cr6)	15	UG/L
Banning-C3	3/8/2017	Copper	< 0.05	MG/L
Banning-C3	3/8/2017	Fluoride	0.4	MG/L
Banning-C3	3/8/2017	Hardness	100	MG/L
Banning-C3	3/8/2017	Iron	100	UG/L
Banning-C3	3/8/2017	Lead	< 5	UG/L
Banning-C3	3/8/2017	Magnesium	5.7	MG/L
Banning-C3	3/8/2017	Manganese	< 20	UG/L
Banning-C3	3/8/2017	Mercury	< 1	UG/L
Banning-C3	3/8/2017	Nitrate as N	1.6	MG/L
Banning-C3	4/25/2017	Nitrate as N	1.8	MG/L
Banning-C3	6/13/2018	Nitrate as N	1.8	MG/L
Banning-C3	1/23/2019	Nitrate as N	1.8	MG/L
Banning-C3	3/8/2017	Nitrite as N	0.1	MG/L
Banning-C3	4/25/2017	Nitrite as N	0.1	MG/L
Banning-C3	6/13/2018	Nitrite as N	0.1	MG/L
Banning-C3	1/23/2019	Nitrite as N	0.4	MG/L
Banning-C3	3/8/2017	pH	8	PH UNITS
Banning-C3	3/8/2017	Potassium	1.5	MG/L
Banning-C3	3/8/2017	Sodium	29	MG/L
Banning-C3	3/8/2017	Specific Conductivity	330	JMHOS/CN

**GAMA Water Quality for the 2017-21 Period for Domestic Wells in the Beaumont Basin**

Owner	Date	Chemical	Concentration	Units
Banning-C3	3/8/2017	Sulfate	6	MG/L
Banning-C3	3/8/2017	Tetrachloroethene (PCE)	< 0.5	UG/L
Banning-C3	3/8/2017	Total Dissolved Solids	170	MG/L
Banning-C3	3/8/2017	Trichloroethene (TCE)	< 0.5	UG/L
Banning-C3	3/8/2017	Zinc	< 0.05	MG/L
Banning-C4	3/6/2017	1,2-Dibromo-3-chloropropa	< 0.01	UG/L
Banning-C4	3/11/2020	1,2-Dibromo-3-chloropropa	< 0.01	UG/L
Banning-C4	3/6/2017	Alkalinity, total	120	MG/L
Banning-C4	3/11/2020	Alkalinity, total	150	MG/L
Banning-C4	3/6/2017	Aluminum	50	UG/L
Banning-C4	3/11/2020	Aluminum	50	UG/L
Banning-C4	3/6/2017	Antimony	< 6	UG/L
Banning-C4	3/11/2020	Antimony	< 6	UG/L
Banning-C4	3/6/2017	Arsenic	< 2	UG/L
Banning-C4	3/11/2020	Arsenic	< 2	UG/L
Banning-C4	3/6/2017	Bicarbonate Alkalinity	140	MG/L
Banning-C4	3/11/2020	Bicarbonate Alkalinity	150	MG/L
Banning-C4	3/6/2017	Calcium	22	MG/L
Banning-C4	3/11/2020	Calcium	36	MG/L
Banning-C4	3/6/2017	Chloride	5.6	MG/L
Banning-C4	3/11/2020	Chloride	8.2	MG/L
Banning-C4	3/6/2017	Chromium	9.9	UG/L
Banning-C4	3/11/2020	Chromium	16	UG/L
Banning-C4	5/25/2017	Chromium, Hexavalent (Cr6)	11	UG/L
Banning-C4	8/14/2017	Chromium, Hexavalent (Cr6)	15	UG/L
Banning-C4	11/13/2017	Chromium, Hexavalent (Cr6)	15	UG/L
Banning-C4	3/6/2017	Copper	< 0.05	MG/L
Banning-C4	3/11/2020	Copper	< 0.05	MG/L
Banning-C4	3/6/2017	Fluoride	0.4	MG/L
Banning-C4	3/11/2020	Fluoride	0.25	MG/L
Banning-C4	3/6/2017	Hardness	67	MG/L
Banning-C4	3/11/2020	Hardness	120	MG/L
Banning-C4	3/6/2017	Iron	100	UG/L
Banning-C4	3/11/2020	Iron	100	UG/L
Banning-C4	3/6/2017	Lead	< 5	UG/L
Banning-C4	3/11/2020	Lead	< 5	UG/L
Banning-C4	3/6/2017	Magnesium	3.1	MG/L
Banning-C4	3/11/2020	Magnesium	7.2	MG/L
Banning-C4	3/6/2017	Manganese	< 20	UG/L
Banning-C4	3/11/2020	Manganese	< 20	UG/L

**GAMA Water Quality for the 2017-21 Period for Domestic Wells in the Beaumont Basin**

Owner	Date	Chemical	Concentration	Units
Banning-C4	3/6/2017	Mercury	< 1	UG/L
Banning-C4	3/11/2020	Mercury	< 1	UG/L
Banning-C4	3/6/2017	Nitrate as N	0.79	MG/L
Banning-C4	4/26/2017	Nitrate as N	0.91	MG/L
Banning-C4	6/13/2018	Nitrate as N	1.1	MG/L
Banning-C4	1/23/2019	Nitrate as N	0.95	MG/L
Banning-C4	3/11/2020	Nitrate as N	0.97	MG/L
Banning-C4	1/6/2021	Nitrate as N	0.93	MG/L
Banning-C4	3/6/2017	Nitrite as N	0.1	MG/L
Banning-C4	4/26/2017	Nitrite as N	0.1	MG/L
Banning-C4	6/13/2018	Nitrite as N	0.1	MG/L
Banning-C4	1/23/2019	Nitrite as N	0.4	MG/L
Banning-C4	3/11/2020	Nitrite as N	0.4	MG/L
Banning-C4	1/6/2021	Nitrite as N	0.4	MG/L
Banning-C4	3/6/2017	pH	7.9	PH UNITS
Banning-C4	3/11/2020	pH	8.1	PH UNITS
Banning-C4	3/6/2017	Potassium	1.4	MG/L
Banning-C4	3/11/2020	Potassium	1.5	MG/L
Banning-C4	3/6/2017	Sodium	37	MG/L
Banning-C4	3/11/2020	Sodium	27	MG/L
Banning-C4	3/6/2017	Specific Conductivity	290	JMHOS/CV
Banning-C4	3/11/2020	Specific Conductivity	350	JMHOS/CV
Banning-C4	3/6/2017	Sulfate	13	MG/L
Banning-C4	3/11/2020	Sulfate	12	MG/L
Banning-C4	3/6/2017	Tetrachloroethene (PCE)	< 0.5	UG/L
Banning-C4	3/11/2020	Tetrachloroethene (PCE)	< 0.5	UG/L
Banning-C4	3/6/2017	Total Dissolved Solids	190	MG/L
Banning-C4	3/11/2020	Total Dissolved Solids	200	MG/L
Banning-C4	3/6/2017	Trichloroethene (TCE)	< 0.5	UG/L
Banning-C4	3/11/2020	Trichloroethene (TCE)	< 0.5	UG/L
Banning-C4	3/6/2017	Zinc	< 0.05	MG/L
Banning-C4	3/11/2020	Zinc	< 0.05	MG/L
Banning-M3	2/14/2018	1,2-Dibromo-3-chloropropa	< 0.01	UG/L
Banning-M3	2/11/2021	1,2-Dibromo-3-chloropropa	< 0.01	UG/L
Banning-M3	2/14/2018	Alkalinity, total	180	MG/L
Banning-M3	2/11/2021	Alkalinity, total	170	MG/L
Banning-M3	2/14/2018	Aluminum	57	UG/L
Banning-M3	2/11/2021	Aluminum	50	UG/L
Banning-M3	2/14/2018	Antimony	< 6	UG/L
Banning-M3	2/11/2021	Antimony	< 6	UG/L

**GAMA Water Quality for the 2017-21 Period for Domestic Wells in the Beaumont Basin**

Owner	Date	Chemical	Concentration	Units
Banning-M3	2/14/2018	Arsenic	< 2	UG/L
Banning-M3	2/11/2021	Arsenic	< 2	UG/L
Banning-M3	2/14/2018	Bicarbonate Alkalinity	180	MG/L
Banning-M3	2/11/2021	Bicarbonate Alkalinity	170	MG/L
Banning-M3	2/14/2018	Calcium	41	MG/L
Banning-M3	2/11/2021	Calcium	37	MG/L
Banning-M3	2/14/2018	Chloride	16	MG/L
Banning-M3	2/11/2021	Chloride	16	MG/L
Banning-M3	2/14/2018	Chromium	9.9	UG/L
Banning-M3	2/11/2021	Chromium	10	UG/L
Banning-M3	5/25/2017	Chromium, Hexavalent (Cr6)	9.9	UG/L
Banning-M3	8/14/2017	Chromium, Hexavalent (Cr6)	9.2	UG/L
Banning-M3	11/15/2017	Chromium, Hexavalent (Cr6)	9.1	UG/L
Banning-M3	2/14/2018	Copper	< 0.05	MG/L
Banning-M3	2/11/2021	Copper	< 0.05	MG/L
Banning-M3	2/14/2018	Fluoride	0.32	MG/L
Banning-M3	2/11/2021	Fluoride	0.32	MG/L
Banning-M3	2/14/2018	Hardness	160	MG/L
Banning-M3	2/11/2021	Hardness	150	MG/L
Banning-M3	2/14/2018	Iron	120	UG/L
Banning-M3	2/11/2021	Iron	100	UG/L
Banning-M3	2/14/2018	Lead	< 5	UG/L
Banning-M3	2/11/2021	Lead	< 5	UG/L
Banning-M3	2/14/2018	Magnesium	14	MG/L
Banning-M3	2/11/2021	Magnesium	13	MG/L
Banning-M3	2/14/2018	Manganese	< 20	UG/L
Banning-M3	2/11/2021	Manganese	< 20	UG/L
Banning-M3	2/14/2018	Mercury	< 1	UG/L
Banning-M3	2/11/2021	Mercury	< 1	UG/L
Banning-M3	4/26/2017	Nitrate as N	2.2	MG/L
Banning-M3	2/14/2018	Nitrate as N	2.2	MG/L
Banning-M3	6/13/2018	Nitrate as N	1.9	MG/L
Banning-M3	1/23/2019	Nitrate as N	2.2	MG/L
Banning-M3	1/6/2021	Nitrate as N	2.1	MG/L
Banning-M3	2/11/2021	Nitrate as N	2.3	MG/L
Banning-M3	4/26/2017	Nitrite as N	0.1	MG/L
Banning-M3	2/14/2018	Nitrite as N	0.1	MG/L
Banning-M3	6/13/2018	Nitrite as N	0.1	MG/L
Banning-M3	1/23/2019	Nitrite as N	0.4	MG/L
Banning-M3	1/6/2021	Nitrite as N	0.4	MG/L



**GAMA Water Quality for the 2017-21 Period for Domestic Wells in the Beaumont Basin**

Owner	Date	Chemical	Concentration	Units
Banning-M3	2/11/2021	Nitrite as N	0.4	MG/L
Banning-M3	2/14/2018	pH	8.2	PH UNITS
Banning-M3	2/11/2021	pH	8.1	PH UNITS
Banning-M3	2/14/2018	Potassium	2.1	MG/L
Banning-M3	2/11/2021	Potassium	2.2	MG/L
Banning-M3	2/14/2018	Sodium	39	MG/L
Banning-M3	2/11/2021	Sodium	39	MG/L
Banning-M3	2/14/2018	Specific Conductivity	460	JMHOS/CN
Banning-M3	2/11/2021	Specific Conductivity	430	JMHOS/CN
Banning-M3	2/14/2018	Sulfate	36	MG/L
Banning-M3	2/11/2021	Sulfate	33	MG/L
Banning-M3	2/14/2018	Tetrachloroethene (PCE)	< 0.5	UG/L
Banning-M3	2/11/2021	Tetrachloroethene (PCE)	< 0.5	UG/L
Banning-M3	2/14/2018	Total Dissolved Solids	280	MG/L
Banning-M3	2/11/2021	Total Dissolved Solids	260	MG/L
Banning-M3	2/14/2018	Trichloroethene (TCE)	< 0.5	UG/L
Banning-M3	2/11/2021	Trichloroethene (TCE)	< 0.5	UG/L
Banning-M3	2/14/2018	Zinc	< 0.05	MG/L
Banning-M3	2/11/2021	Zinc	< 0.05	MG/L
SMWC-04	4/15/2019	Alkalinity, total	110	MG/L
SMWC-04	4/15/2019	Aluminum	0	UG/L
SMWC-04	4/15/2019	Antimony	< 6	UG/L
SMWC-04	4/15/2019	Arsenic	3.8	UG/L
SMWC-04	4/15/2019	Bicarbonate Alkalinity	110	MG/L
SMWC-04	4/15/2019	Calcium	7.1	MG/L
SMWC-04	4/15/2019	Chloride	18	MG/L
SMWC-04	4/15/2019	Chromium	0	UG/L
SMWC-04	12/4/2017	Chromium, Hexavalent (Cr6)	2.3	UG/L
SMWC-04	4/15/2019	Chromium, Hexavalent (Cr6)	2.2	UG/L
SMWC-04	4/15/2019	Copper	< 0.05	MG/L
SMWC-04	4/15/2019	Fluoride	0.4	MG/L
SMWC-04	4/15/2019	Hardness	22	MG/L
SMWC-04	4/15/2019	Iron	0	UG/L
SMWC-04	4/15/2019	Lead	< 5	UG/L
SMWC-04	4/15/2019	Magnesium	1.1	MG/L
SMWC-04	4/15/2019	Manganese	< 20	UG/L
SMWC-04	4/15/2019	Mercury	< 1	UG/L
SMWC-04	3/3/2017	Nitrate as N	3.8	MG/L
SMWC-04	6/5/2017	Nitrate as N	3.1	MG/L
SMWC-04	9/12/2017	Nitrate as N	4.9	MG/L

**GAMA Water Quality for the 2017-21 Period for Domestic Wells in the Beaumont Basin**

Owner	Date	Chemical	Concentration	Units
SMWC-04	12/4/2017	Nitrate as N	3.2	MG/L
SMWC-04	12/4/2018	Nitrate as N	4.3	MG/L
SMWC-04	4/15/2019	Nitrate as N	3.8	MG/L
SMWC-04	6/4/2019	Nitrate as N	4.4	MG/L
SMWC-04	6/3/2020	Nitrate as N	3.1	MG/L
SMWC-04	4/15/2019	Nitrite as N	0	MG/L
SMWC-04	4/15/2019	pH	9	PH UNITS
SMWC-04	4/15/2019	Potassium	0	MG/L
SMWC-04	4/15/2019	Sodium	62	MG/L
SMWC-04	4/15/2019	Specific Conductivity	320	UMHOS/CN
SMWC-04	4/15/2019	Sulfate	17	MG/L
SMWC-04	8/12/2019	Tetrachloroethene (PCE)	0	UG/L
SMWC-04	4/15/2019	Total Dissolved Solids	180	MG/L
SMWC-04	8/12/2019	Trichloroethene (TCE)	0	UG/L
SMWC-04	4/15/2019	Vanadium	72	UG/L
SMWC-04	4/15/2019	Zinc	0	MG/L
YVWD-48	7/17/2019	1,2-Dibromo-3-chloropropa	< 0.01	UG/L
YVWD-48	7/13/2017	Alkalinity, total	96	MG/L
YVWD-48	7/14/2020	Alkalinity, total	140	MG/L
YVWD-48	7/13/2017	Aluminum	0	UG/L
YVWD-48	7/14/2020	Aluminum	0	UG/L
YVWD-48	7/13/2017	Antimony	< 6	UG/L
YVWD-48	7/14/2020	Antimony	< 6	UG/L
YVWD-48	7/13/2017	Arsenic	2.5	UG/L
YVWD-48	7/14/2020	Arsenic	< 2	UG/L
YVWD-48	7/13/2017	Bicarbonate Alkalinity	75	MG/L
YVWD-48	7/14/2020	Bicarbonate Alkalinity	170	MG/L
YVWD-48	7/13/2017	Calcium	11	MG/L
YVWD-48	7/14/2020	Calcium	32	MG/L
YVWD-48	7/13/2017	Chloride	8.8	MG/L
YVWD-48	7/14/2020	Chloride	11	MG/L
YVWD-48	7/13/2017	Chromium	0	UG/L
YVWD-48	7/14/2020	Chromium	0	UG/L
YVWD-48	7/13/2017	Chromium, Hexavalent (Cr6	5.8	UG/L
YVWD-48	7/14/2020	Chromium, Hexavalent (Cr6	7.5	UG/L
YVWD-48	7/13/2017	Copper	< 0.05	MG/L
YVWD-48	7/14/2020	Copper	< 0.05	MG/L
YVWD-48	7/13/2017	Fluoride	0.63	MG/L
YVWD-48	7/14/2020	Fluoride	0.39	MG/L
YVWD-48	7/13/2017	Hardness	38	MG/L

**GAMA Water Quality for the 2017-21 Period for Domestic Wells in the Beaumont Basin**

Owner	Date	Chemical	Concentration	Units
YVWD-48	7/14/2020	Hardness	100	MG/L
YVWD-48	7/13/2017	Iron	0	UG/L
YVWD-48	7/14/2020	Iron	0	UG/L
YVWD-48	7/13/2017	Lead	< 5	UG/L
YVWD-48	7/14/2020	Lead	< 5	UG/L
YVWD-48	7/13/2017	Magnesium	2.8	MG/L
YVWD-48	7/14/2020	Magnesium	4.8	MG/L
YVWD-48	7/13/2017	Manganese	< 20	UG/L
YVWD-48	7/14/2020	Manganese	< 20	UG/L
YVWD-48	7/13/2017	Mercury	< 1	UG/L
YVWD-48	7/14/2020	Mercury	< 1	UG/L
YVWD-48	7/13/2017	Nitrate as N	1.6	MG/L
YVWD-48	7/16/2018	Nitrate as N	2.1	MG/L
YVWD-48	7/17/2019	Nitrate as N	1.8	MG/L
YVWD-48	7/14/2020	Nitrate as N	2.4	MG/L
YVWD-48	2/18/2021	Nitrate as N	3.1	MG/L
YVWD-48	7/13/2017	Nitrite as N	0	MG/L
YVWD-48	7/14/2020	Nitrite as N	0	MG/L
YVWD-48	7/13/2017	pH	8.7	PH UNITS
YVWD-48	7/14/2020	pH	8.1	PH UNITS
YVWD-48	7/13/2017	Potassium	1.5	MG/L
YVWD-48	7/14/2020	Potassium	2	MG/L
YVWD-48	7/13/2017	Sodium	43	MG/L
YVWD-48	7/14/2020	Sodium	36	MG/L
YVWD-48	7/13/2017	Specific Conductivity	260	JMHOS/CN
YVWD-48	7/14/2020	Specific Conductivity	340	JMHOS/CN
YVWD-48	7/13/2017	Sulfate	14	MG/L
YVWD-48	7/14/2020	Sulfate	13	MG/L
YVWD-48	7/17/2019	Tetrachloroethene (PCE)	0	UG/L
YVWD-48	7/13/2017	Total Dissolved Solids	130	MG/L
YVWD-48	7/14/2020	Total Dissolved Solids	200	MG/L
YVWD-48	7/17/2019	Trichloroethene (TCE)	0	UG/L
YVWD-48	7/13/2017	Vanadium	90	UG/L
YVWD-48	7/14/2020	Vanadium	22	UG/L
YVWD-48	7/13/2017	Zinc	0	MG/L
YVWD-48	7/14/2020	Zinc	0	MG/L

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