Borrego Water District Board of Directors
Special Meeting
October 14, 2025 @ 9:00 A.M.
806 Palm Canyon Drive
Borrego Springs, CA 92004

The Borrego Water District Board of Directors meeting as scheduled will be conducted in person and in an electronic format. Please note BWD is providing remote attendance options solely as a matter of convenience to the public. BWD will not stop or suspend its in-person public meeting should a technological interruption occur with respect to the GoTo meeting or call-in line listed on the agenda. We encourage members of the public to attend BWD meetings in-person at the address printed above. Anyone who wants to listen to or participate in the meeting remotely is encouraged to observe the GO TO MEETING at:

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I. OPENING PROCEDURES -

A. Call to Order
B. Pledge of Allegiance
C. Directors' Roll Call: *President Dice, Vice President Baker, Directors Duncan, Johnson & Moran

1. *President Dice Remote Address; 2022 Quintain Drive, Borrego Springs CA 92004

D. Approval of Agenda
E. Comments from the Public & Requests for Future Agenda Items (may be limited to 3 min)
F. Comments from Directors
G. Correspondence Received from the Public - None

II. ITEMS FOR BOARD CONSIDERATION AND POSSIBLE ACTION -

A. Consent Calendar
   1. July 15, 2025, Special Meeting Minutes – G Poole
   2. Phase One Environmental Assessment on BWD/Bauer Parcels – S Anderson
B. Legislative Advocate Updates
   1. Lowry Crook, BBK – Washington DC
   2. Syrus Deevers, SDA - Sacramento
C. Waste Water Treatment Plant Nitrogen and TDS Studies Overview – G Guillen, N2W
D. Contract with Superior for Country Club Tank Repairs – A Asche
E. Status Report on Rams Hill Water Related Planning Activities and Proposed Next Steps – G Poole
F. Request to Purchase 8 af of BWD Carry Over by Susan Carpenter – G Poole
G. Borrego Springs Subbasin Watermaster
   1. Update on Board Activities – G Moran/K Dice
   2. Discuss Agenda Items from Upcoming Meeting – G Moran/K Dice
   3. Update on Technical Advisory Committee Activities – T Driscoll
      i. Technical Comments on UC GDE Study – T Driscoll
      ii. Ranking of WM GDE Consultants - T Driscoll
      iii. Water Quality Sustainability Management Criteria – T Driscoll/S Anderson

AGENDA: October 14, 2025: The Borrego Springs Water District complies with the Americans with Disabilities Act. Persons with special needs should call Geoff Poole, General Manager – at (760) 767 – 5806 at least 48 hours in advance of the start of this meeting, in order to enable the District to make reasonable arrangements to ensure accessibility. If you challenge any action of the Board of Directors in court, you may be limited to raising only those issues you or someone else raised at the public hearing, or in written correspondence delivered to the Board of Directors (c/o the Board Secretary) at, or prior to, the public hearing.

All Documents for public review on file with the District's secretary located at 806 Palm Canyon Drive, Borrego Springs CA 92004. Any public record provided to a majority of the Board of Directors less than 72 hours prior to the meeting, regarding any item on the open session portion of this agenda, is available for public inspection during normal business hours at the Office of the Board Secretary, located at 806 Palm Canyon Drive, Borrego Springs CA 92004.

III. BOARD COMMITTEE REPORTS, IF NEEDED

STANDING:

A. Operations and Infrastructure: Duncan/Baker
B. Audit and Budget: Dice/Moran
C. ACWA/JPIA Insurance: Dice/Johnson

AD HOC:

A. Prop 68 Implementation: Baker/Johnson
B. Public Outreach: Dice/Johnson:
   1. Borrego Days 2025 Update – E Garcia
C. Grants: Dice/Johnson
D. Cyber Security/Risk Management: Baker
E. T2 Developers Agreement: Baker/Duncan
F. Finance/Prop 218: Baker/Moran
G. Borrego Springs Basin Water Quality: Moran/Johnson
H. Automated Metering Implementation: Baker/Moran

IV. STAFF REPORTS

A. Waste Water: September 2025 Monthly Report – R Martinez
B. Water: July, August, and September 2025 Monthly Report – A Asche
C. Finance: June, July, and August 2025 Monthly Report – J Clabaugh
D. Administration – D Del Bono, Verbal
E. Legal Counsel – S Anderson, Verbal
   1. Bauer Escrow Update
F. General Manager – G Poole, Verbal
   1. Fire Hydrant Theft

V. CLOSED SESSION:

A. Conference with Legal Counsel under Paragraph (1) of Government Code, section 54956.9 – Existing Litigation (Borrego Water District v. All Persons (Groundwater), Orange County Superior Court Case No. 37-2020-0000577)

B. Conference with Legal Counsel – Existing Litigation (John Thomas Doljanin v. State of California, et al., S.D. Cal. Case No. CA 25cv0469JLSDDL.)

VI. CLOSING PROCEDURE:

A. The next Board Meeting is scheduled for 9:00 AM on November 18, 2025, to be available online and in person at 806 Palm Canyon Drive. See Board Agenda at BorregoWD.org for details, Agenda information available at least 72 hours before the meeting.

AGENDA: October 14, 2025: The Borrego Springs Water District complies with the Americans with Disabilities Act. Persons with special needs should call Geoff Poole, General Manager – at (760) 767 – 5806 at least 48 hours in advance of the start of this meeting, in order to enable the District to make reasonable arrangements to ensure accessibility. If you challenge any action of the Board of Directors in court, you may be limited to raising only those issues you or someone else raised at the public hearing, or in written correspondence delivered to the Board of Directors (c/o the Board Secretary) at, or prior to, the public hearing.

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BORREGO WATER DISTRICT
BOARD OF DIRECTORS MEETING
OTOBER 14, 2025
AGENDA ITEM II.A

October 8, 2025

TO: Board of Directors

FROM: Geoffrey Poole, General Manager

SUBJECT: Consent Calendar

1. May 20, 2025 Special Board of Director Meeting Minutes
   A. July 15, 2025 Special Meeting Minutes
   B. Phase One Environmental Assessment on BWD/Bauer Parcels – S Anderson

RECOMMENDED ACTION:
Discuss, Amend if Needed and Approve

ITEM EXPLANATION:
A. The attached Minutes have been prepared and available for Board review and approval.
B. The October 2025 Bauer payment includes a transfer of title/ownership. Legal Counsel is recommending completion of another Phase One Environmental Assessment prior to close. Dudek has performed one on all parcels previously and staff is recommending using their services again under a sole source selection process.

NEXT STEPS
1. File/post Minutes
2. Initiate Phase One

FISCAL IMPACT
1. TBD

ATTACHMENTS
1. Minutes
2. Phase One Proposal from DUDEK

Borrego Water District Board of Directors
July 15, 2025, Special Meeting
806 Palm Canyon Drive
Borrego Springs, CA 92004

I. OPENING PROCEDURES –

A. Call to Order: Vice President Baker called the meeting to order at 9:02 AM

B. Pledge of Allegiance

C. Directors' Roll Call: Directors Moran, Duncan, Johnson, Vice President Baker and President Dice were present. Director Moran remote location in Bend Oregon as posted in packet

D. Approval of Agenda: In a motion by Director Johnson; seconded by Director Moran, the Agenda was approved unchanged, via a 5-0 roll call vote.

E. Comments from the Public & Requests for Future Agenda Items (may be limited to 3 min): None

F. Comments from Directors: None

G. Correspondence Received from the Public: None

II. ITEMS FOR BOARD CONSIDERATION AND POSSIBLE ACTION –

A. Consent Calendar

1. June 17, 2025, Special Meeting Minutes
2. June 17, 2025, Special Meeting/Proposition 218 Public Hearing
3. Resolutions: E. Garcia

A. RESOLUTION NO. 2025-07-01 RESOLUTION OF THE BOARD OF DIRECTORS OF BORREGO WATER DISTRICT AUTHORIZING THE COLLECTION OF THE ID#5 WATER SEWER AVAILABILITY STAND BY FEES BY THE COUNTY TAX COLLECTOR.– E Garcia

B. RESOLUTION NO. 2025-07-02 RESOLUTION OF THE BOARD OF DIRECTORS OF BORREGO WATER DISTRICT AUTHORIZING COLLECTION OF DELINQUENT WATER CHARGES BY THE COUNTY TAX COLLECTOR.

1. **Information Presented:**
   a. GM Poole presented the Proposed Minutes for June 17 Special Meeting and Proposition 218 Public Hearing and Garcia described the need for the Proposed Resolutions distributed in the Agenda Packet. In summary, the Resolutions are needed to ensure past due accounts are collected upon.
2. **Comments/Questions/Discussion/Deliberations.**
   a. None
3. **Board Action Direction/Motion/Second/Vote**
   a. In a motion by Director Moran; seconded by Baker, the 3 items on the Consent Calendar were approved unanimously 5-0, via a roll call vote.

B. Water Supply Assessment for the Rams Hill Development: Final Draft – T Driscoll, Intera

1. **Information Presented:**
   a. Poole introduced Kipp Vilker of Intera who provided an overview of the WSA for Rams Hill that was filed with the County of San Diego.
   b. At the June Meeting, Driscoll presented a Draft of the WSA and a few comments were received that were incorporated into the Final Draft that was submitted to the County on June 20, as shown in the Agenda packet
2. **Comments/Questions/Discussion/Deliberations.**
   a. None
3. **Board Action/Direction/Motion/Second/Vote**
   a. No Board action needed.

C. Summer 2025 Board Meeting Schedule (Skip Aug. 2025 Meeting) RESOLUTION 2025-07-03 OF THE BOARD OF DIRECTORS OF THE BORREGO WATER DISTRICT REVISING THE SCHEDULE OF REGULAR MEETINGS – G Poole

1. **Information Presented:**
   a. Poole reviewed the meeting dates specified in the proposed Resolution
2. **Comments/Questions/Discussion/Deliberations.**
   a. None
3. **Board Action/Direction/Motion/Second/Vote**
   a. In a motion by Director Duncan, seconded by Director Johnson, - Resolution No 2025.07.03 was approved unanimously via a 5-0 voice vote.

D. Borrego Springs Subbasin Watermaster Board

1. Letter or Appreciation for D Duncan – G Poole
2. Update on Board Activities – D Duncan
3. Discuss Agenda Items from Upcoming Meeting – G Moran
4. Update on Technical Advisory Committee Activities – T Driscoll

1. **Information Presented**
   a. Poole reviewed the Letter of Appreciation for Dave Duncan as included in the Agenda packet
   b. Moran led a discussion to let the Board on agenda items of interest including the UC GDE Study and Garmons suggestion that Gina Moran provide the BAS determination
   c. K Vikler, Intera reviewed the current plan for the WM future model runs to include increased pumping from the NMA
2. **Comments/Questions/Discussion/Deliberations.**
   a. None
3. **Board Action/Direction/Motion/Second/Vote**
   a. No Board action requested

BOARD COMMITTEE REPORTS, IF NEEDED STANDING:

A. Operations and Infrastructure: Duncan/Baker

B. Audit and Budget: Dice/Moran

C. ACWA/JPIA Insurance: Dice/Johnson

AD HOC:

A. Prop 68 Implementation: Baker/Johnson

B. Public Outreach: Dice/Johnson:

C. Grants: Dice/Johnson

D. Cyber Security/Risk Management: Baker

E. T2 Developers Agreement: Baker/Duncan

F. Finance/Prop 218: Baker/Moran

G. Borrego Springs Basin Water Quality: Moran/Johnson

H. Automated Metering Implementation: Baker/Moran

Committee Structure Review

1. **Information Presented**
   a. The Directors discussed the need for the existing Committees and concluded there will be no changes at this time and the full list will be reviewed and amended as needed in January.
2. **Comments/Questions/Discussion/Deliberations.**
   a. None
3. **Board Action/Direction/Motion/Second/Vote**
   a. No Board action requested

IV. STAFF REPORTS

A. Waste Water: JUNE 2025 Monthly Report – R Martinez

B. Water: JUNE 2025 Monthly Report – A Asche

C. Finance: MAY 2025 Monthly Report – J Clabaugh

D. General Manager – G Poole

The BWD Board Meeting was adjourned at 10:33 to convene the BORREGO WATER DISTRICT PUBLIC FACILITIES CORPORATION BOARD OF DIRECTOR MEETING to convene its Annual Meeting As Required By Section 3.06 Borrego Water District Public Facilities Corporation By- Laws

1. **Information Presented**
   a. Staff is recommending the annual meeting be held in January every year moving forward, with other meetings scheduled as needed.
2. **Comments/Questions/Discussion/Deliberations.**
   a. None
3. **Board Action/Direction/Motion/Second/Vot**
   a. In a motion by Director Duncan, seconded by Director Johnson the Board approved holding annual PFC meetings in January of each year, unanimously via a 5-0 voice vote.

PFC Meeting was adjourned at 10:55 am to re convene BWD in Closed Session.

At 11:45 am the BWD Meeting was reconvened with no reportable closed session actions and adjourned.

September 30, 2025

Geoff Poole
General Manager
Borrego Water District
806 Palm Canyon Drive
Borrego Springs, California 92004
via email

Subject: Proposal for Phase I Environmental Site Assessment for Assessor's Parcel Numbers 140-070-27-00 and 140-070-17-00 in Borrego Springs, San Diego County, California

Dear Geoff Poole:

Presented herein is scope and fee for a Phase I Environmental Site Assessment (ESA) for assessor's parcel numbers (APNs) 140-070-27-00 and 140-070-17-00 in Borrego Springs, San Diego County, California (site). The site consists of two non-contiguous parcels of land on the east and west sides of Di Giorgio Road, also identified with the addresses 808 Di Giorgio Road and 705 Di Giorgio Road, respectively. Dudek understands that the purpose of the Phase I ESA is due diligence as part of property acquisition.

The Phase I ESA will be prepared in accordance with the ASTM Standard Practice for Environmental Site Assessments: Phase I Site Assessment Process E 1527-21. The Phase I ESA includes review and evaluation of past and current uses of the site for indications of the manufacture, generation, use, storage, and/or disposal of hazardous substances and evaluation of potential soil and/or groundwater contamination resulting from current and historical land use activities, including those of nearby properties. Specifically, Dudek will perform the following:

- Conduct a search of regulatory agency records to see if there are currently, or were previously, any reports of hazardous materials contamination or usage at the site or contamination at other nearby sites within the ASTM-specified search radius that could impact the site
- Review relevant records maintained by local regulatory agencies (e.g., Certified Unified Program Agency, fire department, building department)
- Review historical source information, including historical aerial photographs, historical topographic maps, fire insurance maps and city directory listings
- Evaluate the potential for vapor intrusion risk
- Conduct a search of environmental liens and activity use limitations[1] for the APNs listed above
- Conduct a site reconnaissance and document current conditions
- Interviews with the owner(s) and/or site representative(s) regarding the environmental history and background of the site

Dudek assumes copies of any previous environmental investigations, including, but not limited to, Phase I ESAs, Phase II investigations, soil sampling reports, or remediation plans, for the site will be provided. Dudek assumes

[1] The ASTM Standard states that the user of the Phase I ESA should conduct a search of environmental liens and activity use limitations recorded for the property, prior to the property transfer, in order to be covered under the All Appropriate Inquiries Rule for CERCLA liability.

there is access to the site and any structures and that the site reconnaissance will be conducted in one day. Dudek assumes that contact information for the interviews with the site owners/representatives will be provided. Per the ASTM Standard, a Phase I ESA is only valid for 180 days and the 180-day period begins when work begins on the Phase I ESA (e.g., records requested from search company or regulatory agencies, site reconnaissance performed, interviews conducted) not when the report is completed. Thus, client responses are needed in a timely manner.

The findings of the investigation will be summarized in a Phase I ESA report. As per the ASTM Standard, the report will list recognized environmental conditions (RECs) identified for the site, as well as historical RECs and controlled RECs. If the findings of the Phase I ESA indicate a potential impact of hazardous wastes or materials on the site, Dudek will include recommendations for further assessment and/or investigation (e.g., Phase II ESA).

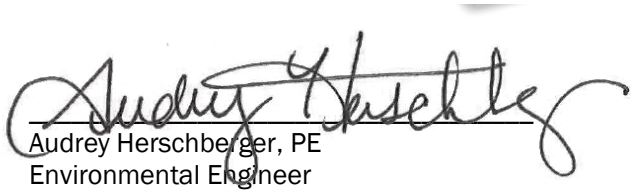
An electronic copy of the Phase I ESA report will be submitted approximately four to six weeks following receipt of a signed contract/task order. Timing is dependent on obtaining access for the site visit and receiving responses to the interview requests as well as any pertinent documents.

Cost for Phase I ESA $11,580

The cost shown above includes direct costs for historical records searches, environmental lien searches and mileage for the site visit in the amount of $1,340. Dudek assumes that no meetings are necessary and up to 2 hours will be spent addressing comments on the report. This cost estimate is valid through the end of this calendar year.

We appreciate this opportunity to assist you. If you have any questions, please contact me at aherschberger@dudek.com or 971.930.1706.

Sincerely,



Audrey Herschberger, PE
Environmental Engineer

cc: Kayvan Ilkhanipour, Dudek

BORREGO WATER DISTRICT
BOARD OF DIRECTORS MEETING
OTOBER 14, 2025
AGENDA ITEM II.B

October 8, 2025

TO: Board of Directors

FROM: Geoffrey Poole, General Manager

SUBJECT: Legislative Advocate Updates
1. Ana Schaub, BBK – Washington DC
2. Syrus Deevers, SDA - Sacramento

RECOMMENDED ACTION: -
Receive updates from BWD Legislative Advocates

ITEM EXPLANATION:
BWD utilizes the services of Legislative Advocates in Washington DC, Ana/Lowry – BBK and Sacramento, Syrus. Activity has occurred on EPA #2 with the request for the waiver of 20% local agency match in DC and the State's Proposition 4 next steps are being contemplated. Updates on both on the issues abovbe, and more, are scheduled.

NEXT STEPS
1. TBD

FISCAL IMPACT
1. EPA #2 - 20% waiver = $700,000 to BWD
2. Prop 4 Funding = TBD

ATTACHMENTS
1. None

BORREGO WATER DISTRICT
BOARD OF DIRECTORS MEETING
OTOBER 14, 2025
AGENDA ITEM II.C

October 8, 2025

TO: Board of Directors

FROM: Geoffrey Poole, General Manager

SUBJECT: Waste Water Treatment Plant Nitrogen and TDS Studies Overview – G Guillen, N2W

RECOMMENDED ACTION:
Receive Overview of Studies to be Submitted to WaterBoards

ITEM EXPLANATION:
BWDs Waste Water Treatment Consultant, Greg Guillen of N2W, will be in e-attendance to provide an overview of two studies we will be submitting to CA WaterBoards to comply with our current discharge permit. This information will be used to formulate the requirements for the 2027 Permit process.

NEXT STEPS
1. Forward Studies to WaterBoards

FISCAL IMPACT
1. N/A

ATTACHMENTS
1. Nitrogen and TDS Studies

DRAFT

Nitrogen Feasibility Study Technical Report and Work Plan

AUGUST 2025

Prepared for:

806 Palm Canyon Drive
Borrego Springs, CA 92004
Contact: Geoff Poole, General Manager

Prepared by:

3240 El Camino Real
Suite 120
Irvine, CA 92602
Contact: Greg Guillen, PhD, PE

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Table of Contents

SECTIONS **PAGE NO.**

TABLES

FIGURES

APPENDICES

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Executive Summary

This report provides a summary of the Rams Hill Wastewater Treatment Facility (WWTF) Nitrogen Removal Upgrade Feasibility Study. The study aims to assess the feasibility of nitrogen removal upgrades and to provide engineering support for Provisions 2 and 3 of the Tentative Waste Discharge Requirement Order R7-2019-0015 (Order). The analysis includes an evaluation of WWTP biological process alternatives for reducing nitrogen discharge to local groundwater via evaporation/percolation ponds at the Borrego Water District (BWD or District).

Figure 1. Rams Hill WWTF

Summary of Findings

The analysis found the following:

- It is recommended that the District continue to conduct regular monitoring and data collection from the WWTF to gather additional information to better understand the current groundwater conditions and trends.
- The District should consider implementing a nitrogen treatment system into the District's wastewater treatment process to ensure the wastewater discharge is not causing impairment to local groundwater.

1 Introduction

The Borrego Water District (BWD or District) contracted N2W to perform a Nitrogen Removal Upgrade Feasibility Study and provide engineering support for Special Provision 2 of the Tentative Waste Discharge Requirement Order R7-2019-0015 (Order) for the Rams Hill Wastewater Treatment Facility (WWTF). The plant was originally designed with an average daily capacity of 250,000 gallons per day (gpd) but did not include dedicated nitrogen removal capabilities. Previous studies have identified that the existing oxidation ditch is a bottleneck, as it cannot effectively remove nitrogen at the designed flow rate. Furthermore, the Regional Water Quality Control Board (Regional Board) imposes a total nitrogen (TN) limit of 10 mg/l, which the current WWTF is not equipped to meet. If these effluent total nitrogen or total inorganic nitrogen limits are enforced, the existing facility will not be able to comply. Therefore, this report includes an evaluation of the current nitrogen removal capabilities and recommendations for necessary upgrades to improve the system's performance.

The Rams Hill WWTF is owned and operated by BWD and its discharge is regulated by the Colorado River Basin Regional Water Quality Control Board (Colorado River Basin Water Board). The District has operated the WWTF since 1983. This plant, originally designed to treat effluent to tertiary levels with a capacity of 250,000 gpd, has never had sufficient flow to justify the increased expense of operating the tertiary portion of the original plant design.

This section is organized as follows:

- Plant Overview
- Wastewater Characterization
- Biological Treatment Alternatives Overview

- Cost Analysis and Comparison
- Recommendations and Conclusions

1.1 Project Goals

The goal of this report is to analyze the existing WWTF and evaluate four alternatives for nitrogen removal. It aims to establish the design criteria, outline process design considerations, and provide capital and operational cost estimates for the following alternatives:

- **Alternative 0 – No Changes:** Maintain the existing system without modifications or upgrades.
- **Alternative 1 – Oxidation Ditch with Anoxic Zone**: Expand oxidation ditch by adding an anoxic tank (about 40% of the existing ditch volume) to provide capacity for removing nitrogen of less than 7 mg/l.
- **Alternative 2 – Conventional Activated Sludge Process**: Design a new conventional activated sludge process to produce effluent with a total nitrogen concentration of less than 7 mg/l. The existing oxidation ditch will be abandoned in place.
- **Alternative 3 – Denitrification Filters**: Install a two stage denitrification filters to reduce the effluent nitrate concentration down to 1 mg/l.
- **Alternative 4 – Closed Loop Reactors**: Design a new closed loop reactor that reduces the total nitrogen down to 5 mg/l. The existing oxidation ditch will be abandoned in place.

A detailed analysis of these alternatives, including cost considerations and other key parameters, is provided in **Sections 3 and 4**, respectively.

1.2 Plant Overview

The Rams Hill WWTF is a 250,000 gpd facility consisting of preliminary, secondary, final effluent, and solids removal treatment. The WWTF operates a single-duty oxidation ditch, extended aeration activated sludge (EAAS) biological treatment process, as shown in **Figure 3**. Influent wastewater flows through a Parshall flume flow meter, mechanical bar screen for screenings removal, grinder, and a vortex grit chamber for grit removal prior to entering the oxidation ditch. The oxidation ditch is designed to achieve biochemical oxygen demand (BOD_5) reduction and also some nitrogen removal via nitrification/denitrification. Mixed liquor from the oxidation ditch flows to the secondary clarifiers. Clarified effluent is discharged to percolation ponds without being disinfected. Sludge wasted from the secondary clarifiers flows to sludge holding tanks and is then stabilized using sludge drying beds. The sludge is removed every 2-3 years for off-site disposal. The WWTF process flow diagram and site layout are shown in **Figures 2** and **3**, respectively. Background description, function, and major assets in each area of the WWTF are summarized in **Table 1**.

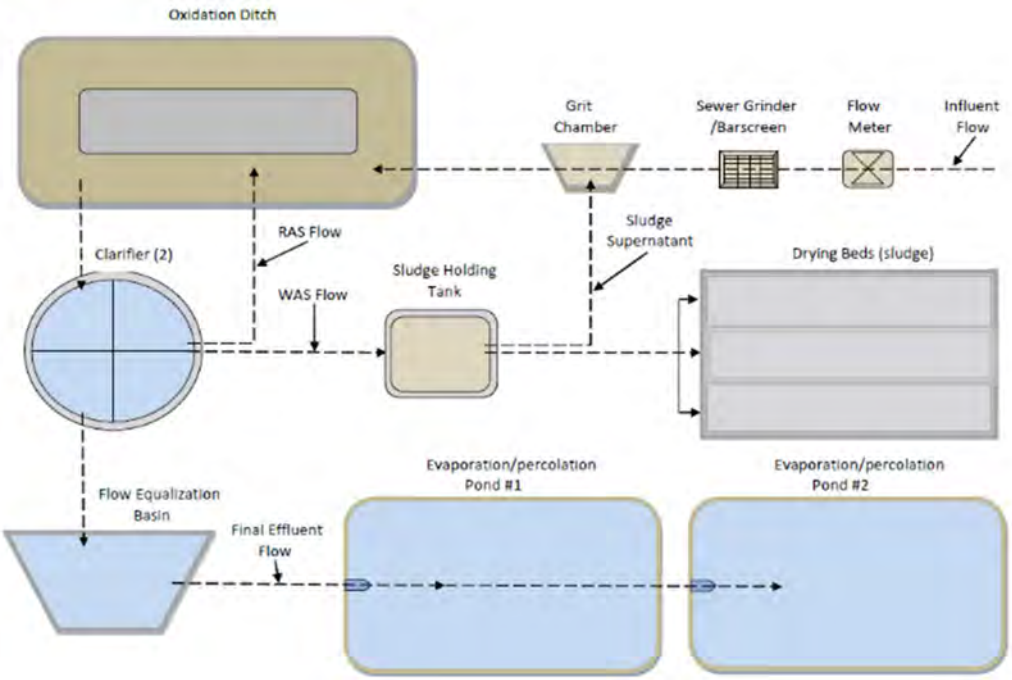


Figure 2. Rams Hill WWTF Process Flow Diagram

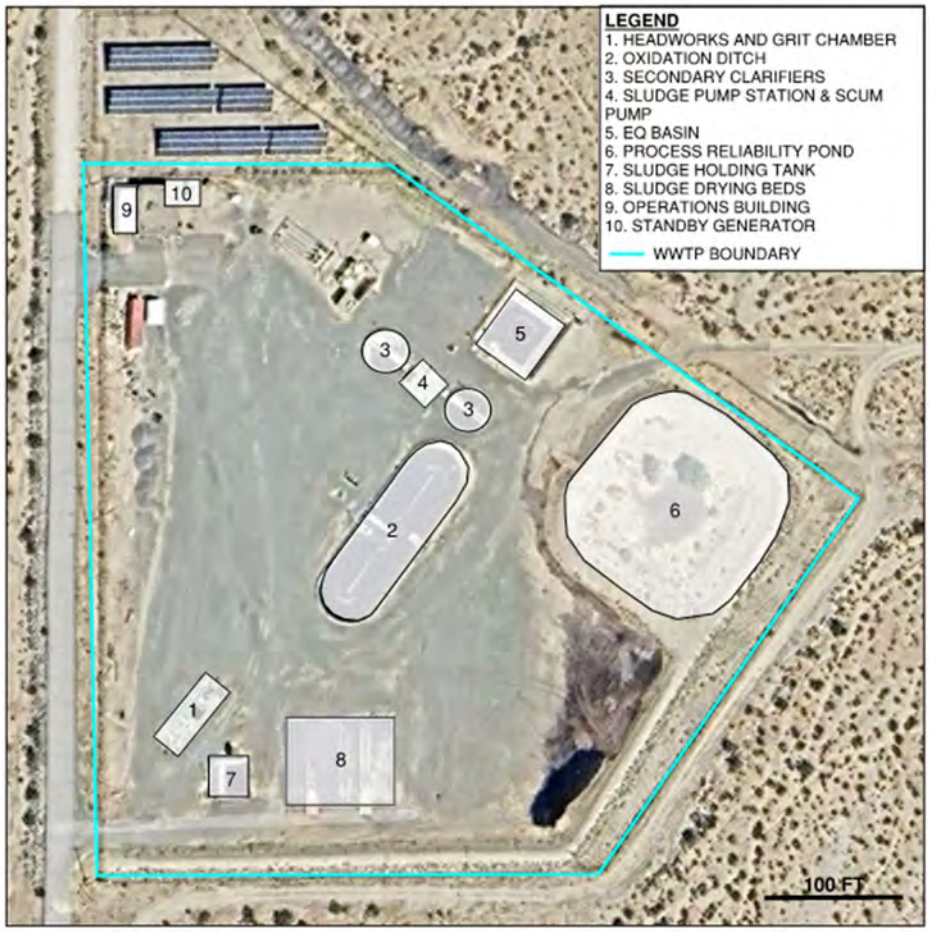


Figure 3. Existing Site Layout

Table 1. Treatment Plant Process Summary

Unit Process	Description	Major Assets
Headworks	Functions to remove rags, grit, and other large materials from the influent wastewater before entering downstream processes.	• Parshall Flume Meter • Bar Screen • Comminutor (Grinder) • Aerated Grit Chamber
Biological Treatment (Secondary Treatment)	Functions to reduce BOD and TSS from wastewater utilizing a single-duty oxidation ditch. The process is intended to operate with a low solids retention time (SRT). Important parameters which control biomass growth rates and microbial communities are the Return Activated Sludge (RAS) and Waste Activated Sludge (WAS).	• Oxidation Ditch • Secondary Clarifiers
Final Effluent	Functions to provide consistent flow by retaining high flow fluctuations and final effluent disposal to evaporation/percolation ponds.	• Equalization Basin • Evaporation/Percolation Ponds • Emergency Basin
Solids Treatment	Functions to reduce quantity and stabilize biosolids through evaporation.	• Sludge Holding Tank • Sludge Drying Beds

1.3 Regional Water Quality Control Board Order

In California, nitrogen concentrations in groundwater are regulated primarily under the Safe Drinking Water Act (SDWA) and the Porter-Cologne Water Quality Control Act. The State Water Resources Control Board (SWRCB) and regional water boards oversee compliance with the maximum contaminant level (MCL) of 10 mg/l for nitrate as nitrogen which is set by the U.S. Environmental Protection Agency (EPA) and enforced at the state level. The Sustainable Groundwater Management Act (SGMA) also requires groundwater sustainability agencies to monitor and manage nitrogen contamination, particularly from agricultural runoff and wastewater discharge. The Irrigated Lands Regulatory Program (ILRP) mandates that farmers implement the best management practices to reduce nitrogen leaching into groundwater. Regular groundwater testing, nitrate management plans, and mitigation strategies are required to ensure drinking water safety, especially in vulnerable communities reliant on groundwater sources such as Borrego, California.

Wastewater Treatment Nitrogen Control Strategy Requirements

The Regional Water Quality Control Board (RWQCB) has requested that the Borrego Water District (BWD) submit a technical memorandum as part of the nitrogen control strategy. This report will assess whether wastewater discharged through evaporation and percolation ponds affects local groundwater quality. Additionally, BWD will evaluate the feasibility of achieving a total nitrogen effluent concentration of 10 mg/l to align with RWQCB water limits. This analysis will determine whether wastewater discharge from BWD is contributing to impairment in groundwater and will ensure that any proposed effluent limit does not exceed groundwater maximum contaminant levels.

This assessment is intended to support efforts to protect the groundwater quality and ensure compliance with water quality standards. The analysis will include an evaluation of nitrogen removal technologies, identification of the nitrogen species in the wastewater, and an assessment of wastewater discharge impacts on groundwater nitrogen levels.

Summary of Regulatory Permits

The discharge of the final effluent from the WWTF is regulated by Colorado River Basin Water Board Order No. R7-2019-0015, which describes the Waste Discharge Requirements (WDRs) and other terms and conditions of operation for the WWTF. Discharge requirements are summarized in **Table 2**. Refer to **Appendix A** for a detailed description of the permit.

Table 2. Rams Hill WWTF Waste Discharge Requirements

Constituent	Units	Monthly Average	Weekly Average
20 °C BOD_5	mg/l	30	45
Total Suspended Solids (TSS)	mg/l	30	45
Settleable Solids	ml/l	0.3	0.5

Notes:
1. 30-day average daily dry weather discharge from WWTF into the evaporation/percolation ponds shall not exceed 0.250 MGD.
2. TDS concentration of the effluent shall not exceed 700 mg/l.
3. Effluent from the WWTF into the evaporation/percolation ponds shall not have a pH below 6.0 or above 9.0.

2 Wastewater Characterization

This section provides an overview of the WWTF water quality and nitrogen source characterization.

2.1 BWD WWTP Water Quality

An overview of the WWTP water quality is provided in **Table 3**. Data summarized in this section was captured between January 2024 through December 2024 and represents the initial baseline conditions for nitrogen treatment. Long term average, maximum, and minimum values of monthly water quality parameters and flow conditions are provided as available and used to determine sizing for the treatment units during the evaluation of nitrogen removal alternatives.

Table 3. Influent and Effluent Wastewater Characteristics

Parameter	Units[1]	Influent			Effluent			Regulatory Limit for Final Effluent[2]
		Min	Avg	Max	Min	Avg	Max	
Flow	gpd	25,000	85,000	350,000	-	-	-	250,000
Biological Oxygen Demand (BOD_5)	mg/l	21	100	430	4.3	8.5	16	30
Total Suspended Solids (TSS)	mg/l	15	130	650	3	5	9	45
Nitrate (NO_3)	mg/l	-	-	-	0.2	6	16	-
Nitrite (NO_2)	mg/l	-	-	-	0.1	0.15	0.2	-
Ammonia (NH_4)	mg/l	22	38	56	0.4	5	16	-

Parameter	Units[1]	Influent			Effluent			Regulatory Limit for Final Effluent[2]
		Min	Avg	Max	Min	Avg	Max	
Total Kjeldahl Nitrogen (TKN)	mg/l	25	42	56	1.3	5	16	-
Total Nitrogen (TN)	mg/l	25	33	55	1.7	8	16	-
Total Dissolved Solids (TDS)	mg/l	430	493	550	470	508	570	-

Notes:
1. gpd = gallons per day, mg/l = milligrams per liter.
2. Effluent discharge monthly averages.

3 Biological Treatment Alternatives Overview

Four alternatives were evaluated for nitrogen removal in wastewater, with each treatment technology estimated to reduce nitrogen concentrations to 7 mg/l or less.

- **Alternative 0 – Not Changes**: Maintain the existing system without modifications or upgrades.
- **Alternative 1 – Oxidation Ditch with Anoxic Zone**: Expand oxidation ditch by adding an anoxic tank (about 40% of the existing ditch volume) to provide capacity for removing nitrogen of less than 7 mg/l.
- **Alternative 2 – Conventional Activated Sludge Process**: Design a new conventional activated sludge process to produce effluent with a total nitrogen concentration of less than 7 mg/l.
- **Alternative 3 – Denitrification Filters**: Install a two stage denitrification filters to reduce the effluent nitrate concentration down to 1 mg/l.
- **Alternative 4 – Closed Loop Reactors**: Design a new closed loop reactor that reduces the total nitrogen down to 5 mg/l.

Each alternative treatment system capacity is 0.25 MGD. Each alternative will be capable of treating Total Nitrogen to meet the Tittle 22 effluent nitrogen standards. The projected Nitrogen Removal Rates for each alternative are broken down in **Table 4** as follows:

Table 4. Total Nitrogen Removal Rates

Alternative	Unit	Total Nitrogen Effluent Concentration
Alt 1 – No Changes[1]	-	-
Alt 2 - Ox. Ditch w/ Anoxic Zone	mg/l	7
Alt 3 - Conventional Activated Sludge	mg/l	7
Alt 4 - Denitrification Filters	mg/l	1
Alt 5 - Closed Loop Reactor	mg/l	5

Note:
[1]Not designed for nitrogen removal

A specific site for the proposed alternatives is not identified in this section. Rather, the alternative treatment types are introduced, and site area requirements are developed. Each alternative discussed in this section could be

constructed at any location, provided area requirements are satisfied. Refer to **Sections 3.2 through 3.5** to see a schematic representation of the potential plant layouts.

3.1 Alternative 0 – Current Nitrogen Removal

Alternative 0 involves leaving the current wastewater treatment system unchanged, without any modifications or upgrades. This includes continuing to operate the existing oxidation ditch, which does not have dedicated nitrogen removal capabilities at the designed flow of 0.25 MGD. While this alternative eliminates the capital and operational costs of system upgrades, it does not address the limitations of the existing system i.e., the oxidation ditch is not effective in removing nitrogen at the designed flow rate. As a result, effluent nitrogen concentrations may remain elevated, potentially hindering long-term regulatory compliance and performance goals. Therefore, four other alternative concepts were evaluated to provide explicit nitrogen removal at 0.25 MGD.

3.2 Alternative 1 – Oxidation Ditch with Anoxic Zone

Alternative 1 includes the addition of dedicated nitrogen removal capacity to the existing oxidation ditch as shown in **Figure 4**. This concept includes the addition of tankage to the side of the oxidation ditch. This additional tankage will be approximately 40% of the existing oxidation ditch volume and will be mixed but unaerated. The anoxic zone is intended to remove (denitrify) the nitrate that is formed in the aerated zone of the oxidation ditch thereby increasing nitrogen removal at the WWTF. Oxidation ditches with anoxic zones typically produce effluent with total nitrogen concentrations below 10 mg/l. Since denitrification requires a carbon source (e.g., BOD), it is assumed that the additional nitrogen removal will also increase BOD removal. Advantages of adding an anoxic zone include improved nitrogen removal and lower capital costs compared to other treatment processes. A disadvantage, however, is the potential for incomplete denitrification if nitrate is not properly managed.

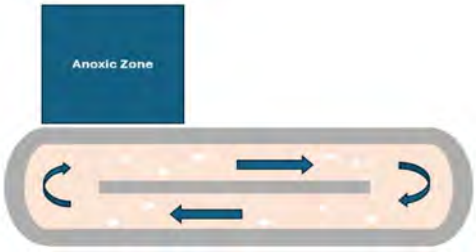


Figure 4. Single Duty Oxidation Ditch with Anoxic Zone

Alternative 1 Configuration

Figure 5 illustrates the proposed configuration of the anoxic zone. Alternative 1 adds a 160,000-gallon anoxic tank, anoxic tank mixer, and mixed liquor pump station to the existing oxidation ditch. Influent wastewater would be rerouted to the anoxic tank where it would be mixed with mixed liquor pumped from the oxidation ditch and return activated sludge pumped from the secondary clarifiers. Nitrate formed in the oxidation ditch would be denitrified in the anoxic zone and thus nitrogen would be removed from the wastewater. An operator would be able to control the pumping rate of mixed liquor into the anoxic zone to adjust nitrogen removal. Mixed liquor would continue to flow from the oxidation ditch to the secondary clarifiers. This alternative is designed to produce effluent with a total nitrogen concentration of less than 7 mg/l. Refer to **Table 5** for the preliminary design criteria.

Figure 5. Anoxic Zone and Mixed Liquor Pump Station

Table 5. Oxidation Ditch with Anoxic Zone Design Criteria

Parameter	Units	Value	M&E Design Criteria[1]
Anoxic Zone Tank	#	1	n/a
Flow	MGD	0.25	
Influent TKN	mg/l	75	
Effluent TN	mg/l	7	
Anoxic Zone Volume	gallons	160,000	

[1.] Common Design Criteria per Wastewater Engineering Treatment Reuse 5th Edition, Metcalf & Eddy

3.3 Alternative 2 – Conventional Activated Sludge

The conventional activated sludge process, shown in **Figure 6** and **Figure 7**, is a biological treatment system where communities of microorganisms consume oxygen and organic waste in an aerated basin. After the aeration basin, the microorganisms and treated effluent are separated in a secondary clarifier. Effluent is discharged from the clarifier for further treatment and a portion of the microorganisms are recirculated back to the aeration basin as return activated sludge (RAS). Excess microorganisms are wasted so that the system can be operated at a target solids retention time. Oxygen is provided by blowers and diffusers to facilitate the growth of microorganisms. The conventional activated sludge treatment process is a proven technology that when properly designed and operated will provide reliable nitrogen, BOD and TSS removal. The Modified-Ludzack Ettinger (MLE) process has been selected for this alternative. Advantages of designing an MLE system include its ability to effectively remove nitrogen. However, disadvantages include the high capital cost, as well as the need for large capacity internal recycle pumping.

Figure 6. Typical MLE Aeration Basin

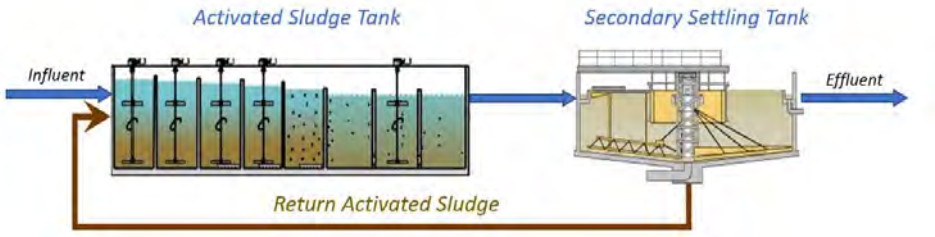


Figure 7. Typical Conventional Activated Sludge Flow Diagram

Alternative 2 Configuration

Figure 8 illustrates the proposed configuration of the new MLE system. Alternative 2 builds the new activated sludge process adjacent to the existing oxidation ditch. The MLE process uses fine bubble aeration to remove BOD and convert ammonia to nitrate in an aeration basin. Similar to Alternative 1, the MLE process requires an integral anoxic zone with mixed liquor recycle pumping for denitrification. This new process would be built next to the existing oxidation ditch and would utilize the same secondary clarifiers and RAS pumps. This alternative is designed to produce effluent with a total nitrogen concentration of less than 7 mg/l and a hydraulic retention time (HRT) of 8 hrs. Refer to **Table 6** for the preliminary design criteria.

Figure 8. MLE Process

Table 6. MLE Design Criteria

Parameter	Units	Value	M&E Design Criteria[1]
No. of Aeration Basins	#	1	n/a
Flow	MGD	0.25	
Basin Length	ft	53	
Basin Width	ft	11	
Basin Side Water Depth	ft	20	
Volume	gal	83,350	
Hydraulic Retention Time	hr	8	4 - 8
MLSS	mg/l	3,000	1,000 – 3,000
Influent TKN	mg/l	75	n/a
Effluent TN	mg/l	7	

Parameter	Units	Value	M&E Design Criteria[1]
MCRT	d	5	3 - 15
F:M Ratio	d^{-1}	0.34	0.2 – 0.4

[1.] Common Design Criteria per Wastewater Engineering Treatment Reuse 5th Edition, Metcalf & Eddy

3.4 Alternative 3 – Denitrification Filters

Denitrification filters, as shown in **Figure 9**, are commonly used for the removal of nitrate through an attached growth process. The attached biofilm in these filters converts nitrate to nitrogen gas, typically with the addition of a carbon source i.e. methanol or glycerol, to stimulate denitrification process. An external carbon sourced is typically dosed in the denitrification filter influent. There are two main configurations of denitrifications filters: downflow and upflow packed bed reactors. Downflow denitrification filters operate in conventional filtration. Wastewater flows through a downflow filter over weirs along the length of the filter bed on both sides. During this process, nitrate is converted to nitrogen gas under anoxic and anaerobic conditions by autotrophic bacteria that are attached to the filter media. In upflow denitrification filters, influent flows upward through the filter media and is slowly drawn into an airlift pipe in the center of the filter. Compressed air is added to the filter to draw media up and scour the biofilm off. Backwash is required for either type of denitrification filters. Typical media used for denitrification filters include mono-media granular sand, gravel, or silica. The advantage of denitrification filters is their high nitrogen removal efficiency with a relatively smaller footprint. However, disadvantages include the high capital and operational costs. Additional disadvantages are the requirement for optimization of media type, higher costs due to automated valves and on-line instrumentation, and increased operational costs due to the need for an external carbon source for denitrification. Refer to **Table 7** for the preliminary design criteria.

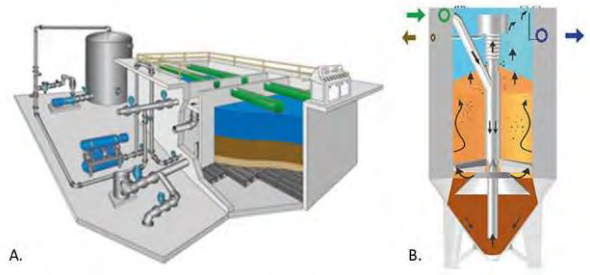


Figure 9. Downflow (A) and Upflow (B) Denitrification Filters

Alternative 3 Configuration

Figure 10 illustrates the proposed configuration of the denitrification filters. Alternative 3 takes nitrified secondary effluent from the equalization basin and pumps it up to new denitrification filters. These are deep bed sand filters that are fed nitrified effluent and a carbon source (typically methanol or MicroC®). Denitrifying bacteria living on the media convert nitrate to nitrogen gas and remove it from the effluent. The filters require backwashing, which would require a clear well, mudwell, and backwash pumps and the return of backwash waste to the head of the plant. This is a two-stage filter system and would reduce the effluent nitrate concentration down to ~1 mg-N/l.

Figure 10. Denitrification Filters

Table 7. Denitrification Filters Preliminary Design Criteria

Parameter	Units	Value	M&E Design Criteria[1]
Filter Type	-	downflow, sunken media	n/a
No. of Filters	#	2	
Flow	MGD	0.25	
Influent TKN	mg/l	75	
Effluent TN	mg/l	1	
Filtration Rate	m/h	4	2.4 – 4.8
Area per Filter	sf	168	n/a
Filter Bed Dimensions	ft x ft	13 x 13	

1. Common Design Criteria per Wastewater Engineering Treatment Reuse 5th Edition, Metcalf & Eddy

3.5 Alternative 4 – Closed Loop Reactor

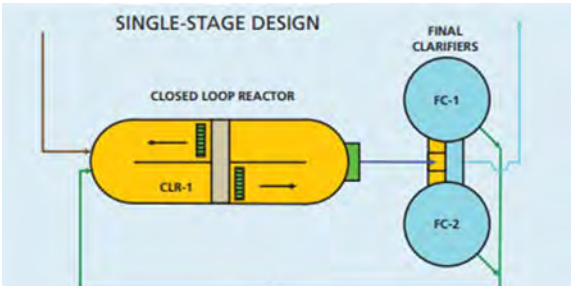


Figure 11. Closed Loop Reactor System Diagram

Closed Loop Reactors, as illustrated in **Figure 11**, are advanced treatment systems designed to take advantage of the high recycle rates of oxidation ditches (good for nitrogen removal) and the high efficiency oxygen transfer of fine bubble aeration (good for BOD removal and nitrification). This process operate in a continuous cycle, treating wastewater while minimizing waste and energy consumption. Screened wastewater enters the biological treatment phase, where microorganisms break down organic pollutants in controlled aerobic, anaerobic, and anoxic environments. Unlike conventional treatment systems, closed-loop reactors continuously circulate the water, allowing for further clarification and higher purification standards. Sensors and automated controls monitor and adjust key conditions such as oxygen levels, pH, and microbial activity to ensure optimal treatment. Additionally, these systems often incorporate nutrient and energy recovery processes, extracting valuable resources like nitrogen, phosphorus, and even bioenergy in the form of biogas from anaerobic digestion. Once the water meets high-quality treatment standards, it undergoes final polishing before being used for irrigation, industrial processes, or being safely discharged. The advantages of closed-loop reactors include improving pollutant breakdown, reduced energy consumption, and consistent water quality due to automated monitoring. However, disadvantages include high capital costs, complex operation and maintenance, space constraints, and the potential need for infrastructure modifications to accommodate the closed-loop system.

Alternative 4 Configuration

Figure 12 illustrates the proposed configuration of the closed loop reactor. Alternative 4 builds a new closed loop reactor (CLR). This process uses fine bubble aeration, turbo blowers, and horizontal mixers to remove BOD and convert ammonia to nitrate in an aeration basin. Aeration can be adjusted to allow for denitrification. This new process would be built next to the existing oxidation ditch and would utilize the same secondary clarifiers and RAS pumps. This alternative is designed to produce effluent with a total nitrogen concentration of less than 5 mg/l. Refer to **Table 8** for the preliminary design criteria.

Figure 12. Closed Loop Reactor

Table 8. Closed Loop Reactor Design Criteria

Parameter	Units	Value	M&E Design Criteria
No. of Basins	#	1	n/a
Flow	MGD	0.25	
Influent TKN	mg/l	75	
Effluent TN	mg/l	5	
Width	ft	20	
Length	ft	91	
Side Water Depth	ft	20	

[1.] Common Design Criteria per Wastewater Engineering Treatment Reuse 5th Edition, Metcalf & Eddy

4 Cost Analysis and Comparison

The purpose of this section is to compare capital and operational cost estimates. A comparison is made between four alternatives. The cost opinion is based on the quantities and unit price estimates of treatment process developed from planning level concepts and preliminary vendor quotes. A more detailed cost information analysis would be developed during preliminary design.

4.1 Cost Opinion Methodology and Assumptions

For the purposes of this analysis, the cost opinion is a Class 5 Association for the Advancement of Cost Engineering (AACE) Construction Cost Opinion, based on the concept screening analysis**.** A Class 5 Construction Cost Estimate is known as the rough order of magnitude (ROM) estimate. It is used for the initial screening projects for capital expenditure planning. The cost opinion makes use of quantity takeoffs, vendor/supplier/manufacturer quotations, and recent data in the development of projected costs. Other general assumptions in construction cost analysis include:

- Construction contingency of 25% of construction subtotal
- Insurance and bonds of 5% of construction subtotal
- General Conditions of 5% of construction subtotal
- Contractor profit is 15% of total construction cost
- Escalation to Midpoint of 3% of construction subtotal per year

4.2 Construction Cost Analysis

Annual O&M Costs as well as a Class 5 Construction Cost Estimate were developed for each alternative using vendor quotes and current construction estimates based on 2025 industry rates. A 20-year life-cycle analysis was conducted on each of these alternatives to demonstrate the overall cost per option and provide an in-depth analysis of the total annual O&M cost that is to be expected. The 20-year lifecycle cost analysis and Class 5 Construction

Table 9. Construction Cost Estimate

CAPITAL COST ITEM DESCRIPTION	Alternative 1 Ox. Ditch Anoxic Zone	Alternative 2 Conventional Activated Sludge Process	Alternative 3 Denitrification Filters	Alternative 4 Closed Loop Reactor
Division 1 - General Requirements	$ 175,000	$ 360,000	$ 560,000	$ 410,000
Division 2 - Sitework	$ 84,000	$ 160,000	$ 17,000	$ 194,000
Division 3 - Concrete	$ 697,000	$ 757,000	$ 686,000	$ 1,417,000
Division 11 - Equipment	$ 263,000	$ 707,000	$ 4,386,000	$ 648,000
Division 15 - Mechanical	$ 65,000	$ 285,000	$ 200,000	$ 310,000
Division 16 - Electrical	$ 150,000	$ 400,000	$ 600,000	$ 400,000
Division 17 - Instrumentation	$ 80,000	$ 250,000	$ 150,000	$ 150,000
Construction Subtotal	**$ 1,514,000**	**$ 2,919,000**	**$ 6,599,000**	**$ 3,529,000**
Construction Contingency (25%)	$ 378,500	$ 729,800	$ 1,649,500	$ 870,000
Insurance and Bonds (5%)	$ 94,700	$ 182,500	$ 412,400	$ 217,500
General Conditions (5%)	$ 99,400	$ 191,600	$ 433,000	$ 228,400
Contractors Profit (15%)	$ 313,000	$ 603,500	$ 1,364,000	$ 719,400
Escalation to Midpoint (3%/yr x 1 years)	$ 72,000	$ 138,800	$ 313,800	$ 165,500
Total Construction Cost	**$ 2,471,600**	**$ 4,765,200**	**$ 10,771,700**	**$ 5,729,800**
20-Year Project Present Worth	**$ 2,030,000**	**$ 3,900,000**	**$ 8,810,000**	**$ 4,650,000**

Table 10. Class 5 Construction Cost Estimate Ranges

Cost Item	Alternative 1 Ox. Ditch Anoxic Zone	Alternative 2 Conventional Activated Sludge Process	Alternative 3 Denitrification Filters	Alternative 4 Closed Loop Reactor
Total Construction Cost	$ 2,471,600	$ 4,765,200	$ 10,771,700	$ 5,729,800
AACE Class 5 Estimate, Low (-50% to -20%)	$1,235,800 to $1,977,280	$2,382,600 to $3,812,160	$5,385,850 to $8,617,360	$2,864,900 to $4,583,840
AACE Class 5 Estimate, High (+30% to +100%)	$3,213,080 to $4,943,200	$6,194,760 to $9,530,400	$14,003,210 to $21,543,400	$7,448,740 to $11,459,600

4.3 Life-Cycle Cost Analysis Model

A 20-year life-cycle cost analysis has been prepared for each of the 4 alternatives. All scenarios have been designed around the current flow at BWD and each of the alternatives are able to achieve effluent nitrogen concentrations of 7 mg/l or lower. The Lifecycle Cost Inputs are displayed in **Table 11** below. Capital and Construction costs are estimated based on current vendor equipment costs and fees. The O&M costs utilized for this model are escalated by an annual inflation rate of 3% and the present worth values for annual loan payments as well as O&M costs are discounted at 6%.

Table 11. Lifecycle Cost Model Inputs

Parameter	Units	Value
Starting Year	-	2025
Ending Year	-	2045
Loan Duration	yr	20
Loan Interest Rate	%/yr	3
Discount Rate	%/yr	6
Inflation Rate	%/yr	3
Annual Growth Rate[1]	%	7.3
Electricity Cost, Year 2025[2]	$/kWh	0.35

Notes:
[1] Assumed value, the current population is decreasing
[2] Based on BWD WWTP billing for months that WWTP was net consumer of electricity

Table 12. 20-Year Lifecycle Cost Analysis

O&M COST ITEM DESCRIPTION	Alternative 1 Ox. Ditch Anoxic Zone	Alternative 2 Conventional Activated Sludge Process	Alternative 3 Denitrification Filters	Alternative 4 Closed Loop Reactor
Power, Year 2025	$ 71,300	$ 24,400	$ 1,700	$ 20,800
Chemical, Year 2025	$ -	$ -	$ 2,500	$ -
Labor, Year 2025	$ 31,200	$ 104,000	$ 52,000	$ 83,200
Maintenance, Year 2025	$ 13,200	$ 35,400	$ 219,300	$ 32,400
Total Annual O&M Cost, Year 2025	**$ 115,700**	**$ 163,800**	**$ 275,500**	**$ 136,400**
20 Year Present Worth O&M Cost	**$ 2,011,000**	**$ 2,892,000**	**$ 4,312,000**	**$ 1,970,000**

4.4 Summary and Comparison

The WWTF currently produces an average effluent nitrogen concentration less than 10 mg/l. However, this is achieved at an influent flow rate that is 34% of the design criteria and by operating the oxidation ditch in an on/off mode. It is expected that the level of nitrogen removal currently achieved at the WWTF would not be feasible under flows and loads closer to the original design criteria. Each alternative presented herein would be expected to remove nitrogen and achieve at least 7 mg/l effluent concentration at the WWTF design capacity of 0.25 MGD. The cost for each of these alternatives normalized by the mass of nitrogen removal is presented in **Table 13** below.

Table 13. Nitrogen Removal Cost per Pound

O&M COST ITEM DESCRIPTION	Alternative 1 Ox. Ditch Anoxic Zone	Alternative 2 Conventional Activated Sludge Process	Alternative 3 Denitrification Filters	Alternative 4 Closed Loop Reactor
20 Year Present Worth Project Cost (Capital + O&M)	$ 4,041,000	$ 6,792,000	$ 13,122,000	$ 6,620,000
20 Year Nitrogen Removal, lb-N	570,001	570,001	$ 620,295	$ 586,766
Nitrogen Removal Cost, $/lb-N	$ 7	$ 12	$ 21	$ 11

Across all the alternatives, denitrification filters are the most effective at removing nitrogen from the water; however, the cost of this option is higher compared to the other alternatives. A useful approach for evaluating these options is to compare the nitrogen removal cost in dollars per pound of nitrogen removed, as presented in **Table 13**.

5 Conclusions

The following conclusions are based on the above evaluation of process treatment capacities. Key takeaways include:

- The existing WWTF is not designed for nitrogen removal. BWD staff achieve nitrogen removal by operating the oxidation ditch in an on/off mode. The effluent nitrogen concentration is consistently below 10 mg/l at current flows and loads, which are approximately one-third of the WWTF design capacity of 0.25 MGD. It is expected that the WWTF, as currently designed and operated, would not be able to achieve its current effluent nitrogen concentration as influent flows approach design capacity.

- Each alternative presented offers a feasible method for reducing nitrogen concentration in BWD's effluent. While Denitrification Filters (Alternative 3) provide the most effective nitrogen removal, the associated costs make it a less optimal choice given the financial burden. The Closed Loop Reactor (Alternative 4) offers long-term sustainability but at a significant capital investment. Conventional Activated Sludge (Alternative 2) is a proven technology but requires entirely new construction, making it a costly endeavor.

- The Oxidation Ditch with Anoxic Zone (Alternative 1) emerges as the most viable choice due to its balance of cost-effectiveness and improved nitrogen removal. By modifying the existing oxidation ditch to incorporate an anoxic zone, BWD can achieve enhanced nitrogen removal while minimizing additional infrastructure costs. This option ensures regulatory compliance and future anticipation of potential flow increases, making it the most practical and sustainable solution for BWD's wastewater treatment needs.

Appendix A
Rams Hill WWTF Waste Discharge Requirements

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

ORDER R7-2019-0015

WASTE DISCHARGE REQUIREMENTS
FOR
BORREGO WATER DISTRICT, OWNER/OPERATOR
RAMS HILL WASTEWATER TREATMENT FACILITY
BORREGO SPRINGS-SAN DIEGO COUNTY

The California Regional Water Quality Control Board, Colorado River Basin Region (Regional Water Board) finds that:

1. Borrego Water District (District or Discharger) owns and operates a wastewater collection, treatment, and disposal system known as the Rams Hill Wastewater Treatment Facility (WWTF or Facility), which provides sewerage service to portions of the unincorporated community of Borrego Springs. The Facility has a design treatment capacity of 0.250 million gallons-per-day (mgd) and currently discharges approximately 0.073 mgd.

2. The Facility is located about four miles southeast of Borrego Springs at Assessor's Parcel Nos. 200-120-42 and 200-120-41, in the East ½ of Section 23, Township 11 South, Range 6 East, San Bernardino Baseline and Meridian. The Facility's location is shown in Attachment A - Vicinity Map, which is incorporated herein and made part of this Order by reference. The Facility is assigned California Integrated Water Quality System (CIWQS) No. CW-210088, Waste Discharger Identification (WDID) No. 7A370125001, and GeoTracker Global Identification No. WDR100027526.

3. The Facility is currently regulated under Waste Discharge Requirements (WDRs) prescribed under Order R7-2007-0053, adopted on September 19, 2007.

4. On September 10, 2017, the Discharger submitted a Report of Waste Discharge (ROWD) to the Colorado River Basin Water Board for the Facility.

5. This Order updates the WDRs to reflect changes in the Facility's operation and to implement the most current laws and regulations applicable to the discharge. For example, this Order reflects that the collection system now includes portions of Borrego Springs Park Community Services District's former Wastewater Reclamation Facility (regulated by Order 96-009, rescinded June 23, 2011). Additionally, the Order eliminates the prior seasonal monitoring and reporting schedule and implements a constant schedule throughout the year.

6. Accordingly, this Order supersedes WDRs Order R7-2007-0053 upon the effective date of this Order, except for enforcement purposes.

Wastewater Treatment Facility and Discharge

7. The WWTF services approximately 20 percent of the community of Borrego Springs— specifically, the Rams Hill residential community and the Town Center area, which includes hotels, a motel, and small business along Palm Canyon Drive. The remaining 80 percent of Borrego Springs is serviced by individual septic tank-subsurface disposal systems.

8. The WWTF now includes the wastewater collection system from Borrego Springs Park Community Services District's (PCSD) former Wastewater Reclamation Facility. PCSD's facility, which was previously regulated by Order 96-009, closed in April 2011. The Colorado River Basin Water Board rescinded Order 96-009 on June 23, 2011. The wastewater collection system that once delivered domestic wastewater to the PCSD facility has been extended to the WWTF's collection system. PCSD previously treated approximately 0.013 mgd of domestic wastewater, all of which is now treated at the WWTF.

9. The WWTF includes a parshall flume, flow meter, bar screen, communitor, grit chamber, an oxidation ditch, two secondary clarifiers, a flow equalization basin, two evaporation/percolation ponds, a sludge holding tank, two sludge drying beds, and one emergency basin.

10. Wastewater influent enters the WWTF and flows through the flow meter, bar screen and a communitor that grinds solids prior to treatment, then flows to the grit chamber, where sand and grit are removed from the waste stream. Wastewater then flows to the oxidation ditch, which provides primary and secondary biological treatment. From the oxidation ditch, wastewater then goes to the secondary clarifiers, where heavier solids settle to the bottom and are collected by a skimming arm and floatable solids are skimmed from the surface. Sludge is collected at the secondary clarifiers. Wastewater then flows to the equalization basin for further oxidation and storage. The treated effluent is discharged into one of three evaporation/percolation ponds for disposal. Sludge from the Facility is discharged to on-site drying beds for stabilization. The sludge is removed every five to ten years for off-site disposal at a waste management facility approved by the Colorado River Basin Water Board.

11. The wastewater flow treatment process is shown in **Attachment B** – Schematic Flow Diagram, incorporated herein and made part of this Order by reference. The current location of the groundwater monitoring well for the percolation ponds is shown in **Attachment C** – Site Map with Location of Groundwater Monitoring Well, which is also incorporated herein by reference and made part of this Order.

12. The Discharger's Self-Monitoring Reports (SMRs) from January 2013 through November 2018 characterize the WWTF influent as follows:

Constituent	Units	Average	Maximum
Flow	mgd	0.074	0.136
20° C BOD_5[1]	mg/L[2]	90.2	660
TSS[3]	mg/L	85.6	308

13. The Discharger's SMRs from January 2013 through November 2018 characterize the WWTF effluent as follows:

Constituent	Units	Average	Maximum
20° C BOD_5	mg/L	4.35	49.5
TSS	mg/L	7	58
Settleable Solids	ml/L[4]	0.02	0.3
pH	s.u.[5]	7.4	8.2
TDS[6]	mg/L	593	735
Dissolved Oxygen	mg/L	7.75	10.25
Total Nitrogen	mg/L	29.5	48

14. Monitoring and Reporting Program (MRP) R7-2007-0053 included a seasonal monitoring and reporting schedule since historically, domestic wastewater influent flows were significantly greater during the winter months by comparison to the summer months. In 2007, the Facility received about 0.060 mgd during the high season and dropped to about 0.020 mgd in the summer. Current flows into the Facility average approximately 0.089 mgd in the winter months and 0.061 mgd during the summer. Thus, the influent flows to the Facility have increased overall and the seasonable variability is no longer as great as in the past. This Order

[1] 5-day biochemical oxygen demand at 20 degrees Celsius

[2] milligrams per Liter

[3] Total Suspended Solids

[4] milliliters per Liter

[5] Standard pH Units

[6] Total Dissolved Solids

eliminates the seasonal monitoring and reporting schedule and implements a constant schedule throughout the year.

Hydrogeologic Conditions

15. Average annual precipitation for the area is 6.8 inches, and average annual evaporation is 50 inches. Temperatures in the Borrego Springs area can reach 120º F in summer.

16. The WWTF is about 520 feet above mean sea level. Surface water runs off as sheet flow, draining to the east.

17. Soils at the WWTF from the ground surface to approximately 35 feet below ground surface (bgs) consist of fine to coarse sands, and silty clays.

18. The Discharger owns and operates a network of eleven groundwater wells that provide domestic water for the community. Groundwater quality in Borrego Springs varies from good to excellent. Depth to first encountered groundwater is approximately 60 feet bgs.

19. The Discharger reports that domestic water for the sewered portion of the community is supplied by four wells. The wells are reportedly upgradient of the WWTF and show the following constituent concentrations in milligrams per Liter for 2016:

Constituent	ID1–Well 12	ID1–Well 16	ID4–Well 3	ID4–Well 11
Total Dissolved Solids	300	300	Out of Service	320
Chloride	42	58	Out of Service	44
Nitrate-Nitrogen	0.38	0.95	Out of Service	0.66
Sulfate	90	56	Out of Service	85
Fluoride	0.4	0.5	Out of Service	0.3

Basin Plan, Beneficial Uses, and Regulatory Considerations

20. The Water Quality Control Plan for the Colorado River Basin (Basin Plan), which was adopted on November 17, 1993 and amended on March 7, 2017, designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. Pursuant to Water Code section 13263, subdivision (a), waste discharge requirements must implement the Basin Plan and take into consideration the beneficial uses to be protected, the water quality objectives reasonably required for

that purpose, other waste discharges, the need to prevent nuisance, and the provisions of Water Code section 13241.

21. The discharge is located within the Anza-Borrego Hydrological Unit. The beneficial uses of groundwater in the Anza-Borrego Hydrological Unit are:

    a. Municipal Supply (MUN),
    b. Industrial Supply (IND), and
    c. Agricultural Supply (AGR).

22. This Order establishes WDRs pursuant to division 7, chapter 4, article 4 of the Water Code for discharges that are not subject to regulation under Clean Water Act section 402 (33 U.S.C. § 1342).

23. These WDRs implement numeric and narrative water quality objectives for groundwater and surface waters established by the Basin Plan. The numeric objectives for groundwater designated for municipal and domestic supply are the maximum contaminant levels (MCLs) specified in California Code of Regulations, title 22, section 64421 et seq. and bacteriological limits set in section 64426.1 of title 22 of the California Code of Regulations. Groundwater for use as domestic or municipal water supply (MUN) must not contain taste or odor-producing substances in concentrations that adversely affect beneficial uses as a result of human activity.

24. It is the policy of the State of California that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. This Order promotes that policy by requiring discharges to meet the MCLs designed to protect human health and ensure that water is safe for domestic use.

25. The discharge as authorized by this Order, and treatment and storage facilities associated with discharges of treated municipal wastewater, except for discharges of residual sludge and solid waste, are exempt from the requirements of the Consolidated Regulations for Treatment, Storage, Processing, or Disposal of Solid Waste, as set forth in California Code of Regulations, title 27, division 2, subdivision 1, commencing with section 20005. This exemption is based on title 27, section 20090, subdivision (a), which states in relevant part that discharges of domestic sewage or treated effluent, and treatment or storage facilities associated with municipal wastewater treatment plants, are exempt provided that such discharges are regulated by WDRs consistent with applicable water quality objectives, and that residual sludges or solid waste from wastewater treatment facilities are discharged only in accordance with the applicable title 27 provisions. This Order regulates the discharge of domestic wastewater and associated treatment and storage facilities in a manner consistent with applicable surface water and groundwater quality objectives, and residual sludges or solid waste from the Facility will be managed pursuant to title 27.

26. Section 13267 of the Water Code authorizes the Colorado River Basin Water Board to require technical and monitoring reports. The monitoring and reporting requirements in Monitoring and Reporting Program (MRP) R7-2019-0015 are necessary to determine compliance with this Order. The State Water Board's electronic database, GeoTracker Information Systems, facilitates the submittal and review of Facility documents. The burden, including costs, of this MRP bears a reasonable relationship to the need for that information and the benefits to be obtained from that information.

27. Pursuant to Water Code section 13263, subdivision (g), the discharge of waste is a privilege, not a right, and adoption of this Order does not create a vested right to continue the discharge.

State Antidegradation Analysis

28. State Water Board Resolution 68-16, entitled *Statement of Policy with Respect to Maintaining High Quality Waters in California* (Resolution 68-16), generally prohibits the Colorado River Basin Water Board from authorizing discharges that will result in the degradation of high quality waters, unless it is demonstrated that any change in water quality will (a) be consistent with maximum benefit to the people of the state, (b) not unreasonably affect beneficial uses, and (c) not result in water quality less than that prescribed in state and regional policies (e.g., the violation of one or more water quality objectives). The discharger must also employ best practicable treatment or control (BPTC) to minimize the degradation of high quality waters.

29. Some degradation of groundwater from the discharge to the evaporation/percolation ponds is consistent with Resolution 68-16, provided that the degradation:

    a. Is confined to a reasonable area;

    b. Is minimized by means of full implementation, regular maintenance, and optimal operation of BPTC measures by the Discharger;

    c. Is limited to waste constituents typically encountered in domestic wastewater;

    d. Does not unreasonably affect any beneficial uses of groundwater prescribed in the Basin Plan, and will not result in the violation of any water quality objective; and

    e. Is consistent with the maximum benefit to the people of the state.

30. Constituents in the WWTP effluent that have the potential to degrade groundwater include: nitrogen, coliforms (pathogen-indicator organisms), and TDS. The WWTF provides substantial removal of soluble organic matter, solids, and some nitrogen treatment. Each of these constituents is discussed below:

a. **Nitrogen.** The Primary Maximum Contaminant Level (MCL) found in California Code of Regulations, title 22, section 64431 for nitrate plus nitrite as nitrogen is 10 mg/L. To account for the fate of transport for the various components of total nitrogen, as a conservative value, it is assumed that all nitrogen present converts to nitrate/nitrite. The Discharger's SMRs from January 2013 through November 2018 show a range of 0 to 48 mg/L with an average 29.5 mg/L for total nitrogen in the effluent. The effluent total nitrogen data indicates that the discharge of treated wastewater may be impacting groundwater at a rate or in concentrations causing groundwater to exceed the Primary MCL, which is the applicable water quality objective. However, given the relatively low volume of the discharge, the degradation of groundwater is believed to be limited to the area near the evaporation percolation ponds. This Order requires that the Discharger conduct a nitrogen removal analysis and provide its findings in a technical report that provides a workplan and time schedule for the installation and implementation of nitrogen removal alternatives. The study may be used in the future establishment of an appropriate nitrogen effluent limitation.

b. **Coliforms**. Secondary treatment reduces fecal coliform densities by 90 to 99%; the remaining organisms in effluent are still 10^5 to 10^6 most probable number (MPN)/100 ml. (U.S. Environmental Protection Agency, *Design Manual: Municipal Wastewater Disinfection*, EPA/625/1-86/021, October 1986.) Given the depth to groundwater, which is approximately 60 feet, it is not likely that pathogen-indicator bacteria will reach groundwater in excess of that prescribed in California Code of Regulations, title 22, 64426.1. However, given the location of the discharge, and the distance to the nearest domestic water supply well, the degradation of groundwater it is believed to be limited to the area near the evaporation percolation ponds and will not impact any domestic supply basin. To verify no degradation due to pathogen-indicator organisms is occurring, this Order adds quarterly total coliform and *E. coli* monitoring in the groundwater monitoring wells.

c. **TDS.** The typical incremental addition of dissolved salts from domestic water usage is 150 to 380 mg/L. Domestic water supply to the community has an average of about 315 mg/L. From January 2013 through November 2018, treated wastewater discharged by the Discharger had an average TDS concentration of approximately 593 mg/L. The average TDS increase over the domestic water supply for this Facility for the same time period was about 270 mg/L. An interim regulatory limit of 700 mg/L has been set by the Colorado River Basin Water Board, which reasonably protects present and anticipated beneficial uses of groundwater in the area; it is not likely that groundwater will exhibit significant degradation by TDS. This Order requires that the Discharger conduct a TDS study to assess the water quality conditions for the future establishment of an effluent limitation for TDS that takes into account site-specific conditions.

31. The discharge of wastewater from the WWTF, as permitted herein, reflects BPTC. The WWTF incorporates:

    a. Controls to monitor the concentrations of waste constituents;

    b. Structural controls to dispose of waste constituents in a designated area;

    c. Sludge handling facilities;

    d. An operation and maintenance manual;

    e. Staffing to ensure proper operation and maintenance; and

    f. A standby emergency power generator of sufficient size to operate the treatment plant and ancillary equipment during periods of loss of commercial power.

32. Degradation of groundwater by some of the typical waste constituents associated with discharges from a facility treating domestic wastewater, after effective source control, treatment, and control measures are implemented, is consistent with the maximum benefit to the people of the state. The technology, energy, water recycling, and waste management advantages of municipal utility service far exceed any benefits derived from reliance on numerous, concentrated individual wastewater systems, and the impact on water quality will be substantially less. The economic prosperity of surrounding communities and associated industries is of maximum benefit to the people of the state, and provides sufficient justification for allowing the limited groundwater degradation that may occur pursuant to this Order.

Stormwater

33. Federal regulations for stormwater discharges were promulgated by the U.S. Environmental Protection Agency on November 16, 1990 (40 C.F.R. parts 122, 123, and 124) to implement the Clean Water Act's stormwater program set forth in Clean Water Act section 402, subdivision (p) (33 U.S.C. § 1342(p)). In relevant part, the regulations require specific categories of facilities that discharge stormwater associated with industrial activity to "waters of the United States" to obtain National Pollutant Discharge Elimination System (NPDES) permits and to require control of such pollutant discharges using Best Available Technology Economically Achievable (BAT) and Best Conventional Pollutant Control Technology (BCT) to prevent and reduce pollutants and any more stringent controls necessary to meet water quality standards.

34. The State Water Board adopted Order 2014-0057-DWQ (NPDES No. CAS000001), *General Permit for Storm Water Discharges Associated with Industrial Activities* (Industrial General Permit) on July 1, 2015. Facilities (1) used in the storage, treatment, recycling, and reclamation of municipal or domestic sewage—including land dedicated to the disposal of sewage sludge that are within the confines of such a facility—with a design flow of one million gallons per day or more, or (2) that are

required to have an approved pretreatment program under 40 Code of Federal Regulations part 403, are required to enroll under the Industrial General Permit, unless there is no discharge of industrial stormwater to waters of the United States.

35. The Facility has a design treatment capacity of 0.250 mgd and is not required to have an approved pretreatment program under 40 Code of Federal Regulations part 403. Therefore, the Facility is not required to enroll under the Industrial General Permit.

CEQA and Public Participation

36. Pursuant to California Code of Regulations, title 14, chapter 3, section 15301, the issuance of these WDRs, which govern the operation of an existing facility involving negligible or no expansion of use beyond that previously existing, is exempt from the provisions of the California Environmental Quality Act (CEQA), Public Resources Code section 21000 et seq.

37. The Colorado River Basin Water Board has notified the Discharger and all known interested agencies and persons of its intent to update WDRs for this discharge, and has provided them with an opportunity for a public meeting and to submit comments.

38. The Colorado River Basin Water Board, in a public meeting, heard and considered all comments pertaining to this discharge.

IT IS HEREBY ORDERED, that Order R7-2007-0053 is rescinded upon the effective date of this Order, except for enforcement purposes, and, in order to meet the provisions contained in division 7 of the Water Code, and regulations adopted thereunder, the Discharger shall comply with the following:

A. Discharge Prohibitions

1. Discharge of waste classified as “hazardous,” as defined in California Code of Regulations, title 27, section 20164, or “designated,” as defined in Water Code section 13173 and California Code of Regulations, title 27, section 20164, is prohibited.

2. Discharge of treated wastewater at a location other than the designated disposal areas is prohibited.

3. The discharge of any wastewater from the Facility to any surface waters or surface drainage courses is prohibited.

4. The Discharger shall not accept waste in excess of the design treatment capacity of the Facility’s disposal system.

5. Surfacing or ponding of wastewater outside of the designated disposal locations is prohibited.

6. Bypass or overflow of untreated or partially-treated waste is prohibited, except as permitted in Standard Condition G.13.

7. The discharge of treated wastewater to land not owned or authorized for such use by the Discharger is prohibited.

8. The storage, treatment, or disposal of wastes from the Facility shall not cause contamination, pollution, or nuisance as defined in Water Code section 13050, subdivisions (k), (l), and (m).

B. Effluent Limitations

1. Effluent discharged into the evaporation/percolation ponds for disposal shall not exceed the following effluent limits:

Constituent	Units	Monthly Average	Weekly Average
20° C BOD_5[7]	mg/L[8]	30	45
Total Suspended Solids (TSS)	mg/L	30	45
Settleable Solids	ml/L[9]	0.3	0.5

2. The 30-day average daily dry weather discharge from the WWTF into the evaporation/percolation ponds shall not exceed 0.250 mgd.

3. As an interim effluent limit, the TDS concentration of the effluent shall not exceed 700 mg/L.

4. Effluent from the WWTF into the evaporation/percolation ponds shall not have a pH below 6.0 or above 9.0.

C. Groundwater Limitations

Discharge from the Facility shall not: cause groundwater to exceed water quality objectives; acquire taste, odor, toxicity, or color that create nuisance conditions; impair beneficial uses; or contain constituents in excess of California Maximum Contaminant Levels (MCLs), as set forth in title 22 of the California Code of

[7] 5-day biochemical oxygen demand at 20 °C

[8] milligrams per Liter

[9] milliliters per Liter

Regulations (section 64426.1 for bacteriological constituents; section 64431 for inorganic chemicals (including nitrate); and section 64444 for organic chemicals; and section 64678 for lead and copper action levels).

D. Discharge Specifications

1. The evaporation/percolation ponds shall be maintained so they will continuously operate in aerobic conditions. The dissolved oxygen content in the upper zone (one foot) of the evaporation/percolation ponds shall not be less than 1.0 mg/L.

2. A minimum depth of freeboard of two (2) feet shall be maintained at all times in each evaporation/percolation pond.

3. All treatment, storage, and disposal areas shall be designed, constructed, operated, and maintained to prevent inundation or washout due to floods with a 100-year return frequency.

4. Evaporation/percolation ponds shall have sufficient capacity to accommodate allowable wastewater flow, design seasonal precipitation, ancillary inflow, and infiltration. Design seasonal precipitation shall be based on total annual precipitation using a return period of 100 years, distributed monthly in accordance with historical rainfall patterns.

5. The evaporation/percolation ponds shall be managed to prevent breeding of mosquitoes, in particular:

    a. An erosion control program should ensure that small coves and irregularities are not created around the perimeter of the water surface;

    b. Weeds shall be minimized through control of water depth, harvesting, or herbicides;

    c. Dead algae, vegetation, and debris shall not accumulate on the water surface.

6. Public contact with non-disinfected wastewater shall be precluded through such means as fences, signs, and other acceptable alternatives.

7. Objectionable odors originating at the Facility shall not be perceivable beyond the limits of the wastewater treatment and disposal area.

8. The evaporation/percolation ponds shall be maintained and operated so as to maximize infiltration and minimize the increase of salinity in the groundwater.

9. There shall be no surface flow of wastewater away from the designated disposal areas.

10. The Discharger shall not accept wastewater in excess of the treatment capacity of the Facility.

E. Sludge and Solids Limitations

1. Disposal of oil and grease, biosolids, screenings, and other solids collected from liquid wastes shall be pursuant to title 27 of the California Code of Regulations.

2. Sludge use and disposal shall comply with federal and state laws and regulations, including permitting requirements, and technical standards in 40 Code of Federal Regulations part 503.

3. Any proposed change in use or disposal of biosolids requires the approval of the Colorado River Basin Water Board's Executive Officer, and U.S. Environmental Protection Agency Regional Administrator, who must be notified at least **90 days** in advance of the change.

4. The Discharger shall maintain a permanent log of all solids hauled away from the treatment facility for use/disposal elsewhere and shall provide a summary of the volume, type (screenings, grit, raw sludge, digested sludge), use (agricultural, composting, etc.), and the destination in accordance with the MRP of this Order. Sludge that is stockpiled at the treatment facility shall be sampled and analyzed for those constituents listed in the sludge monitoring section of the MRP of this Order and as required by 40 Code of Federal Regulations part 503. The results of the analyses shall be submitted to the Colorado River Basin Water Board as part of the MRP.

F. Special Provisions

1. Groundwater Monitoring Network Technical Report and Work Plan

a. Within **six (6) months** of the adoption of this Order, the Discharger shall submit to the Colorado River Basin Water Board's Executive Officer for review and approval a technical report on the adequacy of the existing groundwater monitoring network. The technical report shall:

i. Describe the current condition of the groundwater monitoring network;

ii. Evaluate whether this network adequately monitors the effects of the discharge from the disposal ponds on groundwater; and

iii. Analyze the groundwater data collected from the existing groundwater monitoring wells. The analysis shall include:

(1) Maps (e.g., equipotential maps) showing the direction of flow and identification of upgradient and downgradient monitoring wells.

(2) An appropriate statistical analysis for constituents of concern (COCs) for the upgradient and downgradient wells, based on the groundwater data collected to date. COCs in this case are TDS and its major ions: sulfate, chloride, nitrogen (total nitrogen, nitrite, and nitrate), and fluoride.

b. If the technical report indicates that repair or addition of monitoring wells is necessary, the Discharger shall submit a work plan to the Colorado River Basin Water Board's Executive Officer for review and approval **within four (4) months** of technical report approval. The work plan shall include:

i. A description proposed changes to the groundwater monitoring network (e.g., monitoring locations, monitoring frequency, sampling protocol, or quality assurance/quality control); and

ii. A time schedule for the implementation of these changes, which shall not be longer than **18 months.**

c. **Within 30 days** of approval of the work plan by the Executive Officer, the Discharger shall begin implementation of the work plan in accordance with the time schedule.

2. **Nitrogen Control Strategy Technical Report: Fate and Transport Investigation, and Effluent Limit Feasibility Study**

a. Within **six (6) months** of determining sufficient adequacy of the groundwater network, the Discharger shall submit to the Colorado River Basin Water Board's Executive Officer for review and approval a technical report that includes a work plan and time schedule to: (1) determine if wastewater discharged to the evaporation/percolation ponds is causing nitrogen impairment to groundwater; (2) determine the feasibility of achieving a 10 mg/L total nitrogen effluent limit; and (3) ensure that any proposed effluent limit for nitrogen does not cause exceedance of the nitrogen receiving water limitation.

b. The fate and transport investigation section of the work plan shall include, but not be limited to, the following:

i. An evaluation of nitrogen removal technology provided by the Discharger.

ii. Characterization for total nitrogen and nitrates of the wastewater discharged to the evaporation/percolation ponds and in the receiving groundwater.

iii. Evaluation of the impact of the wastewater discharged on the groundwater in the vicinity of the percolation ponds with respect to nitrogen concentrations.

c. The feasibility study section of the work plan shall include, but need not be limited to, discussion of the practicability of achieving a 10 mg/L total nitrogen effluent limit, including projected costs and sewer rate increases. The Discharger shall evaluate alternative methods of treatment that are available and may be implemented to achieve a 10 mg/L total nitrogen effluent limit. The alternative analysis should include the costs of the alternatives, expressed in dollars per ton, of nitrogen removed from the discharge.

d. **Within 30 days** of approval by the Executive Officer, the Discharger shall begin implementation of the work plan in accordance with the time schedule. The time schedule for implementation shall not be longer than **24 months**. The Discharger shall submit progress reports in the quarterly SMR to the Colorado River Basin Water Board.

e. **Within 2 months** of completion of the nitrogen control strategy: fate and transport investigation, and effluent limitation feasibility study, the Discharger shall submit a final technical report that includes the Discharger's findings, recommendations and conclusions. The final technical report may provide recommendations on an appropriate nitrogen effluent limitation. The report shall include a tentative work plan and time schedule for facility plant improvements required to accomplish nitrogen removal and comply with groundwater water quality objectives and receiving water limitations.

3. **TDS Source Control Program Technical Report**

a. Within **nine (9) months** of adoption of this Order, the Discharger shall submit to the Colorado River Basin Water Board's Executive Officer for review and approval a technical report that includes a work plan and time schedule to develop and implement a TDS

Source Control Program. The objective of the Source Control Program is to evaluate source control and methods to reduce TDS concentrations in the discharge to the evaporation/percolation ponds. A public outreach program component may be included as part of the work plan. The technical report must identify the major sources of salinity into the WWTP collection system, including but not limited to, contributions from domestic sources, commercial and industrial sources, and water softener regeneration brines.

b. Evaluation by the Discharger shall include, but is not limited to, information on the following factors relating to the discharge:

   i. Description of the municipal entity and facilities, including local ordinances, and rules and regulations that address the topic of controlling salinity in wastewater.

   ii. Identification and description of entities responsible for controlling each source, if available.

   iii. Overall TDS mass balance for the influent into the WWTP.

   iv. Description of wastewater treatment strategies available and employed at the Facility to remove identified pollutants.

   v. Characterization of the concentrations of TDS in the wastewater discharged to the evaporation/percolation ponds and in the receiving groundwater.

c. **Within 30 days** of approval by the Executive Officer, the Discharger shall begin implementation of the work plan in accordance with the time schedule. The time schedule for implementation shall not be longer than **three (3) years.**

d. The Discharger shall monitor and analyze the effectiveness of the source control program by means of trend monitoring and report the analytical results with the quarterly SMRs to the Colorado River Basin Water Board.

e. **Within 2 months** of completion of implementation, the Discharger shall submit a final technical report that summarizes the Discharger's findings, recommendations, and conclusions addressing the effectiveness of the source control program. The final report shall evaluate the incremental increase of TDS above the source water (community water supply) and the impact the discharge has on the beneficial uses of the receiving groundwater. The final technical report may also provide recommendations on the final TDS effluent limitation.

4. [Omitted from original document].

5. **Requests for Extension.** If the Discharger is unable to comply with any of the above Special Provisions in compliance with the applicable schedule, the Discharger may request an extension with written approval of the Colorado River Basin Water Board Executive Officer. The extension request must be in writing and submitted as soon as a delay is recognized and prior to the compliance date. The extension request should include justification for the delay.

G. Standard Provisions

1. **Noncompliance.** The Discharger shall comply with all of the terms, requirements, and conditions of this Order and Monitoring and Reporting Program R7-2019-0015. Noncompliance is a violation of the Porter-Cologne Water Quality Control Act (Water Code, § 13000 et seq.) and grounds for: (1) an enforcement action; (2) termination, revocation and reissuance, or modification of these waste discharge requirements; or (3) denial of an Order renewal application.

2. **Enforcement.** The Colorado River Basin Water Board reserves the right to take any enforcement action authorized by law. Accordingly, failure to timely comply with any provisions of this Order may subject the Discharger to enforcement action. Such actions include, but are not limited to, the assessment of administrative civil liability pursuant to Water Code sections 13323, 13268, and 13350, a Time Schedule Order (TSO) issued pursuant to Water Code section 13308, or referral to the California Attorney General for recovery of judicial civil liability.

3. **Proper Operation and Maintenance.** The Discharger shall at all times properly operate and maintain all systems and components of collection, treatment, and control, installed or used by the Discharger to achieve compliance with this Order. Proper operation and maintenance includes, but is not limited to, effective performance, adequate process controls, and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities/systems when necessary to achieve compliance with this Order. All systems in service or reserved shall be inspected and maintained on a regular basis. Records of inspections and maintenance shall be retained, and made available to the Colorado River Basin Water Board on request.

4. **Reporting of Noncompliance.** The Discharger shall report any noncompliance that may endanger human health or the environment. Information shall be provided orally to the Colorado River Basin Water Board office and the Office of Emergency Services within twenty-four (24) hours of when the Discharger becomes aware of the incident. If noncompliance occurs outside of business hours, the Discharger shall leave a message on the

Colorado River Basin Water Board's office voicemail. A written report shall also be provided within five (5) business days of the time the Discharger becomes aware of the incident. The written report shall contain a description of the noncompliance and its cause, the period of noncompliance, the anticipated time to achieve full compliance, and the steps taken or planned, to reduce, eliminate, and prevent recurrence of the noncompliance. All other forms of noncompliance shall be reported with the Discharger's next scheduled SMRs, or earlier if requested by the Executive Officer or if required by an applicable standard for sludge use and disposal.

5. **Duty to Mitigate.** The Discharger shall take all reasonable steps to minimize or prevent any discharge in violation of this Order that has a reasonable likelihood of adversely affecting human health or the environment.

6. **Material Changes.** Prior to any modifications which would result in any material change in the quality or quantity of wastewater treated or discharged, or any material change in the location of discharge, the Discharger shall report all pertinent information in writing to the Colorado River Basin Water Board, and if required by the Colorado River Basin Water Board, obtain revised requirements before any modifications are implemented.

7. **Design Capacity Report.** The Discharger shall provide a report to the Colorado River Basin Water Board when it determines that the plant's average dry-weather flow rate for any month exceeds 80 percent of the design capacity. The report should indicate what steps, if any, the Discharger intends to take to provide for the expected wastewater treatment capacity necessary when the plant reaches design capacity.

8. **Operational Personnel.** The Facility shall be supervised and operated by persons possessing certification of appropriate grade pursuant to section 3680, chapter 26, division 3, title 23 of the California Code of Regulations.

9. **Familiarity with Order.** The Discharger shall ensure that all site-operating personnel are familiar with the content of this Order, and shall maintain a copy of this Order at the site.

10. **Inspection and Entry.** The Discharger shall allow the Colorado River Basin Water Board, or an authorized representative, upon presentation of credentials and other documents as may be required by law, to:

    a. Enter the premises regulated by this Order, or the place where records are kept under the conditions of this Order;

    b. Have access to and copy, at reasonable times, records kept under the conditions of this Order;

c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order; and

d. Sample or monitor at reasonable times, for the purpose of assuring compliance with this Order or as otherwise authorized by the Water Code, any substances or parameters at this location.

11. **Records Retention.** The Discharger shall retain copies of all reports required by this Order and the associated MRP. Records shall be maintained for a minimum of five years from the date of the sample, measurement, report, or application. Records may be maintained electronically.

12. **Change in Ownership.** This Order is not transferable to any person without written approval by the Colorado River Basin Water Board's Executive Officer. Prior to any change in ownership of this operation, the Discharger shall notify the Colorado River Basin Water Board's Executive Officer in writing at least 30 days in advance. The notice must include a written transfer agreement between the existing owner and the new owner. At a minimum, the transfer agreement must contain a specific date for transfer of responsibility for compliance with this Order and an acknowledgment that the new owner or operator is liable for compliance with this Order from the date of transfer. The Colorado River Basin Water Board may require modification or revocation and reissuance of this Order to change the name of the Discharger and incorporate other requirements as may be necessary under the Water Code.

13. **Bypass.** Bypass (i.e., the intentional diversion of waste streams from any portion of the treatment facilities, except diversions designed to meet variable effluent limits) is prohibited. The Colorado River Basin Water Board may take enforcement action against the Discharger for bypass unless:

a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage. Severe property damage means substantial physical damage to property, damage to the treatment facilities that causes them to be inoperable, or substantial and permanent loss of natural resources reasonably expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production; and

b. There were no feasible alternatives to bypass, such as the use of auxiliary treatment facilities or retention of untreated waste. This condition is not satisfied if adequate back-up equipment was not installed to prevent bypass occurring during equipment downtime, or preventive maintenance; or

c. Bypass is (1) required for essential maintenance to ensure efficient operation; (2) neither effluent nor receiving water limitations are exceeded; and (3) the Discharger notifies the Colorado River Basin Water Board ten (10) days in advance.

In the event of an unanticipated bypass, the Discharger shall immediately report the incident to the Colorado River Basin Water Board. During non-business hours, the Discharger shall leave a message on the Colorado River Basin Water Board's office voicemail. A written report shall be provided within five (5) business days after the Discharger is aware of the incident. The written report shall include a description of the bypass, any noncompliance, the cause, period of noncompliance, anticipated time to achieve full compliance, and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

14. **Backup Generators.** Standby, power generating facilities shall be available to operate the Facility during a commercial power failure.

15. **Format of Technical Reports.** The Discharger shall furnish, under penalty of perjury, technical monitoring program reports, and such reports shall be submitted in accordance with chapter 30, division 3, title 23 of the California Code of Regulations, as groundwater raw data uploads electronically over the internet into the State Water Board's GeoTracker database, found at: https://geotracker.waterboards.ca.gov/. Documents that are normally mailed by the Discharger, such as regulatory documents, narrative technical monitoring program reports, and such reports submissions, materials, data, and correspondence, to the Colorado River Basin Water Board shall also be uploaded into GeoTracker in the appropriate Microsoft software application, such as word, excel, or an Adobe Portable Document Format (PDF) file. Large documents are to be split into manageable file sizes appropriately labelled and uploaded into GeoTracker. The Facility is assigned GeoTracker Global Identification No. WDR100027526.

16. **Qualified Professionals.** In accordance with Business and Professions Code sections 6735, 7835, and 7835.1, engineering and geologic evaluations and judgments shall be performed by or under the direction of California registered professionals (i.e., civil engineer, engineering geologist, geologist, etc.) competent and proficient in the fields pertinent to the required activities. All technical reports required under this Order that contain work plans, that describe the conduct of investigations and studies, or that contain technical conclusions and recommendations concerning engineering and geology shall be prepared by or under the direction of appropriately qualified professional(s), even if not explicitly stated. Each technical report submitted by the Discharger shall contain a statement of qualifications of the responsible licensed professional(s) as well as the professional's signature and/or stamp of the seal. Additionally, all field

activities are to be conducted under the direct supervision of one or more of these professionals.

17. **Certification Under Penalty of Perjury.** All technical reports required in conjunction with this Order shall include a statement by the Discharger, or an authorized representative of the Discharger, certifying under penalty of perjury under the laws of the State of California, that the reports were prepared under his or her supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluated the information submitted, and that based on his or her inquiry of the person or persons who manage the system, the information submitted is, to the best of his or her knowledge and belief, true, complete, and accurate.

18. **Violation of Law.** This Order does not authorize violation of any federal, state, or local laws or regulations.

19. **Modification, Revocation, Termination.** This Order may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Discharger for an Order modification, rescission, or reissuance, or the Discharger's notification of planned changes or anticipated noncompliance, does not stay any Order condition. Causes for modification include, but are not limited to, the violation of any term or condition contained in this Order, a material change in the character, location, or volume of discharge, a change in land application plans or sludge use/disposal practices, or the adoption of new regulations by the State Water Board, Colorado River Basin Water Board (including revisions to the Basin Plan), or federal government.

20. **Severability.** The provisions of this Order are severable. If any provision of this Order is found invalid, the remainder of these requirements shall not be affected.

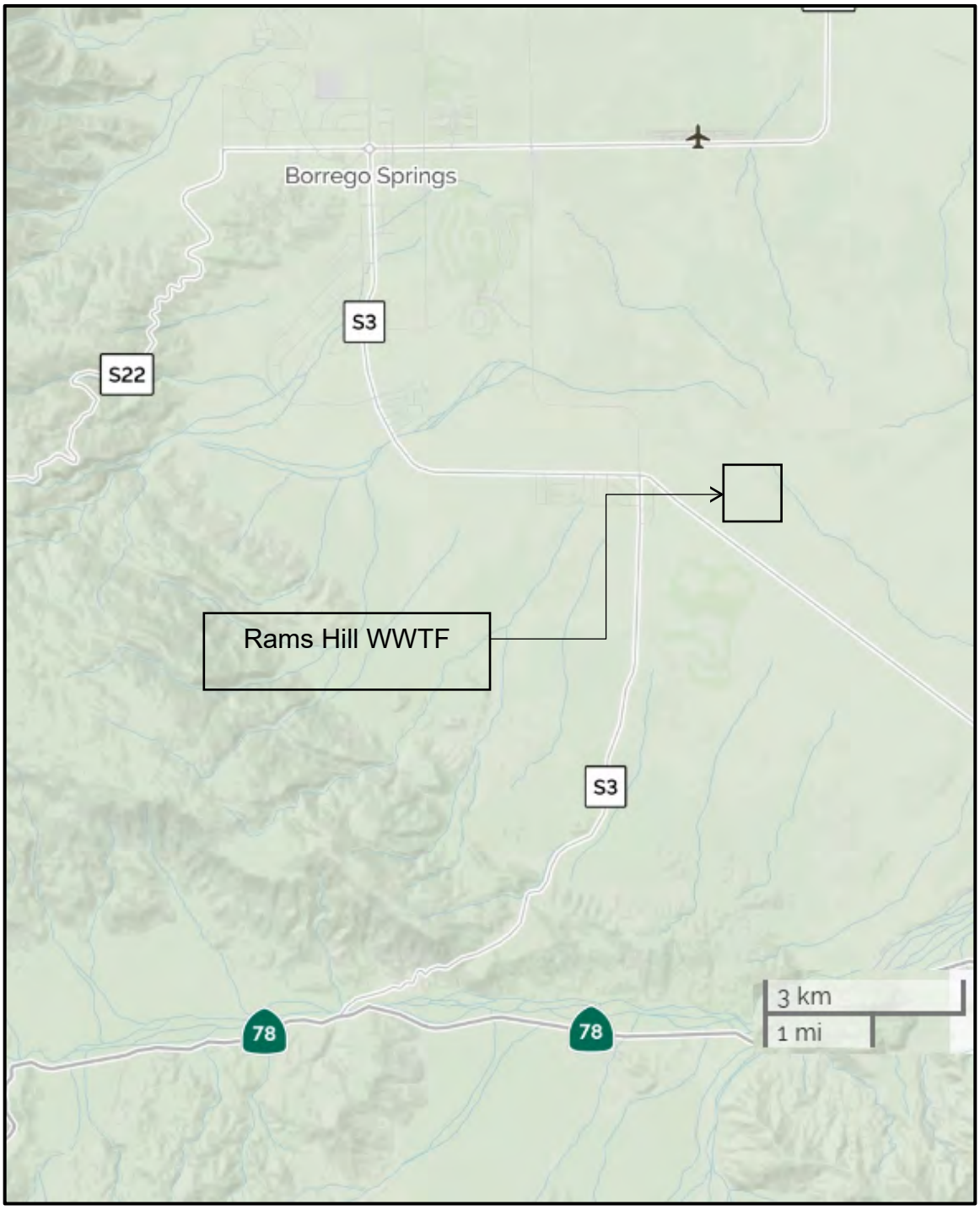
I, Paula Rasmussen, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Colorado River Basin Region, on March 7, 2019.

Original Signed by

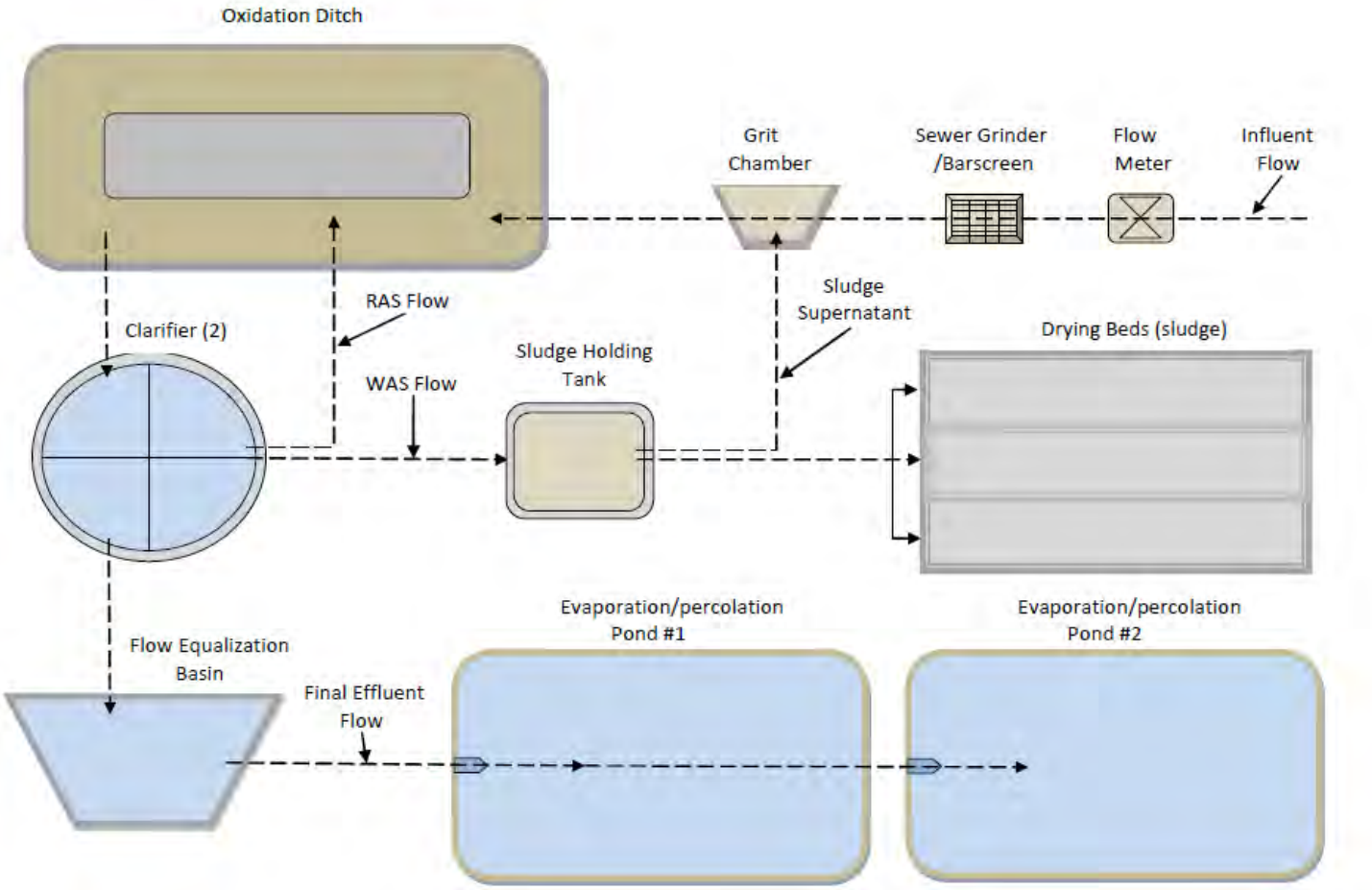
PAULA RASMUSSEN
Executive Officer

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

COLORADO RIVER BASIN REGION



Vicinity Map
BORREGO WATER DISTRICT, OWNER/OPERATOR
RAMS HILL WASTEWATER TREATMENT FACILITY
Borrego Springs – San Diego County
E ½ of Section 23, T11S, R6E, SBB&M



BORREGO WATER DISTRICT, OWNER/OPERATOR, RAMS HILL WASTEWATER TREATMENT FACILITY
Borrego Springs – San Diego County

Site Map with Location of Groundwater Monitoring Well

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

MONITORING AND REPORTING PROGRAM R7-2019-0015
FOR
BORREGO WATER DISTRICT, OWNER/OPERATOR
RAMS HILL WASTEWATER TREATMENT FACILITY
BORREGO SPRINGS-SAN DIEGO COUNTY

LOCATION OF DISCHARGE:
E ½ of Section 23, T11S, R6E, SBB&M

A. Monitoring

1. This Monitoring and Reporting Program (MRP) is issued pursuant to Water Code section 13267 and describes requirements for monitoring the relevant wastewater system and groundwater quality. The Discharger shall not implement any changes to this MRP unless and until a revised MRP is issued by the Colorado River Basin Water Board or its Executive Officer.

2. The Discharger owns and operates the wastewater system that is subject to Order R7-2019-0015. The reports are necessary to ensure that the Discharger complies with the Order. Pursuant to Water Code section 13267, the Discharger shall implement the MRP and shall submit the monitoring reports described herein.

3. The collection, preservation, and holding times of all samples shall be in accordance with U. S. Environmental Protection Agency (USEPA) approved procedures. Unless otherwise approved by the Colorado River Basin Water Board's Executive Officer, all analyses shall be conducted by a laboratory certified by the State Water Board, Division of Drinking Water's Environmental Laboratory Accreditation Program (ELAP). All analyses shall be conducted in accordance with the latest edition of the Guidelines Establishing Test Procedures for Analysis of Pollutants (40 C.F.R. part 136), promulgated by the USEPA.

4. Samples shall be collected at the location specified in the WDRs. If no location is specified, sampling shall be conducted at the most representative sampling point available.

5. All samples shall be representative of the volume and nature of the discharge or matrix of material sampled. The time, date, and location of each grab sample shall be recorded on the sample chain of custody form. If composite samples are collected, the basis for sampling (time or flow weighted) shall be approved by Colorado River Basin Water Board staff.

6. All monitoring instruments and devices used by the Discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy. In the event that continuous monitoring equipment is out of service for a period greater than 24-hours, the Discharger shall obtain representative grab samples each day the equipment is out of service. The Discharger shall correct the cause(s) of failure of the continuous monitoring equipment as soon as practicable. The Discharger shall report the period(s) during which the equipment was out of service and if the problem has not been corrected, shall identify the steps which the Discharger is taking or proposes to take to bring the equipment back into service and the schedule for these actions.

7. Field test instruments (such as those used to test pH, dissolved oxygen, and electrical conductivity) may be used provided that:

    a. The user is trained in proper use and maintenance of the instruments;

    b. The instruments are field calibrated prior to monitoring events at the frequency recommended by the manufacturer;

    c. Instruments are serviced and/or calibrated by the manufacturer at the recommended frequency; and

    d. Field calibration reports are submitted as described in the "Reporting" section of this MRP.

8. The Discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order, for a period of at least five (5) years from the date of the sample, measurement, report or application. This period may be extended by request of the Colorado River Basin Water Board's Executive Officer at any time. Records of monitoring information shall include:

    a. The date, exact place, and time of sampling or measurement(s);

    b. The individual(s) who performed the sampling or measurement(s);

    c. The date(s) analyses were performed;

    d. The individual(s) who performed the analyses;

    e. The analytical techniques or method used; and

    f. The results of such analyses.

9. Given the monitoring frequency prescribed by MRP R7-2019-0015, if only one sample is available for a given reporting period, compliance with monthly average or weekly average effluent limitations or discharge specifications will be determined from that sample.

10. If the Facility is not in operation, or there is no discharge during a required reporting period, the Discharger shall forward a letter to the Colorado River Basin Water Board indicating that there has been no activity during the required reporting period.

Influent Monitoring

11. Influent to the WWTF shall be monitored according to the following schedule:

Constituent	Units	Type of Sample	Monitoring Frequency	Reporting Frequency
Flow; Total Plant Influent	MGD[1]	Flow Measurement	Daily[2]	Monthly
20°C BOD_5[3]	mg/L[4]	24-Hr. Composite	Monthly	Monthly
Total Suspended Solids	mg/L	24-Hr. Composite	Monthly	Monthly

Effluent Monitoring

12. Effluent from the WWTF into the Evaporation/Percolation Ponds shall be monitored according to the following schedule:

Constituent	Units	Type of Sample	Monitoring Frequency	Reporting Frequency
20°C BOD_5	mg/L	Grab	2x/Month	Monthly
Total Suspended Solids	mg/L	Grab	2x/Month	Monthly

[1] Million Gallons per Day

[2] Reported for each day with average monthly flow

[3] 5-day Biochemical Oxygen Demand at 20 degrees Celsius.

[4] milligrams per Liter

Constituent	Units	Type of Sample	Monitoring Frequency	Reporting Frequency
Settleable Solids	mg/L	Grab	2x/Month	Monthly
Total Nitrogen	mg/L	Grab	2x/Month	Monthly
Total Dissolved Solids	mg/L	Grab	2x/Month	Monthly
VOCs[5]	µg/L[6]	Grab	Annually	Annually

Evaporation/Infiltration Pond Monitoring

13. The Discharger shall monitor each of the evaporation/percolation ponds as specified:

Constituent[7]	Units	Type of Sample	Sampling Frequency	Reporting Frequency
pH	pH units	Grab	Monthly	Monthly
Dissolved Oxygen	mg/L	Grab	Monthly	Monthly
Freeboard	0.1 feet	Measurement	Monthly	Monthly
Berm Condition	----	Observation	Monthly	Monthly
Odors	mg/L	Observation	Monthly	Monthly

Groundwater Monitoring

14. Groundwater monitoring wells shall be monitored according to the following schedule:

[5] Analysis of Volatile Organic Compounds is to be accomplished using the USEPA test methods 601, 602 or 624.

[6] micrograms per liter

[7] Samples shall be collected from opposite the inlet at a depth of one foot and from each pond in use. If there is no water in the evaporation/percolation ponds, the monitoring report shall state “No standing water in ponds” in place of reporting pH and dissolved oxygen concentration.

Constituent	Units	Type of Sample	Monitoring Frequency	Reporting Frequency
Depth to Groundwater	ft (bgs)[8]	measurement	Quarterly	Quarterly
TDS	mg/L	Grab	Quarterly	Quarterly
Total Nitrogen	mg/L	Grab	Quarterly	Quarterly
Nitrate as N	mg/L	Grab	Quarterly	Quarterly
Nitrite as N	mg/L	Grab	Quarterly	Quarterly
Standard Minerals[9]	mg/L	Grab	Annually	Annually
Total Coliforms	MPN/100 mL	Grab	Quarterly	Quarterly
E. coli	MPN/100 mL	Grab	Quarterly	Quarterly
VOCs	μg/L	Grab	Annually	Annually

Domestic Water Supply Monitoring

15. The domestic water supply shall be monitored at the water supply production wells, include notations of which wells are non-operating for a reporting period and in accordance to the following schedule:

Constituent	Units	Type of Sample	Monitoring Frequency	Reporting Frequency
Total Dissolved Solids	mg/L	Grab	Monthly	Monthly
pH	pH Units	Grab	Monthly	Monthly
Nitrate	mg/L	Grab	Quarterly	Quarterly

[8] feet below ground surface

[9] At a minimum, Standard Minerals shall include: total dissolved solids, calcium, chloride, fluoride, iron, magnesium, manganese, nitrate, potassium, sodium, sulfate, barium, total alkalinity (including alkalinity series), and hardness.

Sludge Monitoring

16. Prior to disposal, sludge that is generated at the WRF shall be sampled and analyzed for the following:

Constituent	Units	Type of Sample	Monitoring Frequency	Reporting Frequency
Arsenic	mg/kg[10]	Composite	Annually	Annually
Cadmium	mg/kg	Composite	Annually	Annually
Chromium	mg/kg	Composite	Annually	Annually
Copper	mg/kg	Composite	Annually	Annually
Lead	mg/kg	Composite	Annually	Annually
Mercury	mg/kg	Composite	Annually	Annually
Molybdenum	mg/kg	Composite	Annually	Annually
Nickel	mg/kg	Composite	Annually	Annually
Selenium	mg/kg	Composite	Annually	Annually
Zinc	mg/kg	Composite	Annually	Annually
Fecal Coliform	MPN/gram[11]	Composite	Prior to Disposal	Annually

Operation and Maintenance

1. The Discharger shall monitoring and report the following:

[10] milligrams per kilogram

[11] Most Probable Number per gram

Activity	Reporting
The Discharger shall inspect and document any operation/maintenance problems by inspecting each unit process. Operation and Maintenance reports shall be submitted to the Colorado River Basin Water Board annually, containing documentation showing the calibration of flow meters and equipment as performed in a timely manner, modifications and updates to the Operation and Maintenance Manual, and modifications and updates to the Discharger's wastewater ordinance or rules and regulations. The Discharger shall also provide an operator certification status update including number of staff and grade certification	Annually

B. Reporting

1. Daily, weekly, and monthly monitoring shall be included in the monthly monitoring report. Monthly monitoring reports shall be submitted to the Colorado River Basin Water Board by the **15th day of the following month**. Quarterly monitoring reports shall be submitted by **January 15th, April 15th, July 15th and October 15th**. Annual monitoring reports shall be submitted by **January 31st** of the following year.

2. The Discharger shall attach a cover letter to the self-monitoring reports (SMRs). The information contained in the cover letter shall clearly identify violations of the WDRs, discuss corrective actions taken or planned, and the proposed time schedule of corrective actions. Identified violations should include a description of the requirement that was violated and a description of the violation.

3. In reporting monitoring data, the Discharger shall arrange the data in tabular form so that the date, the constituents, and the concentrations are readily discernible. The data shall be summarized in such a manner as to clearly illustrate whether the Facility is operating in compliance with the WDRs. Where appropriate, the Discharger shall include supporting calculations (e.g., for monthly averages).

4. The results of any analysis taken more frequently than required at the locations specified in this MRP shall be reported to the Colorado River Basin Water Board.

5. SMRs shall be certified under penalty of perjury to be true and correct, and shall contain the required information at the frequency designated in this MRP.

6. Each report submitted to the Colorado River Basin Water Board shall contain the following completed declaration:

"I certify under the penalty of law that this document, including all attachments and supplemental information, was prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gathered and evaluated the information submitted. I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment.

Executed on the _____day of _____ at _____

_____(Signature)

_____(Title)"

7. The SMRs and any other information requested by the Colorado River Basin Water Board shall be signed by a principal executive officer or ranking elected official. A duly authorized representative of the Discharger may sign the documents if:

   a. The authorization is made in writing by the person described above;

   b. The authorization specified an individual or person having responsibility for the overall operation of the regulated disposal system; and

   c. The written authorization is submitted to the Colorado River Basin Water Board's Executive Officer.

8. The Discharger shall report immediately any failure in the waste disposal system as specified in Standard Provisions G.4. Results of any sampling or other analysis performed as a result of a failure of the Facility shall be provided within fourteen days after receipt.

9. As specified in Standard Provisions G.16, technical reports shall be prepared by or under the direction of appropriately qualified professional(s). Each technical report submitted shall contain a statement of qualifications of the responsible licensed professional(s) as well as the professional's signature and/or stamp of the seal.

10. As specified in Standard Provisions G.15, the Discharger shall comply with Electronic Submittal of Information (ESI) requirements by submitting all correspondence and reports required under MRP R7-2019-0009 and future revisions thereto, including groundwater monitoring data and discharge location data (latitude and longitude), correspondence, and PDF monitoring reports to the State Water Board's Geotracker database. Documents that

are 2.0 MB or larger should be broken down into smaller electronic files, labelled properly, and uploaded into Geotracker.

Ordered by: *Original signed by*
PAULA RASMUSSEN
Executive Officer

March 7, 2019
Date

TECHNICAL MEMORANDUM - DRAFT

To:	Geoff Poole, Borrego Water District
Preparer(s):	Agata Bugala, Alexandria Rankin; N2W Engineering
Reviewer(s):	Greg Guillen, PhD, PE; N2W Engineering
Date:	June 2025
Subject:	Special Provision 3 - Total Dissolved Solids Work Progress Summary

1 Executive Summary

This Technical Memorandum (TM) provides a summary of the evaluation of total dissolved solids (TDS) source control strategies and methods for reducing TDS discharge to local groundwater via Borrego Water District's (BWD, District) Rams Hill Wastewater Treatment Plant (WWTP) evaporation/percolation ponds.

Figure 1. Rams Hill WWTP

Summary of Findings

The analysis found the following:

- It is recommended that the District continue regular monitoring and data collection from the newly-installed groundwater wells. Additional data should be collected over time to better understand groundwater conditions and trends.
- Finalize the FOG report to include TDS monitoring as part of wastewater management practices.
- Survey results for local home water softener use reflect a low occurrence within the District's service area. However, the relatively low survey response rate of approximately 25% suggests that there may be limited interest or engagement from the community regarding the topic of home water treatment systems. As a result, it is difficult to extrapolate the survey results to the entire BWD customer base and conclude that home water softeners contribute a significant load of TDS to local groundwater via the WWTP. Additional outreach may be needed to encourage greater participation and gather more comprehensive data.

2 Project Introduction

Borrego Water District contracted N2W Engineering to provide this TM to meet the requirements of Special Provision 3 in Waste Discharge Requirement Order R7-2019-0015 (Order) for the Rams Hill WWTP. The purpose of this TM is to present the Regional Water Quality Control Board (RWQB) with a summary of the evaluation of TDS source control strategies and methods for reducing the discharge of TDS to local groundwater via the WWTP evaporation/percolation ponds.

This TM is organized as follows:

- Project Background
- Summary of Regional Water Quality Control Board Order
- TDS Project Update
- Conclusions and Next Steps

3 Project Background

The Rams Hill WWTP is located in the unincorporated town of Borrego Springs, California and has been operated by BWD since the early 1980's. The treatment plant facility that is located on APN 200-120-42 and is shown in **Figure 2**. The evaporation/percolation ponds and a groundwater monitoring well are located on an adjacent parcel, APN 200-120-41. In wastewater, TDS originates from potable water sources and may be added by domestic, commercial, and industrial activities. Domestic sources of TDS typically include food waste, washing activities, sanitary waste, and household chemicals such as cleaning products, personal care items, pharmaceuticals, and water softeners. Commercial sources are similar but vary based on the size and nature of the establishment. Larger commercial water softener systems can potentially lead to significant TDS loads. Industrial wastewater dischargers, typically those with high water usage such as food processing, semiconductor manufacturing, metal finishing, industrial laundry, and health industries, can also contribute large amounts of TDS. In Borrego Springs, the community consists primarily of domestic and small-scale commercial water users, with no large industrial contributors to the WWTP.

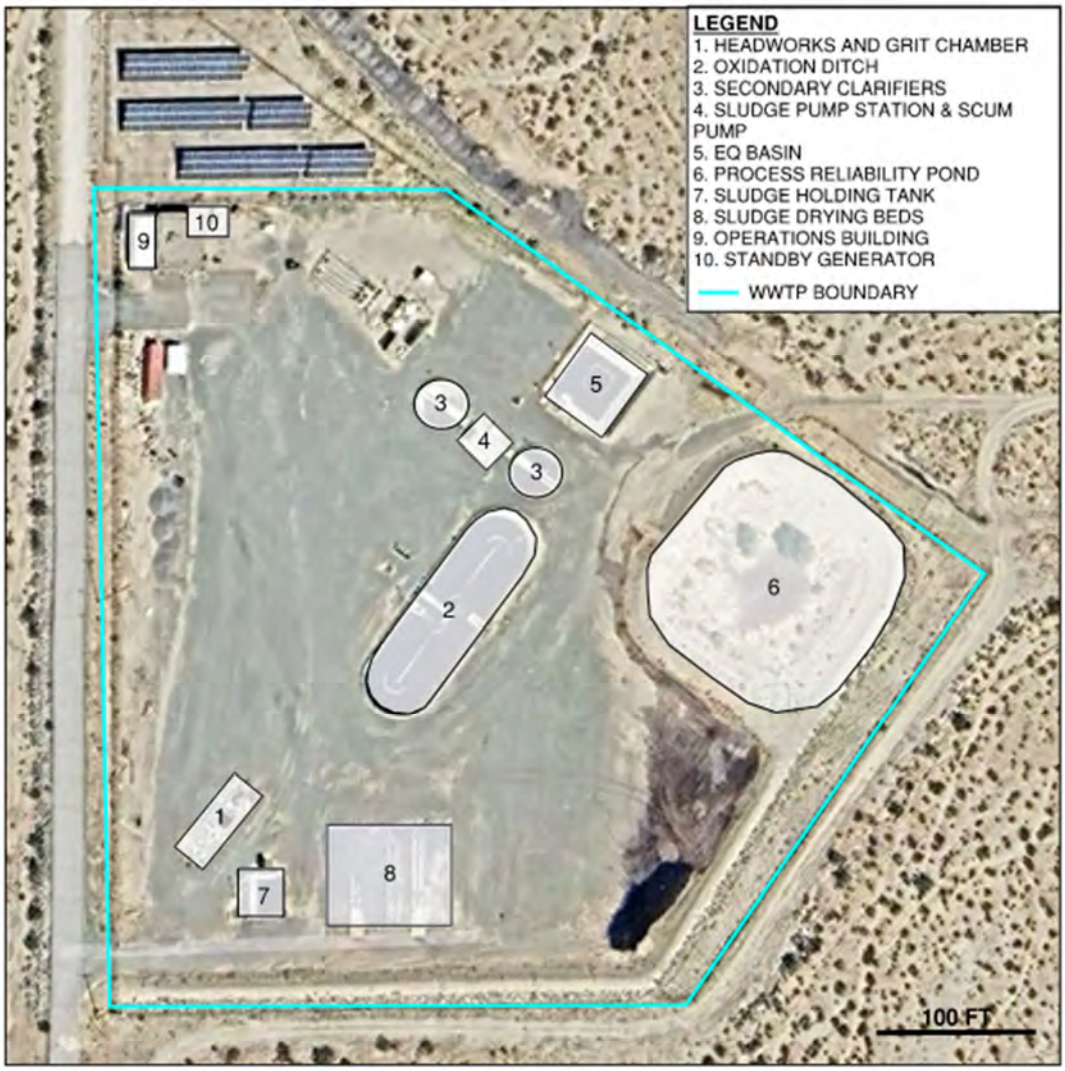


Figure 2. Rams Hill WWTP Site Layout

3.1 Rams Hill Wastewater Treatment Plant Summary

The Rams Hill WWTP is a 250,000 gallon per day (gpd) facility consisting of preliminary, secondary, final effluent, and solids removal treatment. The WWTP operates a single-duty oxidation ditch, extended aeration activated sludge (EAAS) biological treatment process. Influent wastewater flows through a Parshall flume flow meter, mechanical bar screen for large solids removal, grinder, and a vortex grit chamber for grit removal prior to entering the oxidation ditch. The oxidation ditch is designed to achieve biochemical oxygen demand (BOD_5) reduction and also some nitrogen removal via nitrification/denitrification. Mixed liquor from the oxidation ditch flows to the secondary clarifiers. Clarified effluent is discharged to percolation ponds without being disinfected. Sludge wasted from the secondary clarifiers flows to sludge holding tanks and is then dewatered using sludge drying beds. The dried sludge is collected every 2-3 years for off-site disposal. A process flow diagram of the WWTP is shown in **Figure 3**. The WWTP background description, function, and major assets in each area of the WWTP are summarized in **Table 1**.

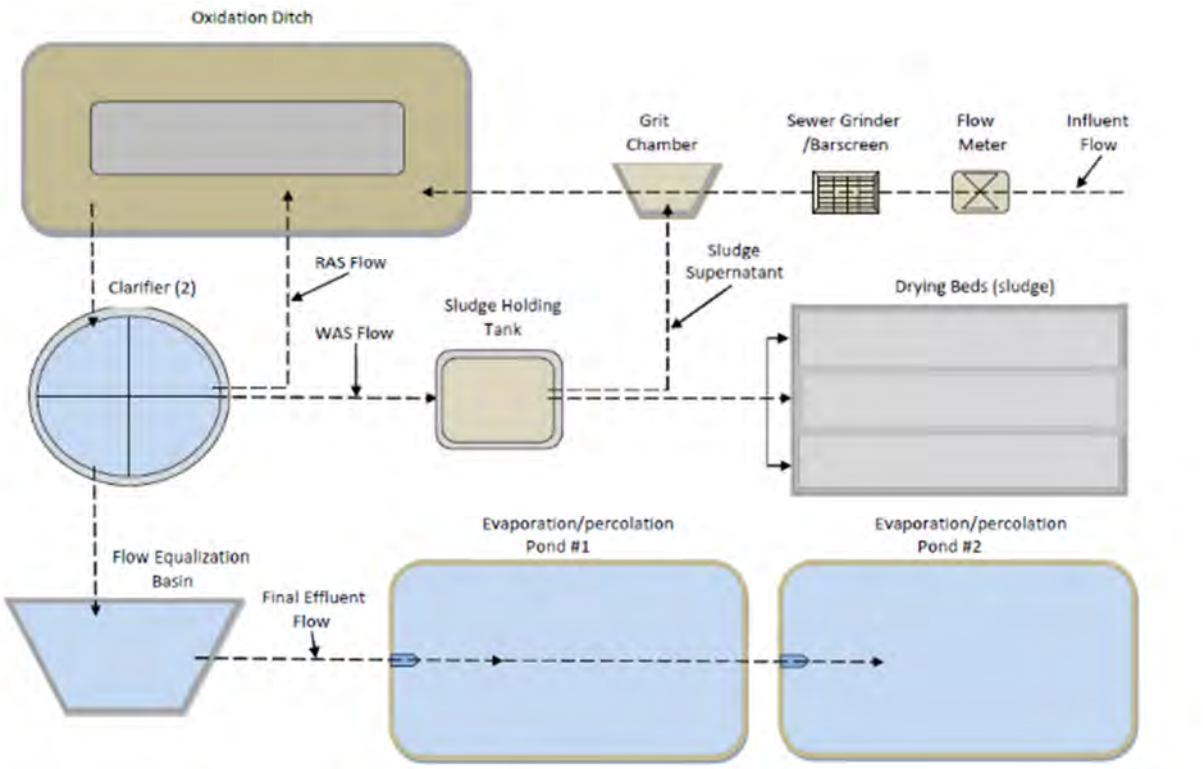


Figure 3. Rams Hill WWTF Process Flow Diagram

Table 1. Treatment Plant Process Summary

Unit Process	Description	Major Assets
Headworks	Functions to remove rags, grit, and other large materials from the influent wastewater before entering downstream processes.	Parshall Flume Meter Bar Screen Comminutor (Grinder) Aerated Grit Chamber
Biological Treatment (Secondary Treatment)	Functions to reduce BOD and TSS from the wastewater utilizing a single-duty oxidation ditch. The process is intended to operate with a high solids retention time (SRT). Important parameters which control biomass growth rates and microbial communities are the Return Activated Sludge (RAS) and Waste Activated Sludge (WAS).	Oxidation Ditch Secondary Clarifiers
Final Effluent	Functions to provide consistent flow by retaining high flow fluctuations and final effluent disposal to evaporation/percolation ponds.	Equalization Basin Evaporation/Percolation Ponds Emergency Basin
Solids Treatment	Functions to reduce quantity and stabilize biosolids through evaporation.	Sludge Holding Tank Sludge Drying Beds

3.1.1 Total Dissolved Solids in Wastewater

Total Dissolved Solids water characterization refers to the measurement and analysis of the concentration of dissolved substances in water, including salts, minerals, metals, and organic matter. Dissolved solids in potable water typically originate from natural sources, such as the deterioration of rocks or from human activities like industrial discharges and agricultural runoff. The concentration of TDS in potable water, typically measured in milligrams per liter (mg/l) or part per million (ppm), has a tiered secondary drinking water standard in California shown in **Table 2**. High levels of TDS can affect water quality, impacting its taste, hardness, smell, and increase the potential for scale formation in pipes and appliances. Monitoring TDS is essential for assuring there is safe and accessible water that is suitable for drinking, irrigation, and industrial processes, as an overabundance of TDS can lead to health concerns and equipment deterioration.

Table 2. California Secondary Drinking Water Standard for TDS

Constituent	Recommended	Upper	Short Term
TDS	500 mg/l	1,000 mg/l	1,500 mg/l

Wastewater typically has higher TDS concentrations than potable water due to several factors, including human waste and metabolism, waste softeners and household products, food preparation and waste, cleaning products, pipe corrosion, and industrial or commercial processes. Increase in wastewater TDS concentration above drinking water TDS concentration typically ranges from 182-460 mg/l.[1]

[1] Wastewater Engineering - Treatment and Resource Recovery, 5th ed., McGraw-Hill Education, New York, NY, 2014, p. 220.

3.2 Summary of Regional Water Quality Control Board Order

In accordance with Waste Discharge Requirement Order R7-2019-0015, BWD was required to create a work plan and time schedule to develop and implement a TDS source control program, aimed at evaluating and reducing TDS concentrations in the discharge to the evaporation/percolation ponds. The work plan, completed in 2024, includes a public outreach component. Key aspects of the report included identifying major sources of salinity, such as domestic, commercial, and industrial sources, and water softener regeneration brines. The work plan report also included information on municipal entities and facilities, local ordinances and regulations addressing TDS control, entities responsible for managing these sources, an overall TDS mass balance for the WWTP influent, wastewater treatment strategies employed, and TDS concentrations in the wastewater and receiving groundwater. The TDS Source Control Work Plan and Technical Report as well as the Regional Water Quality Control Board Order Special Provision 3 are included in **Appendix A** and **Appendix B** respectively. Borrego Water District has been monitoring and analyzing the effectiveness of the source control program through trend monitoring and reporting the results in quarterly self-monitoring reports (SMRs) to the Regional Board.

The technical report and work order specifically call attention to the following items for evaluation:

- Overall TDS mass balance for the WWTP influent,
- Description of the municipal entity and facilities, including local ordinances, and rules and regulations that address the topic of controlling salinity in wastewater,
- Wastewater Treatment strategies available and employed at the facility,
- Identification and description of entities responsible for controlling each source, if available,
- Survey BWD customers to determine current use of residential salt-based water softeners (i.e. Water Softener Regeneration Brines),
- Characterization of the concentrations of TDS in the wastewater discharged to the evaporation/percolation ponds and in the receiving groundwater,
- BWD's Fats, Oils, and Grease (FOG) Program, and
- Education for BWD customers on hard water, salt-based water softeners, and alternative treatment technologies such as exchange tank water softeners and salt-free anti-scaling devices

Upon completing the implementation of the program, BWD has developed this technical report for submittal to the Regional Board, summarizing findings, recommendations, and conclusions on the program's effectiveness.

An outline of previously completed BWD groundwater work is summarized in **Table 3.**

Table 3. Recent Work Completed on BWD Groundwater

Document Name	Description
Groundwater Monitoring Network Technical Report for Rams Hill Wastewater Treatment Facility Year Completed: 2019	Identified the current groundwater monitoring network at the WWTP, provided an analysis of available groundwater data from on-site and off-site groundwater wells, evaluated how sufficient the available data is to capture groundwater conditions, and recommended improvements to the network.
Groundwater Monitoring Network Work Plan for Rams Hill Wastewater Treatment Facility Year Completed: 2020	Provided recommendation for the drilling of three monitoring wells to expand the groundwater monitoring network for the WWTP in accordance with Special Provision 1 requirements. The recommendation for the installation of these three new monitoring wells was made in the Final Groundwater Monitoring Network Technical Report for the Rams Hill WWTP (Dudek 2019).
TDS Source Control Program Work Plan for Rams Hill Wastewater Treatment Facility Year Completed: 2021	Identified quality of source water for BWD, potential sources of salinity entering the WWTP collection system, and provided a summary of available groundwater data to which the WWTP effluent discharges via the evaporation/percolation ponds. Additionally, the report outlined the strategies employed at the WWTP to remove the identified pollutants.
Groundwater Monitoring Network Well Installation Year Completed: 2023	BWD installed new groundwater wells and began monitoring required constituents per regulatory requirements starting last quarter of 2024.

3.2.1 Well Locations and Groundwater Flow Direction

Maps of the monitoring well locations and groundwater flow direction can be found in **Figure 4** and **Figure 5**, respectively. Groundwater wells WWTP-1, WWTP-2, WWTP-3, and WWTP-4D were used for contouring groundwater elevation. The groundwater elevation map, provided in **Figure 5**, demonstrates the groundwater flowing northeast of the WWTP.[2]. The hydraulic gradient from the 460-foot to 415-foot contour intervals is 0.03 feet per foot. The full groundwater monitoring well report completed by Dudek is located in **Appendix C**.

[2] Dudek. *Well Completion Report: Groundwater Monitoring Well Network for the Rams Hill Wastewater Treatment Facility,* 2023, pp. 33.

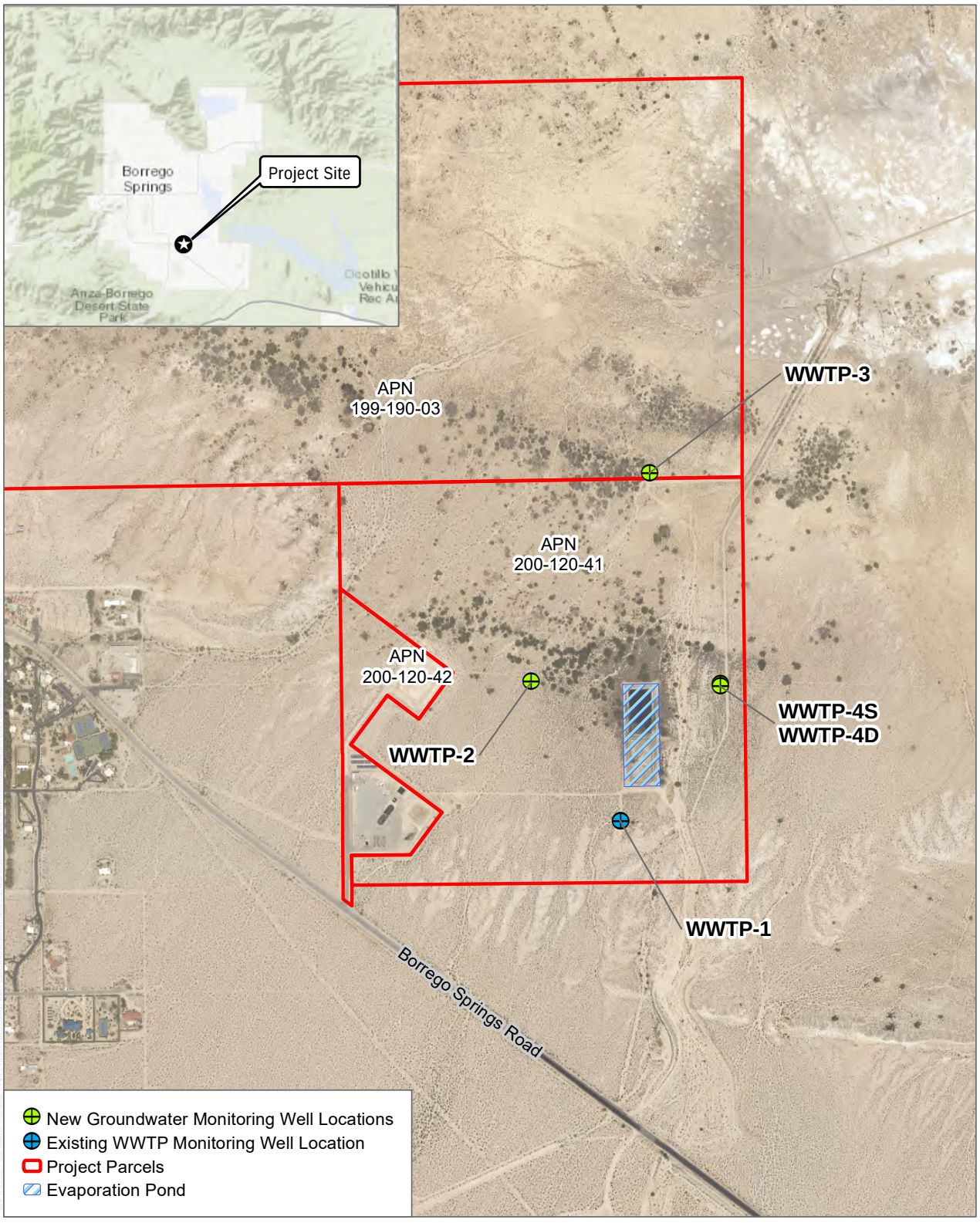


Figure 4. Monitoring Well Location Map

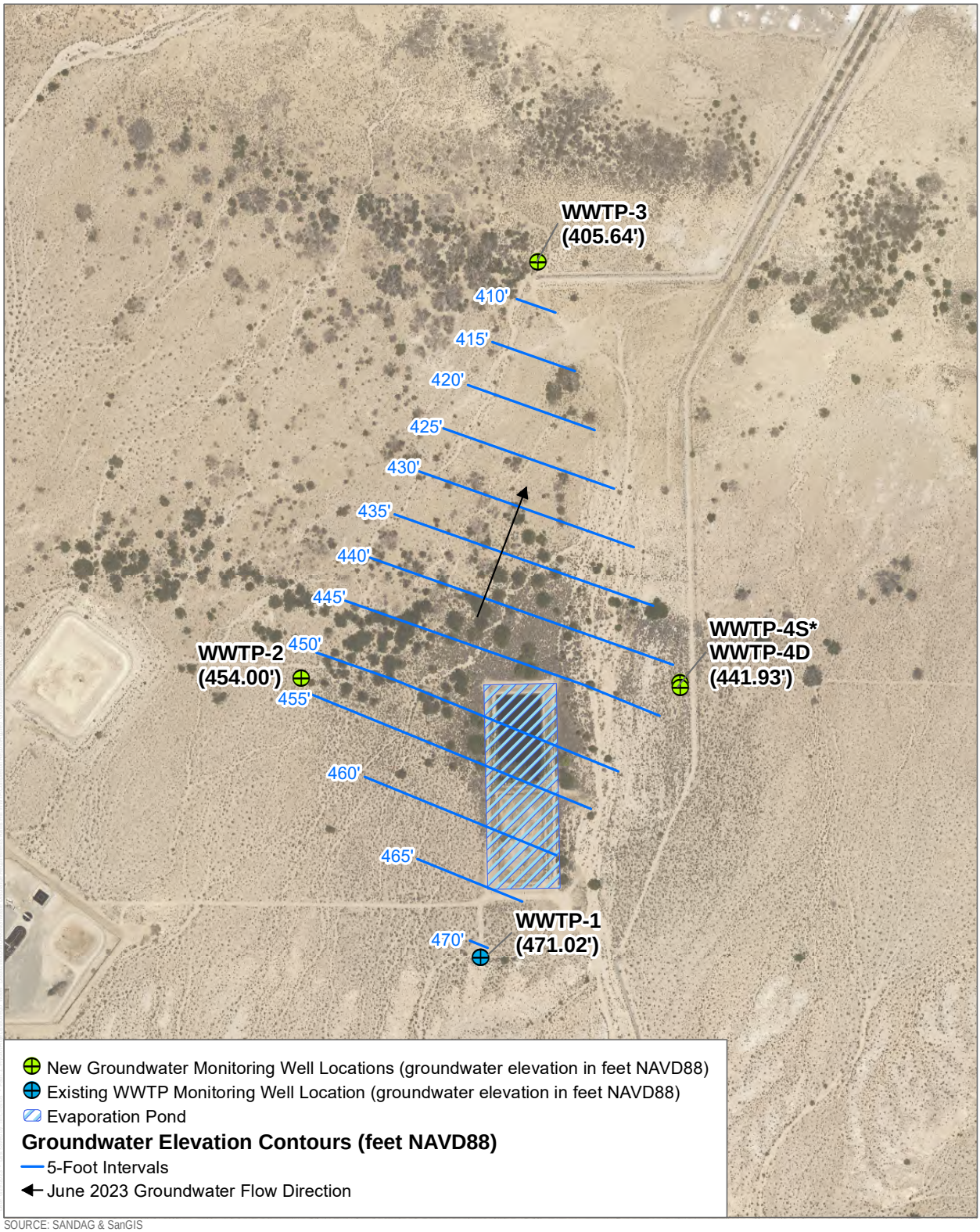


Figure 5. Groundwater Elevation Map

3.2.2 Total Dissolved Solids Results

Table 4 outlines the required frequency for sampling and reporting of Total Dissolved Solids (TDS) concentrations in various areas within BWD. This includes wastewater effluent, domestic wells, and groundwater monitoring wells. The sampling frequency for each area varies depending on the type of water source and is performed in accordance with Waste Discharge Requirement Order R7-2019-0015.

Table 4. Process and Water Quality Data Frequency

Process Area	Units	Sampling	
		Reporting Frequency	Frequency
WWTP Effluent	mg /l	Quarterly	Twice per month
Domestic Wells[1]	mg/l	Monthly	Once per month
Groundwater Monitoring Wells[2]	mg/l	Quarterly	Once per month

Notes:
[1] Well 11 - 12
[2] Well 1 though 4

The following table summarizes the TDS data captured at the Rams Hill WWTP between August 2021 – March 2025.

Table 5. Historical Total Dissolved Solids Data

Source/Well	Sample Size	Begin	End	TDS Concentration (mg/l)				
				Avg	Median	Std. Dev.	Min.	Max.
WWTP Effluent	80	8/17/2021	3/19/2025	502	500	31	390	620
Well 11 Domestic	40	8/3/2021	3/19/2025	327	325	21	290	380
Well 12 Domestic	40	8/3/2021	3/19/2025	291	290	18	260	350
Well 1 Monitoring	12	8/17/2021	2/20/2025	580	570	44	540	720
Well 2 Monitoring	2	7/16/2024	2/20/2025	443	440	25	420	470
Well 3 Monitoring	2	7/16/2024	2/20/2025	373	370	15	360	390
Well 4 Monitoring	2	7/16/2024	2/20/2025	637	620	67	580	710

Figure 6 displays the TDS concentrations for wastewater effluent and groundwater wells. The data include concentrations from wastewater treatment plant effluent and Monitoring Wells 1 through 4, as well as Wells 11 and 12. The TDS concentrations are shown from August 2021 to December 2024, with details on sample size, average concentrations, and the range of values observed. The data provide insights into variations in TDS levels across different locations and time periods.

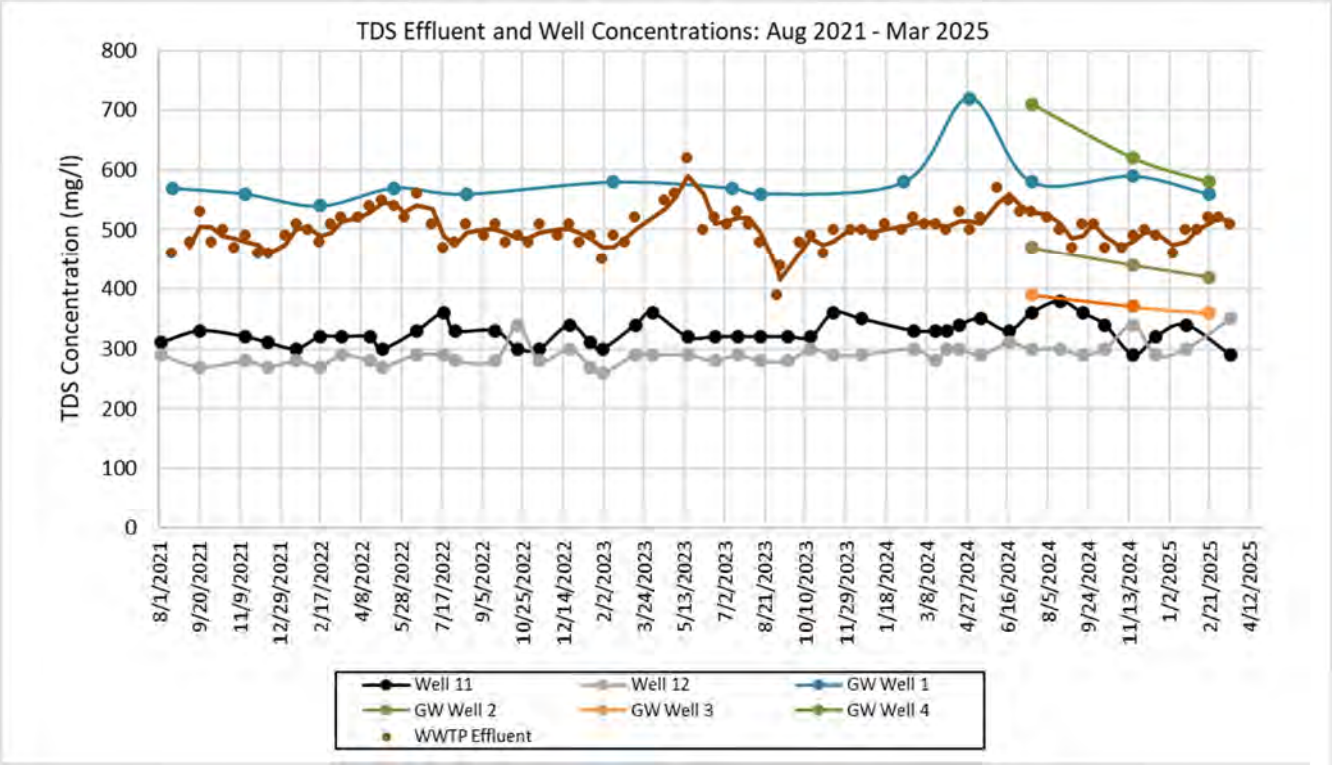


Figure 6. TDS and Well Concentrations from August 2021 – March 2025

Key Notes and Findings:

- The TDS concentrations for Monitoring Wells 11 and 12 have remained consistent at an average of 328 and 329 mg/l, respectively, with occasional spikes in concentration.
- Wastewater effluent TDS is consistent from August 2021 – December 2024. The wastewater effluent had an average TDS concentration of 502 mg/l, with values ranging from 390 to 620 mg/l.
- The average increase in wastewater effluent TDS concentration relative to potable source water is approximately 200 mg/l, which is within the expected published range for typical increases in wastewater TDS concentration. [3]
- Groundwater Monitoring Wells 2, 3, and 4 were installed in August 2024.
    - The groundwater well sample sizes are small and limited by available TDS data. Statistical analyses on these wells should be completed when a larger dataset is available.
    - Well 4 has the highest average TDS concentration compared to Wells 2 and 3, based on two data points.
- Groundwater Monitoring Well 1 (WWTP-1) data are available beginning in 2021. Data show a consistent average TDS concentration of 580 mg/l, which is notably higher than the TDS concentrations of both the Groundwater Monitoring Wells 11 and 12 and the WWTP Effluent. Groundwater elevation in this well was found to be upgradient of the other monitoring wells.

[3] Wastewater Engineering - Treatment and Resource Recovery, 5th ed., McGraw-Hill Education, New York, NY, 2014, p. 220.

4 TDS Project Updates

Fats, Oils, and Grease Update. The District is currently updating the Fats, Oils, and Grease (FOG) Program from 2018. Section 6 of the FOG Program is being revised to include recommendations for monitoring TDS. In addition to incorporating TDS monitoring as part of the FOG management strategy, BWD will educate customers on the importance of TDS management. Furthermore, the updated program recommends that restaurants and other relevant customers perform regular TDS monitoring to ensure compliance with discharge requirements, however, it shall be noted that measuring TDS to maintain a consistent level would be difficult given the irregular discharge frequency and duration as this variable is dependent on fluctuations in population density, waste concentrations, and grease interceptors.

7.4.6 Restaurant TDS Monitoring:
(a) Each restaurant connected to the sewer system shall monitor Total Dissolved Solids (TDS) concentrations. Samples shall be collected annually and must meet the criteria described in Section 7.4.4.E.
(b) TDS results shall be reported to the BWD on an annual basis.

The District is in the process of updating the FOG Program. A preliminary updated FOG program has been included in **Appendix D**, but it shall be noted that this has not yet been accepted by the Borrego Water District.

Water Softener Survey. In accordance with Waste Discharge Requirement Order R7-2019-0015, BWD mailed out 335 surveys (see **Appendix E**) to water customers and received 81 responses, resulting in approximately a 25% response rate. Of those 81 responses:

- Four residents reported having a water softener:
  - Two of these are salt-based systems (sodium).
  - One is a salt-free hard water conditioner.
  - One had a water softener, but the type of system was not specified.
- Two residents reported having or currently using a reverse osmosis system.
- 75 residents did not report having a home water softener.

Groundwater Monitoring Data Collection. Groundwater wells were installed in 2024 as part of the ongoing data collection efforts. Since the wells were recently established, more groundwater data need to be gathered over time to better understand the groundwater conditions and trends. Further information regarding these wells can be found in the groundwater report located in **Appendix C**.

5 Conclusions and Recommendations

Key conclusions and recommendations include:

- It is recommended that the District continue regular monitoring and data collection from the newly installed groundwater wells. Additional data points could be collected over time to better understand groundwater conditions and trends.
- Finalize the FOG report to include TDS monitoring as part of wastewater management practices.
- Restaurants connected to the sewer system may need to monitor grease interceptor TDS concentrations annually to determine if they represent a significant contribution of TDS to the District's wastewater.

- The survey results reflect a low occurrence of home water softener use. However, the relatively low survey response rate of approximately 25% suggests that there may be limited interest or engagement from the community regarding the topic of water treatment systems. As a result, it is difficult to extrapolate the survey results to the entire BWD customer base and conclude that home water softeners contribute a significant load of TDS to local groundwater via the WWTP. Additional outreach may be needed to encourage greater participation and gather more comprehensive data.

Appendix A
TDS Source Control Work Plan and Technical Report

FINAL

TOTAL DISSOLVED SOLIDS SOURCE CONTORL PROGRAM TECHNICAL REPORT AND WORK PLAN RAMS HILL WASTE WATER TREATMENT FACILITY

Prepared for:

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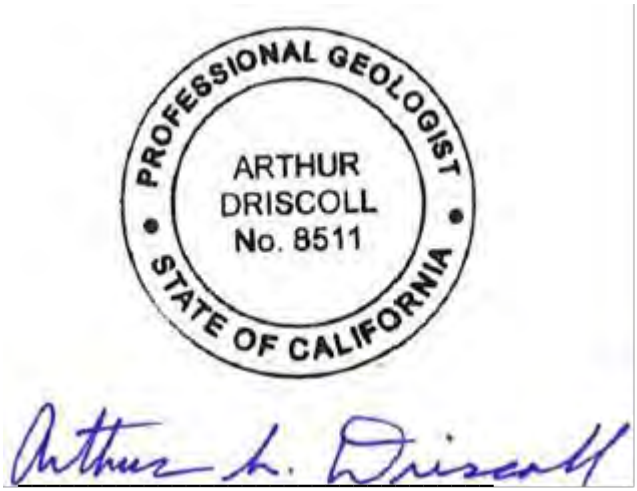
JUNE 2021

SIGNATURE PAGE

This final Total Dissolved Solids Source Control Program Technical Report and Work Plan Rams Hill Waste Water Treatment Facility has been prepared under the direction of a professional geologist licensed in the State of California in accordance with Business and Professions Code sections 6735, 7835 and 7835.1, and consistent with professional standards of practice.



Arthur Storer Driscoll, III (Trey)
PG No. 8511, CHG No. 936

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Acronyms and Abbreviations

Acronym/Abbreviation	Definition
AGR	agricultural supply
BOD	biochemical oxygen demand
BWD	Borrego Water District
CCR	California Code of Regulations
FOG	Fats, oils and greases
GPD	gallons per day
GSA	Borrego Valley Groundwater Sustainability Agency (withdrawn)
HSC	Health and Safety Code
IND	industrial supply
lbs	pounds
µg/L	micrograms per liter
mg/L	milligrams per liter
MCLs	maximum contaminant levels
MGD	million gallons per day
MUN	municipal and domestic supply
N	Nitrogen
RWQCB	Regional Water Quality Control Board
SWRCB	State Water Resources Control Board
Subbasin	Borrego Springs Groundwater Subbasin
TDS	total dissolved solids
USGS	U.S. Geological Survey
WWTF	Waste Water Treatment Plant Facility
Watermaster	Borrego Springs Watermaster

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1 Introduction

This technical report is being presented to partially satisfy Special Provision 3 of the Tentative Waste Discharge Requirement Order R7-2019-0015 (Order) for the Rams Hill Waste Water Treatment Plant Facility (WWTF). The purpose of this technical report is to evaluate the adequacy of the total dissolved solids (TDS) source control and methods to reduce TDS concentrations in the discharge to the Rams Hill WWTF evaporation/percolation ponds. The WWTF is owned and operated by the Borrego Water District (BWD) and is regulated by the Colorado River Basin Regional Water Quality Control Board (Colorado River Basin Water Board). The Colorado River Basin Water Board issued the Order to the BWD on March 7, 2019 (Colorado River RWQCB 2019). The Order outlines specific requirements for preparation of a TDS source control program for the WWTF.

1.1 Scope of Work

This report identifies the quality of source water for the BWD, potential sources of salinity into the WWTF collection system, and provides a summary available groundwater data to which the WWTF effluent discharges via the evaporation/percolation ponds. This report also identifies strategies available and employed at the WWTF to remove identified pollutants.

Specifically, Dudek performed the following:

- Identify major sources of salinity into the WWTF collection system, including but not limited to, contributions from domestic, commercial, and industrial sources, and water softener regeneration brines
- Description of the municipal entity and facilities, including local ordinances, and rules and regulations that address the topic of controlling salinity in wastewater
- Identification and description of entities responsible for controlling each source, if applicable
- Overall TDS mass balance for the influent to the WWTF
- Description of wastewater treatment strategies available and employed at the WWTF to remove identified pollutants
- Characterization of the concentrations of TDS in the wastewater discharged to the evaporation/percolation ponds and in the receiving groundwater

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2 Background

The WWTF is located in the unincorporated town of Borrego Springs, California and has been operated by the BWD since the early 1980's. The WWTF includes a treatment plant facility that is located on APN 200-120-42, and evaporation/percolation ponds and a groundwater monitoring well that are located on APN 200-120-41 (Figure 1, Project Location). The treatment plant, originally designed to treat effluent to tertiary levels with a capacity of 0.25 million gallons per day (MGD), has never had sufficient flow to justify the increased expense of engaging the tertiary portion of the original plant design (Dudek 2018). The WWTF services approximately 20 percent of the community of Borrego Springs and currently discharges approximately 0.07 MGD (Dudek 2018). Water that enters the WWTF is sourced entirely from groundwater extracted by the BWD from the Borrego Springs Groundwater Subbasin (7-024.01; Subbasin). Treated wastewater is discharged into the evaporation/percolation pond where it either evaporates or infiltrates into the ground.

The *Water Quality Control Plan for the Colorado River Basin* (Basin Plan) designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the Basin Plan (California Water Code, Sections 13240–13247). The beneficial uses for groundwater for the Anza Borrego Hydrologic Unit are MUN,[1] IND,[2] and AGR.[3] According to the State Water Resources Control Board (SWRCB) "Sources of Drinking Water" policy, as adopted by the SWRCB on May 19, 1988 (Resolution No. 88-63), groundwater is considered to be suitable, or potentially suitable, for municipal or domestic water, except where:

- TDS exceed 3,000 milligrams per liter (mg/L) (5,000 microSiemens, electrical conductivity), and it is not reasonably expected by the RWQCB to supply a public water system;
- There is contamination, either by natural processes or by human activity (unrelated to a specific pollution incident), that cannot reasonably be treated for domestic use using either BMPs or best economically achievable treatment practices; or
- The water source does not provide sufficient water to supply a single well capable of producing an average, sustained yield of 200 gallons per day (GPD).

The Basin Plan recognizes that some hydrologic units contain multiple aquifers that may each support different beneficial uses (Colorado River Basin RWQCB 2019).

The Basin Plan also designates beneficial uses for surface waters. The designated beneficial uses for San Felipe Creek are agriculture; fresh water replenishment; groundwater recharge; water contact and non-water contact recreation; warm freshwater habitat; wildlife habitat; and preservation of rare, threatened, or endangered species. The Borrego Sink Wash, receiving flows from ephemeral streams, is listed in the Basin Plan as having intermittent

[1] Municipal and Domestic Supply: Uses of water for community, military, or individual water supply systems including, but not limited to, drinking water supply.
[2] Industrial Service Supply: Uses of water for industrial activities that do not depend primarily on water quality, including, but not limited to, mining, cooling water supply, hydraulic conveyance, gravel washing, fire protection, and oil well repressurization.
[3] Agriculture Supply: Uses of water for farming, horticulture, or ranching, including, but not limited to, irrigation, stock watering, or support of vegetation for range grazing.

beneficial uses of fresh water replenishment, groundwater recharge, non-water contact recreation, and wildlife habitat.

The Colorado River Region Basin Plan recognizes that, "[e]stablishment of numerical objectives for groundwater involves complex considerations since the quality of groundwater varies significantly with depth of well perforations, existing water levels, geology, hydrology and several other factors" (Colorado River RWQCB 2019). The Basin Plan does not have specific water quality objectives for groundwater in the Subbasin.

3 Sources of Salinity

"Salinity" is a measure of the amount of dissolved particles and ions in water. Salinity is typically measured in water by either laboratory analysis of TDS or by electrical conductivity (EC). TDS is a measure of all dissolved substances in water, including organic and suspended particles that can pass through a very small filter. TDS is measured in a laboratory and reported as milligrams per liter (mg/L). EC is a measure of the ability of the water to conduct electricity and is proportional to the amount of dissolved salts in water—specifically the amount of charged ionic particles. EC is a measure of the concentration of dissolved ions in water and is reported in micromhos per centimeter (µmhos/cm) or microSiemens per centimeter (µS/cm) (µmho is equivalent to a µS). EC is measured in a laboratory or with a field meter. It also is referred to as specific conductance and specific conductivity (SWRCB 2017).

Sources of salinity to the Rams Hill WWTF influent include 1) average groundwater salinity supplied by BWD wells, which is influenced by the dissolution of natural materials, water uptake by plants, and human activities, 2) domestic, commercial, and industrial salinity sources, and potentially 3) water softener regeneration brines. These sources of salinity to the Rams Hill WWTF are discussed in the following sections.

3.1 BWD Water Quality

All water supplied by the BWD is sourced from the Borrego Springs Groundwater Subbasin (Subbasin). No imported water is available within the BWD service area. The BWD pumps groundwater from ten wells located in the north, central, and south management areas (Figure 2, Borrego Water District Water Distribution Infrastructure and Well Network). All groundwater pumped by the BWD meets State of California drinking water maximum containment levels MCLs (Title 17 California Code of Regulations [CCR] and Title 22 CCR) without additional treatment. Salinity can include many different ions; however, relatively few make up most of the dissolved salts/minerals in water. The most common ions are chloride, sodium, nitrate, calcium, magnesium, bicarbonate, and sulfate (SWRCB 2017). Table 1 presents groundwater quality for BWD wells.

Additional background information pertaining to the Subbasin and groundwater quality is available in the Draft Final Groundwater Sustainability Plan for the Borrego Springs Groundwater Subbasin[4] (GSA 2019) available from the County of San Diego website: https://www.sandiegocounty.gov/content/sdc/pds/SGMA/borrego-valley.html.

[4] The Borrego Springs Groundwater Sustainability Agency has been withdrawn and the Borrego Springs Groundwater Subbasin ("Basin") is now managed by the Borrego Springs Watermaster (Watermaster). The Groundwater Management Plan is available from the Watermaster website: https://borregospringswatermaster.com/.

Table 1. BWD Water Well Groundwater Quality

Well Identifier	TDS (Spring 2019) (mg/L)	TDS (Fall 2017) (mg/L)	Electrical Conductivity (µS/cm)[a]	Chloride (mg/L)[b]	Sodium (mg/L)[b]	Nitrate (as N) (mg/L)[b]	Calcium (mg/L)[b]	Magnesium (mg/L)[b]	Bicarbonate (mg/L)[b]	Sulfate (mg/L)[b]	Arsenic (µg/L)[b]
North Management Area Wells											
ID4-4	340	340	0.556	30	62	0.56	43	4.8	91	110	<2.0
ID4-9[c]	330	–	–	33	–	0.77	–	–	86	110	2.4
ID4-11	380	390	0.640	46	55	0.62	59	9.3	140	88	<2.0
ID4-18[d]	620	630	1.018	58	110	0.44	73	12	120	270	<2.0
Central Management Area Wells											
Wilcox	270	220	0.495	40	69	<0.20	9.3	1.9	91	16	3.2
ID1-10	340	340	0.591	65	83	1.3	28	4.2	94	63	<2.0
ID1-12	300	300	0.531	44	74	0.37	24	1.9	58	93	<2.0
ID1-16	320	280	0.553	56	78	0.96	20	3.2	86	56	2.5
ID5-5	330	340	0.565	38	79	0.44	27	3.4	80	100	<2.0
South Management Area Wells											
ID1-8	480	510	0.898	130	140	1.7	20	2.9	120	88	3.1

Notes: mg/L = milligrams per liter; µS/cm = micromhos per centimeter, µg/L = micrograms per liter.
Non-compliance samples collected on May 2, 2019 by the Borrego Valley GSA unless noted otherwise.

a. Electrical conductivity was measured in the field using a YSI 556 Ultrameter in units microSiemens per centimeter on May 2, 2019.
b. Measured by the laboratory from non-compliance samples collected on November 14, 2017 and November 15, 2017.
c. BWD Well ID4-9 was drilled in August 2019. The water quality sample was collected on August 14, 2019.
d. BWD Well ID4-18 only supplies water to Pressure Zone 1 (Indian Head Tank) and users that are entirely on septic.

Source: BWD.

3.2 Domestic, Commercial, and Industrial Salinity Sources

Domestic, commercial, and industrial activities all contribute TDS to wastewater. Common domestic activities that contribute TDS to wastewater include food waste, washing activities, and sanitary waste. Household chemicals that contribute include cleaning products such as detergents, soaps, and degreasers; personal care products such as perfume, skin cream, and deodorant; pharmaceutical products; and residential water softeners.

Commercial salinity sources are similar to those of domestic, but loading varies widely with the size and type of establishment. Commercial water softener systems are often large and consequently can contribute substantial TDS loads to wastewater. Cooling towers, which are a component of commercial-scale cooling systems, produce dissolved solids as water evaporates (blowdown). The concentration of TDS in cooling tower water is managed by removing some of the highly concentrated water and replacing it with fresh water, a process that can contribute highly saline water to sewer systems.

The industrial sector is a significant contributor of TDS to wastewater, particularly large water users. Industries that have been identified to be large contributors include the food processing industry, semi-conductor industry, metal finishing industry, industrial laundry industry, and health industry.

The community of Borrego Springs primarily consists of domestic and small-scale commercial water users. None of the industries mentioned above currently exist or contribute wastewater to the Rams Hill WWTF.

3.3 Water Softener Regeneration Brines

Hard water (i.e., water with high concentrations of magnesium and calcium) can reduce the lathering action of soaps, clog pipes, and shorten the lifespan of key residential appliances such as hot water heaters and dishwashers. General guidelines for classification of hard waters are: 0 to 60 mg/L as calcium carbonate is classified as soft; 61 to 120 mg/L as moderately hard; 121 to 180 mg/L as hard; and more than 180 mg/L as very hard (USGS 2019). Table 2 presents calculated water hardness for BWD wells by management area.

Table 2. BWD Water Hardness

Well Identifier	Calcium (mg/L)[a]	Magnesium (mg/L)[a]	Calculated Hardness (mg/L as $CaCO_3$)[b]	Hardness Classification
North Management Area Wells				
ID4-4	43	4.8	127	Hard water
ID4-9	--	--	--	--
ID4-11	59	9.3	186	Very hard water
ID4-18	73	12		
Central Management Area Wells				
Wilcox	9.3	1.9	31.0	Soft water
ID1-10	28	4.2	87.2	Moderately hard water
ID1-12	24	1.9	67.8	Moderately hard water
ID1-16	20	3.2	63.1	Moderately hard water

Table 2. BWD Water Hardness

Well Identifier	Calcium (mg/L)[a]	Magnesium (mg/L)[a]	Calculated Hardness (mg/L as $CaCO_3$)[b]	Hardness Classification
ID5-5	27	3.4	81.4	Moderately hard water
South Management Area Wells				
ID1-8	20	2.9	61.9	Moderately hard water

Notes: mg/L = milligrams per liter

a. Measured by the laboratory from non-compliance samples collected on November 14, 2017 and November 15, 2017.
b. Total permanent water hardness expressed as equivalent $CaCO^3$ (mg/L) can be calculated with the following formula: $[CaCO_3] = 2.5\ [Ca^{2+}] + 4.1\ [Mg^{2+}]$ based on the ratio of the molar masses. The molar mass of CaCO3, Ca2+ and Mg2+ are 100,1 g/mol, 40,1 g/mol and 24,3 g/mol, respectively.

BWD water is hard to very hard in the North Management Area, soft to moderately hard in the Central Management Area and moderately hard in the South Management Area. To mitigate the undesirable effects of hard water, a water softener is often used to exchange magnesium and calcium ions for sodium or potassium ions. Residential water softener systems are a common and effective method for treating hard water. However, for the water softener to continue to function properly, the softener resin or beads must be periodically recharged using highly saline brine. The saline brine used in the regeneration process is then discharged to a septic leach field or municipal water system which in-turn leads to increased TDS concentrations in wastewater.

In recent years, numerous communities in the State of California have restricted or banned the use of salt-based water softeners (SWRCB 2017). California Health and Safety Code (HSC) Section 116786 provides that a local agency may, by ordinance, limit the availability, or prohibit the installation, of residential water softening of conditioning appliances that discharge to the community sewer provided that certain conditions are met (see HSC Section 116786). Alternative methods to treat hard water that significantly decrease TDS loading to wastewater include use of portable exchange services (a company that collects and discharges salt brine into a permitted facility where it will not affect water supplies) and replacement of conventional water softener systems with salt-free anti-scaling devices.

4 Mass Balance Analysis

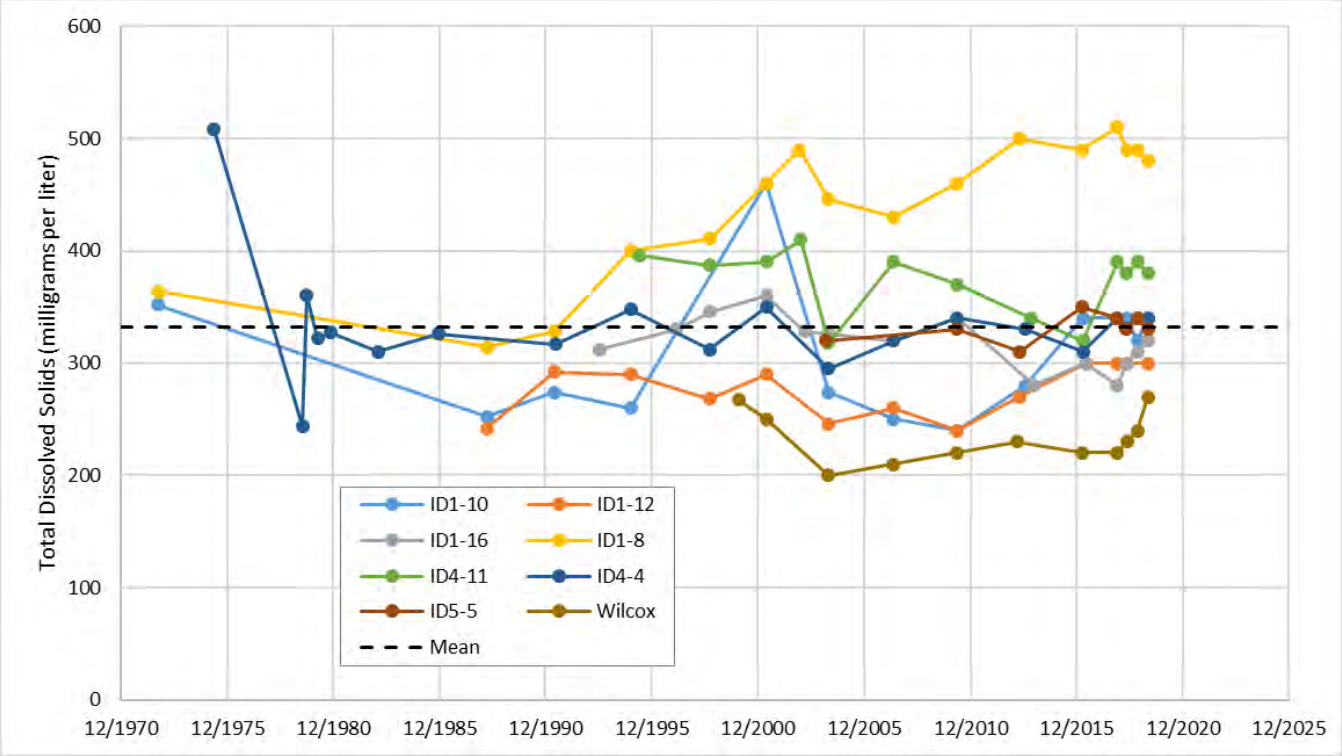
The following provides a TDS mass balance analysis for the Rams Hill WWTF influent and source water. The mean annual TDS load in water from eight BWD groundwater production wells, expressed as both a concentration in milligrams per liter (mg/L) and as a mass in pounds (lbs), were compared to the mean annual TDS load at the WWTF to determine the TDS load produced by domestic and commercial water users. To assess interannual variability in TDS load, the years 2015 to 2018 and 2020 were analyzed. Influent TDS concentrations were only measured in 2020, however comparison of influent and effluent water quality shows negligible TDS decline after treatment, indicating that effluent TDS concentrations can be reasonably used to approximate influent TDS levels for a mass balance analysis. Therefore, for the 2015 to 2018 mass balance analysis, source water TDS concentrations were compared with WWTF effluent concentrations. Note that lacking measured effluent flow rates, it was assumed that effluent flows are equivalent to influent flows.

4.1 Source Water Characterization

As discussed in Section 3.1, all water supplied by the BWD is sourced from ten groundwater wells that pump from the Borrego Springs Groundwater Subbasin. Of the ten groundwater wells, eight wells currently contribute water to BWD Pressure Zones 2 through 6, which supply water to users that discharge wastewater to the Rams Hill WWTF. The two groundwater wells that do not currently provide water to users connected to the WWTF are wells ID4-9 and ID4-18; therefore, these wells were excluded from the mass balance analysis. Well ID4-9 was recently installed in August 2019 and well ID4-18 solely supplies Pressure Zone 1 (Indian Head Tank). These water users are entirely on septic (Figure 2).

BWD production well water quality data have periodically been collected since September 1972. TDS data for the eight wells for the time period from September 1972 to May 2019 are presented in Exhibit 4-A. Over the 47-year period the minimum measured groundwater TDS concentration was 200 mg/L, the maximum concentration was 510 mg/L, and the average concentration was 332 mg/L (Exhibit 4-A).

Exhibit 4-A
Borrego Water District Production Well Total Dissolved Solids Data 1972 to 2019



Source: BWD.

For the purpose of the mass balance analysis, TDS data for the eight BWD production wells for the time period from 2015 through 2018 were examined in detail to determine the mean source water TDS concentration by year. Table 3 provides a summary of the minimum, maximum, and mean TDS concentration by year for 2015 through 2018. It should be noted that no water quality data were collected in 2015, therefore the summary statistics for 2015 were computed using an average of data collected in 2013 and 2016.

Table 3. BWD Production Well Source Water TDS Concentration 2015 through 2018

Year	Minimum TDS (mg/L)	Maximum TDS (mg/L)	Mean TDS (mg/L)
2015	220	500	323
2016	220	490	329
2017	220	510	340
2018	230	490	342
Average	**223**	**498**	**333**

Notes: mg/L = milligrams per liter.
Source: BWD.

4.2 WWTF Influent and Effluent and Flow Characterization

Rams Hill WWTF flow and water quality data were analyzed to determine the total annual flow and mean effluent TDS concentration for 2015 through 2018. Exhibit 5-A shows the WWTF 30-day mean flow in gallons per day (GPD) by month for 2015 through 2018. The WWTF 30-day mean flow fluctuates seasonally and is generally highest in the winter and spring and lowest in the summer. The average 30-day mean flow over the 4-year period was calculated to be 74,513 GPD. The total annual flow for 2015 through 2018 were calculated and found to vary by year with the lowest and highest total flow observed in 2015 and 2018, respectively, for an average total annual flow over the 4-year period of 25,619,085 gallons (Table 5). Additionally, the 2020 mass balance between WWTF influent and effluent TDS is shown in Table 4.

Table 4. Rams Hill WWTF 2020 Influent and Effluent TDS Summary Statistics

Year	Summary Statistics	Influent TDS (mg/L)	Effluent TDS (mg/L)
2020	Average	510	519
	Standard Deviation	58	33
	Maximum	620	590
	Minimum	370	485

Note: A measurement of 930 mg/L on 5/5/2020 was excluded from computations as an outlier as it is far outside the normal range observed, 6 standard deviations above the mean, when the statistics are computed excluding this point.

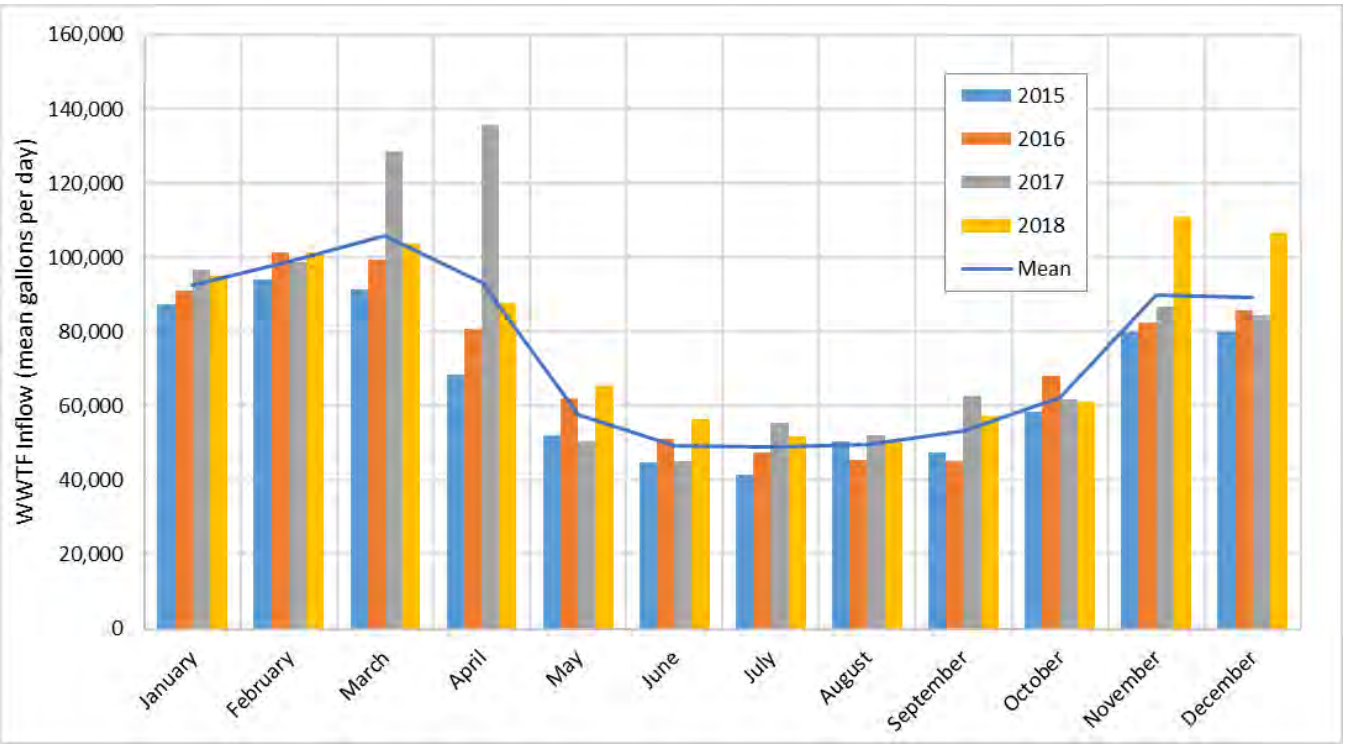
As required by the RWQCB, effluent monitoring is conducted at a monthly frequency October through April and a quarterly frequency May through September (RWQCB 2019). A summary of the WWTF effluent water quality data for 2015 through 2018 are presented in Table 5. Over the 4-year period the minimum measured effluent TDS concentration was 490 mg/L, the maximum concentration was 735 mg/L, and the average concentration was 581 mg/L.

Table 5. Rams Hill WWTF Effluent TDS and Flow Data Summary 2015 through 2018

Year	Minimum TDS (mg/L)	Maximum TDS (mg/L)	Mean TDS (mg/L)	Average 30-Day Mean Flow (GPD)	Total Flow (gallons)
2015	490	735	570	66,328	24,018,323
2016	535	665	597	71,677	26,238,760
2017	510	670	569	79,886	24,084,058
2018	540	660	586	80,162	28,135,200
Average	**519**	**683**	**581**	**74,513**	**25,619,085**

Notes: mg/L = milligrams per liter; GPD = gallons per day.
Source: BWD.

Exhibit 5-A
Rams Hill Wastewater Treatment Facility 30-Day Mean Flow 2015 through 2018



Source: BWD.

4.3 Mass Balance Analysis Results

The WWTF TDS mass balance analysis was performed using the data presented in Sections 4.1 and 4.2. The source water mean annual TDS concentrations were converted to masses by multiplying the values by the total annual WWTF flow. The same conversion process was completed for the WWTF effluent mean annual TDS concentrations. The difference between the two were used to determine the addition of TDS, expressed as both a concentration and mass, from domestic and commercial water usage. The TDS values used, and results of the mass balance analysis are presented in Table 6. Based on the 2020 WWTF analysis provided in Section 4.2, effluent TDS is 10 mg/L lower than influent TDS.

Table 6. Rams Hill WWTF Mass Balance Analysis

Year	Source Water Mean TDS (mg/L)	Source Water Mean TDS (lbs)	WWTF Effluent Mean TDS (mg/L)	WWTF Effluent Mean TDS (lbs)	WWTF Total Annual Flow (gallons)	Difference in TDS (mg/L)	Difference in TDS (lbs)
2015	323	64,768	570	114,252	24,018,323	247	49,484
2016	329	71,987	597	130,700	26,238,760	268	58,712
2017	340	68,337	569	114,453	24,084,058	229	46,116
2018	342	80,301	586	137,651	28,135,200	244	57,350
Average	**333**	**71,348**	**581**	**124,264**	**25,619,085**	**247**	**52,916**

Notes: mg/L = milligrams per liter; lbs = pounds.

For the years analyzed the addition of TDS from domestic and commercial water usage ranges from 229 to 268 mg/L (46,116 to 58,712 lbs) for an average increase of 247 mg/L (52,916 lbs). This is within the range of the typical incremental addition of TDS from domestic water usage of 150 to 380 mg/L (RWQCB 2019).

4.4 WWTF Groundwater TDS Concentration

The Final Groundwater Monitoring Network Technical Report Rams Hill Waste Water Treatment Facility (Dudek 2020) provides detailed information regarding the groundwater conditions in the vicinity of the WWTF. Historical water quality data for monitoring well, WWTP-1, located approximately 260 feet south of the evaporation/percolation ponds indicate TDS concentrations range from 560 mg/L to 710 mg/L over the period 2011 to 2019. The average TDS concentration in WWTP-1 over this period is 655 mg/L with a standard deviation of 40 mg/L (Dudek 2020). To analyze trends in groundwater quality data, the Mann-Kendall trend test was applied to water quality results. The Mann-Kendall test does not require regularly spaced sample intervals, is unaffected by missing time periods, and does not assume a pre-determined data distribution. The Mann-Kendall test assesses whether or not a dataset exhibits a trend within a selected significance level. A significance level of 0.05 or confidence level of 95% was selected for this analysis. Results of the Mann-Kendall test indicate that TDS in WWTP-1 well exhibited no trend from the period of record from 2011 to 2019.

The Borrego Springs Watermaster samples groundwater quality semi-annually from ten groundwater wells located approximately 1-mile from the WWTF. These wells include both dedicated monitoring wells, and active and inactive production wells. TDS water quality results from these wells are included in Tables 7 to provide additional information regarding receiving groundwater quality.

Table 7. TDS Concentrations in Groundwater Wells near the Rams Hill WWTF

Date	Groundwater Well Name										
	WWTP	MW-3	ID1-8	RH-5	RH-6	Jack Crosby	RH-4	RH-3	RH-1	RH-2	La Casa
6/6/1972	–	–	–	–	–	–	–	–	560	–	–
7/10/1972	–	–	–	–	–	–	–	–	–	400	–
10/10/1972	–	–	364	–	–	–	–	–	–	–	–
2/8/1983	–	–	–	–	–	–	–	–	–	496	–
3/17/1988	–	–	314	–	–	–	–	–	724	290	–
5/22/1991	–	–	328	–	–	–	–	–	–	–	–
12/28/1994	–	–	400	–	–	–	–	–	–	–	–
9/22/1998	–	–	411	–	–	–	–	–	–	–	–
5/17/2001	–	–	460	–	–	–	–	–	–	–	–
12/5/2002	–	–	490	–	–	–	–	–	–	–	–
4/15/2004	–	–	446	–	–	–	–	–	–	–	–
5/8/2007	–	–	430	–	–	–	–	–	–	–	–
5/11/2010	–	–	460	–	–	–	–	–	–	–	–
4/3/2013	–	–	500	–	–	–	–	–	–	–	–

Table 7. TDS Concentrations in Groundwater Wells near the Rams Hill WWTF

Date	Groundwater Well Name										
	WWTP	MW-3	ID1-8	RH-5	RH-6	Jack Crosby	RH-4	RH-3	RH-1	RH-2	La Casa
4/9/2014	–	–	–	–	–	–	–	–	–	340	–
6/11/2014	–	–	–	–	–	–	–	–	1300	–	–
9/29/2014	–	–	–	–	–	–	–	310	–	–	–
1/22/2015	–	–	–	–	–	–	300	–	–	–	–
3/18/2015	–	–	–	770	–	–	–	–	–	–	–
7/27/2015	–	–	–	–	290	–	–	–	–	–	–
3/22/2016	–	–	490	–	–	–	–	–	–	–	–
4/5/2016	690	–	–	–	–	–	–	–	–	–	–
6/2/2016	–	–	–	510	300	450	360	290	1400	270	–
11/8/2017	–	–	–	400	330	740	380	320	1600	320	–
11/14/2017	660	470	–	–	–	–	–	–	–	–	–
11/15/2017	–	–	510	–	–	–	–	–	–	–	530
5/1/2018	–	450	460	–	–	–	–	–	–	–	520
5/2/2018	640	–	–	–	–	–	–	–	–	–	–
5/8/2018	–	–	–	480	330	830	400	–	1600	320	–
10/30/2018	–	–	490	–	–	950	440	390	1600	330	520
10/31/2018	690	440	–	390	330	–	–	–	–	–	–
4/30/2019	680	440	–	410	330	1100	460	360	1600	330	510
5/2/2019	–	–	480	–	–	–	–	–	–	–	–
Average	672	450	440	493	318	814	390	334	1298	344	520
Maximum	690	470	510	770	330	1100	460	390	1600	496	530

Notes:
All results reported in units of milligrams per liter (mg/L).

5 WWTF Strategies

Effluent discharged to the evaporation/percolation ponds employs best practicable treatment or control (BPTC) to minimize the degradation of groundwater quality. The treatment processes include influent screening, grit removal, oxidation ditch, secondary clarifier, flow equalization, pressure filters, chlorine contact tank, effluent pump station and storage.

Tertiary facilities have never been used as the WWTF has never had sufficient flow to justify the increased expense of engaging the tertiary portion of the original plant design. Secondary effluent is directed to evaporation-percolation ponds. The BWD is currently planning four wastewater projects in its current 2017-2025 capital improvement program, including forcemain replacement, sewer main replacement, a lift station aeration and odor removal system and a new grit removal system at the WWTF headworks (Dudek 2018).

5.1 Collection System

The BWD owns and operates a sewer collection system, including gravity mains, one lift station and forcemains. The specific length of gravity mains and forcemains is on the order of 10 to 12 miles.

Fats, oils and greases (FOG) have historically been problem constituents in the wastewater system. The BWD has a FOG prevention program in place.

The major sources of salinity into the WWTF collection system include predominantly domestic sources with additional commercial sources from hotels, motels, restaurants and business focused on serving seasonal or “snow bird” residents and visitors to the Anza-Borrego Desert State Park. Other than agriculture, recreation, and tourism, there is no major industry in Borrego Springs (GSA 2019).

Because source water in the Subbasin is classified as predominantly moderately hard water, there is potential that residential water softener brines contribute salinity to the sewer collection system. The number of residential salt-based water softeners and the mass they contribute to the sewer collection system is currently unknown.

Appendix A provides a TDS Source Control Work Plan to investigate the number of residential salt-based water softeners that may discharge to the sewer collection system and Appendix B provides a schedule to implement the Work Plan.

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6 References

Borrego Valley Groundwater Sustainability Agency (GSA). 2019. Draft Final Groundwater Sustainability Plan Prepared by the County of San Diego and Borrego Water District. August 2019. https://www.sandiegocounty.gov/content/sdc/pds/SGMA/borrego-valley.html.

California Regional Water Quality Control Board, Colorado River Basin (Colorado River RWQCB). 2019. Order R7-20019-0015 Water Discharge Requirements for Borrego Water District, Owner/Operator Rams Hill Wastewater Treatment Facility, Borrego Springs – San Diego County. March 2019. https://www.waterboards.ca.gov/coloradoriver/board_info/agenda/docs/2019/mar/0015borregosprings_wdr_mrp.pdf.

Dale, D. 2016. Wastewater Borrego Water District – Project Report for Wastewater Treatment Plant Upgrade Project. February 2016.

Dudek. 2020. Final Groundwater Monitoring Network Technical Report Rams Hill Waste Water Treatment Facility. June 2020.

Dudek. 2018. Final Tertiary Treatment Conversion Project Study Prepared for Borrego Water District. March 2018.

Inland Empire Utilities Agency (IEUA). 2019. Water Softener Rebate Program. https://www.ieua.org/use-water-wisely/rebates/water-softener-rebate-program/. Accessed December 5, 2019.

State Water Resources Control Board (SWRCB) Division of Water Quality GAMA Program. 2017. Groundwater Information Sheet: Salinity. Revised November 2017.

USGS. 2019. Water Science School – Hardness of Water. https://www.usgs.gov/special-topic/water-science-school/science/hardness-water?qt-science_center_objects=0#qt-science_center_objects. Accessed December 2, 2019.

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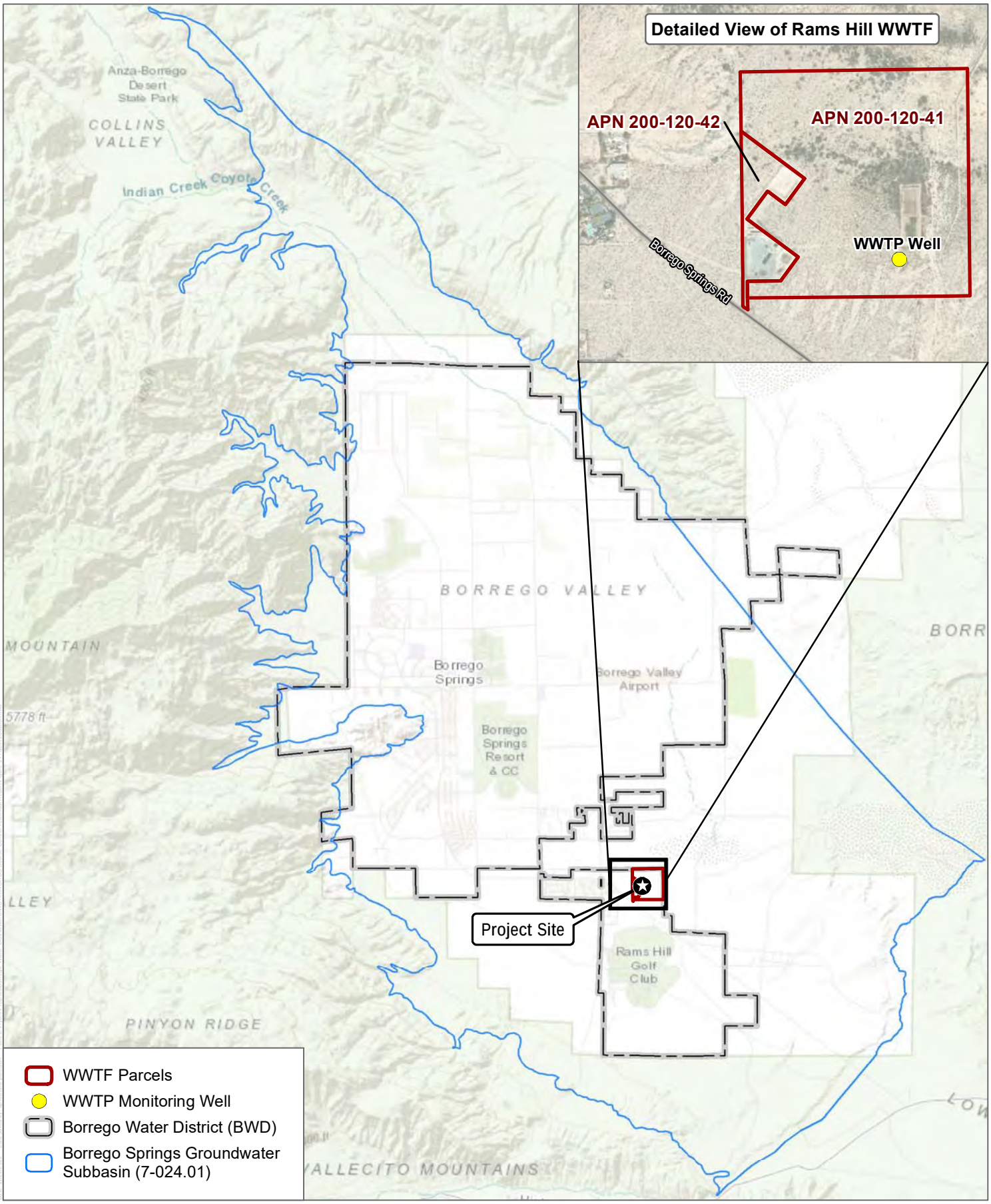

SOURCE: ESRI; BWD; DWR; SANGIS

DUDEK

0 2 4 Miles

FIGURE 1

Project Location

Total Dissolved Solids Source Control Program Rams Hill Wastewater Treatment Facility

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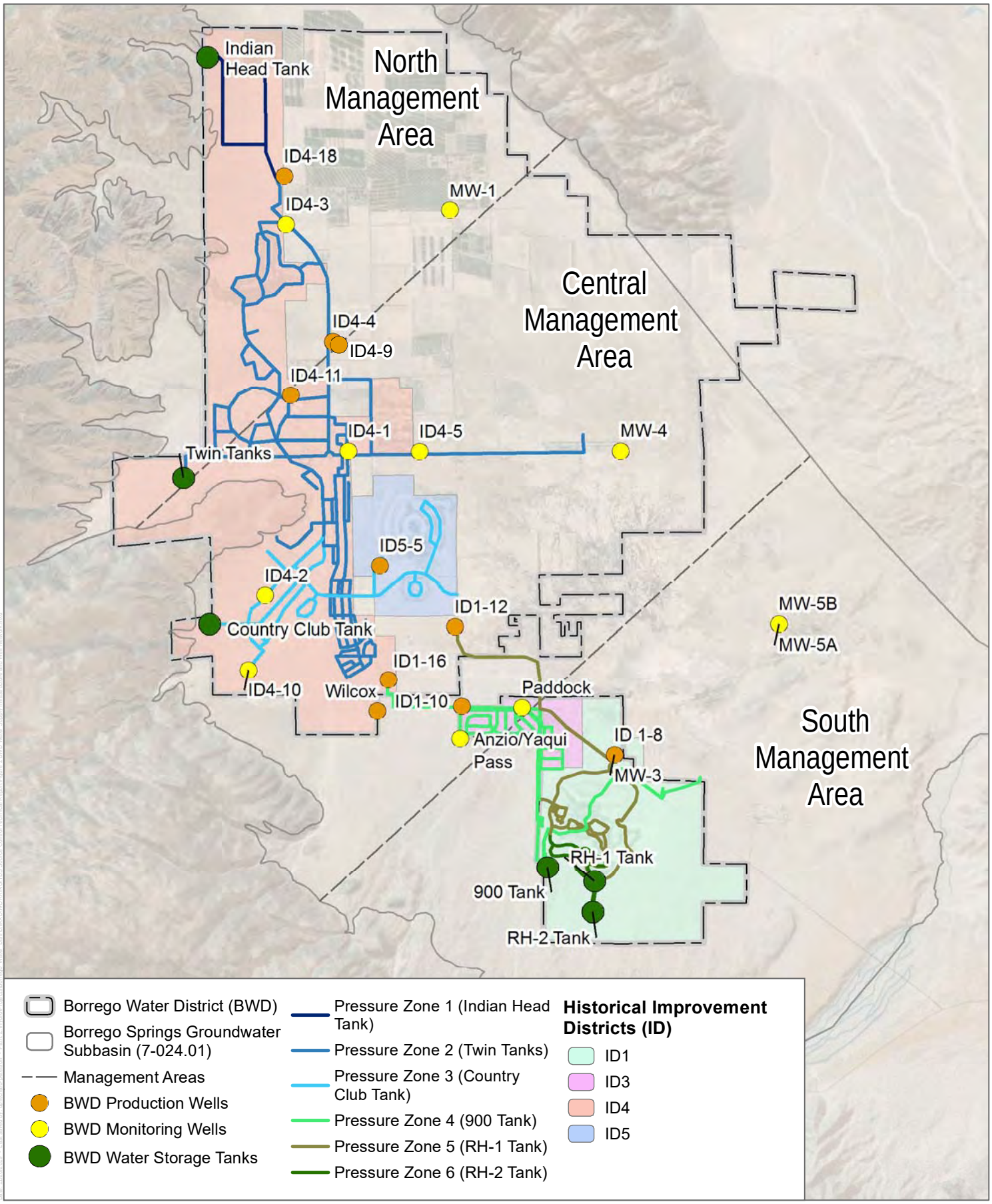

SOURCE: ESRI; BWD; DWR

FIGURE 2

DUDEK

0 1 2 Miles

Borrego Water District Water Distribution Infrastructure and Well Network

Total Dissolved Solids Source Control Program Rams Hill Wastewater Treatment Facility

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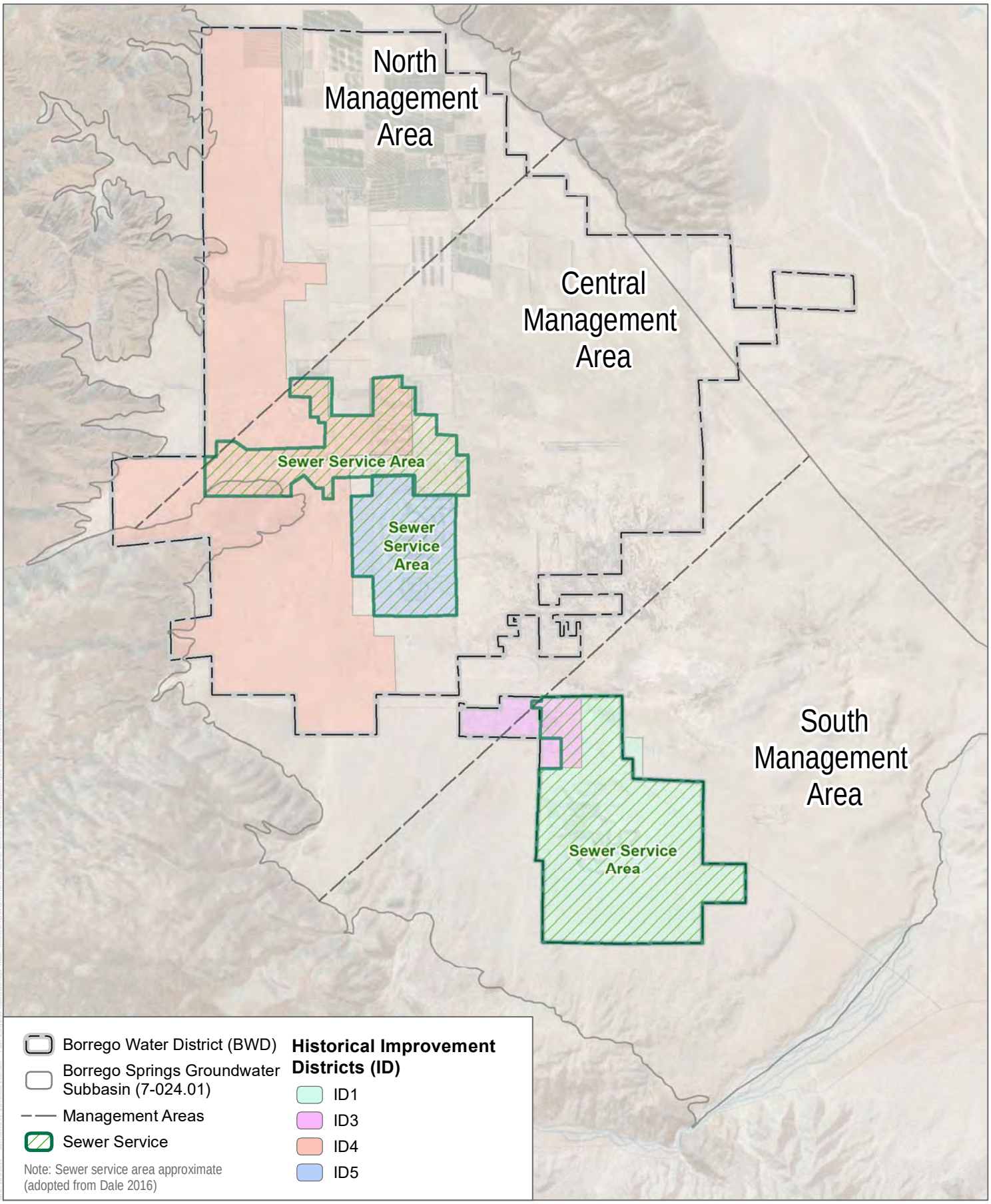

SOURCE: ESRI; BWD; DWR; Dale 2016

DUDEK

0 1 2 Miles

FIGURE 3

Rams Hill WWTF Sewer Service Area

Total Dissolved Solids Source Control Program Rams Hill Wastewater Treatment Facility

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Appendix A

Total Dissolved Solids Source Control Work Plan

Salinity levels increase with use of water for residential, commercial, or industrial purposes. The typical incremental addition of TDS from domestic water usage ranges from 150 to 380 mg/L (RWQCB 2019). The BWD sewer collection system averaged a salinity increase of 247 mg/L for the period 2015 to 2018.

Salt increments higher than the typical 250 to 400 mg/L level potentially indicate higher than normal salinity contributions from commercial and/or residential water softener brines. Because the BWD sewer collection system average salinity increase of 247 mg/L for the period 2015 to 2018 is relatively low, it is unlikely that the increase in salinity is solely attributable to salt-based water softeners. Therefore, this TDS Source Control Work Plan focuses on existing programs and public outreach including marketing of alternative methods for treatment of hard water. This TDS Source Control Work Plan proposes the following action items:

- Review and update, if necessary, the BWD fats, oils and greases (FOG) program
- Conduct a survey of BWD customers to determine current use of residential salt-based water softeners
- Provide a mailer and/or web based information to educate BWD customers on hard water, salt-based water softeners, and alternative treatment technologies such as exchange tank water softeners and salt-free anti-scaling devices
- Consider incentives such as rebates for replacement of salt-based water softeners such as the water softener rebate program implemented by the Inland Empire Utilities Agency (IEUA 2019).

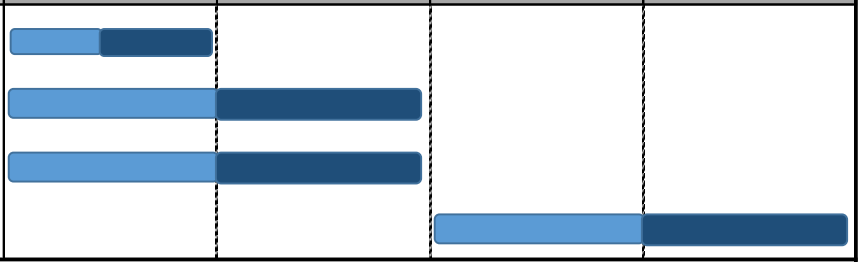
The BWD shall begin implementation of the TDS Source Control Work Plan within 30 days of approval by the Executive Officer, and the plan action items shall be completed within three (3) years from the date of implementation. The BWD shall submit a final technical report that summarizes the BWD's findings, recommendations, and conclusions addressing the effectiveness of the source control program within 2 months of completion of work plan implementation (RWQCB 2019).

Appendix B

Total Dissolved Solids Source Control Schedule

Total Dissolved Solids Source Control Schedule

Action Item	Action Item Tentative Completion Period			
	30 Days	60 Days	90 Days	3 Years
Review and Update FOG Program				
Conduct Water Softener Survey				
Provide Informational Mailer				
Water Softener Rebate Program				



Legend: Initiated = ; Completed =

Note: Implementation of action items will occur within 30 days of work plan approval by the executive officer

Appendix B
RWQCB WDR Order – Special Provision No. 3

2. Sludge use and disposal shall comply with federal and state laws and regulations, including permitting requirements, and technical standards in 40 Code of Federal Regulations part 503.

3. Any proposed change in use or disposal of biosolids requires the approval of the Colorado River Basin Water Board's Executive Officer, and U.S. Environmental Protection Agency Regional Administrator, who must be notified at least **90 days** in advance of the change.

4. The Discharger shall maintain a permanent log of all solids hauled away from the treatment facility for use/disposal elsewhere and shall provide a summary of the volume, type (screenings, grit, raw sludge, digested sludge), use (agricultural, composting, etc.), and the destination in accordance with the MRP of this Order. Sludge that is stockpiled at the treatment facility shall be sampled and analyzed for those constituents listed in the sludge monitoring section of the MRP of this Order and as required by 40 Code of Federal Regulations part 503. The results of the analyses shall be submitted to the Colorado River Basin Water Board as part of the MRP.

F. Special Provisions

1. Groundwater Monitoring Network Technical Report and Work Plan

a. Within **six (6) months** of the adoption of this Order, the Discharger shall submit to the Colorado River Basin Water Board's Executive Officer for review and approval a technical report on the adequacy of the existing groundwater monitoring network. The technical report shall:

   i. Describe the current condition of the groundwater monitoring network;
   ii. Evaluate whether this network adequately monitors the effects of the discharge from the disposal ponds on groundwater; and
   iii. Analyze the groundwater data collected from the existing groundwater monitoring wells. The analysis shall include:
      1. Maps (e.g., equipotential maps) showing the direction of flow and identification of upgradient and downgradient monitoring wells.
      2. An appropriate statistical analysis for constituents of concern (COCs) for the upgradient and downgradient wells, based on the groundwater data collected to date. COCs in this case are TDS and its major ions: sulfate, chloride, nitrogen (total nitrogen, nitrite, and nitrate), and fluoride.

b. If the technical report indicates that repair or addition of monitoring wells is necessary, the Discharger shall submit a work plan to the Colorado River Basin Water Board's Executive Officer for review and approval **within four (4) months** of technical report approval. The work plan shall include:

   i. A description proposed changes to the groundwater monitoring network (e.g., monitoring locations, monitoring frequency, sampling protocol, or quality assurance/quality control); and
   ii. A time schedule for the implementation of these changes, which shall not be longer than **18 months**.

c. **Within 30 days** of approval of the work plan by the Executive Officer, the Discharger shall begin implementation of the work plan in accordance with the time schedule.

2. **Nitrogen Control Strategy Technical Report: Fate and Transport Investigation, and Effluent Limit Feasibility Study**

   a. Within **six (6) months** of determining sufficient adequacy of the groundwater network, the Discharger shall submit to the Colorado River Basin Water Board's Executive Officer for review and approval a technical report that includes a work plan and time schedule to: (1) determine if wastewater discharged to the evaporation/percolation ponds is causing nitrogen impairment to groundwater; (2) determine the feasibility of achieving a 10 mg/L total nitrogen effluent limit; and (3) ensure that any proposed effluent limit for nitrogen does not cause exceedance of the nitrogen receiving water limitation.

   b. The fate and transport investigation section of the work plan shall include, but not be limited to, the following:

      i. An evaluation of nitrogen removal technology provided by the Discharger.

      ii. Characterization for total nitrogen and nitrates of the wastewater discharged to the evaporation/percolation ponds and in the receiving groundwater.

      iii. Evaluation of the impact of the wastewater discharged on the groundwater in the vicinity of the percolation ponds with respect to nitrogen concentrations.

   c. The feasibility study section of the work plan shall include, but need not be limited to, discussion of the practicability of achieving a 10 mg/L total nitrogen effluent limit, including projected costs and sewer rate increases. The Discharger shall evaluate alternative methods of treatment that are available and may be implemented to achieve a 10 mg/L total nitrogen effluent limit. The alternative analysis should include the costs of the alternatives, expressed in dollars per ton, of nitrogen removed from the discharge.

   d. **Within 30 days** of approval by the Executive Officer, the Discharger shall begin implementation of the work plan in accordance with the time schedule. The time schedule for implementation shall not be longer than **24 months**. The Discharger shall submit progress reports in the quarterly SMR to the Colorado River Basin Water Board.

   e. **Within 2 months** of completion of the nitrogen control strategy: fate and transport investigation, and effluent limitation feasibility study, the Discharger shall submit a final technical report that includes the Discharger's findings, recommendations and conclusions. The final technical report may provide recommendations on an appropriate nitrogen effluent limitation. The report shall include a tentative work plan and time schedule for facility plant improvements required to accomplish nitrogen removal and comply with groundwater water quality objectives and receiving water limitations.

3. **TDS Source Control Program Technical Report**

   a. Within **nine (9) months** of adoption of this Order, the Discharger shall submit to the Colorado River Basin Water Board's Executive Officer for review and approval a technical report that includes a work plan and time schedule to develop and implement a TDS Source Control Program. The objective of the Source Control Program is to evaluate source control and methods to reduce TDS concentrations in

the discharge to the evaporation/percolation ponds. A public outreach program component may be included as part of the work plan. The technical report must identify the major sources of salinity into the WWTP collection system, including but not limited to, contributions from domestic sources, commercial and industrial sources, and water softener regeneration brines.

b. Evaluation by the Discharger shall include, but is not limited to, information on the following factors relating to the discharge:

   i. Description of the municipal entity and facilities, including local ordinances, and rules and regulations that address the topic of controlling salinity in wastewater.

   ii. Identification and description of entities responsible for controlling each source, if available.

   iii. Overall TDS mass balance for the influent into the WWTP.

   iv. Description of wastewater treatment strategies available and employed at the Facility to remove identified pollutants.

   v. Characterization of the concentrations of TDS in the wastewater discharged to the evaporation/percolation ponds and in the receiving groundwater.

c. **Within 30 days** of approval by the Executive Officer, the Discharger shall begin implementation of the work plan in accordance with the time schedule. The time schedule for implementation shall not be longer than **three (3) years**.

d. The Discharger shall monitor and analyze the effectiveness of the source control program by means of trend monitoring and report the analytical results with the quarterly SMRs to the Colorado River Basin Water Board.

e. **Within 2 months** of completion of implementation, the Discharger shall submit a final technical report that summarizes the Discharger's findings, recommendations, and conclusions addressing the effectiveness of the source control program. The final report shall evaluate the incremental increase of TDS above the source water (community water supply) and the impact the discharge has on the beneficial uses of the receiving groundwater. The final technical report may also provide recommendations on the final TDS effluent limitation.

5. **Requests for Extension.** If the Discharger is unable to comply with any of the above Special Provisions in compliance with the applicable schedule, the Discharger may request an extension with written approval of the Colorado River Basin Water Board Executive Officer. The extension request must be in writing and submitted as soon as a delay is recognized and prior to the compliance date. The extension request should include justification for the delay.

G. Standard Provisions

1. **Noncompliance.** The Discharger shall comply with all of the terms, requirements, and conditions of this Order and Monitoring and Reporting Program R7-2019-0015. Noncompliance is a violation of the Porter-Cologne Water Quality Control Act (Water Code, § 13000 et seq.) and grounds for: (1) an enforcement action; (2) termination, revocation and reissuance, or modification of these waste discharge requirements; or (3) denial of an Order renewal application.

2. **Enforcement.** The Colorado River Basin Water Board reserves the right to take any

Appendix C
Groundwater Monitoring Well Report

Well Completion Report

Groundwater Monitoring Well Network For the Rams Hill Waste Water Treatment Facility

JULY 2023

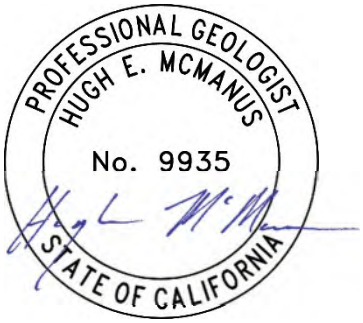
Prepared for:

BORREGO WATER DISTRICT
806 Palm Canyon Drive
Borrego Springs, CA 92004

Prepared by:

DUDEK
605 Third Street
Encinitas, California 92024
Contact: Patrick Rentz

Patrick Rentz, PG 9150, CHG 1058
Senior Hydrogeologist



Hugh McManus, PG 9935
Hydrogeologist

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TABLE(S)

FIGURE(S)

APPENDICES

1 Introduction

This well completion report provides a summary of the field activities during the installation of four new groundwater monitoring wells at the Rams Hill Wastewater Treatment Facility (WWTF). The WWTF is located in Borrego Springs, California, and is owned and operated by the Borrego Water District (BWD). The WWTF is regulated by the Colorado River Basin Regional Water Quality Control Board (Board). The Board issued the Tentative Waste Discharge Requirement Order R7-2019-0015 (Order) to the BWD on March 7, 2019 (Colorado River RWQCB 2019). The Order outlines specific requirements for an updated Monitoring and Reporting Program (MRP) for the WWTF. The groundwater monitoring wells will be included in the updated MRP to track groundwater quality trends and groundwater flow direction. The data obtained from the MRP will be used to assess groundwater levels and determine if infiltration from the WWTF to the groundwater exceeds water quality objectives, impairs beneficial use, or contains constituents in excess of the California Code of Regulations Title 22 maximum containment levels (MCLs).

Drilling and groundwater monitoring well construction services were provided by Gregg Drilling (C-57 license # 1044456) of Martinez, California. Oversight during drilling and construction was provided by Dudek hydrogeologist, Hugh McManus (PG 9935) and Scott Little, and supervised by Dudek senior hydrogeologist Patrick Rentz (PG 9150, CHG 1058). The groundwater monitoring wells were installed between April 25, 2023, and May 24, 2023. Well development was performed by Gregg Drilling and occurred from June 5, 2023, to June 6, 2023. Groundwater quality samples were collected by Dudek on June 8, 2023, and June 15, 2023. Samples were submitted to Enthalpy Analytical of Orange, California. The wells were surveyed for horizontal and vertical datum on June 15, 2023, by Black Gold Surveying of Redlands, California.

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2 Background and Site Location

2.1 Background

The WWTF has been operated by BWD since the early 1980's (Dudek 2018). The WWTF includes a treatment facility that is located on APN 200-120-42, and evaporation/percolation ponds and one existing groundwater monitoring well located on APN 200-120-41, which is not owned by BWD (Figure 1). The treatment plant, originally designed to treat effluent to tertiary levels with a capacity of 0.25 million gallons per day (MGD), has never had sufficient flow to justify the increased expense of engaging the tertiary portion of the original plant design (Dudek 2018). The WWTF services approximately 20 percent of the community of Borrego Springs and currently discharges approximately 0.07 MGD (Dudek 2018). Water that enters the WWTF is sourced entirely from groundwater extracted by BWD from the Borrego Springs Groundwater Subbasin. Treated wastewater is discharged into the evaporation/percolation pond where it either evaporates or infiltrates into the ground. Infiltrated water interacts with the local shallow groundwater aquifer, which is often referred to by the U.S. Geological Survey (USGS) and others as the upper aquifer. The upper aquifer is composed of Holocene to Pleistocene age alluvial fan, playa, and aeolian deposits consisting of unconsolidated sand, gravel, silt, and clay (USGS 2015).[1] The upper aquifer is estimated to be approximately 60 to 90 feet thick at the location of the evaporation/percolation ponds (USGS 2015). The WWTF has one on-site groundwater monitoring well, WWTP-1 (State Well ID 011S006E23H001S), located to the south of the evaporation/percolation pond (Figure 1). The WWTP-1 well was constructed in 2009 to a total depth of 100 feet below ground surface (bgs), with a screen interval from 60 feet bgs to 100 feet bgs.[2] According to the well completion report for WWTP-1, site specific lithology underlying the WWTF includes fine to coarse sand, cemented fine sands, and clayey fine sands,

The Board issued the Order to BWD on March 7, 2019 (Colorado River RWQCB 2019). The Order includes Special Provisions that require BWD to prepare a technical report that outlines the adequacy of the existing groundwater monitoring network (Colorado River RWQCB 2019). If the results of the technical report indicated that the existing groundwater monitoring network is not adequate, the Board requested that a work plan should be prepared to describe changes to the monitoring network with a schedule for completing the changes (Colorado River RWQCB 2019).

A Groundwater Monitoring Network Technical Report was prepared by Dudek and submitted to the Board in September 2019. The report found that the groundwater monitoring network—consisting of one groundwater well (WWTP-1)—was not adequate to evaluate groundwater levels, flow gradient, flow direction, or water quality associated with the WWTF (Dudek 2019). Recommendations from the report included the installation groundwater monitoring wells at three locations placed to the north, west, and east of the evaporations/percolation ponds (Dudek 2019). Well design recommendations included nested well completions with one well screened from 30 feet bgs to 40 feet bgs and the second well screened from 60 feet bgs to 100 feet bgs (Dudek 2019). Final well screen intervals would be based on the visual cuttings logs and groundwater levels at the time of well installation

[1] The Holocene and Pleistocene epochs comprise the Quaternary Period that is characterized by the Pleistocene glaciation that occurred from 2.588 million years ago to 11.7 thousand years ago and the interglacial Holocene from 11.7 thousand years ago to today.

[2] Well completion report number 1082847 for the WWTP-1 well indicates that the screen interval extends from 60 to 100 feet bgs. The well completion diagram, which is attached to the well completion report, indicates the screen extends from 40 to 100 feet bgs. For this report, the information from the well completion report was used.

(Dudek 2019). The report also recommended surveying each new groundwater monitoring well—and the existing WWTP-1 well—to provide an accurate land surface elevation (Dudek 2019).

A Groundwater Monitoring Network Work Plan (Work Plan) was prepared by Dudek and submitted to the Board in June 2020. The Work Plan was prepared to partially satisfy Special Provision 1 of the Order. The purpose of the Work Plan was to provide guidelines during drilling groundwater monitoring wells to expand the groundwater monitoring network for the WWTF. The scope of work for the Work Plan included: project background, project logistics, proposed monitoring well locations, details about drilling and well completion, soil cutting management, well development, water quality sampling, well surveying, well completion reporting, and schedule (Dudek 2020). The Board granted approval of the Work Plan in a letter dated June 21, 2021 (Colorado River RWQCB 2021).

A memorandum was submitted to the Board in November 2021, requesting modifications to the schedule, well locations, and design of the proposed groundwater monitoring wells. Modifications to the schedule and well locations were due to ongoing negotiations between BWD and the owner of APN 200-120-41 and APN 199-190-03 (T-2 Borrego), where the evaporation/percolation ponds and proposed wells are located. The memorandum also included a change in well design from nested groundwater wells to clustered groundwater monitoring wells. The clustered design would eliminate the possibility of vertical cross-connection between the proposed shallow and deep monitoring wells (Dudek 2021). The Board granted approval of the modification to the Work Plan in a letter dated May 9, 2022 (Colorado River RWQCB 2022).

In December 2022, BWD and T-2 Borrego entered into an agreement for the drilling and construction of the groundwater monitoring wells on land owned by T-2 Borrego. The agreement granted BWD access to the site during construction through temporary construction easements, and access for future monitoring through permanent easements. The easements are located on APN 200-12-041 and APN 199-190-03. Easement documentation is included in Appendix A.

In April 2023, Dudek provided a memorandum to the Board recommending modifications to the well design based on conditions observed during drilling. The memorandum included an updated schedule and a variance to the number of wells placed at the WWTP-2 location based on subsurface lithology. Saturated material was not encountered until 116 feet bgs (Dudek 2023a), therefore the shallow well was not drilled or constructed. The deep well was constructed below 100 feet bgs—which was the anticipated final depth of the proposed deep well. As requested by the Board, a technical letter describing the observed drilling conditions and recommended well design modifications was submitted to the Board on May 11, 2023 (Dudek 2023b). Well design variances detailed in the letter were based on the presence of saturated material observed during drilling at the WWTP-4 location.

2.2 Location

The WWTF is located roughly four miles southeast of the unincorporated town of Borrego Springs, California, on Assessor Parcel Number (APN) 200-120-42. The evaporation pond is located on APN 200-120-41. The groundwater monitoring wells are located on APN 199-190-03 and APN 199-190-03 (Figure 1).

Table 1. Groundwater Monitoring Well Locations

Well Name	Latitude	Longitude	Well Pad Elevation	Measurement Point Elevation	General Location Description
WWTP-1 (existing well)	33.20740539	-116.3151761	494.17	495.66	Approximately 260 feet south of the evaporation ponds
WWTP-2	33.20993402	-116.3171108	483.36	485.41	Approximately 645 feet west of the evaporation ponds
WWTP-4S	33.20990129	-116.3130269	473.79	475.91	Approximately 460 feet east of the evaporation ponds
WWTP-4D	33.20985663	-116.3130227	474.01	476.16	Approximately 460 feet east of the evaporation ponds
WWTP-3	33.21371995	-116.3145624	460.85	463.29	Approximately 1,426 feet north of the evaporation ponds

Notes: Elevation in feet NAVD88; Well Pad Elevation = top of cement pad at ground surface. Measurement Point Elevation = top of PVC well casing at north side. General Location Description = measurements made using ArcGIS.

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3 Groundwater Monitoring Well Installation

3.1 Drilling Preparation

On April 21, 2023, a permit to drill and construct the groundwater monitoring wells was obtained from the San Diego County Department of Environmental Health and Quality (DEHQ). A variance request for a modified seal depth at the WWTP-4S location was made by Dudek and approved by DEHQ on April 27, 2023. The approved permit (LMWP-005876) and variance are included in Appendix B.

3.2 Drilling, Design, and Well Construction

3.2.1 Drilling

WWTP-2 was drilled and constructed from April 24, 2023, to April 26, 2023. WWTP-4D and WWTP-4S were drilled and constructed from April 27, 2023, to April 28, 2023. WWTP-3 was drilled and constructed form May 22, 2023, to May 24, 2023.

The WWTP-4 and WWTP-2 boreholes were drilled using a Fraste Eijkelkamp FS250 sonic drill rig. The borehole for WWTP-3 was drilled using a Fraste Eijkelkamp MPS-XL Max track-mounted sonic drill rig. The boreholes were advanced and stabilized with 8-inch diameter casing and continuous samples were collected using 7-inch and 6-inch diameter core barrels.

Lithology was characterized from continuous core samples by Dudek hydrogeologists Hugh McManus, PG and Scott Little, GIT, according to ASTM D-2488 (visual-manual procedure), and color was characterized using a Munsell Soil Color Chart. Lithologic logs are included in Appendix C. Visual observations of soil sample lithology and characteristics (i.e. saturation and lithologic material type) were used to determine total depth and screen intervals of each well in the field. The wells were designed to be screened across observed saturated sediments. Photographs of the drill cuttings are included in Appendix D. Soil generated while drilling was transported from each drilling location and stockpiled at the nearby WWTF yard.

3.2.2 Well Design and Lithology

Initially, two groundwater monitoring wells were proposed at each location; one intended to be screened across shallow saturated material and a deeper well to be screened deeper in the saturated material of the upper aquifer. In the absence of shallow saturated material, no shallow groundwater monitoring well was constructed. The initial design for the two wells was based on the existing groundwater monitoring well (WWTP-1), which is screened from 60 feet bgs to 100 feet bgs. The proposed shallow wells were intended to monitor saturated material that may not be above the screen interval of the existing well, while the deeper well completions were intended to monitor the deeper groundwater, consistent with the existing WWTP-1 well.

Final well designs at each well location were based on observed saturated material. No groundwater monitoring well was constructed in the absence of saturated material. Information used to design the screen interval at each of the three well locations is included below.

WWTP-2

Lithology encountered in the first 116 feet of the WWTP-2 borehole consisted of unsaturated sand and clay. Saturated material was encountered from 116 feet bgs to 140 feet bgs. Sediments above 116 feet bgs were characterized as dry, cemented, dense sand lenses and clay.

A single groundwater monitoring well was constructed at the WWTP-2 site. The well was designed with a 25-foot screen interval from 115 feet bgs to 140 feet bgs. Shallow groundwater was not encountered at the WWTP-2 location; therefore no shallow groundwater monitoring well was drilled or constructed.

A summary of observed saturation during drilling is presented below:

- Unsaturated from 0 feet bgs to 116 feet bgs.
- Saturated from 116 feet bgs to 140 feet bgs.

Groundwater at WWTP-2 is estimated to be under confined or semi-confined condition. Subsurface material was observed the be dry from ground surface to 116 feet bgs. After advancing the borehole below 116 feet bgs, groundwater was noted in the borehole at roughly 44 feet bgs and rose as drilling advanced.

WWTP-3

Lithology encountered in the first 50 feet in the WWTP-3 borehole consisted of unsaturated sand, silt, and clay. Saturated materials were encountered from 52 feet bgs to 67.5 feet bgs. Sediments from 67.5 feet bgs to 100 feet bgs were characterized as primarily dry clay and silt. The borehole at the WWTP-3 site was drilled to a total depth of 140 feet bgs to investigate the presence of saturated material at similar depths as observed in the borehole drilled at the WWTP-2 site. Slightly moist material was observed from 130 feet bgs to 140 feet bgs (the bottom of the borehole).

A single groundwater monitoring well was constructed at the WWTP-3 site. The well was designed with a 20-foot screen interval from 50 feet bgs to 70 feet bgs. Shallow groundwater was not encountered at the WWTP-2 location; therefore no shallow groundwater monitoring well was designed.

A summary of observed saturation during drilling is presented below:

- Unsaturated from 0 feet bgs to 52 feet bgs.
- Saturated material from 52 feet bgs to 67.5 feet bgs.
- Unsaturated clay, silt, and sand from 67.5 feet bgs to 100 feet bgs.
- Unsaturated clay from 100 feet bgs to 130 feet bgs.
- Slightly moist from 130 feet bgs to 140 feet bgs.

WWTP-4

Lithology encountered during the first 100 feet of drilling consisted of saturated material from 16 feet bgs to 25 feet bgs and 32 feet bgs to 50 feet bgs. The remainder of the sediments logged in the WWTP-4 borehole to 100 feet bgs was unsaturated. The borehole was drilled to a total depth of 140 feet bgs to investigate the presence of saturated material at similar depths as observed in the borehole drilled at the WWTP-2 site. Four feet of saturated material was observed from 136 feet to 140 feet bgs (the bottom of the borehole).

Based on the visual cuttings log and saturated sediment observations, a shallow groundwater monitoring well was constructed at the WWTP-4 site with a 10-foot screen interval from 15 feet bgs to 25 feet bgs. A deeper groundwater monitoring well was constructed at the WWTP-4 site with a 15-foot screen interval from 35 feet bgs to 50 feet bgs.

A summary of observed saturation during drilling is presented below:

- Unsaturated from 0 feet bgs to 16 feet bgs.
- Saturated material from 16 feet bgs to 25 feet bgs.
- Clay from 25 feet bgs to 32 feet bgs.
- Saturated material from 32 feet bgs to 50 feet bgs.
- Unsaturated clay from 50 feet bgs to 136 feet bgs.
- Saturated from 136 feet bgs to 140 feet bgs.

3.2.3 Well Construction

The monitoring wells were constructed using 3-inch diameter PVC casing and screen, installed through the 8-inch drill casing and connected with watertight threaded joints. The perforated portion of the casing consisted of 3-inch schedule 80 PVC casing with 0.032-inch horizontal slots. The bottom of the screen was capped with a 5-inch-long PVC threaded end cap.

Annular material was placed through the 8-inch drill casing and included Cemex #2/16 filter pack, hydrated medium bentonite, neat cement, and a concrete pad at ground surface. Neat cement was pumped into the annular space between the borehole wall and the well casing through a tremie pipe using a pump. Annular material volumes matched or exceeded calculated volumes. A well completion diagram for each well is shown in Figure 2 through 4. Well construction details are included in Table 2.

Table 2. Well Completion Information

Well Name	Total Borehole Depth (feet bgs)	Total Well Depth (feet bgs)	Screen Interval (feet bgs)	Blank Interval (feet bgs)	Filter Pack Interval (feet bgs)	Bentonite Interval (feet bgs)	Neat Cement Interval (feet bgs)	Concrete Interval (feet bgs)
WWTP-2	140	140	115–140	+2.5–115	113–140	110–113	3–110	0–3
WWTP-4S	26	25	15–25	+2.5–15	14–26	13–14	3–13	0–3

Table 2. Well Completion Information

Well Name	Total Borehole Depth (feet bgs)	Total Well Depth (feet bgs)	Screen Interval (feet bgs)	Blank Interval (feet bgs)	Filter Pack Interval (feet bgs)	Bentonite Interval (feet bgs)	Neat Cement Interval (feet bgs)	Concrete Interval (feet bgs)
WWTP-4D	140	50	35–50	+2.5–35	33–51	51–52, 30–33	52–140, 3–30	0–3
WWTP-3	140	70	50–70	+2.5–50	48–72	72–82, 45–48	82–140, 3–45	0–3

NOTES: bgs = below ground surface; screen is 3-inch flush threaded schedule 80 PVC with 0.032-inch slots; blank is 3-inch flush threaded schedule 80 PVC; filter pack is CEMEX #3 (8x20) sand; bentonite is hydrated medium chips; neat cement is Portland Type II cement with water (mix at a ratio of one 47lb sack of cement to 2.5 gallons of clean water); concrete is Class A.

The wells were completed at the surface with 8-inch diameter above ground monument covers. The covers extend roughly 2.75 feet above ground surface and are surrounded by 3-foot Class A high-strength concrete pads. The covers are equipped with locking covers. The casings were equipped with a watertight well cap.

4 Groundwater Monitoring Well Development

WWTP-2, WWTP-3, WWTP-4S, and WWTP-4D were developed by Gregg Drilling from June 5, 2023, to June 6, 2023. Well development activities were observed by Dudek hydrogeologist Hugh McManus. Well development activities included bailing, surging, and pumping the wells. Bailing was performed using a 10-foot long, 2.5-inch diameter bailer. Surging was performed using a weighted swab tool with a rubber disc measuring not more than 1/8-inch smaller than the inside diameter of the well casing. Pump development was performed using a submersible pump. Discharge rates during pump development ranged from 15 gallons per minute (gpm) at WWTP-2 to approximately 1 gpm at WWTP-3, WWTP-4S, and WWTP-4D. Field water quality parameters were recorded with a Horiba and LeMotte 2020we turbidity meter. Field parameters included pH, electrical conductivity, temperature, oxygen reduction potential, dissolved oxygen, and turbidity. Water produced during development was discharged to land surface.

Development was considered complete after three consecutive measurements of turbidity recorded 5 minutes apart were below 10 nephelometric turbidity units (NTU). Complete development was achieved at all monitoring wells. Development field sheets are included in Appendix E.

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5 Groundwater Sampling Summary

Water quality samples were collected from WWTP-2, WWTP-3, WWTP-4S, and WWTP-4D on June 8, 2023. A water quality sample was collected from the existing WWTP-1 on June 15, 2023. Water quality samples were submitted to Enthalpy Analytical of Orange, California.

Before collecting water quality samples, the wells were purged using a GeoSub submersible pump. Field parameters were collected while purging using a YSI Pro Plus hand held meter and a LaMotte 2020we turbidity meter. Three casing volumes were purged from each well before sampling. Water quality parameters were measured for stabilization before collecting the samples. Water quality sampling sheets are included in Appendix F. Laboratory results are included in Appendix G. A summary of water quality results is included in Table 3.

Table 3. Groundwater Sampling Results – June 2023

Analyte	Units	WWTP-1	WWTP-2	WWTP-3	WWTP-4S	WWTP-4D	CA MCL	Secondary MCL
Copper	mg/l	<0.010	<0.010	<0.010	<0.010	<0.010	1.3	1.0
Barium	mg/l	0.18	<0.010	0.047	0.046	0.078	1	-
Calcium	mg/l	64	1.9	65	38	46	-	-
Iron	mg/l	**5.9**	0.036	0.061	**0.30**	**0.58**	-	0.3
Magnesium	mg/l	14	0.60	<0.10	4.0	1.7	-	-
Manganese	mg/l	**0.16**	<0.010	<0.010	**0.10**	**0.083**	-	0.05
Potassium	mg/l	7.1	3.5	8.1	3.2	9.7	-	-
Sodium	mg/l	130	150	140	180	190	-	-
Zinc	mg/l	<0.050	<0.050	<0.050	<0.050	<0.050	-	5.0
Arsenic	mg/l	0.0066	0.0033	**0.023**	**0.015**	<0.002	0.01	-
Fluoride	mg/l	<4.0	0.57	0.49	0.41	0.39	2.0	
Chloride	mg/l	96	86	45	100	110	-	250 – 500*
Sulfate	mg/l	100	70	93	110	110	-	250 – 500*
TKN	mg/l	<0.40	<0.40	<0.40	0.41	<0.40	-	-
Nitrate as Nitrogen	mg/l	2.2	4.4	0.28	4.7	7.7	10	-
Nitrite as Nitrogen	mg/l	<0.10	<0.10	<0.10	<0.10	0.85	1	-
Total Nitrogen	mg/l	2.2	4.4	0.28	4.7	8.6	-	-
Hardness as CaCO3	mg/l	220	7.3	160	110	120	-	-
pH	SU	7.57	**8.85**	**11.62**[a]	7.97	**11.37**[a]	-	6.5 – 8.5
Temperature	deg C	21.10	23.30	19.80	21.90	20.00	-	-
Bicarbonate	mg/l	260	110	<4.0	280	<4.0	-	-
Carbonate	mg/l	<4.0	20	<4.0	<4.0	<4.0	-	-
Hydroxide	mg/l	<4.0	<4.0	130	<4.0	<4.0	-	-

Table 3. Groundwater Sampling Results – June 2023

Analyte	Units	WWTP-1	WWTP-2	WWTP-3	WWTP-4S	WWTP-4D	CA MCL	Secondary MCL
Total Alkalinity as CaCO3	mg/l	210	130	66	230	41	-	-
Specific Conductance	umhos/cm	**1,000**	800	**1,500**	**1,100**	**1,300**	-	900 - 1,600*
TDS	mg/l	430	360	**630**	**600**	**650**	-	500 - 1,000*
Surfactants (MBAS)	mg/l	<0.040	<0.040	<0.040	<0.040	<0.040	-	0.5

NOTES: Groundwater samples collected on June 8, 2023, for WWTP-2, WWTP-3, WWTP-4S, and WWTP-4D. Groundwater sample for WWTP-1 collected on June 15, 2023. Samples were submitted and analyzed by Enthalpy Analytical. CA MCL = California Maximum Contaminant Level; **Bold** values indicate exceedance of CA MCL or Secondary MCL, [a] = elevated pH observed at WWTP-3 and WWTP-4D likely due to neat cement backfill which can raise pH of groundwater, * = upper limit of secondary MCL; TKN = total Kjeldahl nitrogen; TDS = total dissolved solids; MBAS = methylene blue active substances, mg/l = milligrams per liter; ug/l = micrograms per liter; SU = standard unites, umhos/cm = micro ohms per centimeter.

All analytes sampled in June 2023 were below their respective CA MCLs and secondary MCLs with the exception of iron, manganese, arsenic, specific conductance, total dissolved solids (TDS), and pH. Iron concentrations exceeded the secondary MCL of 0.3 milligrams per liter (mg/l) at WWTP-1, WWTP-4S, and WWTP-4D. The concentration of iron was highest at the up-gradient well WWTP-1 at a concentration of 5.9 mg/l. The shallow and deep wells to the east of the evaporation pond had iron concentrations of 0.30 mg/l at WWTP-4S and 0.58 mg/l at WWTP-4D. Manganese concentrations were detected above the secondary MCL of 0.05 mg/l at WWTP-1, WWTP-4S, and WWTP-4D. Manganese concentrations were highest at the up-gradient well—WWTP-1—at a concentration of 0.16 mg/l. Manganese concentrations at the wells WWTP-4S and WWTP-4D were detected at 0.10 mg/l and 0.083 mg/l, respectively.

Arsenic was detected above the CA MCL of 0.01 mg/l at WWTP-3—to the north of the evaporation pond—at a concentration of 0.023 mg/l, and at WWTP-4S—to the east of the evaporation pond—at a concentration of 0.015 mg/l.

Measurements of pH were above the secondary MCL range of 6.5 to 8.5 at WWTP-2, WWTP-3, and WWTP-4D. Measurements of pH were above 11.00 at wells WWTP-3 and WWTP-4D. Elevated pH at WWTP-3 and WWTP-4D may be due to the affects of neat cement backfill placed during the construction of both wells. Neat cement can temporarily affect pH concentrations in groundwater samples from wells constructed with neat cement (Blackmer 1988). Elevated pH was also measured at WWTP-2 (8.85), which was not constructed with a neat cement backfill.

TDS concentrations were above the recommended secondary MCL but below the upper limit secondary MCL at WWTP-3, WWTP-4S, and WWTP-4D. The recommended secondary MCL for TDS is 500 mg/l. The upper limit secondary MCL for TDS is 1,000 mg/l. TDS concentrations to the east of the evaporation pond at WWTP-4S and WWTP-4D were 600 mg/l and 650 mg/l, respectively. The TDS concentration to the north of the evaporation pond—down gradient—at WWTP-3 was detected at 630 mg/l.

Specific conductance was measured above the recommended secondary MCL of 900 micro-ohms per centimeter (umhos/cm) but below the upper limit secondary MCL of 1,600 umhos/cm at WWTP-1, WWTP-3, WWTP-4S, and WWTP-4D. Of the exceedances of the recommended secondary MCL, specific conductance was lowest at the up-gradient well WWTP-1, which measured 1,000 umhos/cm. Specific conductance at the down-gradient well WWTP-3 measured 1,500 umhos/cm. Specific conductance at the wells to the east of the evaporation pond, WWTP-4S and WWTP-4D, measured 1,100 umhos/cm and 1,300 umhos/cm, respectively.

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6 Well Survey

The locations and elevations for WWTP-2, WWTP-3, WWTP-4S, WWTP-4D, and the existing WWTP-1 were surveyed on June 15, 2023, by Black Gold Surveying of Redlands, California. The coordinates for each monitoring well were surveyed in Northing and Easting coordinates referenced to Zone 6 of the California State Plane Coordinate System, North American Datum of 1983 (NAD83). The surveyed coordinates were also converted from the California Coordinate System to Latitude and Longitude in WGS 1984 using ArcMap 10.7.1 (Table 1). Surface elevations were surveyed to the North American Vertical Datum of 1988 (NAVD 88).

The surveyed coordinates (latitude, longitude, and elevation) of each well, top of casing, and land surface are summarized in Table 1 (presented in Section 2) of this report. Appendix H includes the survey information for the monitoring wells. The well pad, top of PVC casing, and surface of monument cover, were surveyed at each well.

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7 Groundwater Elevation and Flow Direction

Groundwater level measurements were collected from the wells included in the Board-required MRP on June 8, 2023. Depth to water from the top of the well casing, well stick up, pad surface elevation, and groundwater elevation are included in Table 4. Groundwater elevation data were used to create groundwater elevation contours (Figure 5).

Table 4. Groundwater Level Measurements and Elevations

Well Name	Casing Stick Up in Feet	Ground Surface Elevation in feet NAVD 88	Depth to Water Feet Below Top of Casing (6/8/2023)	Groundwater Elevation in Feet NAVD 88 (6/8/2023)
WWTP-1	1.49	494.17	24.64	471.02
WWTP-2	2.05	483.36	31.41	454.00
WWTP-3	2.44	460.85	57.65	405.64
WWTP-4S	2.15	473.79	20.65	455.26
WWTP-4D	2.12	474.01	34.23	441.93

NOTES: NAVD 88 = North American Vertical Datum of 1988

Groundwater wells WWTP-1, WWTP-2, WWTP-3, and WWTP-4D were used for contouring groundwater elevation. The groundwater elevation contour map does not include groundwater elevation data from the shallow well WWTP-4S or surface water elevation data from the evaporation pond. Groundwater elevation data from WWTP-2 was included in the groundwater elevation contour map, despite observations made during drilling that showed that groundwater is under confined or semi-confined conditions. Groundwater flow direction is towards the northeast. The hydraulic gradient from the 460-foot to 415-foot contour intervals (1,497-foot distance) is 0.03 feet per foot. The hydraulic gradient from WWTP-1 (471.02 feet NAVD 88) to WWTP-3 (405.64 feet NAVD88)—a distance of 2,303 feet—is also 0.03 feet per foot.

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8 Summary

Four groundwater monitoring wells were drilled and constructed at three locations to the west, north, and east of the WWTF site by Greg Drilling between April 24, 2023, and May 24, 2023. Field activities were supervised by Dudek hydrogeologists. The groundwater monitoring wells were constructed with flush threaded 3-inch diameter schedule 80 PVC. Well screen consisted of 3-inch diameter schedule 80 PVC with 0.032-inch horizontal slots. Well depths ranged from 25 feet bgs to 140 feet bgs. The wells were completed at the surface with 8-inch diameter steel monument covers. The groundwater monitoring wells were designed to capture saturated material, as observed during drilling from continuous core samples. No shallow groundwater monitoring well was constructed in the absence of shallow groundwater observed at each well site location.

The groundwater monitoring wells were developed by Gregg Drilling from June 5, 2023, to June 6, 2023, using a swab, bailer, and submersible pump. Groundwater quality samples were collected from each of the four new wells on June 8, 2023, and from the existing groundwater monitoring well on June 15, 2023. Samples were submitted to Enthalpy Analytical. Vertical and horizonal datum measurements were collected on June 18, 2023, by Black Gold Surveying. Groundwater elevation contours were calculated using groundwater level measurements collected on June 8, 2023. Local groundwater flow is to the northeast, toward the Borrego Sink, with an average hydraulic gradient of 0.03 feet per foot. The new monitoring wells will be included in the MRP for the WWTF.

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9 References

Blackmer. 1988. Review of Monitoring Wells Exhibiting Elevated pH in F and H Area. Prepared for the U.S. Department of Energy Under Contract DE-AC09-76SR00001. July 1988.

Dudek. 2018. Final Tertiary Treatment Conversion Project Study. March 2018.

Dudek. 2019. Final Groundwater Monitoring Network Technical Report – Rams Hill Waste Water Treatment Facility. September 2019.

Dudek. 2020. Final Groundwater Monitoring Network Work Plan – Rams Hill Waste Water Treatment Facility. June 2020.

Dudek. 2021. Memorandum – Borrego Water District Wastewater Treatment Facility Groundwater Monitoring Well Network, Board Order R7-20019-0015. November 2, 2021.

Dudek. 2023a. Memorandum – Borrego Water District Wastewater Treatment Facility Groundwater Monitoring Well Network, Board Order R7-2019-0015. April 26, 2023.

Dudek. 2023b. Technical Letter – Well Design Variance from Groundwater Monitoring Network Workplan for the Rams Hill Waste Water Treatment Plan (Board Order R7-2019-0015). May 11, 2023.

Colorado River RWQCB. 2019. Monitoring and Reporting Program R7-2019-0015 For Borrego Water District, Owner/Operator Rams Hill Wastewater Treatment Facility, Borrego Springs – San Diego County. March 7, 2019.

Colorado River RWQCB. 2021. Approval of Groundwater Monitoring Network Work Plan, Board Order R7-2019-0015. June 21, 2021.

Colorado River RWQCB. 2022. Memorandum Updating the Status of the Groundwater Monitoring Network Work Plan, Design and Well Modifications, Board Order R7-2019-0015. May 9, 2022.

USGS. 2015. Hydrogeology, Hydrologic Effects of Development, and Simulation of Groundwater Flow in the Borrego Valley, San Diego County, California. Scientific Investigations Report 2015–5150. Prepared by Claudia C. Faunt, Christina L. Stamos, Lorraine E. Flint, Michael T. Wright, Matthew K. Burgess, Michelle Sneed, Justin Brandt, Peter Martin, and Alissa L. Coes in cooperation with the Borrego Water District. DOI: 10.3133/sir20155150.

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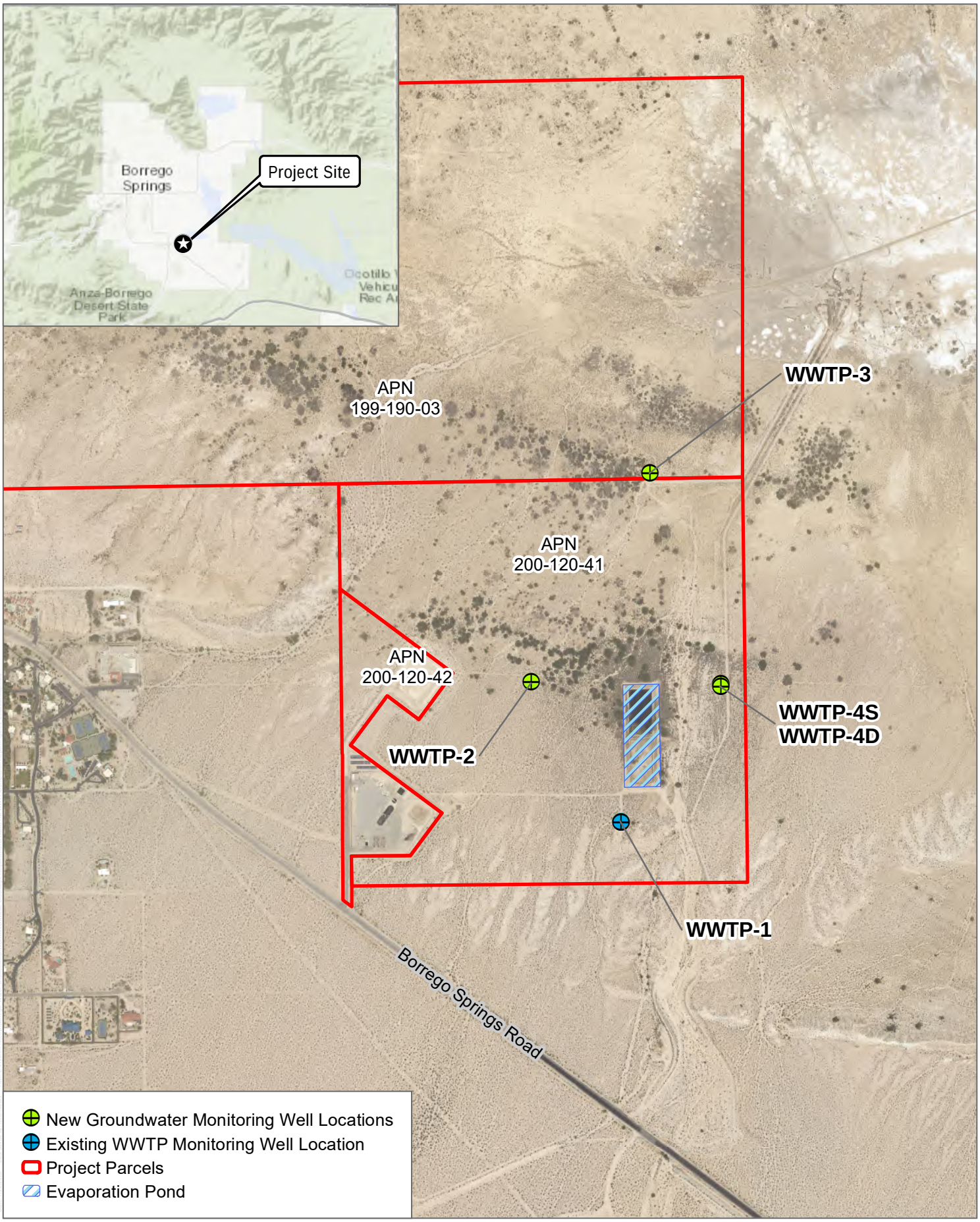

SOURCE: SANDAG & SanGIS

DUDEK

0 420 840 Feet

FIGURE 1

Location Map

Well Completion Report - Groundwater Monitoring Well Network for the Rams Hill Waste Water Treatment Facility

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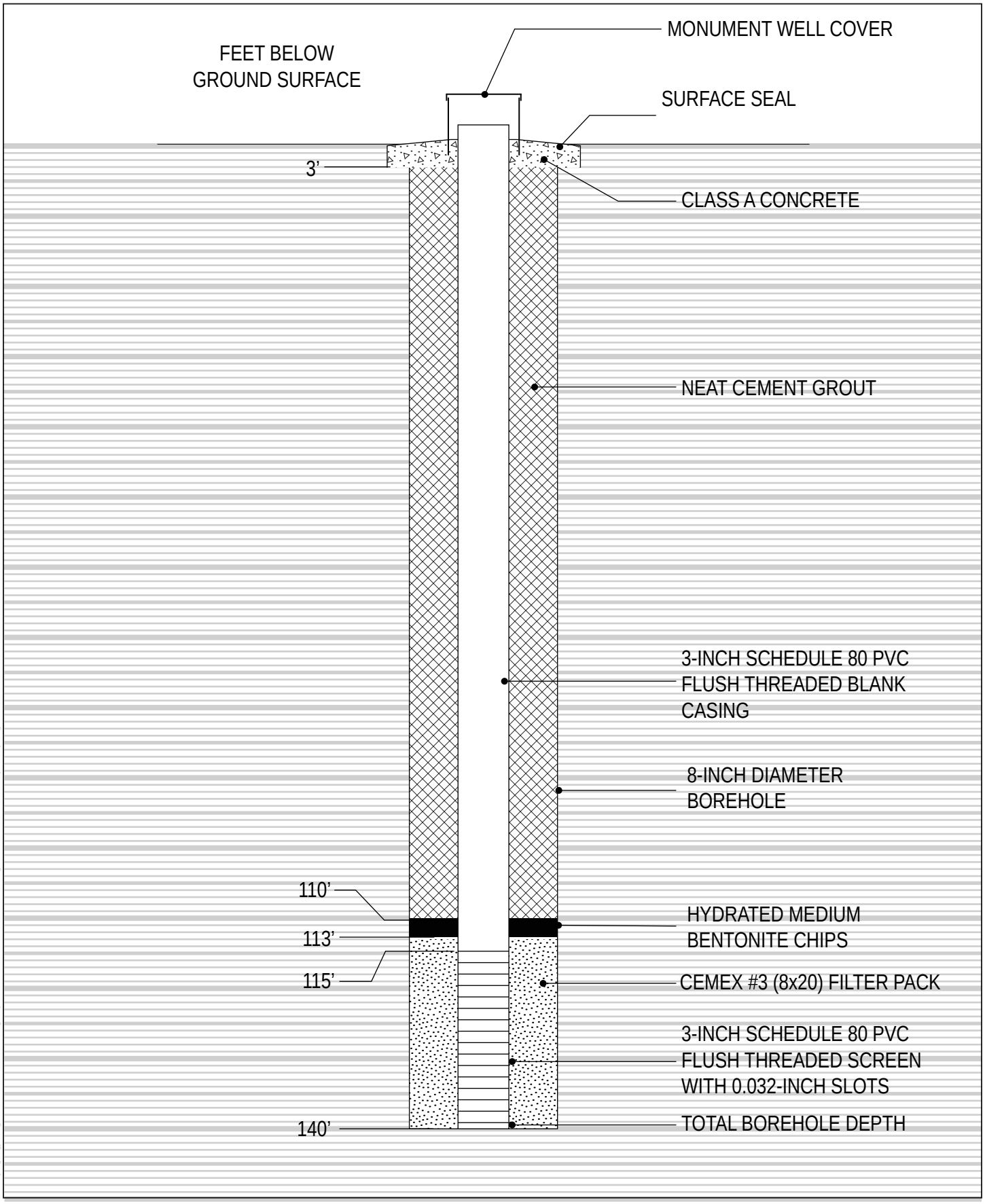

FIGURE 2

WWTP-2 Completion Diagram

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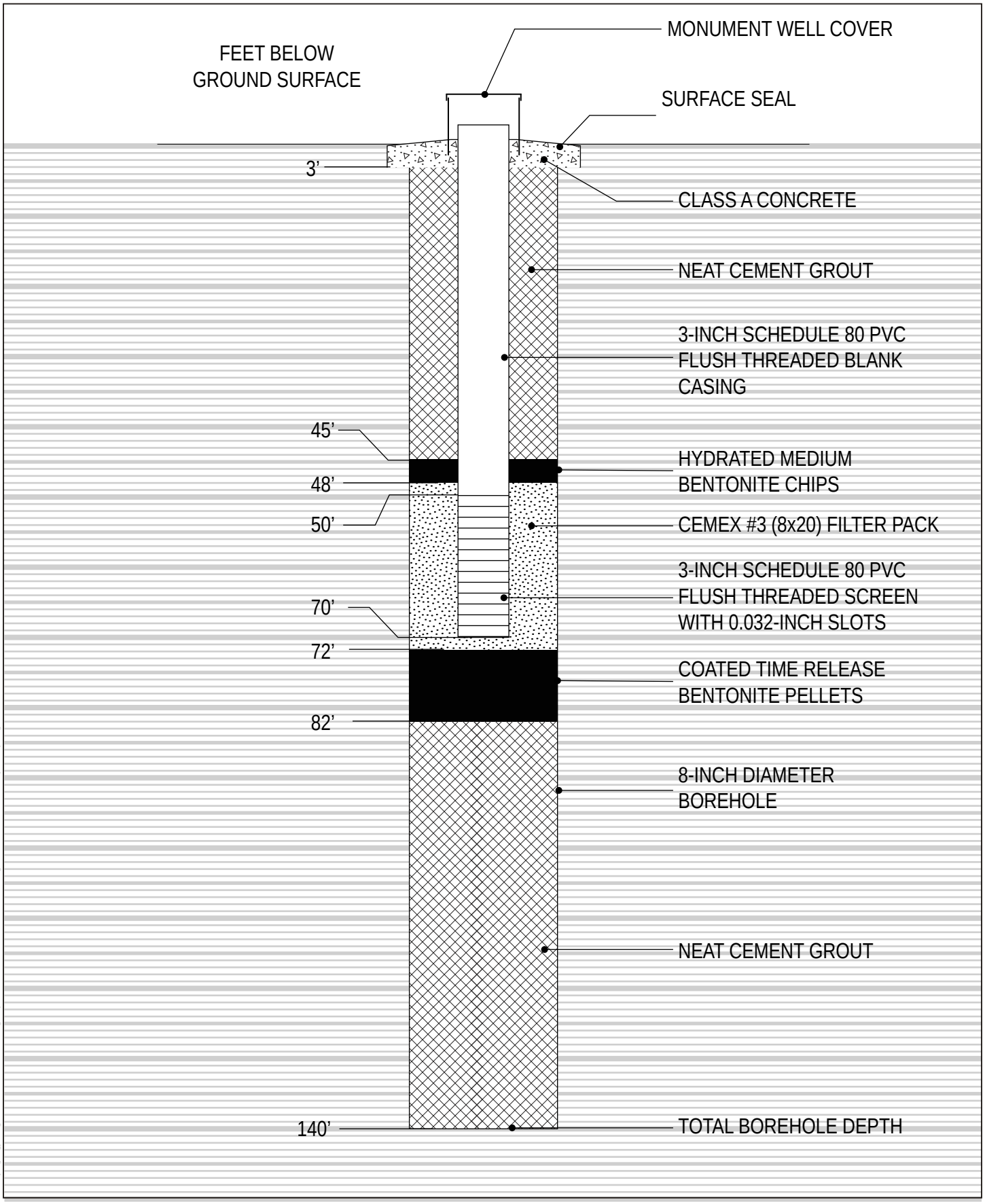

FIGURE 3

WWTP-3 Completion Diagram

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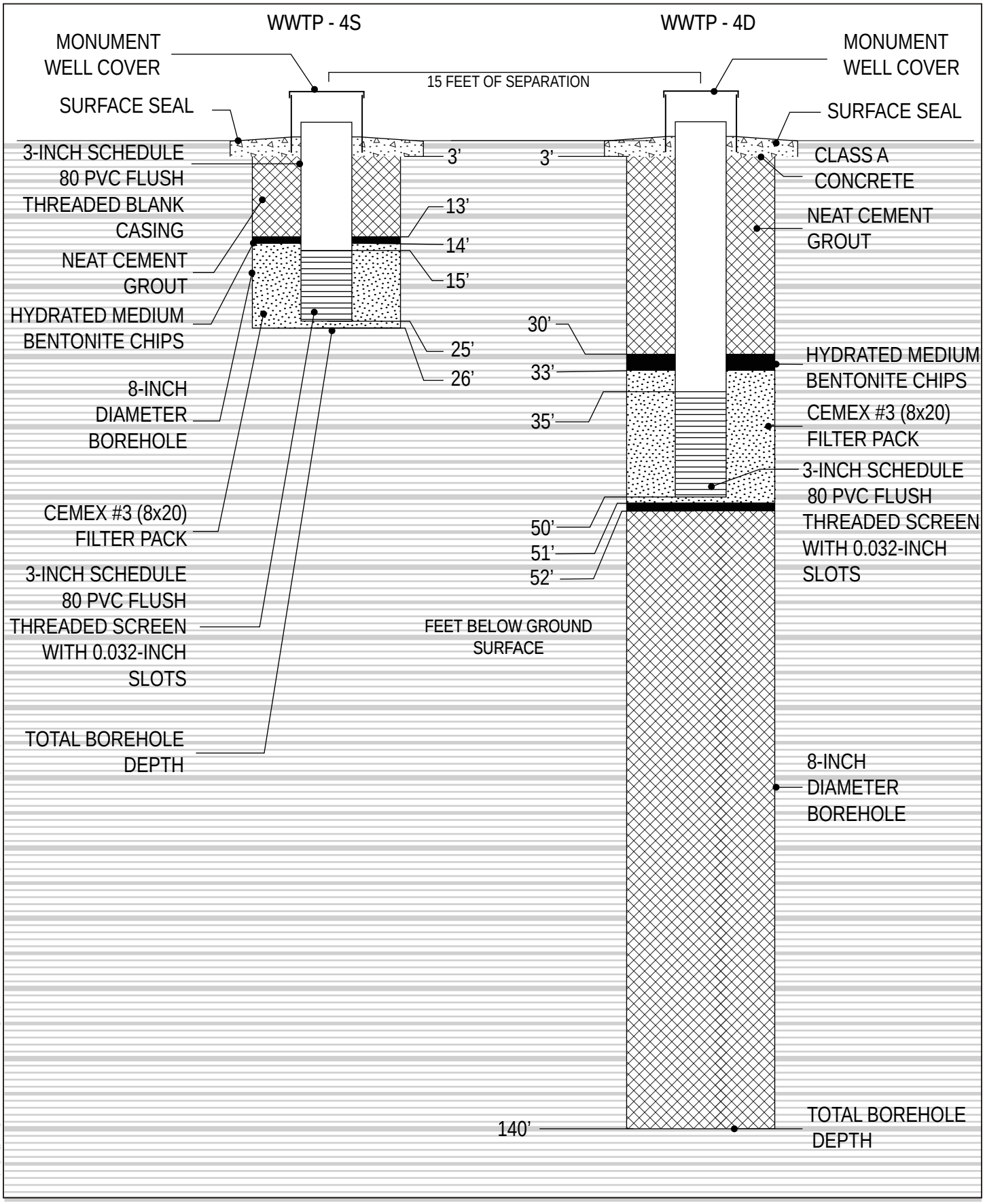

FIGURE 4

WWTP-4S and WWTP-4D Completion Diagram

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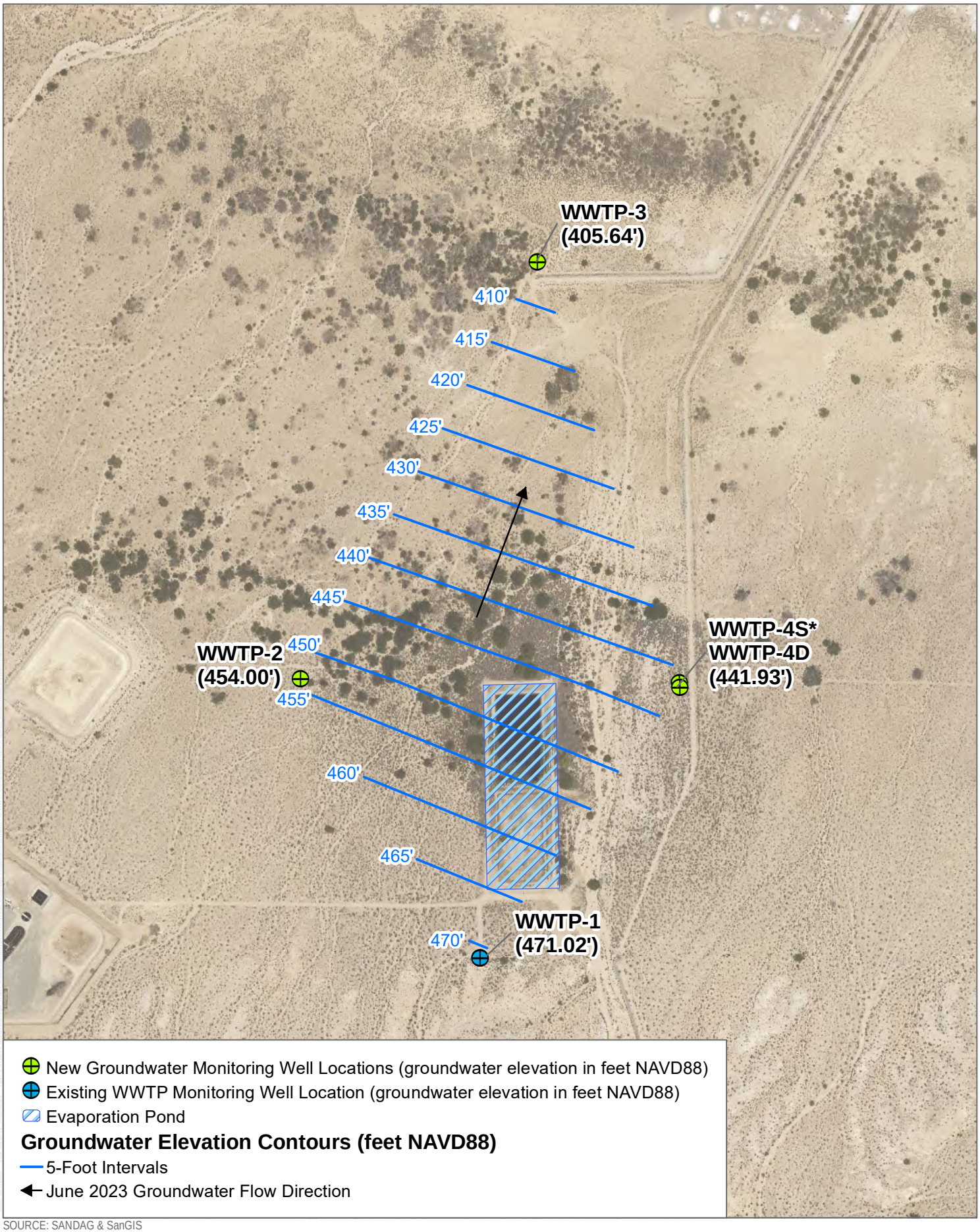

SOURCE: SANDAG & SanGIS
NOTES: Groundwater level measurements collected on June 8, 2023.
*Groundwater elevation contours do not include measurements from shallow well WWTP-4S or the surface elevation of the evaporation pond.

DUDEK

0 210 420 Feet

FIGURE 5

June 2023 Groundwater Elevation Contours

Well Completion Report - Groundwater Monitoring Well Network for the Rams Hill Waste Water Treatment Facility

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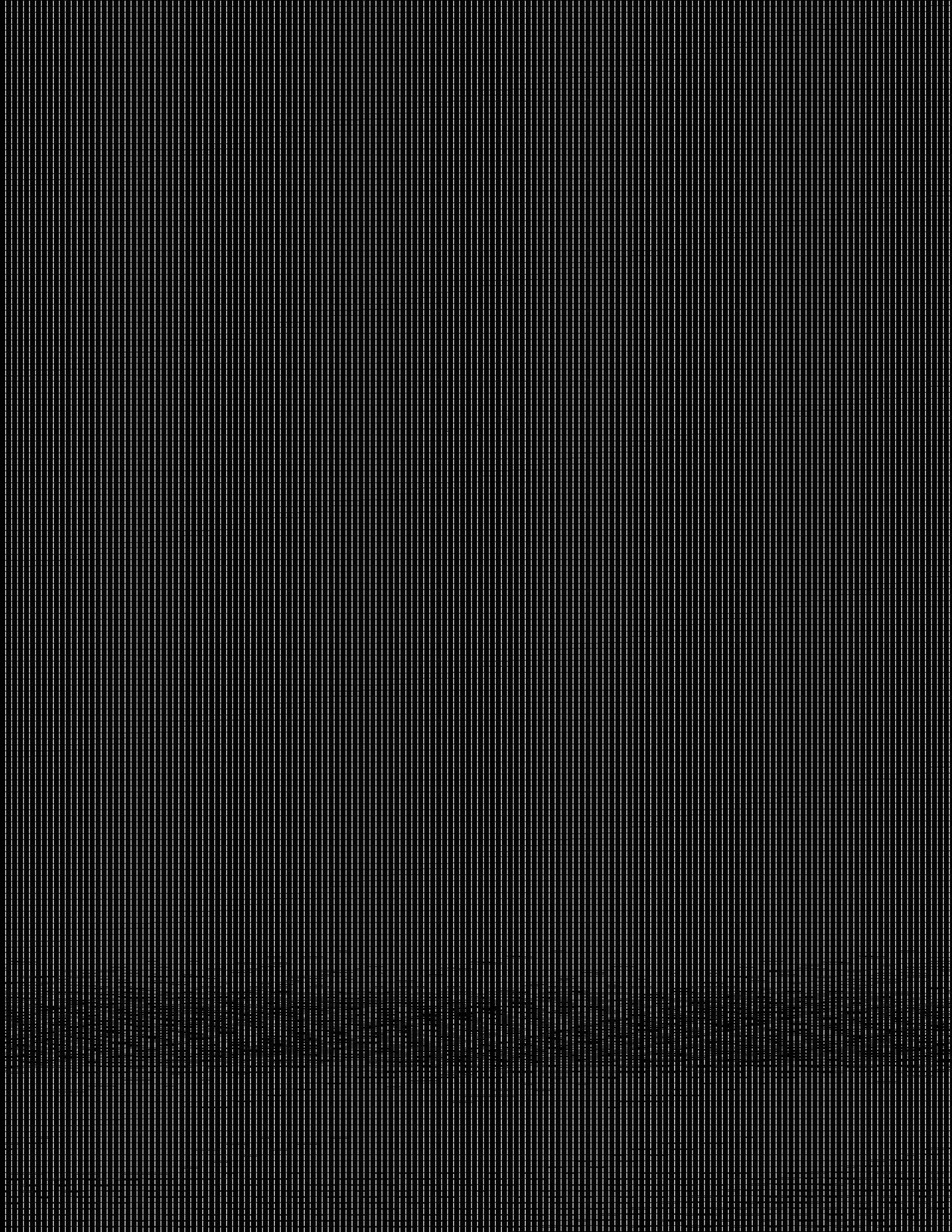
Appendix A
Easements



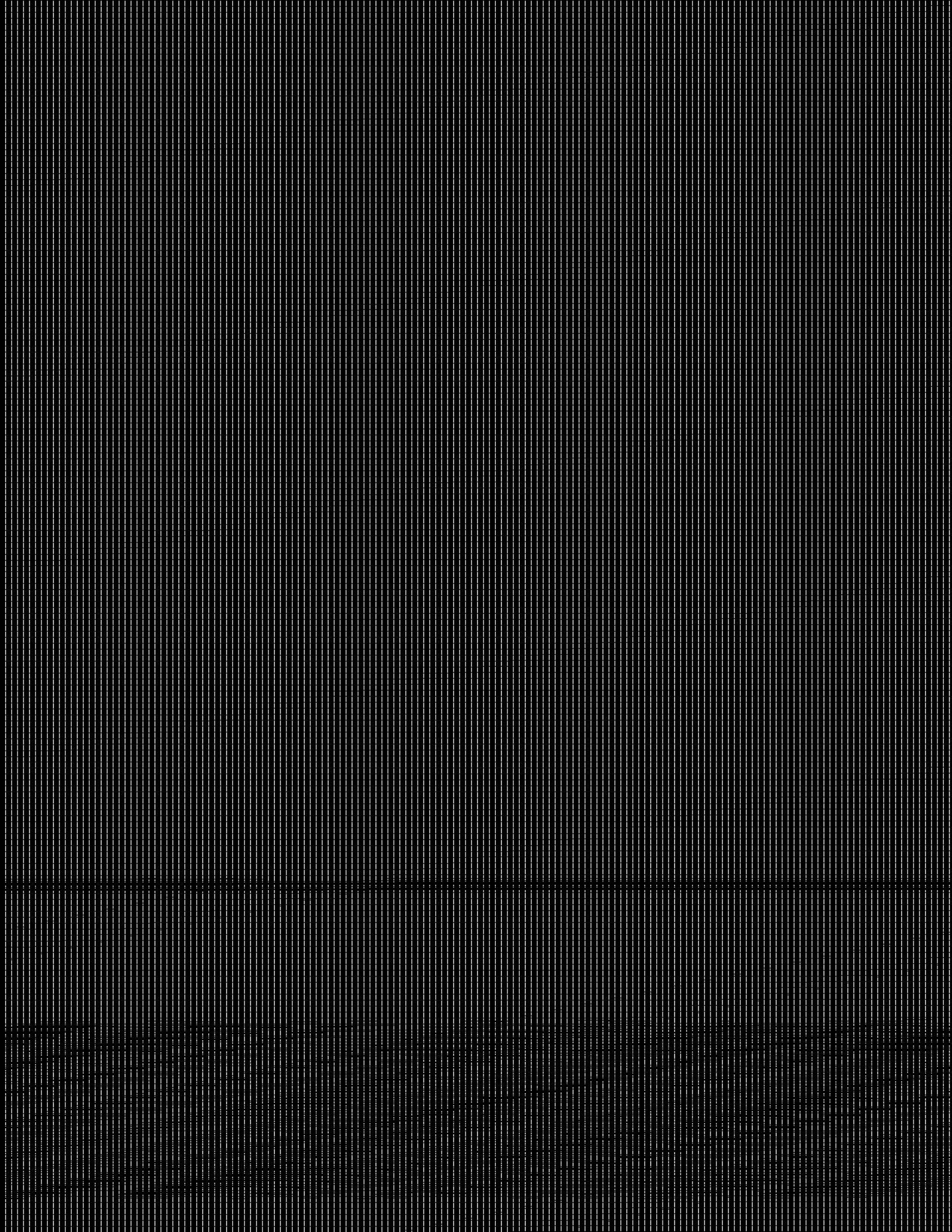
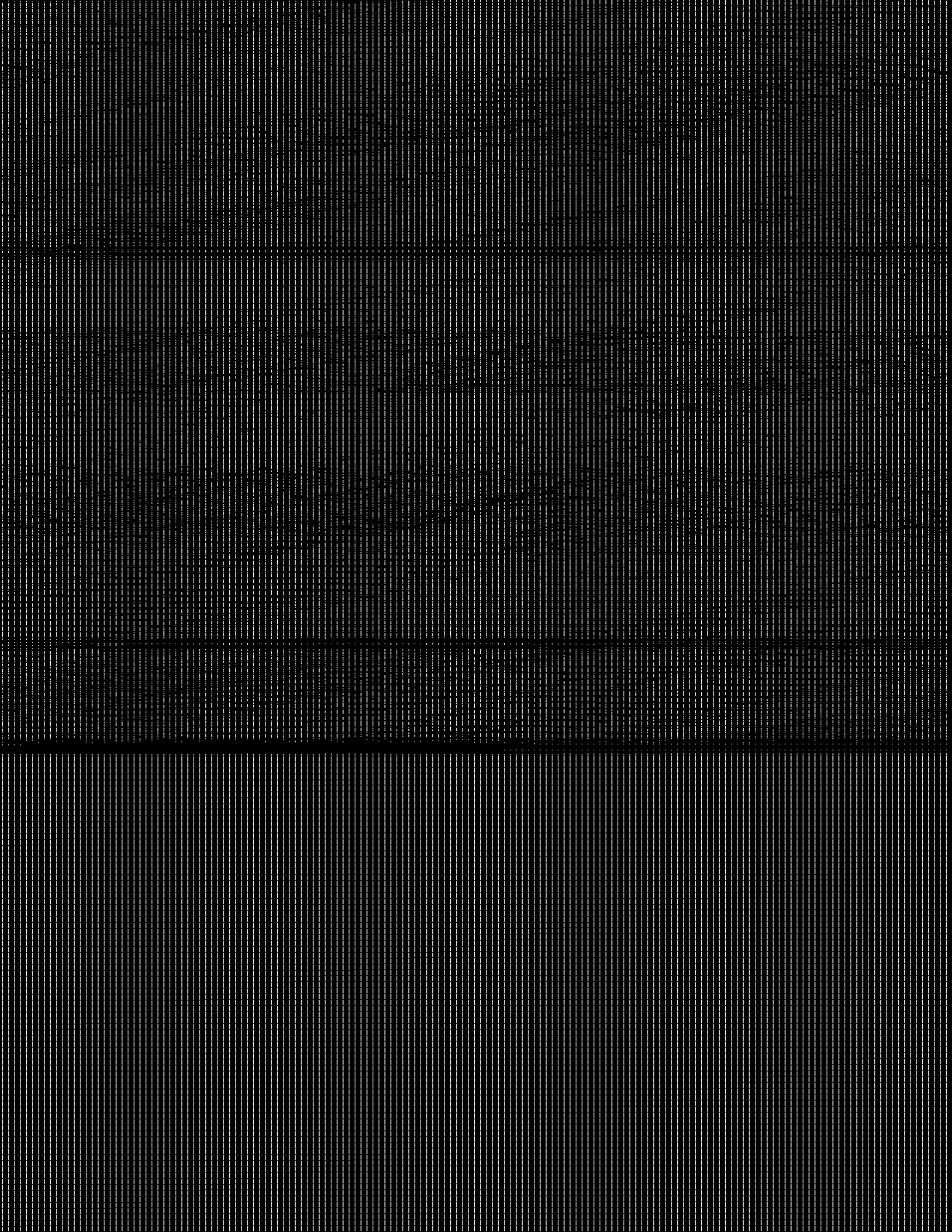
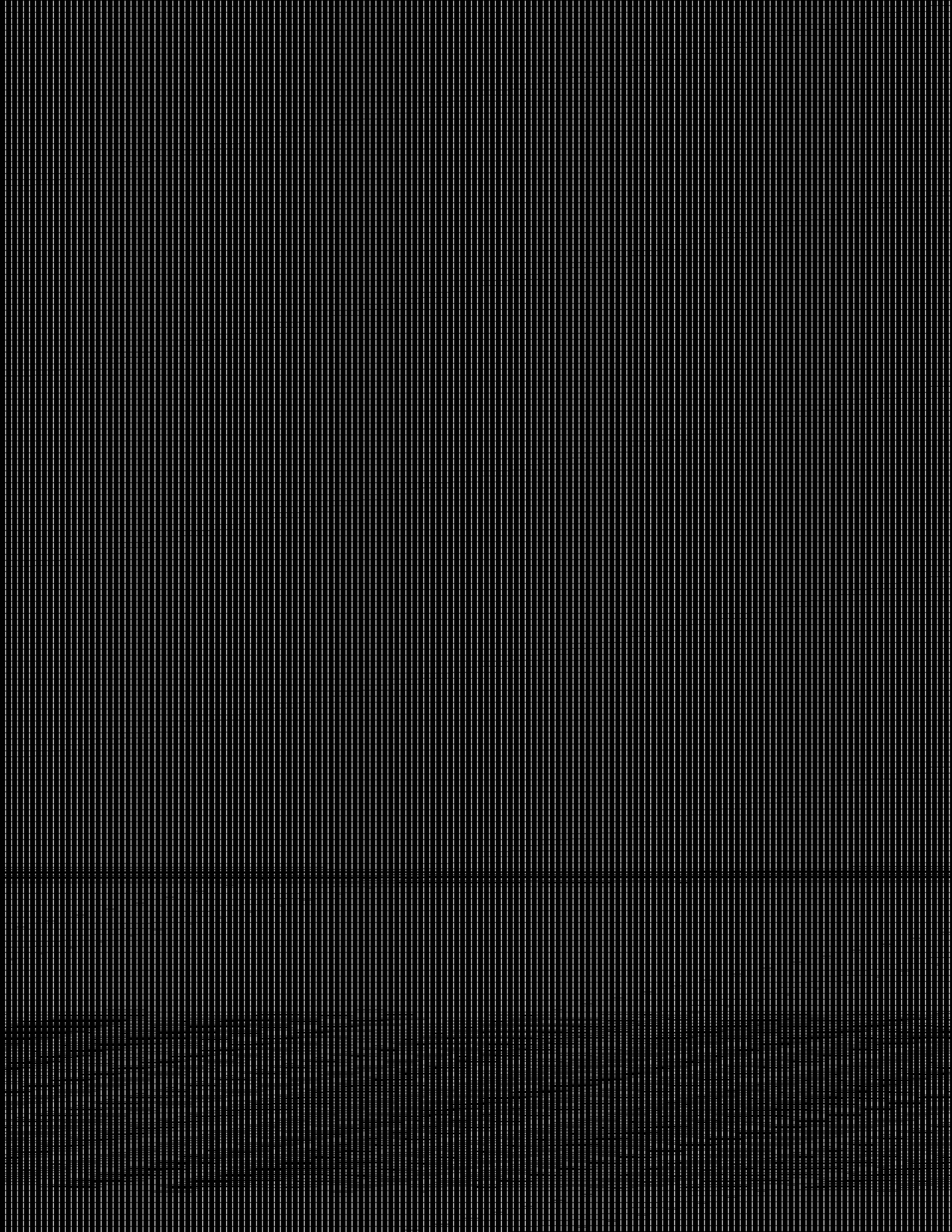
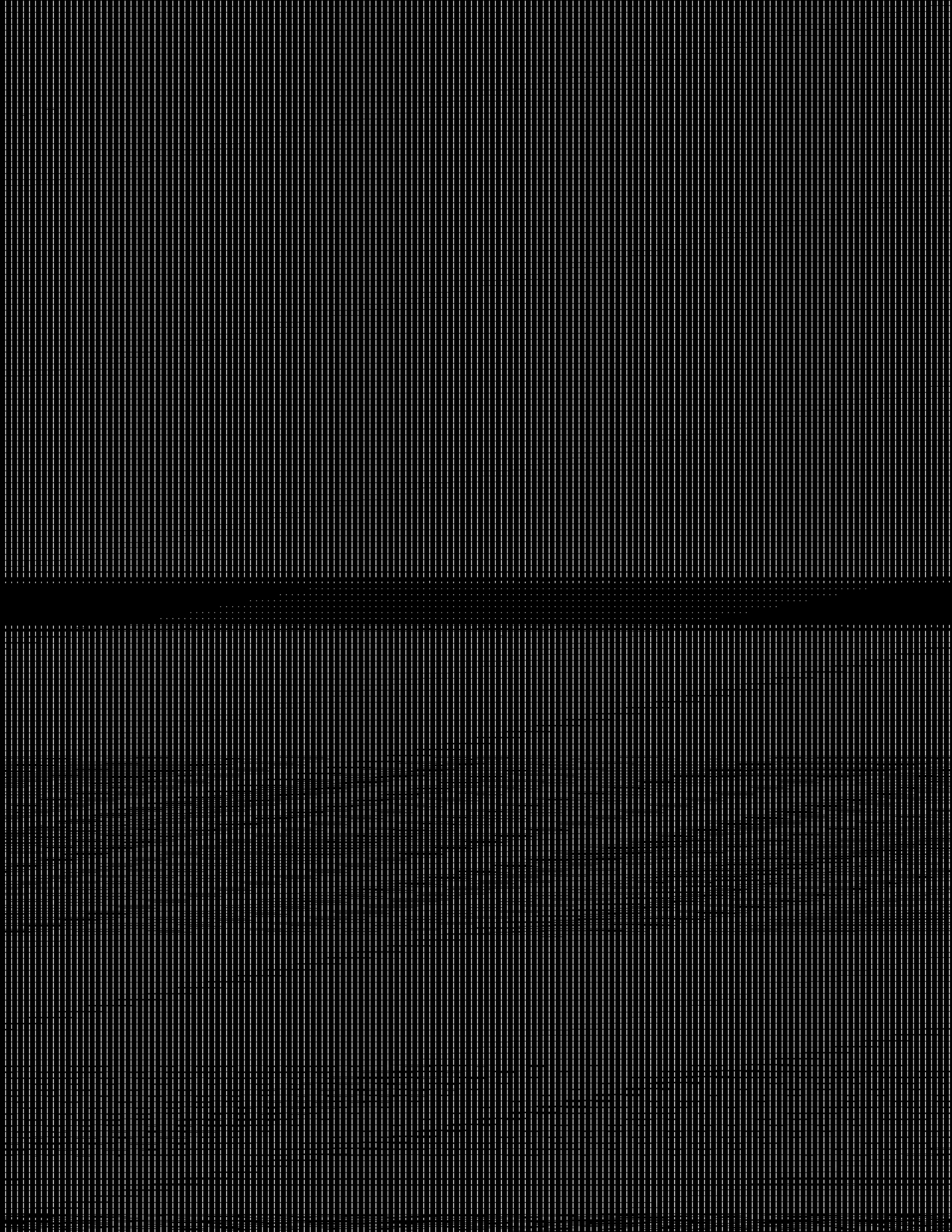


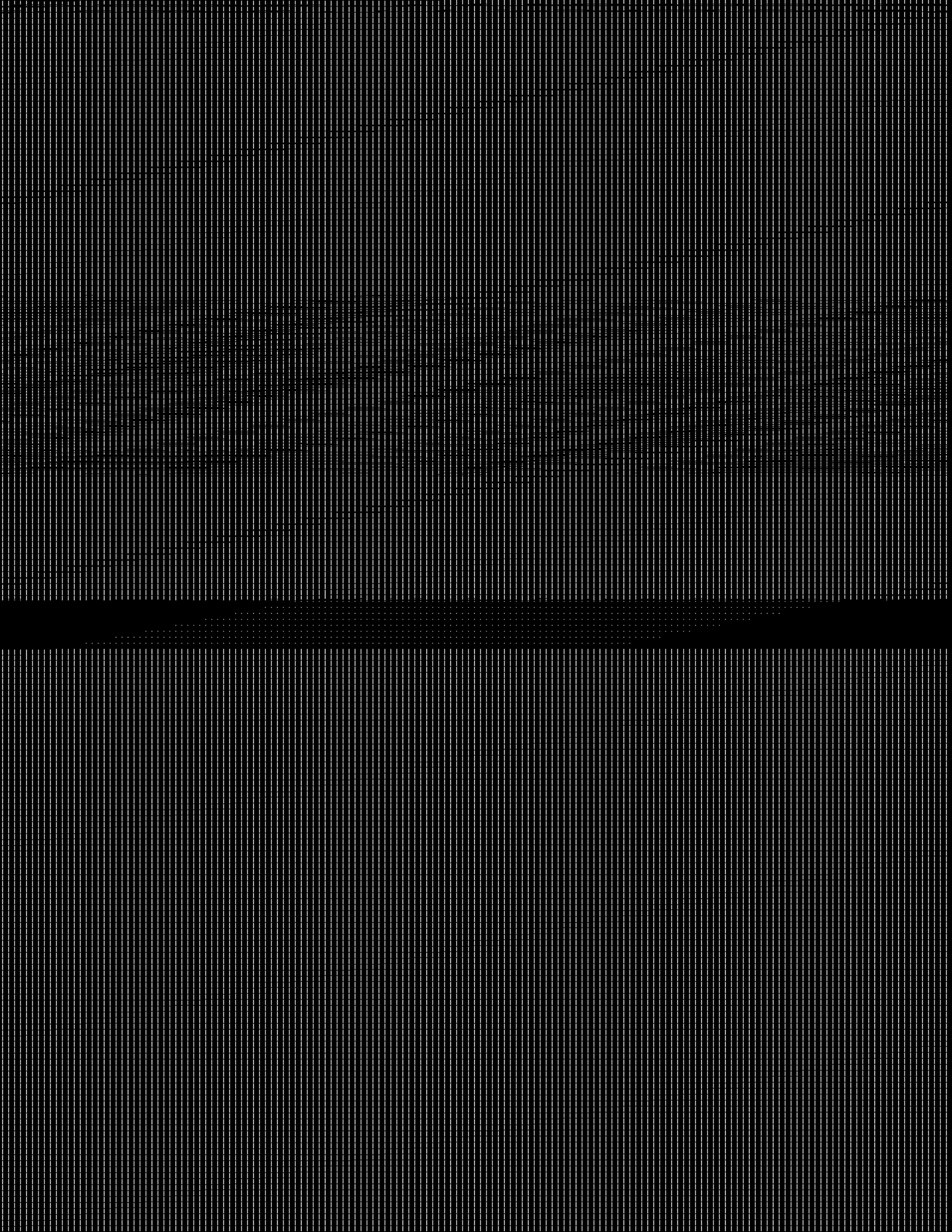
EXHIBIT C

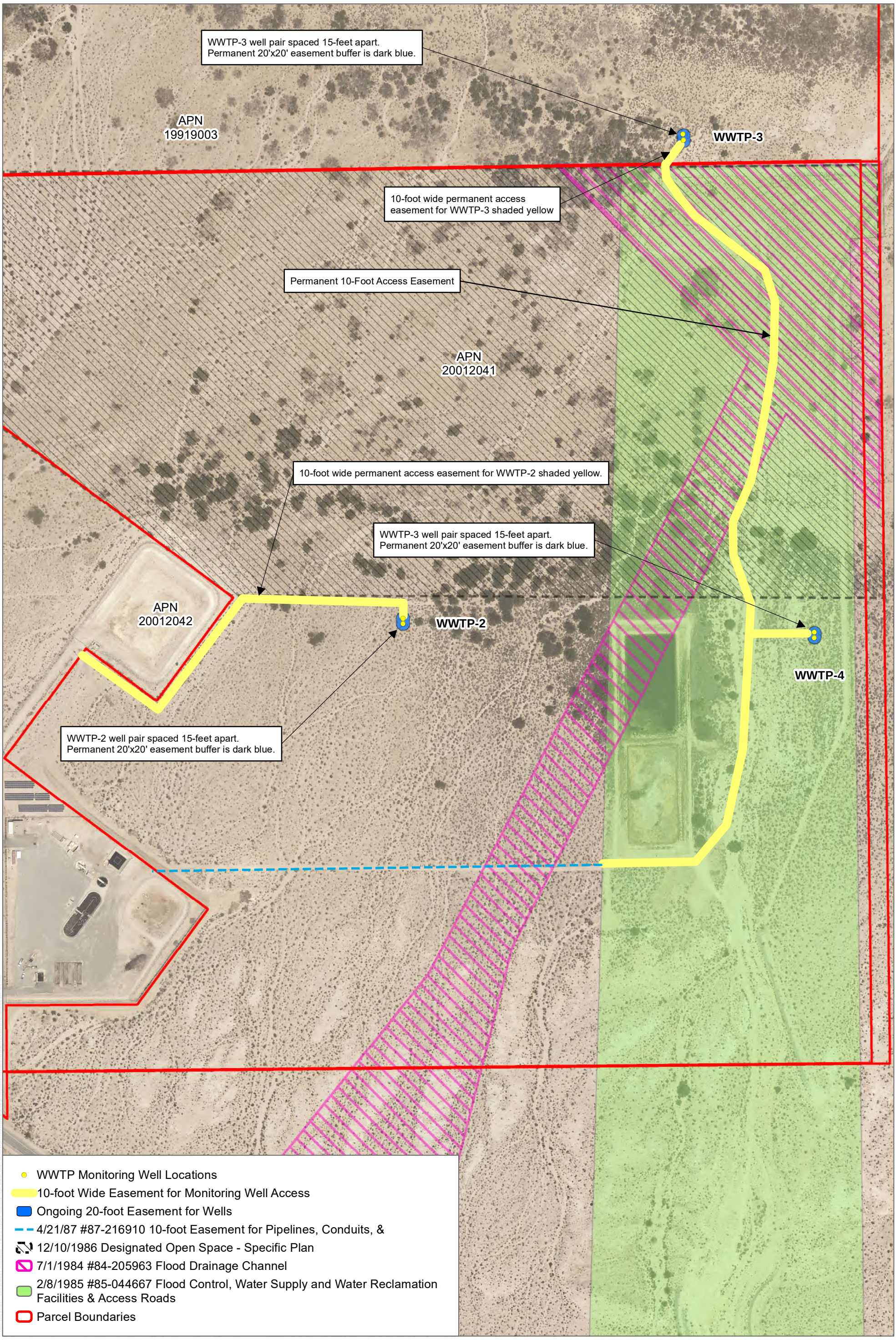
Parcel Map Showing Approved Well Locations and Access Roads











SOURCE: SANDAG & SanGIS

DUDEK

0 135 270 Feet

EXHIBIT B

Permanent Easement

Borrego Water District

Appendix B
Well Permit and Variance

PERMIT # LMWP-005876
A.P.N. #: 200-120-41-00
EST #: NONE

COUNTY OF SAN DIEGO
DEPARTMENT OF ENVIRONMENTAL HEALTH & QUALITY
LAND AND WATER QUALITY DIVISION
MONITORING WELL PROGRAM

MONITORING WELL CONSTRUCTION PERMIT

SITE NAME: 4861 BORREGO SPRINGS

SITE ADDRESS: 4861 BORREGO SPRINGS ROAD, BORREGO SPRINGS CA, 92004

PERMIT FOR: **CONSTRUCTION OF MONITORING WELLS (6)**

PERMIT APPROVAL DATE: 04/21/2023

PERMIT EXPIRES ON: 08/21/2023

RESPONSIBLE PARTY: BORREGO WATER DISTRICT (GEOFF POOLE)

PERMIT TERMS:

1. Wells must have a **minimum 3-foot concrete surface seal**. The surface seal shall consist of concrete able to withstand the maximum anticipated load without cracking or deteriorating. The concrete should meet Class A specifications of a minimum 4000-pound compressive strength. **Bentonite slurries are not an acceptable annular sealing material in the unsaturated zone.**

2. All water and soil resulting from the activities covered by this permit must be managed, stored and disposed of as specified in the SAM Manual in Section 5, II, D-4. In addition, drill cuttings must be properly handled and disposed in compliance with the Stormwater Best Management Practices of the local jurisdiction.

3. Within 60 days of completing work, submit a well construction report, including all well and/or boring logs and laboratory data to the Well Permit Desk. This report must include all items required by the SAM Manual, Section 5, Pages 6 & 7.

4. This office must be given 24-hour notice of any drilling activity on this site and advanced notification of drilling cancellation. Please contact the Well Permit Desk at (858) 505-6688.

NOTE: This permit does not constitute approval of a work plan as defined in Section 2722 of Article 11 of C.C.R., Title 23. Work plans are required for all unauthorized release investigations in San Diego County.

APPROVED BY: Sotele Briggs DATE: 04/21/2023
SOTELE BRIGGS

PERMIT APPLICATION
GROUNDWATER
AND VADOSE MONITORING WELLS
AND EXPLORATORY OR TEST BORINGS

OFFICE USE ONLY
PERMIT LMWP# 005876
SAM CASE Y/N # N/A
DATE RECEIVED: 04-18-23
FEE PAID: $ 2453
CHECK # ONLINE

A. RESPONSIBLE PARTY [1] Borrego Water District — E-mail Geoff@BorregoWD.org

Mailing Address 806 Palm Canyon Drive — City Borrego Springs — State CA Zip 92004

Contact Person Geoff Poole — Phone 760-767-5806 Ext.

INDEMNIFICATION OBLIGATION: To the fullest extent permitted by law, County shall not be liable for, and Responsible Party shall defend, indemnify and hold harmless the County and its Directors, officers, agents, employees and volunteers (collectively "County Parties"), against any and all actions, direct or third-party claims, deductibles, self-insured retentions, demands, liability, judgments, awards, fines, mechanics' liens or other liens, labor disputes, losses, damages, expenses, charges or costs of any kind or character, including attorneys' fees and court costs (hereinafter collectively referred to as "Claims"), which arise out of or are in any way connected to the issuance of this Permit or performance of any work pursuant to the Permit, including without limitation, any action brought to attack, set aside, void or annul the issuance of the Permit under the California Environmental Quality Act, Public Resources Code section 21000, et seq., or any other environmental law, and any action based on or alleging the damage, destruction, loss, or take of private property pursuant to Article I, Section 19, of the California Constitution or the Fifth Amendment to the U.S. Constitution, and further including, without limitation, any Claims caused by the sole passive negligence or the concurrent negligent act, error or omission, whether active or passive, of County Parties. Responsible Party shall have no obligation, however, to defend or indemnify County Parties from a Claim if it is determined by a court of competent jurisdiction that such Claim was caused by the sole active negligence or willful misconduct of County Parties.

RESPONSIBLE PARTY SIGNATURE: Geoff Poole DATED: 4-17-23

B. SITE ASSESSMENT PROJECT NUMBER – IF APPLICABLE #

C. CONSULTING FIRM DUDEK ENG.

Mailing Address 605 3RD ST — City ENCINITAS — State CA Zip 92024

Registered Professional Patrick Rentz — Phone 760-815-0143 Registration # 9150 (PG) CEG, RCE)

E-mail PRENTZ@DUDEK.COM

Contact Person PAT RENTZ — Phone 760 815-0143 Ext. — Email

D. DRILLING COMPANY Gregg Drilling, LLC — C57# 1044456

Contact Name Ryan Lea — E-mail rlea@greggdrilling.com

Mailing Address 2726 Walnut Ave — City Signal Hill — State CA Zip 90755

Phone 209-648-0345 Ext.

[1] Per San Diego County Code Section 67.402, the Responsible Party is any person who has, or who has contracted or otherwise caused to have, a monitoring well constructed, repaired, re-constructed or destroyed. Per this definition, the consultant and driller are not the Responsible Party. They are contracted by the Responsible Party.

E. CONSTRUCTION INFORMATION

TYPE OF WELLS/ BORINGS TO BE CONSTRUCTED

	#
☒ Groundwater	6
☐ Vadose	
☐ Boring	
☐ Soil Vapor	
☐ Other	

NUMBER OF WELLS TO BE DESTROYED

☐ Destruction ___

MATERIALS TO BE USED

CASING

Not Applicable ___
Type PVC
Gauge 80
Diameter 3
Screen Size 0.032
Filter Pack No. 3

SEAL/BORING BACKFILL

☐ Neat Cement
☒ Cement & Bentonite
☐ Sand-Cement
☐ Bentonite
☐ Other
Borehole diameter 8 5/8 in

Drilling Method

☐ Auger ☐ Air Rotary
☐ Direct Push ☒ Sonic
☐ Other ___ ☐ Percussion

PROPOSED CONSTRUCTION

Estimated Groundwater Depth: 30 ft.
Estimated Depth of Boring: 100 ft.
Concrete Seal: 0 to 3
Annular Seal: 88 to 0
Filter Pack: 100 to 88
Perforation: 100 to 90

NOTE: Attach a well construction diagram

I agree to comply with the requirements of the current Site Assessment and Mitigation Manual, and with all ordinances and laws of the County of San Diego and the State of California pertaining to well/boring construction and destruction.

DRILLER'S SIGNATURE _____ DATE 04-13-2023

Within 60 days of completion, I will furnish the Monitoring Well Permit Desk (858) 505-6688 with a complete well/boring log. I will certify the design and construction or destruction of the well/borings in accordance with the permit application.

PG/RCE/CEG SIGNATURE _____ DATE 4-18-2023

F. SITE INFORMATION - A Property Owner Consent agreement is required for all applications, except for onsite, open LOP/SAM site assessment cases, Caltrans properties and military properties. Submit a separate sheet for additional parcels.

1. ASSESSOR'S PARCEL NUMBER 200-120-41

Site Name ___
Site Address 4861 Borrego Springs Rd, City Borrego Springs Zip 92004

PROPERTY OWNER Borrego Water District
Phone 760-767-5806 Ext. ___ Fax ___
Mailing Address 806 Palm Canyon Drive City Borrego Springs State CA Zip 92004

NUMBER OF WELLS 4 **TYPE OF WELLS** Monitoring

2. ASSESSOR'S PARCEL NUMBER 199-190-03

Site Address 4861 Borrego Springs Rd, City Borrego Springs Zip 92004

PROPERTY OWNER Borrego Water District
Phone 760-767-5806 Ext. ___ Fax ___
Mailing Address 806 Palm Canyon Drive City Borrego Springs State CA Zip 92004

NUMBER OF WELLS 2 **TYPE OF WELLS** Monitoring

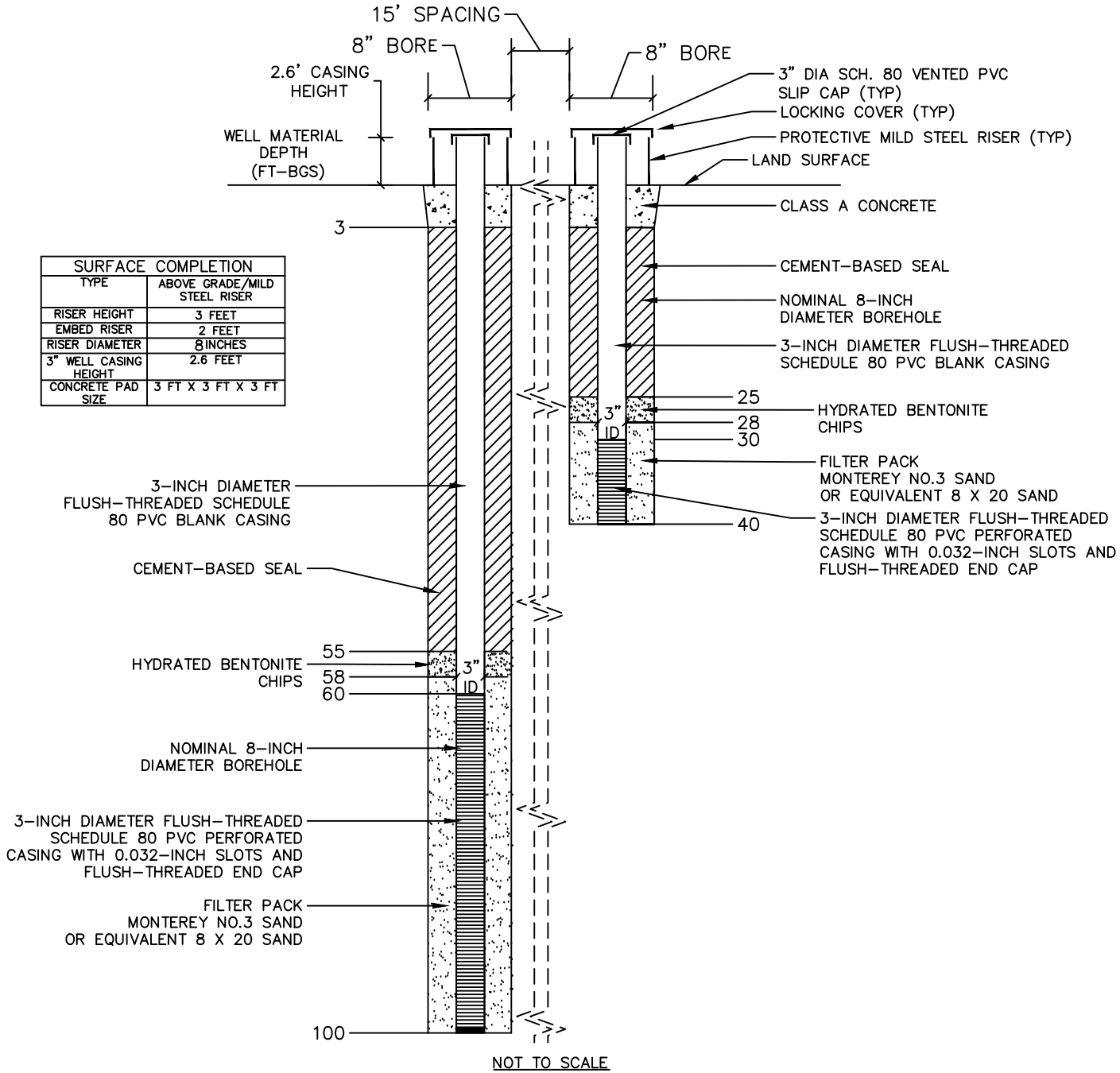
G. QUESTIONNAIRE: Please answer all applicable questions completely *and submit any required supportive documentation.*

1. What is the purpose of the well/boring investigation?

- ☒ a. Part of an ongoing site assessment case in which a government regulator is the lead agency. If yes, indicate which government regulator is the lead agency and the case number.
  - ☐ Department of Environmental Health & Quality _____
  - ☐ Regional Water Quality Control Board _____
  - ☐ Department of Toxic Substances Control _____
- ☐ b. Part of a Phase I investigation for property ownership transfer.
- ☐ c. Geotechnical investigation for proposed construction or land stabilization.
- ☐ d. Other: _____

2. If wells are to be destroyed, provide a description of method of destruction _____
3. Are you proposing a variation from current SAM Manual Requirements for the construction or destruction of borings, Vadose and/or Groundwater Monitoring Wells? If yes, specify these variations and include a well construction diagram and all required supporting documentation. Refer to the SAM Manual Appendix B for monitoring well guidelines. Yes ☐ No ☒

_____

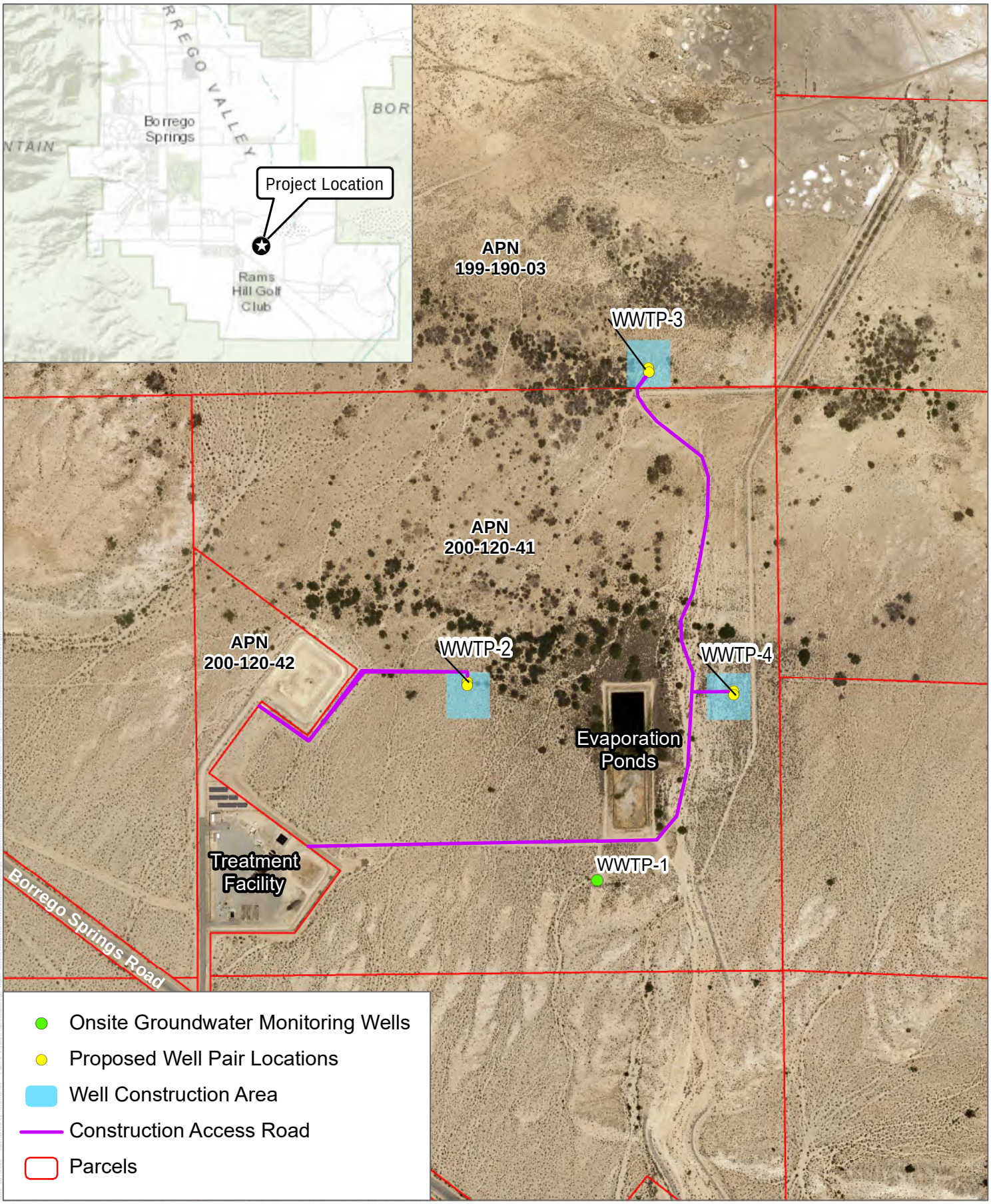


SURFACE COMPLETION	
TYPE	ABOVE GRADE/MILD STEEL RISER
RISER HEIGHT	3 FEET
EMBED RISER	2 FEET
RISER DIAMETER	8 INCHES
3" WELL CASING HEIGHT	2.6 FEET
CONCRETE PAD SIZE	3 FT X 3 FT X 3 FT

OPTIONAL TASK TO EXTEND EACH 8-INCH BOREHOLE AND WELL AN ADDITIONAL 40 FEET.

SCHEMATIC OF PROPOSED DESIGN FOR MONITORING WELL PAIRS WWTP-2, WWTP-3, AND WWTP-4

DUDEK



SOURCE: SANDAG & SanGIS

FIGURE 1

Project Vicinity Map

DUDEK

0 235 470 Feet

Drilling and Construction of Groundwater Monitoring Wells For Rams Hill Wastewater Treatment Facility

Hugh McManus

From: Patrick Rentz
Sent: Friday, April 28, 2023 10:28 AM
To: Hugh McManus
Subject: FW: DEH2023-LMWP-005876 | 4861 BORREGO SPRINGS ** Approved Permit
Attachments: Proposed Well Schematic_Variance Shallow Well.pdf

FYI – approved shallow completion for WWTP-4

See attached.

From: DEH, Monitoring Wells <MonitoringWells.DEH@sdcounty.ca.gov>
Sent: Friday, April 28, 2023 10:24 AM
To: Patrick Rentz <prentz@dudek.com>
Cc: Senaha, Jon <Jon.Senaha@sdcounty.ca.gov>
Subject: RE: DEH2023-LMWP-005876 | 4861 BORREGO SPRINGS ** Approved Permit

Good morning Pat,

Your proposal to construct a shallower monitoring well is approved. Please summarize your field efforts in the 60-day report.

Kind regards,

Garrett Tice
Environmental Health Specialist
County of San Diego
Dept. of Environmental Health
Land & Water Quality Division
Well Program
(858) 242-0868
Mon-Fri 7:30-4:00pm

From: Patrick Rentz <prentz@dudek.com>
Sent: Thursday, April 27, 2023 1:10 PM
To: Senaha, Jon <Jon.Senaha@sdcounty.ca.gov>
Cc: DEH, Monitoring Wells <MonitoringWells.DEH@sdcounty.ca.gov>
Subject: [External] RE: DEH2023-LMWP-005876 | 4861 BORREGO SPRINGS ** Approved Permit

Good afternoon,

Regarding the approved monitoring well drilling permit below (and attached for reference), based on real-time lithologic and drilling cuttings observations, we may need to complete the shallow well shallower than anticipated, and need to request a variance from the County.

Please see our shallow well design recommendation on the attached paired well design. Can we get county approval for this shallow well construction variance?

Thank you,

Pat

Patrick Rentz, PG, CHG
Senior Hydrogeologist
DUDEK
605 Third Street, Encinitas, CA 92024
O: 760.479.4105 C: 760.815.0143
www.dudek.com

From: Senaha, Jon <Jon.Senaha@sdcounty.ca.gov>
Sent: Friday, April 21, 2023 11:53 AM
To: Patrick Rentz <prentz@dudek.com>
Cc: DEH, Monitoring Wells <MonitoringWells.DEH@sdcounty.ca.gov>
Subject: RE: DEH2023-LMWP-005876 | 4861 BORREGO SPRINGS ** Approved Permit

Hello Patrick,
As part of the permit requirements, the Well Program (WP) requires a minimum 24-hour notification prior the well construction. If staff are available, they will go to the Site to observe. Otherwise, we depend on the consultant's 60-Day Drilling Report. After the 60-Day Drilling Report has been reviewed, WP staff will conduct the final inspection of the well and close out the permit.
Hope that makes sense.
Thanks,
Jon

Jon Senaha
Well Program
Land & Water Quality Division
Department of Environmental Health & Quality
858-505-6798

Help us make sure our customers have a positive experience. Please take 60 seconds to provide us with your feedback.

Water Wells : Monitoring Wells: Site Assessment and Mitigation Program : Document Library

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From: Patrick Rentz <prentz@dudek.com>
Sent: Friday, April 21, 2023 8:54 AM
To: Senaha, Jon <Jon.Senaha@sdcounty.ca.gov>

Cc: DEH, Monitoring Wells <MonitoringWells.DEH@sdcounty.ca.gov>
Subject: [External] FW: DEH2023-LMWP-005876 | 4861 BORREGO SPRINGS ** Approved Permit
Importance: High

Good Morning,

Please see driller's question below regarding County notification of monitoring well grout seal installations. Typically for the jobs I have been on, the drilling contractor constructs all the proposed monitoring wells, the completion report is submitted to the County who then performs an inspection after the fact. What are the County's requirements regarding inspection of the monitoring well annular grout seal installations during the construction process?

Also, to satisfy the 24-hour notification requirement: we plan to begin the drilling and construction of six (6) 3-inch diameter PVC monitoring wells in Borrego Springs starting this upcoming Monday (4/24) and will probably drill and construct one monitoring well per day.

Thank you,

Pat

Patrick Rentz, PG, CHG
Senior Hydrogeologist
DUDEK
605 Third Street, Encinitas, CA 92024
O: 760.479.4105 C: 760.815.0143
www.dudek.com

From: Ryan Lea <rlea@greggdrilling.com>
Sent: Friday, April 21, 2023 8:35 AM
To: Patrick Rentz <prentz@dudek.com>; geoff borregowd.org <geoff@borregowd.org>; roy borregowd.org <roy@borregowd.org>
Cc: Brian Savela <bsavela@greggdrilling.com>
Subject: FW: DEH2023-LMWP-005876 | 4861 BORREGO SPRINGS ** Approved Permit
Importance: High

Good morning – Please see attached for the approved permit for the sonic drilling scheduled on Monday. I will print out two copies and put it in the driller's packet. I also called in the drilling to start at 8:00 AM on Monday morning.

Patrick,
Are you familiar with the inspection process down there? I know we need to call in grout inspections up here in Northern California, but I'm not sure if we have to do that down there. Please give me a call to discuss. Thank you!

Ryan Lea
Gregg Drilling, LLC
950 Howe Road

Martinez, CA 94553
Mobile: (209) 648-0345
Office: (925) 313-5800
RLea@greggdrilling.com
www.greggdrilling.com

From: DEH, Monitoring Wells <MonitoringWells.DEH@sdcounty.ca.gov>
Sent: Friday, April 21, 2023 8:14 AM
To: DEH, Monitoring Wells <MonitoringWells.DEH@sdcounty.ca.gov>; Ryan Lea <rlea@greggdrilling.com>; Jasmine Alcorta <jalcorta@greggdrilling.com>
Subject: DEH2023-LMWP-005876 | 4861 BORREGO SPRINGS ** Approved Permit
Importance: High

Good morning Ryan,

I have attached the approved permit for the application you submitted to our Monitoring Well Program (MWP) Permit Desk. Just as a reminder, you must contact the Desk at 858-505-6688 or MonitoringWells.DEH@sdcounty.ca.gov with a **24-hour notification before you begin drilling,** which includes an **advance**

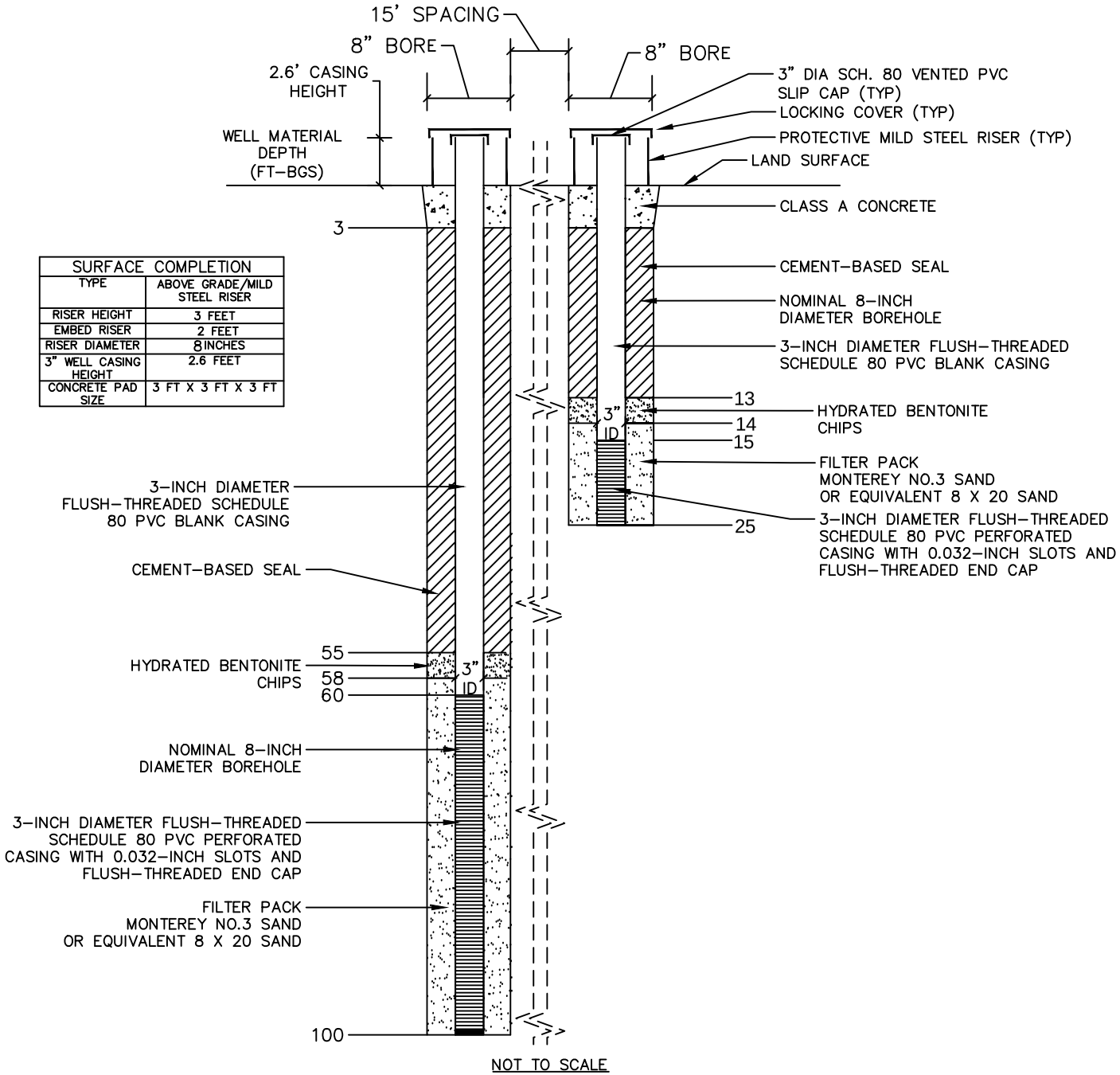
notice of cancellation. In addition, both the driller and consultant must keep a copy of the permit onsite at all times during the drilling operation. The Department of Environmental Health, Monitoring Well Program (MWP) has requested that the required drilling report be submitted within 60-days of completing

work at the drilling site. Thanks!

Warm Regards,

Sotele Briggs, Environmental Health Specialist
County of San Diego | Department of Environmental Health
Land and Water Quality Division | Well Program
5500 Overland Ave., Suite 170, San Diego, CA 92123
☎ (858) 688-9426 | sotele.briggs@sdcounty.ca.gov | MS: O-560
:: DEHQ website :: DEHQ Document Library :: Monitoring Wells :: Water Wells ::

Help us make sure our customers have a positive experience. Please take 60 seconds to provide us with your feedback.



SURFACE COMPLETION	
TYPE	ABOVE GRADE/MILD STEEL RISER
RISER HEIGHT	3 FEET
EMBED RISER	2 FEET
RISER DIAMETER	8 INCHES
3" WELL CASING HEIGHT	2.6 FEET
CONCRETE PAD SIZE	3 FT X 3 FT X 3 FT

OPTIONAL TASK TO EXTEND EACH 8-INCH BOREHOLE AND WELL AN ADDITIONAL 40 FEET.

SCHEMATIC OF PROPOSED DESIGN FOR MONITORING WELL PAIRS WWTP-2, WWTP-3, AND WWTP-4

DUDEK

Appendix C
Lithologic Logs

Project: **Borrego Water District - WWTP** Project Location: **Borrego Springs, California** Project Number: **11958**	Log of Boring WWTP-2 **Sheet 1 of 5**

Date(s) Drilled **4/24/2023-4/26/2023**	Logged By **HM and SL**	Checked By **Scott Little**
Drilling Method **Sonic**	Drill Bit Size/Type **8" diameter sonic bit**	Total Depth of Borehole **140**
Drill Rig Type **FS 250 Fraste Eljkelkamp**	Drilling Contractor **Gregg Drilling**	Approximate Surface Elevation **ground surface = 483.36' NAVD88.**
Groundwater Level and Date Measured **28.45' btoc 4/26/2023**	Sampling Method(s) **7" core barrel**	Hammer Data **NA**
Borehole Backfill **None**	Location **33.20993402, -116.3171108. Approximately 645 feet west of the evaporation ponds.**	

Depth (feet)	Material Type	Graphic Log	MATERIAL DESCRIPTION	REMARKS AND OTHER TESTS	Well Log
0	SM		Silty SAND, 7.5 YR 6/4 light brown, fine to coarse with trace gravel, sub-angular, dry, , 30% silt, 65% sand, 5% gravel.	4/24/23 9:39 Concrete 3'	
5	SM		Silty SAND with gravel, 7.5 YR 6/4 light brown, fine to coarse, sub-angular, dry, 60% sand, 30% silt, 10% gravel.	9:45	
	ML		Sandy clayey SILT, 5YR 6/6 reddish yellow, fine sand, semi-plastic, white nodules, dry, loose with nodules that are semi-compact, 50% silt, 30% sand, silt 20% clay.	9:54	
10	CL		Sandy CLAY, Gley 1 7/1 light greenish gray, fine to coarse, angular to sub-angular, white deposits, compact, dense, plastic, dry, 60% clay, 40% sand.	9:56 Neat cement	
	SM		Silty SAND with gravel and clay, 7.5YR 5/3 brown, fine to coarse, angular to sub-angular, semi-compact, chunks of dense sand, semi plastic, white deposits, some larger angular quartz/feldspar gravels, dry, 60% sand, 20% silt, 10% gravel, 10% clay, few cobbles.	10:03 driller notes hole caving in at 16' BGS, driller having trouble advancing, casing stuck pause drilling for the day.	
15	SW		Well graded SAND with silt and gravel, 10YR 5/3 brown, trace cobbles, sub-rounded gravel, sub-angular sand, moist, no odor, <5% cobbles.	4/25/23 9:04, driller added water for trouble shooting. 9:10	
20	SP		Poorly graded SAND, 10YR 5/3 brown, fine to medium, sub-angular, moist, trace gravel and silt, 90% sand, 5% gravel, 5% silt.	9:19 3" SCH 80 blank PVC casing	
	SP		Poorly graded SAND with silt, 10YR 5/3 brown, fine to medium, sub-angular to sub-rounded, moist, trace gravel, 90%-85% sand, 10% silt, <5% gravel.	9:22 9:28	
25	CL		CLAY, Gley 1 6/5GY greenish gray, moist, plastic, dense, .	9:30 9:35	
30					

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Project: **Borrego Water District - WWTP**
Project Location: **Borrego Springs, California**
Project Number: **11958**

Log of Boring WWTP-2

Sheet 2 of 5

Depth (feet)	Material Type	MATERIAL DESCRIPTION	REMARKS AND OTHER TESTS
30	CL	Same as above with sand, fine sand, moist, plastic, less dense more silt, 85% clay, 15% sand.	
	SC	Clayey SAND, 5Y 4/2 olive grey, fine to medium, lenses of dense sandy clay with brown patches and white evaporites, angular to sub-angular, moist, no odor.	
35	SW	Well graded SAND, 10YR 6/4 light yellow brown, fine to coarse, angular to sub-angular, moist.	9:40
	SM-SC	Clayey silty SAND, 5Y 5/2 olive gray, fine to coarse, semi-compacted, low plasticity, sub-angular, moist, brown streaks and white evaporites, brittle when dry, moist, 50% sand, 25% clay, 25% silt.	9:54
	CL	Sandy CLAY, 5Y 5/1 gray, fine to coarse, lenses of fine sand, plastic, dense, brittle, 60% clay, 40% sand.	9:59
40	CL	Sandy CLAY, 5Y 5/2 olive gray, plastic, brittle when dry, white evaporites, dry.	
45			Neat cement
	CL	Sandy CLAY, 10YR 4/2 dark grayish brown, fine to medium, hard, brittle, slightly moist, 55% clay, 45% sand.	
	CL	Sandy CLAY, 7.5YR 5/4 brown, fine sand, hard, dense, plastic when wet, slightly moist, cemented, 20%-30% sand.	10:17
50			
55			
	SM	Silty SAND with clay, 5Y 5/2 olive gray, fine to medium, angular to sub-angular, saturated, no plasticity, sticky, 70% sand, 20% silt, 10% clay.	10:42 driller thinks may be sluff.
	CL	Silty CLAY, 5YR 4/3 reddish brown, dense, plastic, dry, cemented, 75% clay, 25% silt.	10:54
60			
	CL	Sandy silty CLAY, 5Y 5/2 olive gray, dry, brittle, dense, fine sand, plastic, cemented, 50% clay, 30% silt, 20% sand.	11:15
	CL	Silty CLAY, 5YR 5/3 reddish brown, hard, brittle, plastic	11:16
65			

Well Log

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Project: **Borrego Water District - WWTP**
Project Location: **Borrego Springs, California**
Project Number: **11958**

Log of Boring WWTP-2

Sheet 3 of 5

Depth (feet)	Material Type	Graphic Log	MATERIAL DESCRIPTION	REMARKS AND OTHER TESTS	Well Log
65	CL		Silty CLAY, 5YR 5/3 reddish brown, hard, brittle, plastic when wet, dry, cemented, 80% clay, 20% silt.	11:52	
	CL		CLAY, 10YR 5/2 grayish brown, dense, dry, plastic when wet, cemented.	11:53	
70				11:55	
	CL		CLAY with sand, 2.5Y 6/1 gray, sand is fine to medium,	13:27 slow drilling	
75			angular, cemented, vey hard, dry, similar clay as above with cemented sands, white evaporate deposits.		
				13:31	
80				13:34	Neat cement
	SP		Poorly graded SAND, 5Y 6/1 gray, fine to medium, mostly fine, angular, cemented, reacts to HCl, dry.	13:42	
	SP		Poorly graded SAND with clay, 5Y 5/2 olive gray, fine to coarse, mostly fine, angular to sub-angular, cemented,	13:53	
85			dense, dry, reacts to HCl, 90% sand, 10% clay.		
	SP		Same as above, slightly moist.		
	CL		Sandy CLAY, 5Y 4/2 olive gray, plastic, dense, moist, sand is fine, 1' lens of saturated sand, reacts with HCl, 80% clay, 20% sand.		
90	CL		Sandy CLAY, same as above, iron staining in laminations, reacts with HCl.		
				14:32	
	SP		Poorly graded SAND with clay, 2.5Y 5/3 olive brown,	14:36	
95			semi-consolidated, fine to medium, angular to sub-angular, slightly moist, reacts with HCl, 90% sand, 10% clay.	14:45	
	CL		Sandy CLAY, 5Y 6/2 light olive gray, white evaporites, plastic, fine to coarse, sub-angular, reacts with HCl, 60% clay, 40% sand.	14:50	
100					

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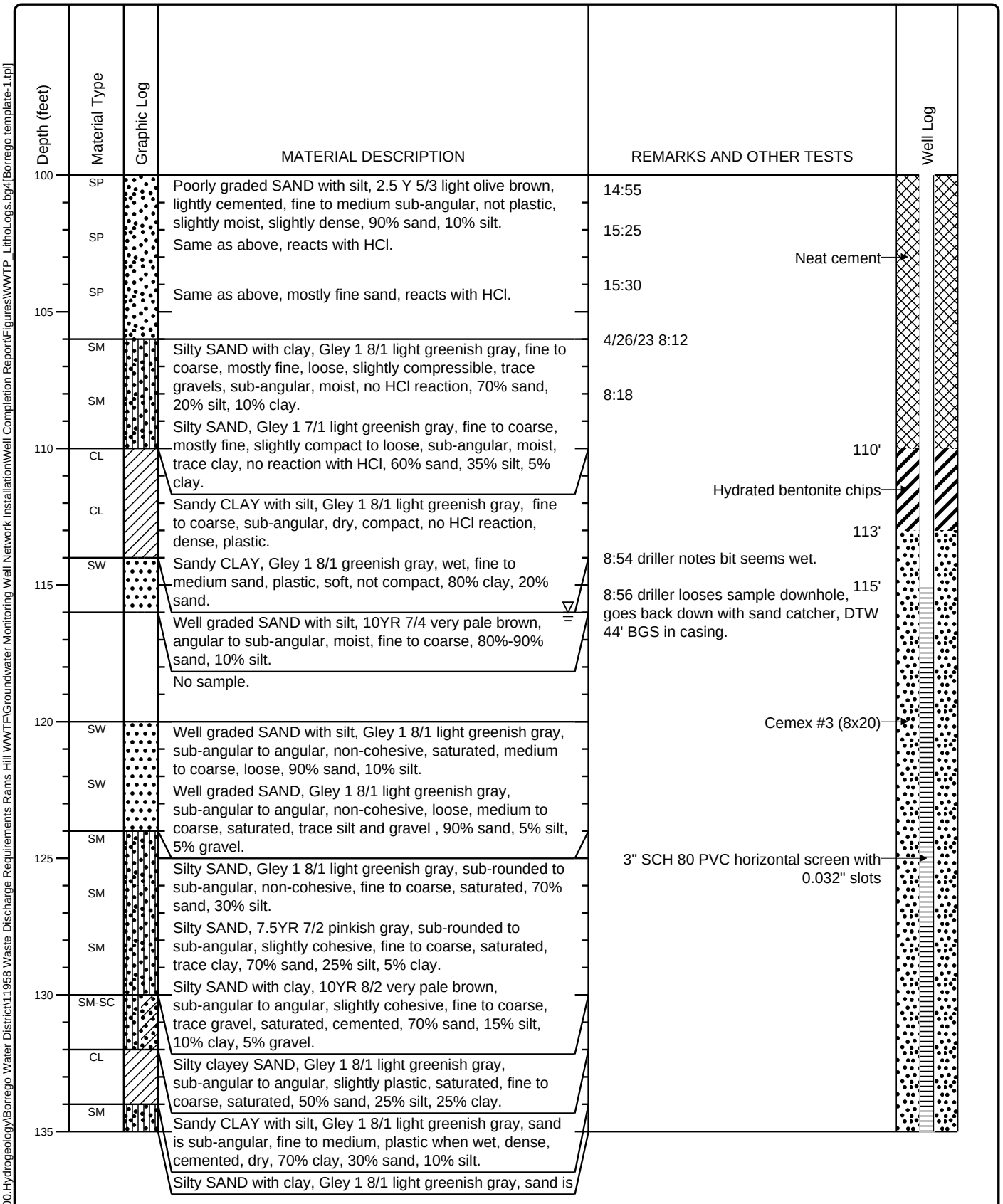
Project: **Borrego Water District - WWTP**

Project Location: **Borrego Springs, California**

Project Number: **11958**

Log of Boring WWTP-2

Sheet 4 of 5



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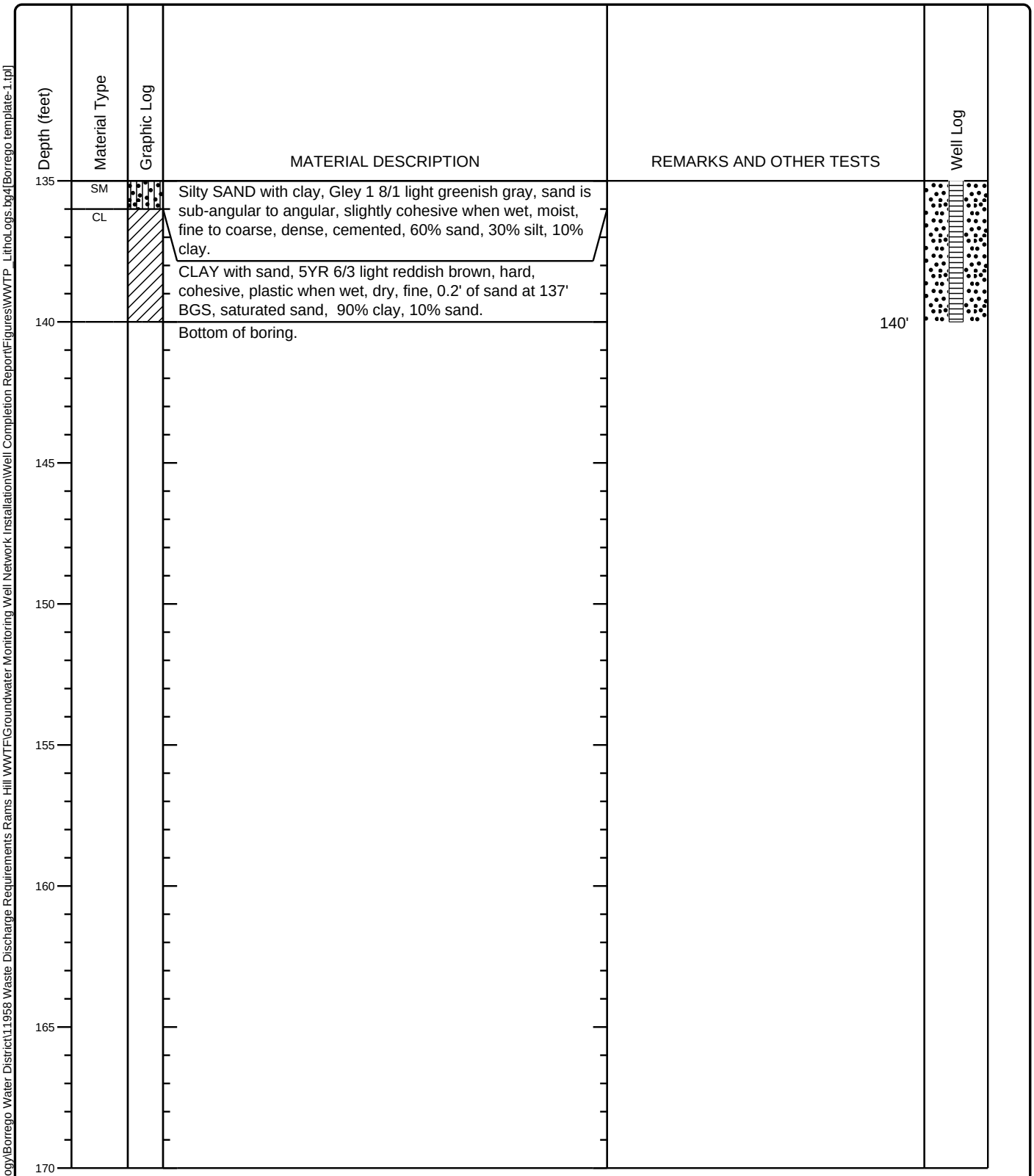
Project: **Borrego Water District - WWTP**

Project Location: **Borrego Springs, California**

Project Number: **11958**

Log of Boring WWTP-2

Sheet 5 of 5



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Project: **Borrego Water District - WWTP** Project Location: **Borrego Springs, California** Project Number: **11958**	Log of Boring WWTP-3 **Sheet 1 of 5**

Date(s) Drilled **5/22/2023-5/24/2023**	Logged By **HM**	Checked By **Scott Little**
Drilling Method **Sonic**	Drill Bit Size/Type **8" diameter sonic bit**	Total Depth of Borehole **140**
Drill Rig Type **Faste Eijkelkamp MPS-XL Max track-mounted sonic drill rig**	Drilling Contractor **Gregg Drilling**	Approximate Surface Elevation **ground surface = 460.85' NAVD88**
Groundwater Level and Date Measured **53.3' btoc 5/24/2023**	Sampling Method(s) **6" core barrel**	Hammer Data **NA**
Borehole Backfill **140' to 72' bgs**	Location **33.21371995, -116.3145624. Approximately 1,426 feet north of the evaporation ponds**	

Depth (feet)	Material Type	Graphic Log	MATERIAL DESCRIPTION	REMARKS AND OTHER TESTS	Well Log
0	SM		Silty SAND, 10YR 6/3 pale brown, fine to coarse, sub-angular, trace gravel, dry, loose, some organics, not plastic, 60% sand, 40% silt.	10:00 Start	Concrete, 3'
5	SM		Same as above.		
	SM		Same as above, with sub-rounded to sub-angular gravel, increase in gravel.	10:15	
10	SM		Silty SAND, 10YR 7/3 very pale brown, trace gravels, fine to medium sand, no plasticity, dry, loose, 50% sand, 45% silt, 5% gravel.	Neat cement grout	
	SM		Silty SAND, 7.5YR 5/4 brown, soft, not plastic, loose, dry, fine to medium, mostly fine, 60% sand, 40% silt.	10:40	
15	CL		Silty CLAY, 5Y 4/2 olive gray, dense, dry, some iron staining, plastic when wet, dry, brittle, reacts with HCl, 20% silt in lighter color areas.		
20	CL		Same as above, increasing silt, silt in laminations, reacts to HCl, 60% clay, 40% silt.	3" SCH 80 PVC blank casing	
	CL		Same as above, dense silt, reacts with HCl, 70% clay, 30% silt.		
25	CL		CLAY with sand, 5Y 4/2 olive gray, dense, plastic, fine to medium sand, dry, plastic when wet otherwise brittle, reacts with HCl.		
	SM		Silty SAND, 5Y 5/3 olive, dry, fine to medium, sub -angular, semi-consolidated, reacts with HCl, 80% sand, 20% silt.	11:04	
30					

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Project: **Borrego Water District - WWTP**
Project Location: **Borrego Springs, California**
Project Number: **11958**

Log of Boring WWTP-3

Sheet 2 of 5

Depth (feet)	Material Type	Graphic Log	MATERIAL DESCRIPTION	REMARKS AND OTHER TESTS	Well Log
30	SM		Silty SAND, 7.5YR 6/3 light brown, dry, consolidated, fine to medium, sub-angular, white evaporite deposits, reacts with HCl, 60% sand, 40% silt.		
	SM		Silty SAND with clay, 7.5YR 7/3 pink, lenses of red plastic clay, dry, fine to coarse, white evaporates, semi-consolidated, reacts with HCl, 60% sand, 30% silt, 10% clay.		
35	CL		CLAY, 5YR 5/4 reddish brown, plastic, dry, consolidated, brittle when dry, white evaporites.		
	ML		Sandy clayey SILT, 10YR 5/2 grayish brown, laminated biotite, some plasticity, fine sand, consolidated, dry, 50% silt, 25% sand, 25% clay.		
40	CL		CLAY, 5YR 5/3 reddish brown, dense, white evaporite deposits, some iron staining, plastic when wet, dry reacts with HCl.		
	CL		Same as above with silt.		
45	CL-ML		Silty CLAY / clayey SILT, 5YR 5/3 reddish brown, consolidated, dry, dense, plastic when wet, brittle, reacts with HCl, 2" lens of dry olive sand, 50% silt, 50% clay.	45' Hydrated bentonite chips	
	CL-ML		Same as above with no sand lens.	12:10 Pause for lunch 12:50 resume 48'	
50	SP		Poorly graded SAND with silt, 5Y 3/2 dark olive gray, fine to medium, loose, moist, slight reaction to HCl, 90% sand, 10% silt	50' Casing at 50', sample collected to 60' BGS.	
	SP		Poorly graded SAND with silt, 10YR 4/4 dark yellowish brown, moist-damp, may be water, fine to medium, 90% sand, 10% silt.	Tag DTW in casing at 59' BGS, water level rising.	
55	SW		Well graded SAND, 2.5Y 4/2 dark grayish brown, wet, loose, multi-color sand, fine to coarse, sub-angular to sub-rounded.	Cemex #3 (8x20) filter pack	
	SM		Silty SAND with clay, 2.5Y 4/3 olive brown, fine to medium, sub-angular, clay nodules, slightly wet, slight HCl reaction, semi-consolidated, 70% sand, 20% silt, 10% clay.	Wet- does not appear to be saturated but is holding water.	
60	SP		Poorly graded SAND, 2.5Y 4/1 dark gray, fine to medium, wet, sub angular to angular, no HCl reaction.		
	SP		Poorly graded SAND with clay, 2.5Y 4/1 dark gray, fine to medium, sub-angular, wet, no HCl reaction, clay in nodules and not throughout sample.	3" SCH 80 PVC screen with 0.032" slots	
65					

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Project: **Borrego Water District - WWTP**
Project Location: **Borrego Springs, California**
Project Number: **11958**

Log of Boring WWTP-3

Sheet 3 of 5

Depth (feet)	Material Type	MATERIAL DESCRIPTION	REMARKS AND OTHER TESTS
65	SP	Poorly graded SAND with clay, 2.5Y 4/1 dark gray, fine to medium, sub-angular, wet, no HCl reaction, clay in nodules and not throughout sample.	Cuttings stuck in bit.
	CL	CLAY, 5YR 4/3 reddish brown, dense red clay, dry, brittle.	At 75' driller notes groundwater.
70	CL	CLAY with silt, 5YR 4/3 reddish brown, silt is interbedded with clay and is olive gray, both are very dense and dry,	14:35 tag DTW at 57.5, rising water in drill casing.
	CL	CLAY, 5YR 4/3 reddish brown, dense, dry, brittle.	
75	CL-ML	CLAY and SILT, interbedded red clay and olive silt, clay is 5YR 4/3 reddish brown, dense, dry, silt is 2.5Y 4/3 olive brown, soft, dry.	
	SP	Poorly graded SAND with silt, 5Y 4/3 olive gray, moist, loose, medium to fine, sub-angular, no reaction with HCl.	15:00
80	CL-ML	Silty CLAY / clayey SILT, 5Y 4/2 olive gray, some plasticity, dense, dry, laminated, slight reaction with HCl, few 1" sand lenses.	
	ML	Sandy clayey SILT, 5Y 4/2 olive gray, fine sand, laminated with load structures some plasticity, slightly moist.	
85	CL	CLAY, 5YR 4/4 reddish brown, very dense, dry, white evaporites, some cemented sand nodules imbedded.	
	ML	Sandy clayey SILT, 5Y 4/2 olive gray, dense, fine sand, some plasticity, slightly moist-dry, laminated with load structures, abundant biotite, 50% silt, 30% sand, 20% clay.	15:34
90	CL	CLAY, 7.5YR 3/2 dark brown, dense, plastic when wetted, dry, strong HCl reaction.	
	CL	Silty CLAY, 5YR 4/4 reddish brown, dense, less plastic than above, dry, heavy HCl reaction 75% clay, 25% silt.	15:57
95	CL	Sandy silty CLAY, 10YR 4/3 brown, hard and dense cemented, medium to fine, white evaporites, HCl reaction, dry, 50% clay, 30% sand, 20% silt.	
	SW	Well graded SAND with clay and silt, 5Y 4/2 olive gray, wet to saturated fine to coarse, pink lenses of fine sand, semi-consolidated, 80% sand, 10% clay, 10% silt.	
100			

Well Log: 70' · 72' · Bentonite pellets · 82' · Neat cement grout

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Project: **Borrego Water District - WWTP**
Project Location: **Borrego Springs, California**
Project Number: **11958**

Log of Boring WWTP-3
Sheet 4 of 5

Depth (feet)	Material Type	MATERIAL DESCRIPTION	REMARKS AND OTHER TESTS
100	CL	CLAY with sand, 5YR 4/3 reddish brown, dense, slightly moist, compact, hard white evaporite deposits, brittle, reacts with HCl dry, 90% clay, 10% sand.	5/23/23
	CL	Silty sandy CLAY, 5YR 5/4 reddish brown, dense, brittle, dry, compact, some evaporite deposits, olive color silt, 50% clay, 25% sand, 25% silt.	
105	CL	Sandy CLAY, 5YR 4/3 reddish brown, cemented, hard, dense, dry, white evaporites, fine to medium sand, reacts with HCl, 60% clay, 40% sand.	7:35
	CL	CLAY, 2.5Y 5/3 light olive brown, dense, hard, plastic, dry, reacts with HCl.	
110	CL	Sandy CLAY, 5YR 5/4 reddish brown, fine to medium sand, plastic when wet, dry, hard, dense white evaporite deposits, reacts to HCl, 70% clay, 30% sand.	
	CL	Same as above.	
115	CL	Same as above, sample crumbles, less evaporites.	8:15 Neat cement grout
	CL	Same as above, calcite deposits.	
120	CL	CLAY, 5YR 4/4 reddish brown, dry, dense, plastic, some white evaporites.	
125			
130	CL	Sandy CLAY, 10YR 5/3 brown, compact, less dense than previous samples, slightly moist, plastic, fine sand, reacts with HCl, 65% clay, 35% sand.	
	CL	Sandy CLAY, 5YR 5/3 reddish brown, compact, fine sand, slightly moist, fine compact sand lenses, reacts with HCl, 60% clay, 40% sand.	Tag DTW at 107' BGS.
135			

Graphic Log

Well Log

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Project: **Borrego Water District - WWTP**

Project Location: **Borrego Springs, California**

Project Number: **11958**

Log of Boring WWTP-3

Sheet 5 of 5

Depth (feet)	Material Type	Graphic Log	MATERIAL DESCRIPTION	REMARKS AND OTHER TESTS	Well Log
135	SP		Poorly graded SAND, 7.5YR 5/3 brown, fine sand, compact, moldable, reacts with HCl, slightly moist, 75% sand, 25% clay.		
	SP		Same as above, increase in sand to 85%, laminated sand.	Neat cement grout	
140			Bottom of Boring.	140'	
145					
150					
155					
160					
165					
170					

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Project: **Borrego Water District - WWTP** Project Location: **Borrego Springs, California** Project Number: **11958**	Log of Boring WWTP-4D **Sheet 1 of 5**

Date(s) Drilled **4/27/2023-4/28/2023**	Logged By **HM and SL**	Checked By **Scott Little**
Drilling Method **Sonic**	Drill Bit Size/Type **8" diameter sonic bit**	Total Depth of Borehole **140**
Drill Rig Type **FS 250 Fraste Eljkelkamp**	Drilling Contractor **Gregg Drilling**	Approximate Surface Elevation **ground surface = 474.01' NAVD88**
Groundwater Level and Date Measured **30' btoc 4/28/2023**	Sampling Method(s) **7" diameter and 6" diameter core barrel**	Hammer Data **NA**
Borehole Backfill **52'-140' Neat Cement**	Location **33.20985663, -116.3130227. Approximately 460 feet east of the evaporation ponds.**	

Depth (feet)	Material Type	Graphic Log	MATERIAL DESCRIPTION	REMARKS AND OTHER TESTS	Well Log
0	SM		Silty SAND,10YR 7/4 very pale brown, fine to coarse with trace gravel, dry, angular to sub-angular, 80% sand, 15% silt, 5% gravel.	Concrete	Concrete
	SM		Silty SAND, 10YR 6/6 brownish yellow, fine to coarse with trace gravel, dry, angular to sub-angular, 80% sand, 20% silt.	3'	
	SM		Silty SAND, 10YR 6/6 yellowish brown, fine to coarse with trace gravel, dry, angular to sub-angular, 80% sand, 20% silt.		
5	SC		Clayey SAND with silt, 10YR 5/4 yellowish brown, fine to coarse with trace gravel, cohesive when wet, slightly moist, sub-angular, 60% sand, 25% clay, 10% silt, 5% gravel.	Neat cement	
	SM		Silty SAND with clay, 10YR 5/4 yellowish brown, fine to medium sand, slightly cohesive, moist, sub-angular, 50% sand, 30% silt, 10% clay.	8:25	
10	SM		Silty SAND with clay, 10YR 5/4 yellowish brown, fine, slightly cohesive, moist, sub-angular, 50% sand, 30% silt, 10% clay.		
	SM		Silty SAND with clay, 10YR 3/3 brown, fine to medium sand, slightly cohesive, moist, sub-angular, 50% sand, 30% silt, 10% clay.	3" SCH 80 blank PVC casing	
15			No sample.		
	SW		Well graded SAND with silt, 10YR 3/3 brown, fine to coarse, not cohesive, wet, sub-rounded to angular, 90% sand, 10% silt.		
20	SW		Well graded SAND with silt and gravel, 10YR 5/4 yellowish brown, fine to coarse with gravel, not cohesive, wet, sub-rounded to angular, 80% sand, 10% silt, 10% gravel.	8:40 8:45	
	SM		Silty SAND, 7.5YR 5/4 brown, fine to medium, not cohesive, moist, sub-angular to sub-rounded, trace gravel, 70% sand, 25% silt, 5% gravel.		
	SM		Silty SAND, 7.5YR 5/4 brown, fine to medium, not cohesive, saturated, sub-angular to sub-rounded, trace gravel, 70% sand, 25% silt, 5% gravel.		
25	SP		Poorly graded SAND, 7.5YR 6/4 light brown, coarse, not cohesive, saturated, sub-angular, trace gravel , 95% sand, 5% gravel.		
	CL		CLAY, Gley 1 5/1 greenish gray, wet, reacts with HCl, plastic,100% clay.		
30					

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Project: **Borrego Water District - WWTP**
Project Location: **Borrego Springs, California**
Project Number: **11958**

Log of Boring WWTP-4D

Sheet 2 of 5

Depth (feet)	Material Type	Graphic Log	MATERIAL DESCRIPTION	REMARKS AND OTHER TESTS	Well Log
30	CL		CLAY, Gley 1 5/1 greenish gray, wet, reacts with HCl, plastic,100% clay.	30' Medium bentonite chips	
	SW		Well graded SAND with silt and clay, Gley 1 6/1 greenish grey, fine to coarse, sub-angular to sub-rounded, moist, slightly cohesive, trace gravel, reacts with HCl, 80% sand, 10% silt, 10% clay.	9:10 33' 9:15	
	SP		Poorly graded SAND, 7.5YR 5/4, fine, sub-rounded, not cohesive, loose, saturated, reacts with HCl.	35'	
35					
40				3" SCH 80 PVC screen casing with 0.032" Slots	
45				Cemex #3 (8x20) filter pack	
50	CL		CLAY, 5YR reddish brown, highly plastic, reacts with HCl, 6" of poorly graded sand at 55'.	50' 51 Medium bentonite chips 52'	
55	CL		Same as above, white evaporite, reacts with HCl at 57', black streak present.	9:50	
60				Neat cement grout	
65					

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Project: **Borrego Water District - WWTP**
Project Location: **Borrego Springs, California**
Project Number: **11958**

Log of Boring WWTP-4D

Sheet 3 of 5

Depth (feet)	Material Type	Graphic Log	MATERIAL DESCRIPTION	REMARKS AND OTHER TESTS	Well Log
65	CL		Same as above, white evaporite, reacts with HCl at 57', black streak present.		
	CL		Same as above, sample fractures along evaporite surfaces, iron staining at fracture sites.		
70					
75				10:29 Hard drilling at 79'	
80				Neat cement grout →	
85					
	CL		CLAY, same as above, hard.	13:18	
	CL		Same as above, 1" section of saturated soft silty clay.		
90					
95				Driller changes bit to 6" diameter.	
	CL		CLAY, 5YR 5/4 reddish brown, sample crumbles compared to previous samples, may be due to core barrel size change, slightly moist, stiff, patches of oxidation and green clay.		
100					

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Project: **Borrego Water District - WWTP**
Project Location: **Borrego Springs, California**
Project Number: **11958**

Log of Boring WWTP-4D

Sheet 4 of 5

Depth (feet)	Material Type	Graphic Log	MATERIAL DESCRIPTION	REMARKS AND OTHER TESTS	Well Log
100	CL		CLAY, 5YR 5/4 reddish brown, sample crumbles compared to previous samples, may be due to core barrel size change, slightly moist, stiff, patches of oxidation and green clay.		
				Slow drilling	
105				14:40	
110					
115				Neat cement grout →	
	CL		Same as above, 116'-120' more brittle.	15:20	
120					
125				15:49	
130					
135	CL		Sandy CLAY, 5YR 5/4 reddish brown, firm, dry, fine sand,		

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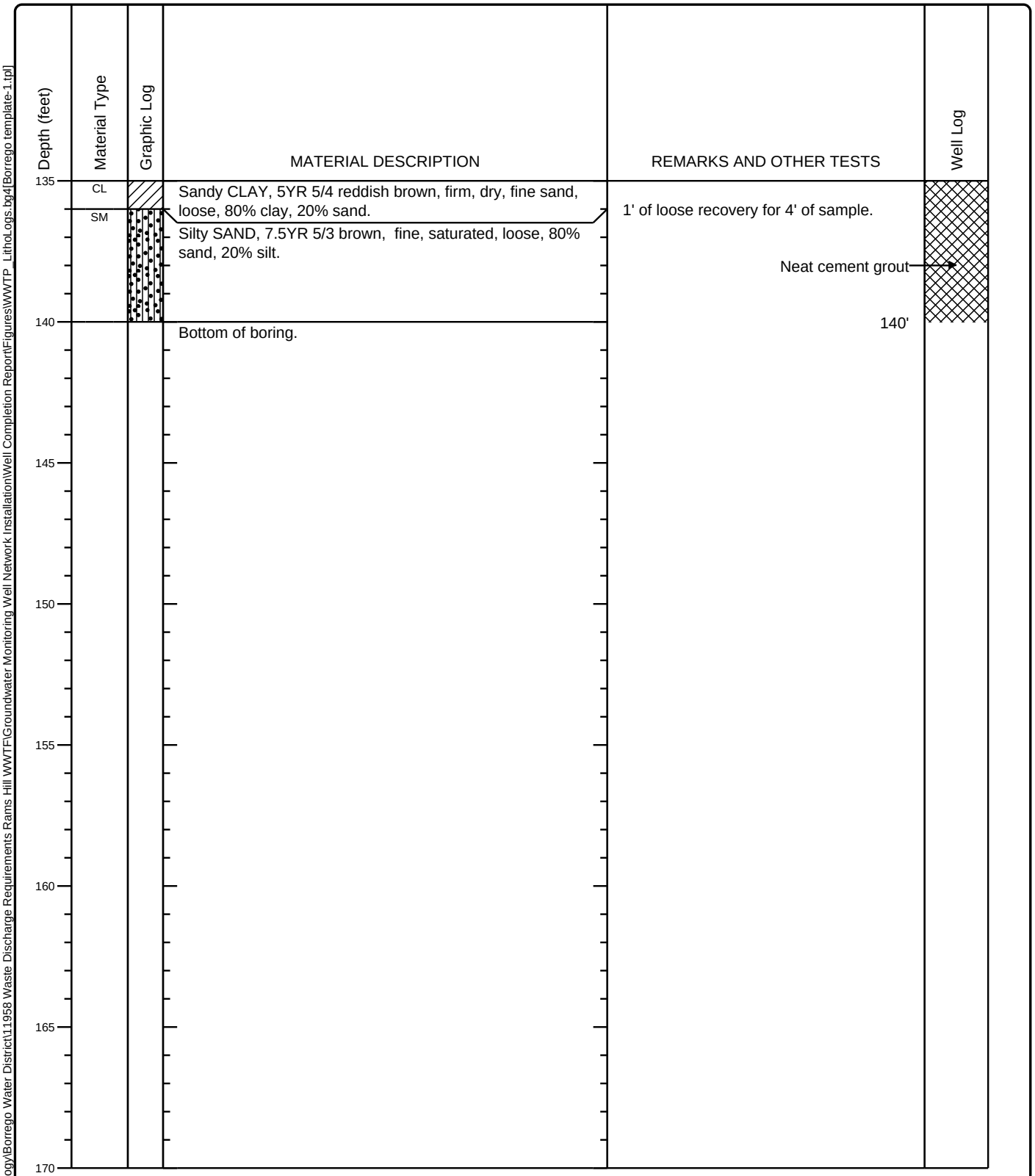
Project: **Borrego Water District - WWTP**

Project Location: **Borrego Springs, California**

Project Number: **11958**

Log of Boring WWTP-4D

Sheet 5 of 5



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Project: **Borrego Water District - WWTP**

Project Location: **Borrego Springs, California**

Project Number: **11958**

Log of Boring WWTP-4S

Sheet 1 of 1

Date(s) Drilled **4/28/2023**	Logged By **HM and SL**	Checked By **Scott Little**
Drilling Method **Sonic**	Drill Bit Size/Type **8" diameter sonic bit**	Total Depth of Borehole **26**
Drill Rig Type **FS 250 Fraste Eljkelkamp**	Drilling Contractor **Gregg Drilling**	Approximate Surface Elevation **ground surface = 473.79' NAVD88**
Groundwater Level and Date Measured **17' btoc 4/28/23**	Sampling Method(s) **6" diameter standard core barrel**	Hammer Data **NA**
Borehole Backfill **NA**	Location **33.20990129, -116.3130269. Approximately 460 feet east of the evaporation ponds.**	

Depth (feet)	Material Type	Graphic Log	MATERIAL DESCRIPTION	REMARKS AND OTHER TESTS	Well Log
0	SM		Silty SAND, 10YR very pale brown, fine to coarse with trace gravel, dry, angular to sub-angular, 80% sand, 15% silt, 5% gravel.	Concrete	
	SM		Silty SAND,10YR 6/6 brownish yellow, fine to coarse with trace gravel, dry, angular to sub-angular, 80% sand, 20% silt.	3'	
	SM		Silty SAND, 10YR 6/6 yellowish, fine to coarse with trace gravel, dry, angular to sub-angular, brown, 80% sand, 20% silt.	Neat cement	
5	SC		Clayey SAND with silt, 10YR 5/4 yellowish brown, fine to coarse with gravel, cohesive when wet, slightly moist, sub-angular, 60% sand, 30% clay, 10% silt.	3" SCH 80 PVC blank casing	
	SM		Silty SAND with clay, 10YR 5/4 yellowish brown, fine to medium sand, slightly cohesive, moist, sub-angular, 50% sand, 30% silt, 10% clay.		
10	SM		Silty SAND with clay, 10YR 5/4 yellowish brown, fine, slightly cohesive, moist, sub-angular, 50% sand, 30% silt, 10% clay.	13' Medium bentonite 14'	
	SM		Silty SAND with clay, 10YR brown, fine to medium sand, slightly cohesive, moist, sub-angular, 50% sand, 30% silt, 10% clay.	15'	
15			No sample.	Cemex #3 (8x20) filter pack	
	SW		Well graded SAND with silt, 10YR 3/3 brown, fine to coarse, not cohesive, wet, sub-rounded to angular, 90% sand, 10% silt.		
20	SW		Well graded SAND with silt and gravel, 10YR 5/4 yellowish brown, fine to coarse with gravel, not cohesive, wet, sub-rounded to angular, 80% sand, 10% silt, 10% gravel.	3" SCH 80 PCV screen casing with 0.032" slots	
	SM		Silty SAND with trace gravel, 7.5YR 5/4 brown, fine to medium, not cohesive, moist, sub-angular to sub-rounded, 70% sand, 25% silt, 5% gravel.		
	SM		Silty SAND, 7.5YR 5/4 brown, fine to medium, not cohesive, moist, sub-angular to sub-rounded, trace gravel, 70% sand, 25% silt, 5% gravel.	25'	
25	SP		Poorly graded SAND, 7.5YR 6/4 light brown, coarse, not cohesive, moist, sub-angular, trace gravel, 95% sand, 5% gravel.	26'	
			Bottom of boring.		
30					

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Project: **Borrego Water District - WWTP**
Project Location: **Borrego Springs, California**
Project Number: **11958**

Key to Log of Boring
Sheet 1 of 1

Depth (feet)	Material Type	Graphic Log	MATERIAL DESCRIPTION	REMARKS AND OTHER TESTS	Well Log
1	2	3	4	5	6

COLUMN DESCRIPTIONS

1 Depth (feet): Depth in feet below the ground surface.
2 Material Type: Type of material encountered.
3 Graphic Log: Graphic depiction of the subsurface material encountered.
4 MATERIAL DESCRIPTION: Description of material encountered. May include consistency, moisture, color, and other descriptive text.
5 REMARKS AND OTHER TESTS: Comments and observations regarding drilling or sampling made by driller or field personnel.
6 Well Log: Graphical representation of well installed upon completion of drilling and sampling.

FIELD AND LABORATORY TEST ABBREVIATIONS

CHEM: Chemical tests to assess corrosivity
COMP: Compaction test
CONS: One-dimensional consolidation test
LL: Liquid Limit, percent
PI: Plasticity Index, percent
SA: Sieve analysis (percent passing No. 200 Sieve)
UC: Unconfined compressive strength test, Qu, in ksf
WA: Wash sieve (percent passing No. 200 Sieve)

MATERIAL GRAPHIC SYMBOLS

Bentonite chips
Portland Cement Concrete
Grout
Clayey SAND (SC)
Silty SAND (SM)
Poorly graded SAND (SP)
Well graded SAND (SW)

TYPICAL SAMPLER GRAPHIC SYMBOLS

Auger sampler
Bulk Sample
3-inch-OD California w/ brass rings
CME Sampler
Grab Sample
2.5-inch-OD Modified California w/ brass liners
Pitcher Sample
2-inch-OD unlined split spoon (SPT)
Shelby Tube (Thin-walled, fixed head)

OTHER GRAPHIC SYMBOLS

Water level (at time of drilling, ATD)
Water level (after waiting)
Minor change in material properties within a stratum
Inferred/gradational contact between strata
Queried contact between strata

GENERAL NOTES

1: Soil classifications are based on the Unified Soil Classification System. Descriptions and stratum lines are interpretive, and actual lithologic changes may be gradual. Field descriptions may have been modified to reflect results of lab tests.
2: Descriptions on these logs apply only at the specific boring locations and at the time the borings were advanced. They are not warranted to be representative of subsurface conditions at other locations or times.

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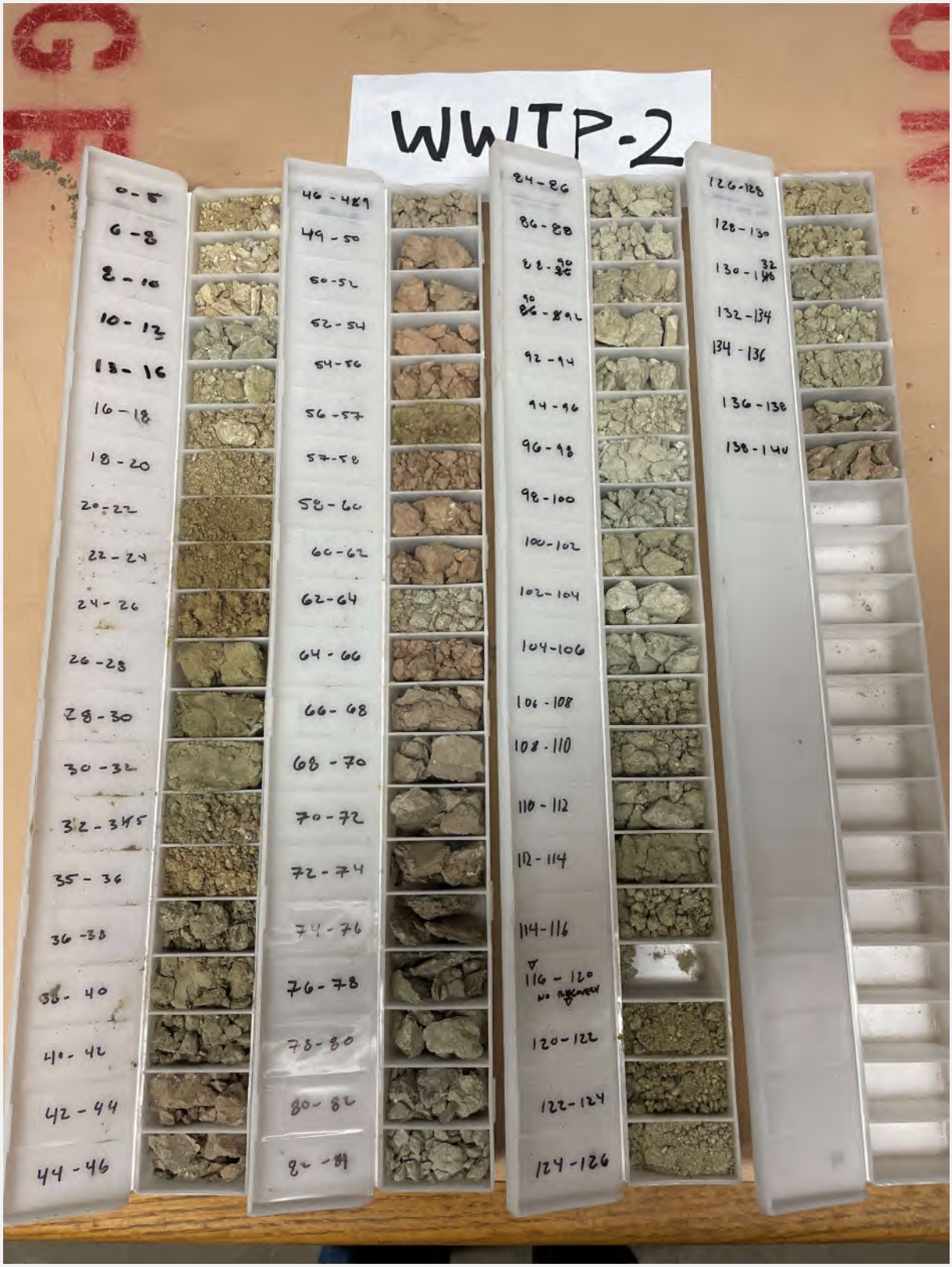
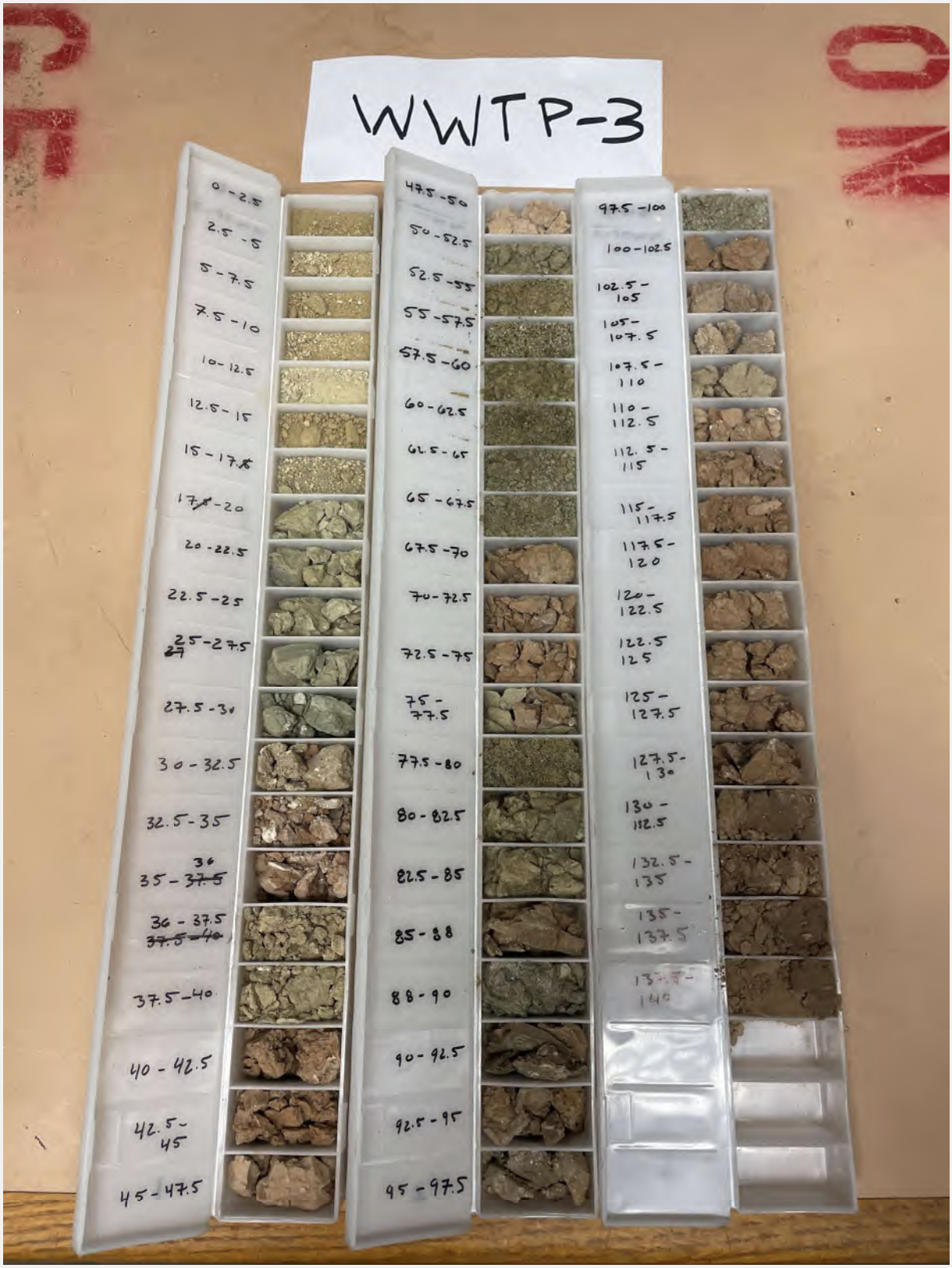
Figure B-1

Appendix D
Photographic Log



Photograph 1. Chip trap of WWTP-2



Photograph 2. Chip trap of WWTP-3 borehole.

Photograph 3. Chip trap of WWTP-4 borehole

Appendix E
Development Logs

Well Name: WLTP-2 Field Staff: HM Pump Type: GRUNDFOS

Phase: DEVELOPMENT Pump Crew: CA CARRERA Date: 6/18/25

	~~Mag Meter~~		~~Propeller Meter~~			~~YSI~~ HORIBA			La Motte	~~Rossum~~ HORIBA		
	Rate	Totalizer	Rate	Totalizer	DTW	SPC mS/cm	pH	ORP mV	Turbidity NTU	~~Sand Content~~ TURBIDITY NTU	~~VFD~~	~~Specific Capacity~~
Units	gpm	gallons	gpm									~~gpm/ft~~
Time												TRP (6)
12:00		0										
12:04	15.96				55.	0.493	6.52	120	471			
12:08	~~15.66~~	~~135.8~~							79.8	HORIBA TURBIDITY		
12:10	15.06	133.8			58	6.412	6.95	88	46.0	168		
12:15	14.92	202.65			58.67	0.332	6.27	92	36.0			
12:20	14.86	275.10			59.2	0.831	8.84	-47	25.7	64.8		
12:25	14.73	355.00			59.45	0.466	8.55	84	22.5			28
12:30	—	~~7~~			59.60	0.809	8.71	-37	23.2	86.4		27.0
12:35	14.60	500			59.90	0.816	8.66	-32	18.0	72.4	BACKFLUSH CASING	
12:45	14.58	635.9			60.6	59.90	0.800	8.73	-32	6.17	16.2	
12:50	14.54	715			60.4	0.798	8.73	-29	5.45	10.5		27.09
12:55	14.49	787.48			60.6	0.796	8.74	-28	5.20	9.6		27.08
13:00	14.47	855.22			60.8	0.795	8.75	-27	3.89	8.4		27.08
13:05	PUMP	OFF	- DOWN	4/	DEVELOPMENT							

Notes:

Well ne: WWTP-3 Field Staff: HM Pump Type: 12V SUBMERSIBLE (TORNADO 2.0)

Phase: DEVELOPMENT Pump Crew CREW (BERNIE) Date: 6/6/25

	Mag Meter		Propeller Meter			HORIBA ~~YSI~~			La Motte	~~Rossum~~		TEMP (C)
	Rate	Totalizer	Rate	Totalizer	DTW	SPC mS/cm	pH	ORP	Turbidity	~~Sand Content~~ TURBIDITY	VFD	~~Specific Capacity~~
Units	gpm		gpm									gpm/ft
Time												
15:56		/			58.6							
15:57	1 gpm	PUMP	ON									
16:00	1				61.3	2.18	11.42	-43	~~74.3~~ 362	362		26.75
16:10	1				62.2	2.09	11.24	-38	15.9	150		26.73
16:15	1				62.4	1.95	11.18	-43	7.24	66.1		26.62
16:20	1				63.4	1.79	11.16	-42	7.09	57.9		26.73
16:25	1				62.1	1.65	11.12	-42	3.32	53.5		26.75
16:30	1				62.45	1.61	11.11	-42	3.04	55.3		26.68
16:35	1	40 GALLON PUMPED			62.45	1.59	11.09	-44	1.25	56.9		26.72
16:40	PUMP OFF - DONE W/ DEVELOPMENT											

SOME FOAM IN DISCHARGE WATER, HIGH PH

Notes:

Well Name: WLTP-45 Field Staff: HM Pump Type: 12V SUBMERSIBLE TORNADO 2.0

Phase: DEVELOPMENT Pump Crew GREEN HORIBA Date: 6/6/23

	Mag Meter		Propeller Meter			YSI (HORIBA)			La Motte	Rossum		TEMP (°C)
	Rate	Totalizer	Rate	Totalizer	DTW	SPC mS/cm	pH	ORP mV	Turbidity	Sand Content (TURBIDITY NTU)	VFD	Specific Capacity
Units	gpm		gpm									gpm/ft
Time												
8:31	3											
8:33	0.4								68.5			
8:45	0.4				24.21	1.10	7.69	77	405	405		24.33
8:50	0.4				24.32	1.09	7.73	68	29.7	118		24.46
8:55	0.4				24.45	1.09	7.71	56	18.3	78.4		24.49
9:00		40 20			24.52	1.09	7.81	56	23.3	98.1		24.43
9:05	CIRCULATE DISCHARGE - SURGE PUMP											
9:15	LET WELL RECOVER (PUMP OFF)											
9:30					20.75							
9:30	PUMP ON											
9:40	0.4				24.70	1.11	7.83	85	51.9	256		23.79
9:50		55 GALLONS TOTAL (35 FROM PUMP)										
9:55	0.5				23.4	1.10	7.62	58	12.2	44.1		24.67
10:00	0.4				23.25	1.10	7.65	48	6.76	26.8		24.74
10:05	0.4				23.25	1.10	7.63	72	3.73	14.2		24.79
10:10	0.4				23.25	1.10	7.63	85	2.54	6.8		24.76
10:15	0.4	+10 GALLONS			23.25	1.10	7.61	59	1.54	3.3		24.81
10:20	0.4				23.25	1.10	7.63	62	1.73	4.1		
10:21	PUMP OFF		50 GALLON REMOVED FROM PUMP									

LIMITED WATER COLUMN, USED LOW FLOW BUT TRIED SURGING, PUMP ON (VARIABLE RATES) PUMP ON AND OFF TO LET RECOVER

Notes:

Well Name: WWTP-4D Field Staff: HM Pump Type: 12V SUBMERSIBLE TORNADO PUMP

Phase: WELL DEVELOPMENT Pump Crew: GREGG (BERNIE) Date: 6/6/23

	~~Mag Meter~~		~~Propeller Meter~~			YSI			La Motte	Rossum		TEMP (C°)
	Rate	Totalizer	~~Rate~~	~~Totalizer~~	DTW	SPC mS/cm	pH	ORP mV	Turbidity	~~Sand Content~~ TURBIDITY	VFD	~~Specific Capacity~~
Units	gpm		gpm									~~gpm/ft~~
Time												
11:42	1.5	LET	PUMP RUN TILL DRY, THEN FLUSH, THEN LET RECOVER									
11:55	40 GALLONS		TOTAL REMOVED, PUMP OFF TO LET RECOVER; THEN LUNCH									
12:30					35							
12:31	PUMP	ON	1.25 gpm									
12:35	1.5		↑		41.6	3.13	11.58	-51	100	104 104		25.30
12:39	PUMP	OFF	55	gallons	DRUM							
12:45	1.5			47.7	46.0	3.17	11.74	-56	98.4	263		25.16
12:50	~1				49.95	3.85	11.94	-74	11.6	105		25.55
12:54	~1				46.2	2.30	11.54	-57	13.11	61.0		25.55
13:05	~1				46.2	2.20	11.52	-53	6.03	49.7		25.46
13:10	~1				46.4	2.18	11.60	-56	5.37	40.8		25.40
13:15	~1				46.8	2.12	11.58	-49	22.7	100		25.35 ← INCREASE RATE
13:19	CHANGE	RATE	UP	AND	DOWN	TO TRY AND SURGE						
13:30	1				46.1	2.37	11.72	-76	3.49	68.5		~~25.38~~ 25.38
13:35	1				-	2.25	11.68	-71	2.57	61.3		25.30
13:40	1				-	2.12	11.45	-69	2.66	66.5		25.34
13:45	1					2.05	11.63	-66	2.22	64.5		25.35
13:50	PUMP	OFF	100	GALLONS	TOTAL							

FOR SLIGHT FOAM IN DISCHARGE, HIGH PH, LIKELY FROM ISOLEUM SEAL

HORIBA READING HIGH TURBIDITY

Notes:

Appendix F
Water Quality Sampling Sheets

Client:	BWD	**Date:**	6/8/23
Project Name:	BWD WWTP	**Well ID:**	WWTP-2
Field Crew:	HM Hugh McMillan	**Well Type:**	(Monitor)

WELL PURGING

Purge Method

Bailer - Type: —

Pump - Type: GE-TECH

Other: GRUNDFOS 2

Total Well Depth: 143.02' BTOC

Depth to Water: 31.41' BTOC 9/18 [111.61']

Multiplier Well Casing	I.D. (in.)	Gal./Ft.
	~~2~~	0
	~~4~~	1
	~~6~~	1

Flow Readings

Flow Rate 1:

Flow Rate 2:

Flow Rate 3:

Flow Rate 4:

Casing Volume ft^3 = 3.14 (radius of inner diameter casing)^2 (total well depth-static water level) — note: all units in feet

π(~~1.5~~ 0.125)^2 (111.61) = ~~738.92~~

Filter Pack Pore Volume ft^3 = 3.14 [(radius of reamed borehole)^2 - (radius of outer diameter casing)^2] (total well depth-static water level) (0.25)

Total Well Volume ft^3 = Casing Volume + Filter Pack Pore Volume

40 x 3 = 123 gallons

multiply by 7.48 5,904 gallons = 49 minutes

GROUNDWATER PARAMETER MEASUREMENTS

Event	Time	DTW	~~RATE~~ Water ~~Removed~~ (gallons)	pH	Conductivity (µs/cm)	Temp. (°C)°F	Turbidity (NTU)	Comments
	9:30	31.41	~~PER PUMP~~					~~1.5 gpm~~ DO mg/L ORP MV
	9:32	PUMP	ON					1.5 gpm
	9:39	33.6	INCREASE FLOW RATE				255 TVP	END OF MOTOR
	9:44	35.1	2.5 gpm				8.	
	9:55	35.43		8.21	777	77.6	5.78	
	10:05	35.56	2.25	8.25	807	79.1	2.68	9.04 175
	10:25	35.7	2.25	8.23	825	79.4	2.09	
	10:30	35.71	2.25	8.23	821	79.3	1.90	8.03 174
	10:40	35.75	2.25	8.22	824	79.5	1.79	6.88 173
	10:50	SAMPLE	(DISCHARGE	ROUTE TO	SAMPLE)			
	10:52	PUMP	OFF					

Parameter Sensor(s): YSI PRO PLUS
LE MOTE TURBIDITY
ZR0 LE

Comments / Purge:

Purge Water Storage / Disposal:
- Drummed onsite
- Onsite Treatment System
- Other: DISCHARGED TO LAND

Well Sampling

Bailer - Type —

Pump - Type SAME AS PURGE

Other SET PUMP AT 260'

WEATHER CONDITIONS

Skies CLEAR Temp. 85°F

Wind LIGHT From VARIES

Comments / Sampling: SAMPLED AT 10:50

ANALYSIS: GENERAL MINERALS, F, NO_3, NO_2, TKN, TOTAL N, Ba, As

Client:	BWD	**Date:**	6/8/23
Project Name:	WWTP	**Well ID:**	WWTP-3
Field Crew:	HM Hugh McMinn	**Well Type:**	Monitor

WELL PURGING

Purge Method

Bailer - Type:

Pump - Type: GROUNDFOS

Other: GRUNDFOS 3

BTOC

Total Well Depth: 73.25

Depth to Water: 57.65' @ 11:59 = 15.6'

Multiplier Well Casing	
I.D. (in.)	Gal./Ft.
2	0
4	1
6	1

Flow Readings

Flow Rate 1:

Flow Rate 2:

Flow Rate 3:

Flow Rate 4:

Casing Volume ft³ = 3.14 (radius of inner diameter casing)² (total well depth-static water level) note: all units in feet

3.14 (0.125)² (15.6) = 0.77

Filter Pack Pore Volume ft³ = 3.14 [(radius of reamed borehole)² - (radius of outer diameter casing)²] (total well depth-static water level) (0.25)

Total Well Volume ft³ = Casing Volume + Filter Pack Pore Volume multiply by 7.48 5.72 gallons x 3 = 17.16 min

GROUNDWATER PARAMETER MEASUREMENTS

Event	Time	DTW BTOC	Water Removed (gallons)	pH	Conductivity (µs/cm)	Temp. (°C/F)	Turbidity (NTU)	Comments DO mg/L	ORP mV
	11:59	~~58.57~~ 65							
	12:17	PUMP	ON	6.75 gpm					
	12:20	59.30		11.53	3011	81.1	6.63	10.71	12
	12:25	60.00		11.57	2729	81.3	38.9	5.55	7.
	12:30	60.38		11.55	2533	80.9	15.7	5.58	8.
	12:35	60.45		11.49	2293	81.3	4.45	4.25	12
	12:40	60.62		11.42	2031	81.1	2.54	4.01	16
	12:45	60.68		11.41	1906	80.4	1.75	5.36	18
	12:48	60.75		11.39	1801	80.3	1.61	5.82	19
	12:51	60.80		11.35	1734	80.3	1.58	5.46	21
	12:55	SAMPLE							
	12:58	PUMP	OFF						

Parameter Sensor(s): YSI PRO PLUS
LR MOTTE
2020WE

Purge Water Storage / Disposal:
Drummed onsite
Onsite Treatment System
Other: DISCHARGE TO LAND SURFACE

Comments / Purge:

Well Sampling

Bailer - Type

Pump - Type: SAME AS PURGE

Other

WEATHER CONDITIONS

Skies: LIGHT CLOUD Temp. 90's °F

Wind: 2-3 mph From: EAST

PUMP SET AT ~ 71' BTOC. PUMP CONTROL AT 60

Comments / Sampling:

SAMPLE TIME 12:55

ANALYSIS: GENERAL MINERALS, F, NO3, NO2, TKN, TOTAL N, Ba, As

SUBMIT TO ENTHALPY IN SD

Client:	BLP	**Date:**	6/8/23
Project Name:	WWTP	**Well ID:**	WWTP-4S
Field Crew:	HM Hugh McMa	**Well Type:**	Monitor

WELL PURGING

Purge Method

Bailer - Type: —
Pump - Type: GEOTECH
Other: GEOSUB 3

Total Well Depth: 27.87' BTOC
Depth to Water: 20.65' BTOC = 7.22

Multiplier Well Casing	
I.D. (in.)	Gal./Ft.
2	0
4	1
6	1

Flow Readings

Flow Rate 1:
Flow Rate 2:
Flow Rate 3:
Flow Rate 4:

Casing Volume ft³ = 3.14 (radius of inner diameter casing)² (total well depth-static water level) — note: all units in feet

$\pi (0.125)^2 (7.22) = 6.35$

Filter Pack Pore Volume ft³ = 3.14 [(radius of reamed borehole)² - (radius of outer diameter casing)²] (total well depth-static water level) (0.25)

Total Well Volume ft³ = Casing Volume + Filter Pack Pore Volume — multiply by 7.48 — 2.65 gallons x 3 = 7.98

GROUNDWATER PARAMETER MEASUREMENTS

Event	Time	DTW	Water Removed (gallons)	pH	Conductivity (µs/cm)	Temp. (°C/F)	Turbidity (NTU)	Comments
	13:30	20.65						DO mg/L / ORP mV
	13:43	PUMP	ON	1GPM	, TURN	PUMP	TO 2	
	13:~~49~~	~~24.3~~	0.75 GPM					
	13:50	24.37		8.00	1126	75.1	22.5	13.04 / 192
	13:55	25.00		7.59	1118	75.4	15.2	8.62 / 212
	14:00	25.53		7.55	1115	75.4	5.29	6.04 / 223
	14:02	REDUCE	RATE	TO	~0.5	GPM TO	SAVE	LARGE COLUMN (31 ONE PUMP
	14:05	24.95		7.53	1114	75.5	5.36	7.20 / 230
	14:10	24.44		↑	↑	↑	5.30	↑ / ↑
	14:15	SAMPLE		7.55	1112	75.6		7.09 / 233
14:16	~~14:16~~	PUMP OFF						

Parameter Sensor(s): YSI PRO PLUS
LE MOTTE
2020WF

Comments / Purge: PUMP SET AT ~26.5' BTOC

Purge Water Storage / Disposal:
Drummed onsite
Onsite Treatment System
Other: DISCHARGE TO LAND SURFACE

Well Sampling

Bailer - Type: —
Pump - Type: SAME AS PURGE
Other:

PUMP SET ~1 FOOT OFF BOTTOM (~26.5' BTOC)

WEATHER CONDITIONS

Skies: SUNNY W/ HIGH CLOUD — Temp.: 90's F
Wind: 3-5mph — From: EAST

Comments / Sampling: SAMPLE TIME 14:15

ANALYSIS: GENERAL MINERAL, F, NO_3, NO_2, TKN, TOTAL N, Ba, As

SUBMIT TO ENTHALPY IN SD

Client: BWD **Date:** 6/8/23

Project Name: WWTP **Well ID:** WWTP-4D

Field Crew: HM, Hugh Moffett **Well Type:** Moniter

WELL PURGING

Purge Method

Bailer - Type:

Pump - Type: GEOTECH

Other: GEOSUB 3

Total Well Depth: 52.81' BTOC

Depth to Water: 34.23' BTOC = 18.58

Multiplier Well Casing	
I.D. (in.)	Gal./Ft.
2	0
4	1
6	1

Flow Readings

Flow Rate 1:

Flow Rate 2:

Flow Rate 3:

Flow Rate 4:

Casing Volume ft^3 = 3.14 (radius of inner diameter casing)^2 (total well depth-static water level) note: all units in feet

$\pi (0.125)^2 (18.58) = 0.912$

Filter Pack Pore Volume ft^3 = 3.14 [(radius of reamed borehole)^2 - (radius of outer diameter casing)^2] (total well depth-static water level) (0.25)

Total Well Volume ft^3 = Casing Volume + Filter Pack Pore Volume multiply by 7.48 6.82 gallons x 3 = 20.5 gallons

GROUNDWATER PARAMETER MEASUREMENTS

Event	Time	DTW	Water ~~RATE~~ Removed (gallons)	pH	Conductivity (µs/cm)	Temp. °F	Turbidity (NTU)	Comments
	13:30	34.23	PER MIN					DO (mg/L) ORP (mV)
	14:20	34.23						
14:30 ~~14:29~~	~~14:29~~	PUMP	ON	1 GPM				
	14:39	~~3~~ PUMP DOWN	TO	0.75 GPM			(56 ON PUMP)	
	14:40	39.60		11.20	~~1596~~ 1597	77.7	30.6	5.17
	14:45	39.11		11.20	1591	78.2	32.9	3.34
	14:50	39.02		11.20	1610	77.9	19.8	3.05
	14:55	39.00	0.5	11.21	1598	78.0	16.5	2.86
15:00	~~14:58~~	38.92	0.75	11.20	1596	77.9	12.4	2.87
	15:05	38.90		11.15	1511	78.1	6.67	3.29
	15:10	38.95	0.5	11.15	1506	78.3	6.40	3.57
	15:15	38.90	0.5	11.15	1504	78.4	5.92	3.69
	15:20	SAMPLER						

Parameter Sensor(s): YSI PRO PLUS, LR MOTTE, 2020WE

15:23 PUMP OFF

Purge Water Storage / Disposal: Drummed onsite; Onsite Treatment System; Other: DISCHARGE TO LAND SURFACE

Comments / Purge: PUMP SET ~1 FOOT OFF BOTTOM ~51.5'

Well Sampling

Bailer - Type:

Pump - Type: SAME AS PURG

Other:

WEATHER CONDITIONS

Skies: HIGH CLOUDS (SUNNY) Temp. 90°F

Wind: 3-5 MPH From: EAST

Comments / Sampling: COLLECT SAMPLES AT 15:20

ANALYSIS: GENERAL MINERALS, F, NO3, NO2, TKN, TOTAL N, Ba, As

SUBMIT TO ENTHALPY IN SD

* WHITE SUBSTANCE ON PUMP FILTER, MAY HAVE PARTIALLY CLOGGED PUMP, TRIED TO INCREASE PUMP RATE AT END OF PURGE UNSUCCESSFULLY.

CQ

Client:	BWD	**Date:**	6/15/2023
Project Name:	BWD WWTP	**Well ID:**	WWTP-1
Field Crew:	HM High Mottle	**Well Type:**	(Monitor)

WELL PURGING

Purge Method

Bailer - Type: —
Pump - Type: GEOTECH
Other: GEOSUB 2

Total Well Depth: 100.06' BTOC
Depth to Water (BTOC): 24.65' 2%05 = ____
Casing Volume ft³ = 3.14 (radius of inner diameter casing)² (total well depth-static water level)

Multiplier Well Casing	I.D. (in.)	Gal./Ft.
	2	0
	(4")	1
	6	1

Flow Readings

Flow Rate 1: ____
Flow Rate 2: ____
Flow Rate 3: ____
Flow Rate 4: ____

note: all units in feet

$\pi(0.167)^2(75.35) = 6.57$ gallons FT³

Filter Pack Pore Volume ft³ = 3.14 [(radius of reamed borehole)² - (radius of outer diameter casing)²] (total well depth-static water level) (0.25)

Total Well Volume ft³ = Casing Volume + Filter Pack Pore Volume — multiply by 7.48 — 49.2 gallons x 3 = 147.6

~~4" PIPE @ 1.5 gpm~~

GROUNDWATER PARAMETER MEASUREMENTS

Event	Time	DTW	~~Water Removed~~ RATE (gallons)	pH	~~Conductivity~~ SPC (µs/cm)	Temp. (°C/F)	Turbidity (NTU)	Comments	Do	ORP mV	
	9:05	24.65		1.5					mg/L		
	9:20	PUMP	ON	~~3.5~~ 3 gpm					~~4.05~~	241.	
20	9:30	28.40	~~3.5~~ 1.5	7.60	1056	77.4	7.22		4.05	241	
	9:35	28.46	~~3.5~~ 1.5	7.59	1054	77.3	5.64		4.80	242.	
	9:40		1	INCREASE RATE	to	1.5 gpm					
	9:45	29.2	INCREASE RATE	1.75 gpm	(PUMP AT	FULL CAPACITY)					
	9:50	30.65	1.75	7.42	1045	77.0	5.25		7.43	250.	
	10:00	33.54	1.75	7.42	1041	76.8	11.0		6.39	252	
	10:10	34.56	~~1.75~~	7.42	1040	76.8	27.5		7.10	252.	
	10:20	35.78	1.5	7.40	1042	76.8	35.5		7.40	253	
	10:30	36.72	1.5	7.39	1043	76.8	52.2	MICA IN DISCHARGE	10.20	253	
	10:40	37.25	1.25	7.40	1044	74.8	74.9		11.17	254	
	10:50	37.74	1.25	7.40	1044	76.9	55.7	CONTINUE ON NEXT PAGE	11.76	254	

Parameter Sensor(s): YSI PRO PLUS
LE MOTTE TURBIDITY 2020WE

Purge Water Storage / Disposal:
Drummed onsite
Onsite Treatment System
Other: DISCHARGE TO LAND

Comments / Purge:
PUMP SET @ ~70' BTOC

Well Sampling

Bailer - Type: ____
Pump - Type: SAME AS PURGE
Other: ____

WEATHER CONDITIONS
Skies CLEAR Temp. 80-90°F
Wind LIGHT From VARIES

Comments / Sampling: SAMPLE AT 11:25

ANALYSIS: GENERAL MINERALS, F, NO_3, NO_2, TKN, TOTAL N, BA, AS

Client:	BLD	**Date:**	6/15/23
Project Name:	BLD WWTP	**Well ID:**	WWTP-1
Field Crew:	HM High Mark	**Well Type:**	Monitor

GROUNDWATER PARAMETER MEASUREMENTS (Continued)

Event	Time	DTW	Pumping Rate (gpm)	pH	Conductivity (µs/cm)	Temp. (°C)F	Turbidity (NTU)	Comments	DO	ORP
	11:00	38.33	1.25	7.40	1044	76.8	60.4	PUMP INVERTER STARTS & FIXED	12.30	254
	11:05	38.54	1.25	7.40	1044	76.9	54.5		12.52	254
	11:10	38.55	1.25	7.40	1044	76.9	57.9		12.71	254
	11:15	38.73	1.25	7.40	1044	76.9	59.2		12.91	254
	11:20	38.80	1.25	7.40	1044	76.9	58.6		13.01	254
	11:25	COLLECT SAMPLE								

Comments / Sampling:

Stabilization Criteria
Turbidity < 10 NTU

Appendix G
Laboratory Reports

Enthalpy Analytical
931 West Barkley Ave
Orange, CA 92868
(714) 771-6900

enthalpy.com

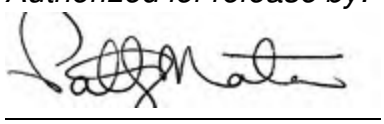
Lab Job Number: 486576
Report Level: II
Report Date: 06/22/2023

Analytical Report *prepared for:*

Hugh McManus
Dudek
605 3rd Street
Encinitas, CA 92024

Location: BWD WWTP, 11958

Authorized for release by:



Patty Mata, Project Manager
patty.mata@enthalpy.com

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the above signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

CA ELAP# 1338, NELAP# 4038, SCAQMD LAP# 18LA0518, LACSD ID# 10105

ENTHALPY ANALYTICAL

Sample Summary

Hugh McManus
Dudek
605 3rd Street
Encinitas, CA 92024

Lab Job #: 486576
Location: BWD WWTP, 11958
Date Received: 06/09/23

Sample ID	Lab ID	Collected	Matrix
WWTP-2	486576-001	06/08/23 10:50	Water
WWTP-3	486576-002	06/08/23 12:55	Water
WWTP-4S	486576-003	06/08/23 14:15	Water
WWTP-4D	486576-004	06/08/23 15:20	Water

Case Narrative

Dudek	Lab Job Number: 486576
605 3rd Street	Location: BWD WWTP, 11958
Encinitas, CA 92024	Date Received: 06/09/23
Hugh McManus	

This data package contains sample and QC results for four water samples, requested for the above referenced project on 06/09/23. The samples were received cold and intact. Immediate hold time tests such as pH tests are run as soon as possible and are flagged with H qualifiers.

Metals (EPA 200.7 and EPA 200.8):

- High responses were observed for copper and zinc in the ICV analyzed 06/12/23 14:54; affected data was qualified with "b". These analytes were not detected at or above the RLs in the associated samples.
- Low recoveries were observed for arsenic in the MS/MSD for batch 315843; the parent sample was not a project sample, the LCS was within limits, and the associated RPD was within limits.
- No other analytical problems were encountered.

Ammonia and TKN- Semi-Automated Method (SM 4500-NH3-G):

- Low recovery was observed for nitrogen, total kjeldahl in the MS for batch 315893; the parent sample was not a project sample, and the LCS was within limits. High RPD was also observed for nitrogen, total kjeldahl in the MS/MSD for batch 315893.
- No other analytical problems were encountered.

ENTHALPY ANALYTICAL

Chain of Custody Record

Lab No: 486576

Page: 1 of 1

Turn Around Time (rush by advanced notice only)

Standard:	X	5 Day:		3 Day:	
2 Day:		1 Day:		Custom TAT:	

Enthalpy Analytical - Orange
931 W. Barkley Avenue, Orange, CA 92868
Phone 714-771-6900

Matrix: A = Air S = Soil/Solid W = Water DW = Drinking Wate SD = Sediment PP = Pure Product SEA = Sea Water SW = Swab T = Tissue WP = Wipe O = Other

Preservatives: 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

Sample Receipt Temp: (lab use only)

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	DUDEK	Name:	BWD WWTP
Report To:	HUGH McMANUS	Number:	11958
Email:	HMCMANUS@DUDEK.COM	P.O. #:	
Address:	605 3RD ST	Address:	
	ENCINITAS 92024 CA		
Phone:	858-382-0419	Global ID:	
Fax:		Sampled By:	HUGH McMANUS

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	Total Hardness, Ca, Mg, Na, Total Alkalinity	Hydroxide, Carbonate, Bicarbonate	Chloride, Sulfate, Fluoride	Nitrate as N, Nitrite as N	Ammonia Nitrogen, pH, SPC	TDS, MBAS, Total Nitrogen	Barium, Copper, Iron	Manganese, Zinc, Arsenic			Test Instructions / Comments
1	WWTP-2	6/8/23	10:50	W	5	3,4	X	X	X	X	X	X	X	X			X
2	WWTP-3	6/8/23	12:55	W	5	3,4	X	X	X	X	X	X	X	X			X
3	WWTP-4S	6/8/23	14:15	W	5	3,4	X	X	X	X	X	X	X	X			X
4	WWTP-4D	6/8/23	15:20	W	5	3,4	X	X	X	X	X	X	X	X			X
5																	
6																	
7																	
8																	
9																	
10																	

Analysis Request

SEE ATTACHED TABLE FOR COMPLETE ANALYSIS (GENERAL MINERALS PLUS FLUORIDE, NITRATE, NITRITE, TKN, TOTAL NITROGEN, BARIUM, AND ARSENIC)

	Signature	Print Name	Company / Title	Date / Time
1 Relinquished By:	Hugh McM	HUGH MCMANUS	DUDEK / HYDROGEOLOGIST	6/9/23 10:17
1 Received By:		TAILOR NASH	EA-SD	6/9/23 1017
2 Relinquished By:		TAILOR NASH	EA-SD	6/9/23 1600
2 Received By:		MICHAEL TANWANGCO	EA-SD	6/9/23 1600
3 Relinquished By:		MICHAEL TANWANGCO	EA-SD	6/9/23 17:45
3 Received By:		Dereje Padilla	EA	6/9/23 17:45

REC: Dmg. EA 6/9/23 18:55 REC: Katherine Moh EA 6/9/23 18 55

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SAMPLE ACCEPTANCE CHECKLIST

Section 1

Client: Dudek Project: BWD WWTP

Date Received: 6/9/23 Sampler's Name Present: ☒ Yes ☐ No

Section 2

Sample(s) received in a cooler? ☒ Yes, How many? 1 ☐ No (skip section 2) Sample Temp (°C) (No Cooler): _____

Sample Temp (°C), One from each cooler: #1: 1.4 #2: _____ #3: _____ #4: _____

(Acceptance range is < 6°C but not frozen (for Microbiology samples, acceptance range is < 10°C but not frozen). It is acceptable for samples collected the same day as sample receipt to have a higher temperature as long as there is evidence that cooling has begun.)

Shipping Information: _____

Section 3

Was the cooler packed with: ☒ Ice ☐ Ice Packs ☐ Bubble Wrap ☐ Styrofoam ☐ Paper ☐ None ☐ Other _____

Cooler Temp (°C): #1: 1.0 #2: _____ #3: _____ #4: _____

Section 4	YES	NO	N/A
Was a COC received?	X		
Are sample IDs present?	X		
Are sampling dates & times present?	X		
Is a relinquished signature present?	X		
Are the tests required clearly indicated on the COC?	X		
Are custody seals present?		X	
If custody seals are present, were they intact?			X
Are all samples sealed in plastic bags? (Recommended for Microbiology samples)			X
Did all samples arrive intact? If no, indicate in Section 4 below.	X		
Did all bottle labels agree with COC? (ID, dates and times)	X		
Were the samples collected in the correct containers for the required tests?	X		
Are the containers labeled with the correct preservatives?	X		
Is there headspace in the VOA vials greater than 5-6 mm in diameter?			X
Was a sufficient amount of sample submitted for the requested tests?	X		

Section 5 Explanations/Comments

Section 6

For discrepancies, how was the Project Manager notified? ☐ Verbal PM Initials: _____ Date/Time _____

☐ Email (email sent to/on): _____ / _____

Project Manager's response:

Completed By: _____ Date: 6/9/23

Enthalpy Analytical, a subsidiary of Montrose Environmental Group ,Inc.
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www.enthalpy.com/socal

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Analysis Results for 486576

Hugh McManus
Dudek
605 3rd Street
Encinitas, CA 92024

Lab Job #: 486576
Location: BWD WWTP, 11958
Date Received: 06/09/23

Sample ID: WWTP-2 **Lab ID: 486576-001** **Collected: 06/08/23 10:50**
Matrix: Water

486576-001 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 200.7 Prep Method: EPA 200.7									
Copper	ND		mg/L	0.010	1	315858	06/10/23	06/12/23	SBW
Method: EPA 200.7 Prep Method: EPA 3010A									
Barium	ND		mg/L	0.010	1	315894	06/12/23	06/12/23	THP
Calcium	**1.9**		mg/L	0.10	1	315894	06/12/23	06/12/23	THP
Iron	**0.036**		mg/L	0.020	1	315894	06/12/23	06/12/23	THP
Magnesium	**0.60**		mg/L	0.10	1	315894	06/12/23	06/12/23	THP
Manganese	ND		mg/L	0.010	1	315894	06/12/23	06/12/23	THP
Potassium	**3.5**		mg/L	0.50	1	315894	06/12/23	06/12/23	THP
Sodium	**150**		mg/L	0.50	1	315894	06/12/23	06/12/23	THP
Zinc	ND		mg/L	0.050	1	315894	06/12/23	06/12/23	THP
Method: EPA 200.8 Prep Method: EPA 200.8									
Arsenic	**3.3**		ug/L	2.0	1	315843	06/10/23	06/12/23	JCP
Method: EPA 300.0 Prep Method: METHOD									
Fluoride	**0.57**		mg/L	0.20	1	315873	06/11/23 10:36	06/11/23 13:12	AJL
Chloride	**86**		mg/L	1.0	1	315873	06/11/23 10:36	06/11/23 13:12	AJL
Sulfate	**70**		mg/L	1.0	1	315873	06/11/23 10:36	06/11/23 13:12	AJL
Method: EPA 351.2 Prep Method: METHOD									
Nitrogen, Total Kjeldahl	ND		mg/L	0.40	1	315893	06/12/23	06/12/23	ATP
Method: EPA 353.2									
Nitrogen, Nitrate	**4.4**		mg/L	0.25	5	315939	06/12/23	06/12/23	PWM
Method: EPA 353.2 Prep Method: METHOD									
Nitrogen, Nitrite	ND		mg/L	0.10	1	315947	06/12/23	06/12/23	PWM
Method: SM 2340B Prep Method: EPA 3010A									
Hardness as CaCO3	**7.3**		mg/L	3.3	1	315894	06/12/23	06/12/23	KCD
Method: SM 4500-H+ B									
pH	**8.85**	H	SU		1	316303	06/16/23 12:24	06/16/23 12:24	LVL
Temperature	**23.30**	H	deg C	1.00	1	316303	06/16/23 12:24	06/16/23 12:24	LVL

Results for any subcontracted analyses are not included in this section.

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Analysis Results for 486576

486576-001 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: SM2320B Prep Method: METHOD									
Bicarbonate	**110**		mg/L	4.0	2	316146	06/14/23	06/14/23	ATP
Carbonate	**20**		mg/L	4.0	2	316146	06/14/23	06/14/23	ATP
Hydroxide	ND		mg/L	4.0	2	316146	06/14/23	06/14/23	ATP
Alkalinity, Total as CaCO3	**130**		mg/L	4.0	2	316146	06/14/23	06/14/23	ATP
Method: SM2510B Prep Method: METHOD									
Specific Conductance	**800**		umhos/cm	1	1	315924	06/12/23	06/12/23	LVL
Method: SM2540C Prep Method: METHOD									
Total Dissolved Solids	**360**		mg/L	20	2	316011	06/13/23	06/14/23	WWC
Method: SM5540C									
Surfactants (MBAS)	ND		mg/L	0.040	1	315840	06/10/23 09:00	06/10/23 09:54	ATP
Method: TOTAL NITROGEN									
Total Nitrogen	**4.4**		mg/L		1	316593	06/20/23	06/20/23	SLL

Results for any subcontracted analyses are not included in this section.

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Analysis Results for 486576

Sample ID: WWTP-3	Lab ID: 486576-002	Collected: 06/08/23 12:55
	Matrix: Water	

486576-002 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 200.7 Prep Method: EPA 200.7									
Copper	ND		mg/L	0.010	1	315858	06/10/23	06/12/23	SBW
Method: EPA 200.7 Prep Method: EPA 3010A									
Barium	**0.047**		mg/L	0.010	1	315895	06/12/23	06/12/23	THP
Calcium	**65**		mg/L	0.10	1	315895	06/12/23	06/12/23	THP
Iron	**0.061**		mg/L	0.020	1	315895	06/12/23	06/12/23	THP
Magnesium	ND		mg/L	0.10	1	315895	06/12/23	06/12/23	THP
Manganese	ND		mg/L	0.010	1	315895	06/12/23	06/12/23	THP
Potassium	**8.1**		mg/L	0.50	1	315895	06/12/23	06/12/23	THP
Sodium	**140**		mg/L	0.50	1	315895	06/12/23	06/12/23	THP
Zinc	ND		mg/L	0.050	1	315895	06/12/23	06/12/23	THP
Method: EPA 200.8 Prep Method: EPA 200.8									
Arsenic	**23**		ug/L	2.0	1	315843	06/10/23	06/12/23	JCP
Method: EPA 300.0 Prep Method: METHOD									
Fluoride	**0.49**		mg/L	0.20	1	315873	06/11/23 10:36	06/11/23 13:35	AJL
Chloride	**45**		mg/L	1.0	1	315873	06/11/23 10:36	06/11/23 13:35	AJL
Sulfate	**93**		mg/L	1.0	1	315873	06/11/23 10:36	06/11/23 13:35	AJL
Method: EPA 351.2 Prep Method: METHOD									
Nitrogen, Total Kjeldahl	ND		mg/L	0.40	1	315893	06/12/23	06/12/23	ATP
Method: EPA 353.2									
Nitrogen, Nitrate	**0.28**		mg/L	0.050	1	315939	06/12/23	06/12/23	PWM
Method: EPA 353.2 Prep Method: METHOD									
Nitrogen, Nitrite	ND		mg/L	0.10	1	315947	06/12/23	06/12/23	PWM
Method: SM 2340B Prep Method: EPA 3010A									
Hardness as CaCO3	**160**		mg/L	3.3	1	315895	06/12/23	06/12/23	KCD
Method: SM 4500-H+ B									
pH	**11.62**	H	SU		1	316303	06/16/23 12:24	06/16/23 12:24	LVL
Temperature	**19.80**	H	deg C	1.00	1	316303	06/16/23 12:24	06/16/23 12:24	LVL
Method: SM2320B Prep Method: METHOD									
Bicarbonate	ND		mg/L	4.0	2	316146	06/14/23	06/14/23	ATP
Carbonate	ND		mg/L	4.0	2	316146	06/14/23	06/14/23	ATP
Hydroxide	**130**		mg/L	4.0	2	316146	06/14/23	06/14/23	ATP
Alkalinity, Total as CaCO3	**66**		mg/L	4.0	2	316146	06/14/23	06/14/23	ATP

Results for any subcontracted analyses are not included in this section.

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Analysis Results for 486576

486576-002 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: SM2510B Prep Method: METHOD									
Specific Conductance	**1,500**		umhos/cm	1	1	315924	06/12/23	06/12/23	LVL
Method: SM2540C Prep Method: METHOD									
Total Dissolved Solids	**630**		mg/L	20	2	316011	06/13/23	06/14/23	WWC
Method: SM5540C									
Surfactants (MBAS)	ND		mg/L	0.040	1	315840	06/10/23 09:00	06/10/23 09:54	ATP
Method: TOTAL NITROGEN									
Total Nitrogen	**0.28**		mg/L		1	316593	06/20/23	06/20/23	SLL

Results for any subcontracted analyses are not included in this section.

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Analysis Results for 486576

Sample ID: WWTP-4S	Lab ID: 486576-003	Collected: 06/08/23 14:15
	Matrix: Water	

486576-003 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 200.7 Prep Method: EPA 200.7									
Copper	ND		mg/L	0.010	1	315858	06/10/23	06/12/23	SBW
Method: EPA 200.7 Prep Method: EPA 3010A									
Barium	**0.046**		mg/L	0.010	1	315895	06/12/23	06/12/23	THP
Calcium	**38**		mg/L	0.10	1	315895	06/12/23	06/12/23	THP
Iron	**0.30**		mg/L	0.020	1	315895	06/12/23	06/12/23	THP
Magnesium	**4.0**		mg/L	0.10	1	315895	06/12/23	06/12/23	THP
Manganese	**0.10**		mg/L	0.010	1	315895	06/12/23	06/12/23	THP
Potassium	**3.2**		mg/L	0.50	1	315895	06/12/23	06/12/23	THP
Sodium	**180**		mg/L	0.50	1	315895	06/12/23	06/12/23	THP
Zinc	ND		mg/L	0.050	1	315895	06/12/23	06/12/23	THP
Method: EPA 200.8 Prep Method: EPA 200.8									
Arsenic	**15**		ug/L	2.0	1	315843	06/10/23	06/12/23	JCP
Method: EPA 300.0 Prep Method: METHOD									
Fluoride	**0.41**		mg/L	0.20	1	315873	06/11/23 10:36	06/11/23 13:58	AJL
Chloride	**100**		mg/L	1.0	1	315873	06/11/23 10:36	06/11/23 13:58	AJL
Sulfate	**110**		mg/L	2.0	2	315873	06/11/23 10:36	06/11/23 17:47	AJL
Method: EPA 351.2 Prep Method: METHOD									
Nitrogen, Total Kjeldahl	**0.41**		mg/L	0.40	1	315893	06/12/23	06/12/23	ATP
Method: EPA 353.2									
Nitrogen, Nitrate	**4.7**		mg/L	0.25	5	315939	06/12/23	06/12/23	PWM
Method: EPA 353.2 Prep Method: METHOD									
Nitrogen, Nitrite	ND		mg/L	0.10	1	315947	06/12/23	06/12/23	PWM
Method: SM 2340B Prep Method: EPA 3010A									
Hardness as CaCO3	**110**		mg/L	3.3	1	315895	06/12/23	06/12/23	KCD
Method: SM 4500-H+ B									
pH	**7.97**	H	SU		1	316303	06/16/23 12:24	06/16/23 12:24	LVL
Temperature	**21.90**	H	deg C	1.00	1	316303	06/16/23 12:24	06/16/23 12:24	LVL
Method: SM2320B Prep Method: METHOD									
Bicarbonate	**280**		mg/L	4.0	2	316146	06/14/23	06/14/23	ATP
Carbonate	ND		mg/L	4.0	2	316146	06/14/23	06/14/23	ATP
Hydroxide	ND		mg/L	4.0	2	316146	06/14/23	06/14/23	ATP
Alkalinity, Total as CaCO3	**230**		mg/L	4.0	2	316146	06/14/23	06/14/23	ATP

Results for any subcontracted analyses are not included in this section.

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Analysis Results for 486576

486576-003 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: SM2510B Prep Method: METHOD									
Specific Conductance	**1,100**		umhos/cm	1	1	315924	06/12/23	06/12/23	LVL
Method: SM2540C Prep Method: METHOD									
Total Dissolved Solids	**600**		mg/L	20	2	316011	06/13/23	06/14/23	WWC
Method: SM5540C									
Surfactants (MBAS)	ND		mg/L	0.040	1	315840	06/10/23 09:00	06/10/23 09:54	ATP
Method: TOTAL NITROGEN									
Total Nitrogen	**4.7**		mg/L		1	316593	06/20/23	06/20/23	SLL

Results for any subcontracted analyses are not included in this section.

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Analysis Results for 486576

Sample ID: WWTP-4D	Lab ID: 486576-004	Collected: 06/08/23 15:20
	Matrix: Water	

486576-004 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 200.7 Prep Method: EPA 200.7									
Copper	ND		mg/L	0.010	1	315858	06/10/23	06/12/23	SBW
Method: EPA 200.7 Prep Method: EPA 3010A									
Barium	**0.078**		mg/L	0.010	1	315895	06/12/23	06/12/23	THP
Calcium	**46**		mg/L	0.10	1	315895	06/12/23	06/12/23	THP
Iron	**0.58**		mg/L	0.020	1	315895	06/12/23	06/12/23	THP
Magnesium	**1.7**		mg/L	0.10	1	315895	06/12/23	06/12/23	THP
Manganese	**0.083**		mg/L	0.010	1	315895	06/12/23	06/12/23	THP
Potassium	**9.7**		mg/L	0.50	1	315895	06/12/23	06/12/23	THP
Sodium	**190**		mg/L	0.50	1	315895	06/12/23	06/12/23	THP
Zinc	ND		mg/L	0.050	1	315895	06/12/23	06/12/23	THP
Method: EPA 200.8 Prep Method: EPA 200.8									
Arsenic	ND		ug/L	2.0	1	315843	06/10/23	06/12/23	JCP
Method: EPA 300.0 Prep Method: METHOD									
Fluoride	**0.39**		mg/L	0.20	1	315873	06/11/23 10:36	06/11/23 14:21	AJL
Chloride	**110**		mg/L	1.0	1	315873	06/11/23 10:36	06/11/23 14:21	AJL
Sulfate	**110**		mg/L	2.0	2	315873	06/11/23 10:36	06/11/23 18:10	AJL
Method: EPA 351.2 Prep Method: METHOD									
Nitrogen, Total Kjeldahl	ND		mg/L	0.40	1	315893	06/12/23	06/12/23	ATP
Method: EPA 353.2									
Nitrogen, Nitrate	**7.7**		mg/L	0.50	10	315939	06/12/23	06/12/23	PWM
Method: EPA 353.2 Prep Method: METHOD									
Nitrogen, Nitrite	**0.85**		mg/L	0.10	1	315947	06/12/23	06/12/23	PWM
Method: SM 2340B Prep Method: EPA 3010A									
Hardness as CaCO3	**120**		mg/L	3.3	1	315895	06/12/23	06/12/23	KCD
Method: SM 4500-H+ B									
pH	**11.37**	H	SU		1	316303	06/16/23 12:24	06/16/23 12:24	LVL
Temperature	**20.00**	H	deg C	1.00	1	316303	06/16/23 12:24	06/16/23 12:24	LVL
Method: SM2320B Prep Method: METHOD									
Bicarbonate	ND		mg/L	4.0	2	316146	06/14/23	06/14/23	ATP
Carbonate	ND		mg/L	4.0	2	316146	06/14/23	06/14/23	ATP
Hydroxide	**56**		mg/L	4.0	2	316146	06/14/23	06/14/23	ATP
Alkalinity, Total as CaCO3	**41**		mg/L	4.0	2	316146	06/14/23	06/14/23	ATP

Results for any subcontracted analyses are not included in this section.

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Analysis Results for 486576

486576-004 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: SM2510B Prep Method: METHOD									
Specific Conductance	**1,300**		umhos/cm	1	1	315924	06/12/23	06/12/23	LVL
Method: SM2540C Prep Method: METHOD									
Total Dissolved Solids	**650**		mg/L	20	2	316011	06/13/23	06/14/23	WWC
Method: SM5540C									
Surfactants (MBAS)	ND		mg/L	0.040	1	315840	06/10/23 09:00	06/10/23 09:54	ATP
Method: TOTAL NITROGEN									
Total Nitrogen	**8.6**		mg/L		1	316593	06/20/23	06/20/23	SLL

H Holding time was exceeded
ND Not Detected

Results for any subcontracted analyses are not included in this section.

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Batch QC

Type: Blank	**Lab ID:** QC1072241	**Batch:** 315858
Matrix: Water	**Method:** EPA 200.7	**Prep Method:** EPA 200.7

QC1072241 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
Copper	ND		mg/L	0.010	06/10/23	06/12/23

Type: Lab Control Sample	**Lab ID:** QC1072242	**Batch:** 315858
Matrix: Water	**Method:** EPA 200.7	**Prep Method:** EPA 200.7

QC1072242 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Copper	0.3956	0.4000	mg/L	99%		85-115

Type: Matrix Spike	**Lab ID:** QC1072243	**Batch:** 315858
Matrix (Source ID): Water (486625-001)	**Method:** EPA 200.7	**Prep Method:** EPA 200.7

QC1072243 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Copper	0.6163	0.2001	0.4000	mg/L	104%		75-125	1

Type: Matrix Spike Duplicate	**Lab ID:** QC1072244	**Batch:** 315858
Matrix (Source ID): Water (486625-001)	**Method:** EPA 200.7	**Prep Method:** EPA 200.7

QC1072244 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Copper	0.6027	0.2001	0.4000	mg/L	101%		75-125	2	20	1

Type: Blank	**Lab ID:** QC1072384	**Batch:** 315894
Matrix: Water		

QC1072384 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
Method: EPA 200.7 Prep Method: EPA 3010A						
Barium	ND		mg/L	0.010	06/12/23	06/12/23
Calcium	ND		mg/L	0.10	06/12/23	06/12/23
Iron	ND		mg/L	0.020	06/12/23	06/12/23
Magnesium	ND		mg/L	0.10	06/12/23	06/12/23
Manganese	ND		mg/L	0.010	06/12/23	06/12/23
Potassium	ND		mg/L	0.50	06/12/23	06/12/23
Sodium	ND		mg/L	0.50	06/12/23	06/12/23
Zinc	ND		mg/L	0.050	06/12/23	06/12/23
Method: SM 2340B Prep Method: EPA 3010A						
Hardness as CaCO3	ND		mg/L	3.3	06/12/23	06/12/23

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Batch QC

Type: Lab Control Sample	**Lab ID:** QC1072385	**Batch:** 315894
Matrix: Water	**Method:** EPA 200.7	**Prep Method:** EPA 3010A

QC1072385 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Barium	0.3677	0.4000	mg/L	92%		85-115
Calcium	20.15	20.40	mg/L	99%		85-115
Iron	0.3831	0.4000	mg/L	96%		85-115
Magnesium	20.26	20.40	mg/L	99%		85-115
Manganese	0.3751	0.4000	mg/L	94%		85-115
Potassium	22.43	24.00	mg/L	93%		85-115
Sodium	19.60	20.40	mg/L	96%		85-115
Zinc	0.3843	0.4000	mg/L	96%	b	85-115

Type: Matrix Spike	**Lab ID:** QC1072386	**Batch:** 315894
Matrix (Source ID): Water (486576-001)	**Method:** EPA 200.7	**Prep Method:** EPA 3010A

QC1072386 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Barium	0.3959	0.008381	0.4000	mg/L	97%		75-125	1
Calcium	22.66	1.945	20.40	mg/L	102%		75-125	1
Iron	0.4428	0.03631	0.4000	mg/L	102%		75-125	1
Magnesium	21.30	0.5998	20.40	mg/L	101%		75-125	1
Manganese	0.3977	0.004473	0.4000	mg/L	98%		75-125	1
Potassium	26.71	3.507	24.00	mg/L	97%		75-125	1
Sodium	174.4	152.9	20.40	mg/L	105%	NM	75-125	1
Zinc	0.4103	ND	0.4000	mg/L	103%	b	75-125	1

Type: Matrix Spike Duplicate	**Lab ID:** QC1072387	**Batch:** 315894
Matrix (Source ID): Water (486576-001)	**Method:** EPA 200.7	**Prep Method:** EPA 3010A

QC1072387 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Barium	0.3966	0.008381	0.4000	mg/L	97%		75-125	0	20	1
Calcium	23.31	1.945	20.40	mg/L	105%		75-125	3	20	1
Iron	0.5351	0.03631	0.4000	mg/L	125%		75-125	19	20	1
Magnesium	21.91	0.5998	20.40	mg/L	104%		75-125	3	20	1
Manganese	0.4109	0.004473	0.4000	mg/L	102%		75-125	3	20	1
Potassium	27.61	3.507	24.00	mg/L	100%		75-125	3	20	1
Sodium	177.3	152.9	20.40	mg/L	119%	NM	75-125	2	20	1
Zinc	0.4158	ND	0.4000	mg/L	104%	b	75-125	1	20	1

ENTHALPY ANALYTICAL

Batch QC

Type: Blank	Lab ID: QC1072388	Batch: 315895
Matrix: Water		

QC1072388 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
Method: EPA 200.7 Prep Method: EPA 3010A						
Barium	ND		mg/L	0.010	06/12/23	06/12/23
Calcium	ND		mg/L	0.10	06/12/23	06/12/23
Iron	ND		mg/L	0.020	06/12/23	06/12/23
Magnesium	ND		mg/L	0.10	06/12/23	06/12/23
Manganese	ND		mg/L	0.010	06/12/23	06/12/23
Potassium	ND		mg/L	0.50	06/12/23	06/12/23
Sodium	ND		mg/L	0.50	06/12/23	06/12/23
Zinc	ND		mg/L	0.050	06/12/23	06/12/23
Method: SM 2340B Prep Method: EPA 3010A						
Hardness as CaCO3	ND		mg/L	3.3	06/12/23	06/12/23

Type: Lab Control Sample	Lab ID: QC1072389	Batch: 315895
Matrix: Water	Method: EPA 200.7	Prep Method: EPA 3010A

QC1072389 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Barium	0.4024	0.4000	mg/L	101%		85-115
Calcium	21.77	20.40	mg/L	107%		85-115
Iron	0.4177	0.4000	mg/L	104%		85-115
Magnesium	21.76	20.40	mg/L	107%		85-115
Manganese	0.4114	0.4000	mg/L	103%		85-115
Potassium	24.32	24.00	mg/L	101%		85-115
Sodium	21.20	20.40	mg/L	104%		85-115
Zinc	0.4158	0.4000	mg/L	104%	b	85-115

Type: Matrix Spike	Lab ID: QC1072390	Batch: 315895
Matrix (Source ID): Water (486652-003)	Method: EPA 200.7	Prep Method: EPA 3010A

QC1072390 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Barium	0.7189	0.3256	0.4000	mg/L	98%		75-125	1
Calcium	76.07	55.12	20.40	mg/L	103%		75-125	1
Iron	2.381	1.991	0.4000	mg/L	97%	NM	75-125	1
Magnesium	58.08	36.75	20.40	mg/L	105%		75-125	1
Manganese	1.443	1.045	0.4000	mg/L	99%		75-125	1
Potassium	38.13	13.60	24.00	mg/L	102%		75-125	1
Sodium	572.5	553.0	20.40	mg/L	95%	NM	75-125	1
Zinc	0.4226	0.01434	0.4000	mg/L	102%	b	75-125	1

ENTHALPY ANALYTICAL

Batch QC

Type:	Matrix Spike Duplicate	Lab ID:	QC1072391	Batch:	315895
Matrix (Source ID):	Water (486652-003)	Method:	EPA 200.7	Prep Method:	EPA 3010A

QC1072391 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Barium	0.7305	0.3256	0.4000	mg/L	101%		75-125	2	20	1
Calcium	74.82	55.12	20.40	mg/L	97%		75-125	2	20	1
Iron	2.403	1.991	0.4000	mg/L	103%	NM	75-125	1	20	1
Magnesium	56.04	36.75	20.40	mg/L	95%		75-125	4	20	1
Manganese	1.446	1.045	0.4000	mg/L	100%		75-125	0	20	1
Potassium	39.11	13.60	24.00	mg/L	106%		75-125	3	20	1
Sodium	597.2	553.0	20.40	mg/L	217%	NM	75-125	4	20	1
Zinc	0.4250	0.01434	0.4000	mg/L	103%	b	75-125	1	20	1

Type:	Blank	Lab ID:	QC1072194	Batch:	315843
Matrix:	Water	Method:	EPA 200.8	Prep Method:	EPA 200.8

QC1072194 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
Arsenic	ND		ug/L	2.0	06/10/23	06/12/23

Type:	Lab Control Sample	Lab ID:	QC1072195	Batch:	315843
Matrix:	Water	Method:	EPA 200.8	Prep Method:	EPA 200.8

QC1072195 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Arsenic	102.4	100.0	ug/L	102%		85-115

Type:	Matrix Spike	Lab ID:	QC1072196	Batch:	315843
Matrix (Source ID):	Water (486592-001)	Method:	EPA 200.8	Prep Method:	EPA 200.8

QC1072196 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Arsenic	62.88	0.6054	100.0	ug/L	62%	*	70-130	1

Type:	Matrix Spike Duplicate	Lab ID:	QC1072197	Batch:	315843
Matrix (Source ID):	Water (486592-001)	Method:	EPA 200.8	Prep Method:	EPA 200.8

QC1072197 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Arsenic	64.92	0.6054	100.0	ug/L	64%	*	70-130	3	20	1

ENTHALPY ANALYTICAL

Batch QC

Type:	**Matrix Spike**	**Lab ID:**	**QC1072198**	**Batch:**	**315843**
Matrix (Source ID):	**Water (486593-001)**	**Method:**	**EPA 200.8**	**Prep Method:**	**EPA 200.8**

QC1072198 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Arsenic	107.9	4.750	100.0	ug/L	103%		70-130	1

Type:	**Matrix Spike Duplicate**	**Lab ID:**	**QC1072199**	**Batch:**	**315843**
Matrix (Source ID):	**Water (486593-001)**	**Method:**	**EPA 200.8**	**Prep Method:**	**EPA 200.8**

QC1072199 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Arsenic	106.7	4.750	100.0	ug/L	102%		70-130	1	20	1

Type:	**Blank**	**Lab ID:**	**QC1072294**	**Batch:**	**315873**
Matrix:	**Water**	**Method:**	**EPA 300.0**	**Prep Method:**	**METHOD**

QC1072294 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
Fluoride	ND		mg/L	0.20	06/11/23 10:36	06/11/23 15:52
Chloride	ND		mg/L	1.0	06/11/23 10:36	06/11/23 15:52
Sulfate	ND		mg/L	1.0	06/11/23 10:36	06/11/23 15:52

Type:	**Lab Control Sample**	**Lab ID:**	**QC1072295**	**Batch:**	**315873**
Matrix:	**Water**	**Method:**	**EPA 300.0**	**Prep Method:**	**METHOD**

QC1072295 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Fluoride	9.613	10.00	mg/L	96%		90-110
Chloride	47.03	50.00	mg/L	94%		90-110
Sulfate	24.95	25.00	mg/L	100%		90-110

Type:	**Matrix Spike**	**Lab ID:**	**QC1072296**	**Batch:**	**315873**
Matrix (Source ID):	**Water (486576-001)**	**Method:**	**EPA 300.0**	**Prep Method:**	**METHOD**

QC1072296 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Fluoride	4.272	0.5733	4.000	mg/L	92%		80-120	1
Chloride	105.6	85.81	20.00	mg/L	99%	NM	80-120	1
Sulfate	79.71	70.35	10.00	mg/L	94%	NM	80-120	1

ENTHALPY ANALYTICAL

Batch QC

Type:	**Matrix Spike Duplicate**	**Lab ID:**	**QC1072297**	**Batch:**	**315873**
Matrix (Source ID):	**Water (486576-001)**	**Method:**	**EPA 300.0**	**Prep Method:**	**METHOD**

QC1072297 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Fluoride	4.362	0.5733	4.000	mg/L	95%		80-120	2	20	1
Chloride	106.2	85.81	20.00	mg/L	102%	NM	80-120	1	20	1
Sulfate	79.98	70.35	10.00	mg/L	96%	NM	80-120	0	20	1

Type:	**Matrix Spike**	**Lab ID:**	**QC1072298**	**Batch:**	**315873**
Matrix (Source ID):	**Water (486576-002)**	**Method:**	**EPA 300.0**	**Prep Method:**	**METHOD**

QC1072298 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Fluoride	4.171	0.4928	4.000	mg/L	92%		80-120	1
Chloride	65.05	45.07	20.00	mg/L	100%		80-120	1
Sulfate	102.4	93.47	10.00	mg/L	90%	E,NM	80-120	1

Type:	**Matrix Spike Duplicate**	**Lab ID:**	**QC1072299**	**Batch:**	**315873**
Matrix (Source ID):	**Water (486576-002)**	**Method:**	**EPA 300.0**	**Prep Method:**	**METHOD**

QC1072299 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Fluoride	4.270	0.4928	4.000	mg/L	94%		80-120	2	20	1
Chloride	65.52	45.07	20.00	mg/L	102%		80-120	1	20	1
Sulfate	102.6	93.47	10.00	mg/L	92%	E,NM	80-120		20	1

Type:	**Blank**	**Lab ID:**	**QC1072378**	**Batch:**	**315893**
Matrix:	**Water**	**Method:**	**EPA 351.2**	**Prep Method:**	**METHOD**

QC1072378 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
Nitrogen, Total Kjeldahl	ND		mg/L	0.20	06/12/23	06/12/23

Type:	**Lab Control Sample**	**Lab ID:**	**QC1072379**	**Batch:**	**315893**
Matrix:	**Water**	**Method:**	**EPA 351.2**	**Prep Method:**	**METHOD**

QC1072379 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Nitrogen, Total Kjeldahl	2.360	2.500	mg/L	94%		90-110

ENTHALPY ANALYTICAL

Batch QC

Type:	Matrix Spike	Lab ID:	QC1072380	Batch:	315893
Matrix (Source ID):	Water (486327-002)	Method:	EPA 351.2	Prep Method:	METHOD

QC1072380 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Nitrogen, Total Kjeldahl	9.755	0.3958	12.50	mg/L	75%	*	90-110	2.5

Type:	Matrix Spike Duplicate	Lab ID:	QC1072381	Batch:	315893
Matrix (Source ID):	Water (486327-002)	Method:	EPA 351.2	Prep Method:	METHOD

QC1072381 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Nitrogen, Total Kjeldahl	12.53	0.3958	12.50	mg/L	97%		90-110	25*	20	2.5

Type:	Matrix Spike	Lab ID:	QC1072382	Batch:	315893
Matrix (Source ID):	Water (486594-001)	Method:	EPA 351.2	Prep Method:	METHOD

QC1072382 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Nitrogen, Total Kjeldahl	11.98	0.1274	12.50	mg/L	95%		90-110	2.5

Type:	Matrix Spike Duplicate	Lab ID:	QC1072383	Batch:	315893
Matrix (Source ID):	Water (486594-001)	Method:	EPA 351.2	Prep Method:	METHOD

QC1072383 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Nitrogen, Total Kjeldahl	12.63	0.1274	12.50	mg/L	100%		90-110	5	20	2.5

Type:	Lab Control Sample	Lab ID:	QC1072532	Batch:	315939
Matrix:	Water	Method:	EPA 353.2		

QC1072532 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Nitrogen, Nitrate	1.024	1.000	mg/L	102%		80-120

Type:	Blank	Lab ID:	QC1072533	Batch:	315939
Matrix:	Water	Method:	EPA 353.2		

QC1072533 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
Nitrogen, Nitrate	ND		mg/L	0.050	06/12/23	06/12/23

ENTHALPY ANALYTICAL

Batch QC

Type: Matrix Spike **Lab ID:** QC1072548 **Batch:** 315939
Matrix (Source ID): Water (486453-003) **Method:** EPA 353.2

QC1072548 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Nitrogen, Nitrate	1.108	ND	1.000	mg/L	111%		80-120	1

Type: Matrix Spike Duplicate **Lab ID:** QC1072549 **Batch:** 315939
Matrix (Source ID): Water (486453-003) **Method:** EPA 353.2

QC1072549 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Nitrogen, Nitrate	1.097	ND	1.000	mg/L	110%		80-120	1	20	1

Type: Matrix Spike **Lab ID:** QC1072561 **Batch:** 315947
Matrix (Source ID): Water (486576-002) **Method:** EPA 353.2 **Prep Method:** METHOD

QC1072561 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Nitrogen, Nitrite	1.090	0.04568	1.000	mg/L	104%		80-120	1

Type: Matrix Spike Duplicate **Lab ID:** QC1072562 **Batch:** 315947
Matrix (Source ID): Water (486576-002) **Method:** EPA 353.2 **Prep Method:** METHOD

QC1072562 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Nitrogen, Nitrite	1.083	0.04568	1.000	mg/L	104%		80-120	1	20	1

Type: Lab Control Sample **Lab ID:** QC1072563 **Batch:** 315947
Matrix: Water **Method:** EPA 353.2 **Prep Method:** METHOD

QC1072563 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Nitrogen, Nitrite	1.050	1.000	mg/L	105%		80-120

Type: Blank **Lab ID:** QC1072564 **Batch:** 315947
Matrix: Water **Method:** EPA 353.2 **Prep Method:** METHOD

QC1072564 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
Nitrogen, Nitrite	ND		mg/L	0.10	06/12/23	06/12/23

ENTHALPY ANALYTICAL

Batch QC

Type:	**Sample Duplicate**	**Lab ID:**	**QC1073750**	**Batch:**	**316303**
Matrix (Source ID):	**Water (486576-001)**	**Method:**	**SM 4500-H+ B**		

QC1073750 Analyte	Result	Source Sample Result	Units	Qual	RPD	RPD Lim	DF
pH	8.860	8.850	SU		0	20	1
Temperature	24.10	23.30	deg C		3	20	1

Type:	**Blank**	**Lab ID:**	**QC1073207**	**Batch:**	**316146**
Matrix:	**Water**	**Method:**	**SM2320B**	**Prep Method:**	**METHOD**

QC1073207 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
Bicarbonate	ND		mg/L	2.0	06/14/23	06/14/23
Carbonate	ND		mg/L	2.0	06/14/23	06/14/23
Hydroxide	ND		mg/L	2.0	06/14/23	06/14/23
Alkalinity, Total as CaCO3	ND		mg/L	2.0	06/14/23	06/14/23

Type:	**Lab Control Sample**	**Lab ID:**	**QC1073208**	**Batch:**	**316146**
Matrix:	**Water**	**Method:**	**SM2320B**	**Prep Method:**	**METHOD**

QC1073208 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Alkalinity, Total as CaCO3	1,015	1000	mg/L	102%		90-110

Type:	**Sample Duplicate**	**Lab ID:**	**QC1073209**	**Batch:**	**316146**
Matrix (Source ID):	**Water (486576-001)**	**Method:**	**SM2320B**	**Prep Method:**	**METHOD**

QC1073209 Analyte	Result	Source Sample Result	Units	Qual	RPD	RPD Lim	DF
Bicarbonate	110.1	112.6	mg/L		2	20	2
Carbonate	19.69	19.69	mg/L		0	20	2
Hydroxide	ND	ND	mg/L			20	2
Alkalinity, Total as CaCO3	123.1	125.1	mg/L		2	20	2

Type:	**Sample Duplicate**	**Lab ID:**	**QC1072484**	**Batch:**	**315924**
Matrix (Source ID):	**Water (486576-001)**	**Method:**	**SM2510B**	**Prep Method:**	**METHOD**

QC1072484 Analyte	Result	Source Sample Result	Units	Qual	RPD	RPD Lim	DF
Specific Conductance	781.0	786.1	umhos/cm		1	20	1

ENTHALPY ANALYTICAL

Batch QC

Type: Blank	**Lab ID:** QC1072771	**Batch:** 316011
Matrix: Water	**Method:** SM2540C	**Prep Method:** METHOD

QC1072771 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
Total Dissolved Solids	ND		mg/L	10	06/13/23	06/14/23

Type: Lab Control Sample	**Lab ID:** QC1072772	**Batch:** 316011
Matrix: Water	**Method:** SM2540C	**Prep Method:** METHOD

QC1072772 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Total Dissolved Solids	1,016	1000	mg/L	102%		90-110

Type: Sample Duplicate	**Lab ID:** QC1072773	**Batch:** 316011
Matrix (Source ID): Water (486576-004)	**Method:** SM2540C	**Prep Method:** METHOD

QC1072773 Analyte	Result	Source Sample Result	Units	Qual	RPD	RPD Lim	DF
Total Dissolved Solids	642.0	646.0	mg/L		1	5	2

Type: Sample Duplicate	**Lab ID:** QC1072774	**Batch:** 316011
Matrix (Source ID): Water (486571-003)	**Method:** SM2540C	**Prep Method:** METHOD

QC1072774 Analyte	Result	Source Sample Result	Units	Qual	RPD	RPD Lim	DF
Total Dissolved Solids	19,070	19140	mg/L		0	5	10

Type: Blank	**Lab ID:** QC1072182	**Batch:** 315840
Matrix: Water	**Method:** SM5540C	

QC1072182 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
Surfactants (MBAS)	ND		mg/L	0.040	06/10/23 09:00	06/10/23 09:54

Type: Lab Control Sample	**Lab ID:** QC1072183	**Batch:** 315840
Matrix: Water	**Method:** SM5540C	

QC1072183 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Surfactants (MBAS)	1.070	1.000	mg/L	107%		80-120

ENTHALPY ANALYTICAL

Batch QC

Type:	**Matrix Spike**	**Lab ID:**	**QC1072184**	**Batch:**	**315840**
Matrix (Source ID):	**Water (486576-001)**	**Method:**	**SM5540C**		

QC1072184 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Surfactants (MBAS)	1.091	ND	1.000	mg/L	109%		80-120	1

Type:	**Matrix Spike Duplicate**	**Lab ID:**	**QC1072185**	**Batch:**	**315840**
Matrix (Source ID):	**Water (486576-001)**	**Method:**	**SM5540C**		

QC1072185 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Surfactants (MBAS)	1.090	ND	1.000	mg/L	109%		80-120	0	20	1

* Value is outside QC limits
E Response exceeds instrument's linear range
ND Not Detected
NM Not Meaningful
b See narrative

Enthalpy Analytical
931 West Barkley Ave
Orange, CA 92868
(714) 771-6900

enthalpy.com

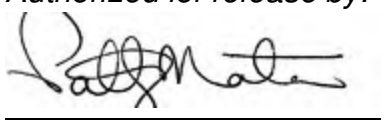
Lab Job Number: 486997
Report Level: II
Report Date: 06/28/2023

Analytical Report *prepared for:*

Hugh McManus
Dudek
605 3rd Street
Encinitas, CA 92024

Location: BWD WWTP, 11958

Authorized for release by:



Patty Mata, Project Manager
patty.mata@enthalpy.com

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the above signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

CA ELAP# 1338, NELAP# 4038, SCAQMD LAP# 18LA0518, LACSD ID# 10105

ENTHALPY ANALYTICAL

Sample Summary

Hugh McManus
Dudek
605 3rd Street
Encinitas, CA 92024

Lab Job #: 486997
Location: BWD WWTP, 11958
Date Received: 06/15/23

Sample ID	Lab ID	Collected	Matrix
WWTP-1	486997-001	06/15/23 11:25	Water

Case Narrative

Dudek 605 3rd Street Encinitas, CA 92024 Hugh McManus	Lab Job Number: 486997 Location: BWD WWTP, 11958 Date Received: 06/15/23

This data package contains sample and QC results for one water sample, requested for the above referenced project on 06/15/23. The sample was received cold and intact. Immediate hold time tests such as pH tests are run as soon as possible and are flagged with H qualifiers.

Metals (EPA 200.7 and EPA 200.8):

- High RPD was observed for magnesium in the MS/MSD for batch 316415; the parent sample was not a project sample.
- No other analytical problems were encountered.

Nitrate and Nitritate (EPA 353.2, EPA 353.2, and EPA 353.2):

- High recoveries were observed for nitrogen, nitrate/nitrite in the MS/MSD for batch 316532; the parent sample was not a project sample, and the LCS was within limits.
- No other analytical problems were encountered.

ENTHALPY ANALYTICAL

Chain of Custody Record

Lab No: 486997

Page: 1 of 1

Turn Around Time (rush by advanced notice only)

Standard:	X	5 Day:		3 Day:	
2 Day:		1 Day:		Custom TAT:	

Enthalpy Analytical - Orange
931 W. Barkley Avenue, Orange, CA 92868
Phone 714-771-6900

Matrix: A = Air S = Soil/Solid W = Water DW = Drinking Wate SD = Sediment PP = Pure Product SEA = Sea Water SW = Swab T = Tissue WP = Wipe O = Other

Preservatives: 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

Sample Receipt Temp: (lab use only)

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	DUDEK	Name:	BUD WWTP
Report To:	HUGH MCMANUS	Number:	11958
Email:	HMCMANUS@DUDEK.COM	P.O. #:	
Address:	605 3RD ST	Address:	
	ENCINITAS CA 92024		
Phone:	858-382-0419	Global ID:	
Fax:		Sampled By:	HUGH MCMANUS

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	TOTAL HARDNESS, CA, Mg, Na	TOTAL ALKALINITY, HYDROXIDE	CARBONATE, BICARBONATE	CHLORIDE, SULFATE, FLUORIDE	NITRATE AS N, NITRITE AS N	KJELDAHL NITROGEN, pH, SIO2	TDS, MBAS,	TOTAL NITROGEN	BARIUM, COPPER, IRON	MANGANESE, ZINC, ARSENIC		Test Instructions / Comments
																		SEE ATTACHED TABLE FOR COMPLETE ANALYSIS [GENERAL MINERALS PLUS FLUORIDE, NITRATE, NITRITE, TKN, TOTAL NITROGEN, BARIUM, & ARSENIC
																		3-4/1-4
1	WWTP-1	6/15/23	11:25	W	5	3,4	X	X	X	X	X	X	X	X	X	X		X
2																		
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		

	Signature	Print Name	Company / Title	Date / Time
[1] Relinquished By:	Hugh M'Mc	HUGH MCMANUS	DUDEK / HYDROGEOLOGIST	6/15/23 / 16:20
[1] Received By:		TAYLOR NASH	EA-SD	6/15/23 1620
[2] Relinquished By:		TAYLOR NASH	EA-SD	6/16/23 1100
[2] Received By:		MICHAEL TANWANGCO	EA-SD	6/16/23 1100
[3] Relinquished By:		MICHAEL TANWANGCO	EA-SD	6/16/23 1300
[3] Received By:		MICHAEL	EA	6-16-23 1300

EA 6-16-23 1400 Rec'd: Ocean Silvestri Ocena Sylvestri 6/16/23 14:00

Constituent	Method	Method Detection Limit (mg/L)	Reporting Limit (mg/L)	Sample Container	Preservative	Holding Time (days)
Total Hardness	SM 2340B/ 200.7	3.0	3.0	500 mL HDPE	HNO_3	180
Calcium	200.7	0.20	1.0	500 mL HDPE	HNO_3	180
Magnesium	200.7	0.20	1.0	500 mL HDPE	HNO_3	180
Sodium	200.7	0.093	1.0	500 mL HDPE	HNO_3	180
Potassium	200.7	0.21	1.0	500 mL HDPE	HNO_3	180
Total Alkalinity	SM 2320B	5.0	20	250 mL HDPE	Ice 4°C	14
Hydroxide	SM 2320B	5.0	20	250 mL HDPE	Ice 4°C	14
Carbonate	SM 2320B	5.0	20	250 mL HDPE	Ice 4°C	14
Bicarbonate	SM 2320B	5.0	20	250 mL HDPE	Ice 4°C	14
Chloride	300.0	0.30	1.0	125 mL HDPE	Ice 4°C	28
Sulfate	300.0	0.23	0.50	125 mL HDPE	Ice 4°C	28
Fluoride	300.0	0.038	0.10	250 mL HDPE	Ice 4°C	28
Nitrate as nitrogen	300.0	0.16	0.20	125 mL HDPE	Ice 4°C	2
pH	SM 4500H+B	1.00 pH Units	.00 pH Units	125 mL HDPE	None	15 minutes
Specific Conductance	SM2510B	1.0 umhos/cm	0 umhos/cm	125 mL HDPE	Ice 4°C	28
TDS	SM 2540C	10	10	1 L HDPE	Ice 4°C	7
MBAS	SM 5540C	0.035	0.080	500 mL HDPE	Ice 4°C	2
Nitrite as nitrogen	300.0	0.091	0.10	125 mL HDPE	Ice 4°C	2
Kjeldahl Nitrogen	351.2	0.093	0.10	500 mL HDPE	Ice 4°C, H_2SO_4	28
Total Nitrogen	calculated	0.20	0.20			
Barium	200.7	1.8 ug/L	20 ug/L	500 mL HDPE	HNO_3	180
Copper	200.7	2.8 ug/L	50 ug/L	500 mL HDPE	HNO_3	180
Iron	200.7	3.1 ug/L	100 ug/L	500 mL HDPE	HNO_3	180
Manganese	200.7	1.4 ug/L	20 ug/L	500 mL HDPE	HNO_3	180
Zinc	200.7	2.2 ug/L	50 ug/L	500 mL HDPE	HNO_3	180
Arsenic	200.8	1.2 ug/L	2.0 ug/L	500 mL HDPE	HNO_3	180

ENTHALPY ANALYTICAL

SAMPLE ACCEPTANCE CHECKLIST

Section 1

Client: Ductek

Project: RWD WWTP

Date Received: 6/16/23

Sampler's Name Present: ☒ Yes ☐ No

Section 2

Sample(s) received in a cooler? ☒ Yes, How many? 1 ☐ No (skip section 2)

Sample Temp (°C) (No Cooler): _____

Sample Temp (°C), One from each cooler: #1: 3.4 #2: G.S. 6/16/23 #3: _____ #4: _____

(Acceptance range is < 6°C but not frozen (for Microbiology samples, acceptance range is < 10°C but not frozen). It is acceptable for samples collected the same day as sample receipt to have a higher temperature as long as there is evidence that cooling has begun.)

Shipping Information: _____

Section 3

Was the cooler packed with: ☒ Ice ☐ Ice Packs ☐ Bubble Wrap ☐ Styrofoam ☐ Paper ☐ None ☐ Other _____

Cooler Temp (°C): #1: 1.9 #2: _____ #3: _____ #4: _____

Section 4	YES	NO	N/A
Was a COC received?	X		
Are sample IDs present?	X		
Are sampling dates & times present?	X		
Is a relinquished signature present?	X		
Are the tests required clearly indicated on the COC?	X		
Are custody seals present?		X	
If custody seals are present, were they intact?			X
Are all samples sealed in plastic bags? (Recommended for Microbiology samples)			X
Did all samples arrive intact? If no, indicate in Section 4 below.	X		
Did all bottle labels agree with COC? (ID, dates and times)	X		
Were the samples collected in the correct containers for the required tests?	X		
Are the containers labeled with the correct preservatives?	X		
Is there headspace in the VOA vials greater than 5-6 mm in diameter?			X
Was a sufficient amount of sample submitted for the requested tests?	X		

Section 5 Explanations/Comments

Section 6

For discrepancies, how was the Project Manager notified? ☐ Verbal PM Initials: _____ Date/Time _____

☐ Email (email sent to/on): _____ / _____

Project Manager's response:

Completed By: _____ Date: 6/16/23

ENTHALPY ANALYTICAL

Analysis Results for 486997

Hugh McManus
Dudek
605 3rd Street
Encinitas, CA 92024

Lab Job #: 486997
Location: BWD WWTP, 11958
Date Received: 06/15/23

Sample ID: WWTP-1 **Lab ID: 486997-001** **Collected: 06/15/23 11:25**
Matrix: Water

486997-001 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 200.7 Prep Method: EPA 200.7									
Barium	**0.18**		mg/L	0.010	1	316415	06/19/23	06/19/23	SBW
Calcium	**64**		mg/L	0.10	1	316415	06/19/23	06/19/23	SBW
Copper	ND		mg/L	0.010	1	316415	06/19/23	06/19/23	SBW
Iron	**5.9**		mg/L	0.020	1	316415	06/19/23	06/19/23	SBW
Magnesium	**14**		mg/L	0.10	1	316415	06/19/23	06/26/23	SBW
Manganese	**0.16**		mg/L	0.010	1	316415	06/19/23	06/19/23	SBW
Potassium	**7.1**		mg/L	0.50	1	316415	06/19/23	06/19/23	SBW
Sodium	**130**		mg/L	0.50	1	316415	06/19/23	06/19/23	SBW
Zinc	ND		mg/L	0.050	1	316415	06/19/23	06/19/23	SBW
Method: EPA 200.8 Prep Method: EPA 200.8									
Arsenic	**6.6**		ug/L	2.0	1	316418	06/19/23	06/19/23	THP
Method: EPA 300.0 Prep Method: METHOD									
Fluoride	ND		mg/L	0.40	2	316351	06/16/23 17:00	06/17/23 08:39	PAS
Chloride	**96**		mg/L	2.0	2	316351	06/16/23 17:00	06/17/23 08:39	PAS
Sulfate	**100**		mg/L	2.0	2	316351	06/16/23 17:00	06/17/23 08:39	PAS
Method: EPA 351.2 Prep Method: METHOD									
Nitrogen, Total Kjeldahl	ND		mg/L	0.40	1	316429	06/21/23	06/21/23	PWM
Method: EPA 353.2									
Nitrogen, Nitrate	**2.2**		mg/L	0.050	1	316532	06/21/23	06/21/23	ATP
Method: EPA 353.2 Prep Method: METHOD									
Nitrogen, Nitrite	ND		mg/L	0.10	1	316629	06/21/23	06/21/23	PWM
Nitrogen, Nitrate/Nitrite	**2.2**		mg/L	0.10	1	316532	06/20/23	06/20/23	PWM
Method: SM 2340B Prep Method: EPA 200.7									
Hardness as CaCO3	**220**		mg/L	3.3	1	316415	06/19/23	06/19/23	RPS
Method: SM 4500-H+ B									
pH	**7.57**	H	SU		1	316518	06/20/23 15:38	06/20/23 15:38	LVL
Temperature	**21.10**	H	deg C	1.00	1	316518	06/20/23 15:38	06/20/23 15:38	LVL
Method: SM2320B Prep Method: METHOD									

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 486997

486997-001 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Bicarbonate	**260**		mg/L	4.0	2	316588	06/20/23	06/20/23	WWC
Carbonate	ND		mg/L	4.0	2	316588	06/20/23	06/20/23	WWC
Hydroxide	ND		mg/L	4.0	2	316588	06/20/23	06/20/23	WWC
Alkalinity, Total as CaCO3	**210**		mg/L	4.0	2	316588	06/20/23	06/20/23	WWC
Method: SM2510B Prep Method: METHOD									
Specific Conductance	**1,000**		umhos/cm	1	1	316967	06/26/23	06/26/23	LVL
Method: SM2540C Prep Method: METHOD									
Total Dissolved Solids	**430**		mg/L	20	2	316538	06/20/23	06/21/23	WWC
Method: SM5540C									
Surfactants (MBAS)	ND		mg/L	0.040	1	316339	06/16/23 15:00	06/16/23 20:17	LVL
Method: TOTAL NITROGEN									
Total Nitrogen	**2.2**		mg/L		1	317085	06/27/23	06/27/23	DCD

H Holding time was exceeded
ND Not Detected

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Batch QC

Type: Blank	Lab ID: QC1074121	Batch: 316415
Matrix: Water		

QC1074121 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
Method: EPA 200.7 Prep Method: EPA 200.7						
Barium	ND		mg/L	0.010	06/19/23	06/19/23
Calcium	ND		mg/L	0.10	06/19/23	06/19/23
Copper	ND		mg/L	0.010	06/19/23	06/19/23
Iron	ND		mg/L	0.020	06/19/23	06/19/23
Magnesium	ND		mg/L	0.10	06/19/23	06/26/23
Manganese	ND		mg/L	0.010	06/19/23	06/19/23
Potassium	ND		mg/L	0.50	06/19/23	06/19/23
Sodium	ND		mg/L	0.50	06/19/23	06/19/23
Zinc	ND		mg/L	0.050	06/19/23	06/19/23
Method: SM 2340B Prep Method: EPA 200.7						
Hardness as CaCO3	ND		mg/L	3.3	06/19/23	06/19/23

Type: Lab Control Sample	Lab ID: QC1074122	Batch: 316415
Matrix: Water	Method: EPA 200.7	Prep Method: EPA 200.7

QC1074122 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Barium	0.3816	0.4000	mg/L	95%		85-115
Calcium	19.17	20.40	mg/L	94%		85-115
Copper	0.3634	0.4000	mg/L	91%		85-115
Iron	0.3843	0.4000	mg/L	96%		85-115
Magnesium	21.66	20.40	mg/L	106%		85-115
Manganese	0.3797	0.4000	mg/L	95%		85-115
Potassium	21.82	24.00	mg/L	91%		85-115
Sodium	18.99	20.40	mg/L	93%		85-115
Zinc	0.3782	0.4000	mg/L	95%		85-115

ENTHALPY ANALYTICAL

Batch QC

Type:	**Matrix Spike**	**Lab ID:**	**QC1074123**	**Batch:**	**316415**
Matrix (Source ID):	**Water (487076-001)**	**Method:**	**EPA 200.7**	**Prep Method:**	**EPA 200.7**

QC1074123 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Barium	0.3884	0.04547	0.4000	mg/L	86%		75-125	1
Calcium	42.36	21.50	20.40	mg/L	102%		75-125	1
Copper	0.3990	0.01190	0.4000	mg/L	97%		75-125	1
Iron	0.5074	0.1651	0.4000	mg/L	86%		75-125	1
Magnesium	24.23	6.690	20.40	mg/L	86%		75-125	1
Manganese	0.3486	0.003930	0.4000	mg/L	86%		75-125	1
Potassium	30.35	8.406	24.00	mg/L	91%		75-125	1
Sodium	821.0	787.9	20.40	mg/L	162%	NM	75-125	1
Zinc	0.3676	0.01873	0.4000	mg/L	87%		75-125	1

Type:	**Matrix Spike Duplicate**	**Lab ID:**	**QC1074124**	**Batch:**	**316415**
Matrix (Source ID):	**Water (487076-001)**	**Method:**	**EPA 200.7**	**Prep Method:**	**EPA 200.7**

QC1074124 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Barium	0.3835	0.04547	0.4000	mg/L	85%		75-125	1	20	1
Calcium	38.21	21.50	20.40	mg/L	82%		75-125	10	20	1
Copper	0.3955	0.01190	0.4000	mg/L	96%		75-125	1	20	1
Iron	0.5043	0.1651	0.4000	mg/L	85%		75-125	1	20	1
Magnesium	32.16	6.690	20.40	mg/L	125%		75-125	28*	20	1
Manganese	0.3457	0.003930	0.4000	mg/L	85%		75-125	1	20	1
Potassium	27.34	8.406	24.00	mg/L	79%		75-125	10	20	1
Sodium	743.9	787.9	20.40	mg/L	-216%	NM	75-125	10	20	1
Zinc	0.3657	0.01873	0.4000	mg/L	87%		75-125	1	20	1

Type:	**Blank**	**Lab ID:**	**QC1074133**	**Batch:**	**316418**
Matrix:	**Water**	**Method:**	**EPA 200.8**	**Prep Method:**	**EPA 200.8**

QC1074133 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
Arsenic	ND		ug/L	2.0	06/19/23	06/19/23

Type:	**Lab Control Sample**	**Lab ID:**	**QC1074134**	**Batch:**	**316418**
Matrix:	**Water**	**Method:**	**EPA 200.8**	**Prep Method:**	**EPA 200.8**

QC1074134 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Arsenic	102.3	100.0	ug/L	102%		85-115

ENTHALPY ANALYTICAL

Batch QC

Type:	**Matrix Spike**	**Lab ID:**	**QC1074135**	**Batch:**	**316418**
Matrix (Source ID):	**Water (486977-001)**	**Method:**	**EPA 200.8**	**Prep Method:**	**EPA 200.8**

QC1074135 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Arsenic	105.5	0.8462	100.0	ug/L	105%		70-130	1

Type:	**Matrix Spike Duplicate**	**Lab ID:**	**QC1074136**	**Batch:**	**316418**
Matrix (Source ID):	**Water (486977-001)**	**Method:**	**EPA 200.8**	**Prep Method:**	**EPA 200.8**

QC1074136 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Arsenic	107.2	0.8462	100.0	ug/L	106%		70-130	2	20	1

Type:	**Blank**	**Lab ID:**	**QC1073840**	**Batch:**	**316351**
Matrix:	**Drinking Water**	**Method:**	**EPA 300.0**	**Prep Method:**	**METHOD**

QC1073840 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
Fluoride	ND		mg/L	0.20	06/16/23 17:00	06/16/23 18:09
Chloride	ND		mg/L	1.0	06/16/23 17:00	06/16/23 18:09
Sulfate	ND		mg/L	1.0	06/16/23 17:00	06/16/23 18:09

Type:	**Lab Control Sample**	**Lab ID:**	**QC1073841**	**Batch:**	**316351**
Matrix:	**Drinking Water**	**Method:**	**EPA 300.0**	**Prep Method:**	**METHOD**

QC1073841 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Fluoride	9.975	10.00	mg/L	100%		90-110
Chloride	47.04	50.00	mg/L	94%		90-110
Sulfate	26.16	25.00	mg/L	105%		90-110

Type:	**Matrix Spike**	**Lab ID:**	**QC1073844**	**Batch:**	**316351**
Matrix (Source ID):	**Water (487028-001)**	**Method:**	**EPA 300.0**	**Prep Method:**	**METHOD**

QC1073844 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Fluoride	4.130	0.08096	4.000	mg/L	101%		80-120	1
Chloride	112.2	90.94	20.00	mg/L	106%	NM	80-120	1
Sulfate	39.20	27.29	10.00	mg/L	119%		80-120	1

ENTHALPY ANALYTICAL

Batch QC

Type:	**Matrix Spike Duplicate**	**Lab ID:**	**QC1073845**	**Batch:**	**316351**
Matrix (Source ID):	**Water (487028-001)**	**Method:**	**EPA 300.0**	**Prep Method:**	**METHOD**

QC1073845 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Fluoride	3.759	0.08096	4.000	mg/L	92%		80-120	9	20	1
Chloride	111.0	90.94	20.00	mg/L	100%	NM	80-120	1	20	1
Sulfate	37.29	27.29	10.00	mg/L	100%		80-120	5	20	1

Type:	**Matrix Spike**	**Lab ID:**	**QC1074395**	**Batch:**	**316429**
Matrix (Source ID):	**Water (486997-001)**	**Method:**	**EPA 351.2**	**Prep Method:**	**METHOD**

QC1074395 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Nitrogen, Total Kjeldahl	12.30	0.1095	12.50	mg/L	98%		90-110	2.5

Type:	**Matrix Spike Duplicate**	**Lab ID:**	**QC1074396**	**Batch:**	**316429**
Matrix (Source ID):	**Water (486997-001)**	**Method:**	**EPA 351.2**	**Prep Method:**	**METHOD**

QC1074396 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Nitrogen, Total Kjeldahl	13.42	0.1095	12.50	mg/L	106%		90-110	9	20	2.5

Type:	**Lab Control Sample**	**Lab ID:**	**QC1074397**	**Batch:**	**316429**
Matrix:	**Water**	**Method:**	**EPA 351.2**	**Prep Method:**	**METHOD**

QC1074397 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Nitrogen, Total Kjeldahl	2.418	2.500	mg/L	97%		90-110

Type:	**Blank**	**Lab ID:**	**QC1074398**	**Batch:**	**316429**
Matrix:	**Water**	**Method:**	**EPA 351.2**	**Prep Method:**	**METHOD**

QC1074398 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
Nitrogen, Total Kjeldahl	ND		mg/L	0.20	06/21/23	06/21/23

Type:	**Matrix Spike**	**Lab ID:**	**QC1074970**	**Batch:**	**316429**
Matrix (Source ID):	**Water (487073-002)**	**Method:**	**EPA 351.2**	**Prep Method:**	**METHOD**

QC1074970 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Nitrogen, Total Kjeldahl	12.97	ND	12.50	mg/L	104%		90-110	2.5

ENTHALPY ANALYTICAL

Batch QC

Type:	**Matrix Spike Duplicate**	**Lab ID:**	**QC1074971**	**Batch:**	**316429**
Matrix (Source ID):	**Water (487073-002)**	**Method:**	**EPA 351.2**	**Prep Method:**	**METHOD**

QC1074971 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Nitrogen, Total Kjeldahl	12.97	ND	12.50	mg/L	104%		90-110	0	20	2.5

Type:	**Lab Control Sample**	**Lab ID:**	**QC1074511**	**Batch:**	**316532**
Matrix:	**Water**	**Method:**	**EPA 353.2**	**Prep Method:**	**METHOD**

QC1074511 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Nitrogen, Nitrate/Nitrite	1.002	1.000	mg/L	100%		80-120

Type:	**Blank**	**Lab ID:**	**QC1074512**	**Batch:**	**316532**
Matrix:	**Water**				

QC1074512 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
Method: EPA 353.2						
Nitrogen, Nitrate	ND		mg/L	0.050	06/21/23	06/21/23
Method: EPA 353.2 Prep Method: METHOD						
Nitrogen, Nitrate/Nitrite	ND		mg/L	0.10	06/20/23	06/20/23

Type:	**Matrix Spike**	**Lab ID:**	**QC1074519**	**Batch:**	**316532**
Matrix (Source ID):	**Water (487591-001)**	**Method:**	**EPA 353.2**	**Prep Method:**	**METHOD**

QC1074519 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Nitrogen, Nitrate/Nitrite	17.26	5.078	10.00	mg/L	122%	*	80-120	10

Type:	**Matrix Spike Duplicate**	**Lab ID:**	**QC1074520**	**Batch:**	**316532**
Matrix (Source ID):	**Water (487591-001)**	**Method:**	**EPA 353.2**	**Prep Method:**	**METHOD**

QC1074520 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Nitrogen, Nitrate/Nitrite	17.24	5.078	10.00	mg/L	122%	*	80-120		20	10

Type:	**Lab Control Sample**	**Lab ID:**	**QC1074756**	**Batch:**	**316629**
Matrix:	**Water**	**Method:**	**EPA 353.2**	**Prep Method:**	**METHOD**

QC1074756 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Nitrogen, Nitrite	1.008	1.000	mg/L	101%		80-120

ENTHALPY ANALYTICAL

Batch QC

Type: Blank	Lab ID: QC1074757	Batch: 316629
Matrix: Water	Method: EPA 353.2	Prep Method: METHOD

QC1074757 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
Nitrogen, Nitrite	ND		mg/L	0.10	06/21/23	06/21/23

Type: Matrix Spike	Lab ID: QC1074758	Batch: 316629
Matrix (Source ID): Water (487073-001)	Method: EPA 353.2	Prep Method: METHOD

QC1074758 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Nitrogen, Nitrite	1.012	ND	1.000	mg/L	101%		80-120	1

Type: Matrix Spike Duplicate	Lab ID: QC1074759	Batch: 316629
Matrix (Source ID): Water (487073-001)	Method: EPA 353.2	Prep Method: METHOD

QC1074759 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Nitrogen, Nitrite	1.016	ND	1.000	mg/L	102%		80-120	0	20	1

Type: Sample Duplicate	Lab ID: QC1074433	Batch: 316518
Matrix (Source ID): Water (487017-001)	Method: SM 4500-H+ B	

QC1074433 Analyte	Result	Source Sample Result	Units	Qual	RPD	RPD Lim	DF
pH	3.330	3.310	SU		1	20	1
Temperature	19.70	19.80	deg C		1	20	1

Type: Blank	Lab ID: QC1074630	Batch: 316588
Matrix: Water	Method: SM2320B	Prep Method: METHOD

QC1074630 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
Bicarbonate	ND		mg/L	2.0	06/20/23	06/20/23
Carbonate	ND		mg/L	2.0	06/20/23	06/20/23
Hydroxide	ND		mg/L	2.0	06/20/23	06/20/23
Alkalinity, Total as CaCO3	ND		mg/L	2.0	06/20/23	06/20/23

Type: Lab Control Sample	Lab ID: QC1074631	Batch: 316588
Matrix: Water	Method: SM2320B	Prep Method: METHOD

QC1074631 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Alkalinity, Total as CaCO3	997.8	1000	mg/L	100%		90-110

ENTHALPY ANALYTICAL

Batch QC

Type:	**Sample Duplicate**	**Lab ID:**	**QC1074632**	**Batch:**	**316588**
Matrix (Source ID):	**Water (487072-002)**	**Method:**	**SM2320B**	**Prep Method:**	**METHOD**

QC1074632 Analyte	Result	Source Sample Result	Units	Qual	RPD	RPD Lim	DF
Bicarbonate	995.6	997.3	mg/L		0	20	2
Carbonate	ND	ND	mg/L			20	2
Hydroxide	ND	ND	mg/L			20	2
Alkalinity, Total as CaCO3	816.0	817.5	mg/L		0	20	2

Type:	**Sample Duplicate**	**Lab ID:**	**QC1075975**	**Batch:**	**316967**
Matrix (Source ID):	**Water (486978-001)**	**Method:**	**SM2510B**	**Prep Method:**	**METHOD**

QC1075975 Analyte	Result	Source Sample Result	Units	Qual	RPD	RPD Lim	DF
Specific Conductance	19,730	19610	umhos/cm		1	20	1

Type:	**Sample Duplicate**	**Lab ID:**	**QC1075976**	**Batch:**	**316967**
Matrix (Source ID):	**Water (486997-001)**	**Method:**	**SM2510B**	**Prep Method:**	**METHOD**

QC1075976 Analyte	Result	Source Sample Result	Units	Qual	RPD	RPD Lim	DF
Specific Conductance	1,006	1004	umhos/cm		0	20	1

Type:	**Blank**	**Lab ID:**	**QC1074477**	**Batch:**	**316538**
Matrix:	**Drinking Water**	**Method:**	**SM2540C**	**Prep Method:**	**METHOD**

QC1074477 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
Total Dissolved Solids	ND		mg/L	10	06/20/23	06/21/23

Type:	**Lab Control Sample**	**Lab ID:**	**QC1074478**	**Batch:**	**316538**
Matrix:	**Drinking Water**	**Method:**	**SM2540C**	**Prep Method:**	**METHOD**

QC1074478 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Total Dissolved Solids	948.0	1000	mg/L	95%		90-110

ENTHALPY ANALYTICAL

Batch QC

Type: Sample Duplicate	Lab ID: QC1074481	Batch: 316538
Matrix (Source ID): Water (487110-001)	Method: SM2540C	Prep Method: METHOD

QC1074481 Analyte	Result	Source Sample Result	Units	Qual	RPD	RPD Lim	DF
Total Dissolved Solids	2,208	2172	mg/L		2	5	2

Type: Blank	Lab ID: QC1073797	Batch: 316339
Matrix: Water	Method: SM5540C	

QC1073797 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
Surfactants (MBAS)	ND		mg/L	0.040	06/16/23 15:00	06/16/23 20:17

Type: Lab Control Sample	Lab ID: QC1073872	Batch: 316339
Matrix: Water	Method: SM5540C	

QC1073872 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Surfactants (MBAS)	0.9610	1.000	mg/L	96%		80-120

Type: Matrix Spike	Lab ID: QC1073873	Batch: 316339
Matrix (Source ID): Water (486977-001)	Method: SM5540C	

QC1073873 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Surfactants (MBAS)	1.058	ND	1.000	mg/L	103%		80-120	1

Type: Matrix Spike Duplicate	Lab ID: QC1073874	Batch: 316339
Matrix (Source ID): Water (486977-001)	Method: SM5540C	

QC1073874 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Surfactants (MBAS)	0.9500	ND	1.000	mg/L	93%		80-120	11	20	1

* Value is outside QC limits
ND Not Detected
NM Not Meaningful

Appendix H
Survey Data

BORREGO SPRINGS WATER MONITORING WELL LOCATIONS 6/15/2023

Point Table				
Point #	Elevation	Northing	Easting	Description
1	483.36	2020018.03	6541139.47	WAT MON WELL WWTP-2 NG
2	485.41	2020018.34	6541139.97	WAT MON WELL VNOTCH
3	486.00	2020018.54	6541139.82	WAT MON WELL TOP CASING
4	460.85	2021395.03	6541919.94	WAT MON WELL WWTP-3 NG
5	463.29	2021395.38	6541920.27	WAT MON WELL VNOTCH
6	463.80	2021395.62	6541920.33	WAT MON WELL TOP CASING
7	474.01	2019988.96	6542390.00	WAT MON WELL WWTP-4D NG
8	476.16	2019989.40	6542390.33	WAT MON WELL VNOTCH
9	476.77	2019989.55	6542390.35	WAT MON WELL TOP CASING
10	476.55	2020005.93	6542388.97	WAT MON WELL TOP CASING
11	475.91	2020005.65	6542389.06	WAT MON WELL VNOTCH
12	473.79	2020005.32	6542388.62	WAT MON WELL WWTP-4S NG
13	494.17	2019097.49	6541730.79	WAT MON WELL WWTP-1 NG
14	495.66	2019097.91	6541731.14	WAT MON WELL VNOTCH
15	495.79	2019098.03	6541731.16	WAT MON WELL TOP CASING
5001	517.81	2018774.26	6539990.07	SPIKE D1

HORIZONTAL AND VERTICAL CONTROL BASED ON CCS83 ZONE 6 / NAVD88

BLACK GOLD SURVEYING
A PROFESSIONAL CORPORATION
LAND SURVEYING- CIVIL ENGINEERING - DESIGN
201 HASTINGS STREET
REDLANDS CA 92373

Appendix D
Preliminary Updated Fats, Oils, and Grease (FOG) Program

Borrego Water District

Sewer System Management Plan

(SSMP)

NOVEMBER 2015

PREPARED BY:

DAVID DALE, P.E.

2415 IMPERIAL BUSINESS PARK DRIVE, SUITE B

IMPERIAL, CA 92251

BORREGO WATER DISTRICT SEWER SYSTEM MANAGEMENT PLAN (SSMP)

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F. STATE OF CALIFORNIA WATER RESOURCES BOARD ORDER NO. WQ-2013-0058-EXEC, AMENDING MONITORING AND REPORTING PROGRAM FOR STATEWIDE GENERAL WASTE DISCHARGE REQUIREMENTS FOR SANITARY SEWER SYSTEMS

SECTION (1.0.0): INTRODUCTION

Sanitary sewer overflows are identified as a major threat to public health and water quality because of the pathogens, toxic pollutants and nutrients they contain and have become a focus of State water quality regulators over the past several years. On May 2, 2006, the State Water Resources Control Board adopted *Statewide General Waste Discharge Requirements for Sanitary Sewer Systems* to provide a consistent, statewide regulatory approach to address these overflows (State Water Resources Control Board, Order No. 2006-003). Amendment Orders (Order No. WQ 2008-0002-EXEC and WQ 2013-0058-EXEC) were adopted. Public agencies, like the Borrego Water District, that own and operate a sanitary sewer system comprised of one mile or more of pipeline to transport sewage to a treatment facility must file a Notice of Intent to comply with the State Order. The requirements include two major components:

1) Reporting all sanitary sewer overflows in the statewide spill reporting database, and

2) Developing a Sewer System Management Plan (SSMP) with the intent to reduce the potential for or eliminate sanitary sewer overflows.

Before the enrollment deadline of November 2, 2006, the District submitted a Notice of Intent to the State Water Resources Control Board to comply with the State requirements related to reporting sanitary sewer overflows. The preparation, adoption and implementation of the District's SSMP fulfill the remaining requirement of the State Order.

SSMP Organization

The organization of this SSMP (section numbering and nomenclature) follows the General Waste Discharge Requirements (GWDR) for Wastewater Collection Agencies, State Water Resources Control Board Order Number 2006-0003 dated May 2, 2006 and Order Number 2008-0002-EXEC dated February 20, 2008. Board Order Nos. 2006-0003 and 2008-0002-EXEC are attached as Appendix A. Each section includes the requirement as the introduction for reference. As an introduction to the SSMP, this section provides background on the District's wastewater collection system. Following this introduction, the SSMP includes eleven required sections including:

- Goals
- Organization
- Legal Authority
- Operation and Maintenance
- Design and Construction Standards
- Overflow and Emergency Response
- Fats, Oils and Grease Control
- System Evaluation and Capacity Management
- Monitoring, Measurement, Program Modification,
- Communication

SECTION (2.0.1): Sewer System Management Plan Goals,

The WDRs for the Goals section of the SSMP states that the Borrego Water District must develop goals to properly manage, operate, and maintain all parts of its wastewater collection system in

order to reduce and prevent SSOs, as well as to mitigate any SSOs that occur. Additional and specific goals for the Borrego Water District SSMP shall include the following:

1. Maintain uninterrupted sewage flow without health hazard, effluent leakage, or water infiltration and inflow.
2. Operate a sanitary sewer system that meets all regulatory requirements.
3. Avoid sanitary sewer overflows and respond to sanitary sewer overflows quickly and mitigate any impact of the overflow.
4. Maintain standards and specifications for the installation of new wastewater systems.
5. Verify the wastewater collection system has adequate capacity to convey sewage during peak flows.
6. Provide training for Wastewater Collection staff.
7. Develop a Fats, Oil, and Grease (FOG) Control Program to limit fats, oils, grease, and other debris that may cause blockages in the sewer collection system at the time it is required.
8. Identify and prioritize structural deficiencies and implement short-term and long-term maintenance and rehabilitation actions to address each deficiency.
9. Meet all applicable regulatory notification and reporting requirements.
10. Provide excellent customer service through efficient systems operation and effective communication strategies.

SECTION 3.0.1: ORGANIZATION

Organization

The Borrego Water District oversees operation and maintenance of the wastewater collection system with the Engineer Staff. The District staff is organized into one main crew to conduct maintenance, inspection, and construction and repair operations as needed. Wastewater Collection staff responds to all sewage spills seven days a week, 24 hours a day.

- Table 1: SSMP Implementation Responsibilities - notes the responsibilities of the District Staff members.

- Figure 1: Organizational Chart - identifies the line of authority for the implementation of the SSMP. The Engineer whom plays a role in the SSMP responsibilities is noted in the in the Organization Chart as the Engineer is a contracted consultant of the District.

The authorized representative, or *legally responsible official* (LRO), for the implementation and administration of the Districts SSMP is the Supervisor/Foreman who is responsible for reporting SSOs via the California Integrated Water Quality System (CIWQS) on-line database.

Table 1: SSMP Implementation Responsibilities

SSMP	Responsible Person	Role
Goals		
Implementation and management of the SSMP	General Manager	Provides oversight of the SSMP
Ensure that the collection system is maintained and operated to reduce or eliminate SSOs	Chief Plant Operator (CPO)	Oversight of all aspects of the collection systems
Organization		
Chain of Communication	General Manager	Determines the chain of command for responding to SSOs
Organization Chart	General Manager	Keeps organization chart up to date
SOP for SSO Reporting Guidelines	Chief Plant Operator (CPO)	Keeps reporting guidelines up to date to ensure compliance with the GWDR
Operation & Maintenance Program		
Maintaining collection system maps	Chief Plant Operator (CPO)	Works with WWC staff and District Engineer to maintain maps
Preventative operation and maintenance	Chief Plant Operator (CPO)	Updates the description of the program as needed

Development of a rehabilitation and replacement plan	Chief Plant Operator (CPO)	Continues the current program in place and improves as needed
Provide training to WWC Staff	Operations Manager	Continues the current program in place and improves as needed
Provide equipment and replacement part inventories	Chief Plant Operator (CPO)	Continues the current program in place and improves as needed
Design & Performance Provisions		
Design and construction standards for all aspects of the collection system	Contracted Engineer	Works together to update design and construction standards
Inspection and testing standards	Chief Plant Operator (CPO)	Continues current inspection and testing practices and improves as needed
Overflow and Emergency Response		
Procedures for notification, response, notification of appropriate agencies	General Manager	The District has spill reporting guidelines in place. There will be updated to include CIWQS reporting.
		The current procedures for responding to a spill, containment preventing the discharge will be put in written form.
Training of all staff involved in emergency response including response procedures, Notification of agencies, and containing and preventing the discharge of wastewater to a waterway	Operations Manager	Conduct annual refresher training
Fats, Oils, & Grease (FOG) Control		
Administration and implementation of the District's FOG program which includes public education, inspection of facilities which produce FOG and working with WWC to identify areas prone to FOG blockage	Chief Plant Operator (CPO)	Continue current program and develop a written program of the current activities
System Evaluation & Capacity Assurance		
Evaluation of system to determine areas of deficiencies	Contracted Engineer	The District has a Sewer Master Plan in place.
Design criteria	Contracted Engineer	Design criterion is identified in the Sewer Master Plan.
Capacity enhancement measures	Contracted Engineer	Evaluation of hydraulic capacity is illustrated in the Sewer Master Plan

Capital Improvement Program	General Manager/Contracted Engineer	To be set in place as needed
Monitoring, Measurement, & Program Modifications		
Maintenance of information, monitoring and assessing the effectiveness of the program	Chief Plant Operator (CPO)	
Updating the program and Identifying trends	Operations Manager	
SSMP Audits		
Conduct periodic internal audits to determine the effectiveness of the SSMP and compliance with the SSMP	Contracted Engineer and CPO	Develop an audit check list, conduct internal audit at least every two years, keep a report of the findings on file, and initiate any corrective actions needed
Communication Program		
Communication with the public on the development, implementation, & performance of its SSMP	General Manager	
Develop a plan of communication with the satellite agencies	Operations Manager	

LEGAL AUTHORITY

SECTION (4.0.0): The legal authority for the Borrego Water District (BWD) to operate and maintain sewerage works is contained generally in the California Water Code, Section 34000 et.seq. and is specifically recognized in various SWRCB and RWQCB Orders. The District's rules and regulations regarding Sewer Use are described in the following documents which are appended hereto:

- Article VII of the BWD Administrative Code as amended February 28, 2007
- Policy Statement No. 84-2 relating to the Use of Septic Tank Systems within the Borrego Valley.
- Policy Statement No. 85-1 relating to the Issuance of Water and Sewer Will-Serve Letters.
- Policy Statement No. 89-1 as relates to the Expansion of the Town Center Sewer.
- Policy Statement No. 91-1 (which supersedes Policy Statement 84-2) relating to the Use of Septic Tank and Package Sewage Treatment Plants within the Borrego Water District.
- Policy Statement 2007-3-1 relating to Extending Sewer Service to Areas within the Borrego Water District but Outside of an Improvement District.

To insure the proper design, construction and inspection of new sewer facilities, the BWD has adopted the Water Agencies' Standards (sdwas.com) and is in the process of becoming a signatory member of this group. The group's webpage describing the contents of the standards is appended hereto.

The SWRCB and RWQCB Orders which the District operates under are enumerated below:

- ORDER NO. R7-2007-0053, WASTE DISCHARGE REQUIREMENTS FOR BORREGO WATER DISTRICT, OWNER/OPERATOR RAMS HILL WASTEWATER TREATMENT FACILITY, as issued by the California Regional Water Quality Control Board, Colorado River Basin Region.
- STATE WATER RESOURCES CONTROL BOARD ORDER NO. 2006-003-DWQ, STATEWIDE GENERAL WASTE DISCHARGE REQUIREMENTS FOR SANITARY SEWER SYSTEMS.

The above Orders are appended hereto.

While this section of the SSMP can be waived for systems of small size similar to that operated by the BWD, it has been included to provide background on the legal authority of the BWD to operate the sewer system, and to provide documents that relate to other elements of the Sewer System Maintenance Plan.

(End of Section)

Appendices

OPERATIONS AND MAINTENANCE PROGRAM

SECTION 5.0.0: The Borrego Water District ("BWD", or "the District") presently operates a collection system which consists of a main interceptor that collects and transports sewage from the commercial area of town (the "Town Center Sewer") and a residential collection system which conveys sewage from the Montesoro develop in the Southeast portion of town (originally called the "Rams Hill Development"). The collection system has one lift station on Borrego Valley Road which is utilized to pump sewage collected from the Town Center Sewer to the Rams Hill Wastewater Treatment Plant. Additionally, the sewer system serves some trailer parks in the vicinity of the commercial area, and a portion of the Roadrunner Club, a mobile home and Recreational Vehicle Park.

In February, 2009, the District completed a consolidation with the Borrego Springs Park Community Services District (the "CSD"), which resulted in the BWD becoming responsible for the collection system it operated that conveys sewage from the Borrego Springs Resort area to the District's wastewater treatment plant.

MAPS:

SECTION 5.0.1: The District maintains maps of the collection system, and also all of the as-builts for the collection system. The size of the system has not necessitated the numbering of manholes or pipeline as they are generally referred to as to their location relative to landmarks such as major intersections or along streets as the case may be. Pump stations are located on the maps. There are no storm water facilities operated by the District. Furthermore, no in-line valves exist other than at the pump stations. The District has transferred all of its as-builts and system maps into the District's GIS system which is used extensively for the water system. Changes to the maps can be made in-house through the District's engineering capabilities which includes modern AutoCAD programs, scanners and plotters. Key system component operation and maintenance manuals are maintained at the District's offices and at the Rams Hill WWTP.

PREVENTATIVE OPERATION AND MAINTENANCE:

SECTION 5.0.2: The District has not experienced a history of mainline stoppages, and has not had to report a Sewer System Overflow ("SSO") since documentation of such events have been required to be submitted to the SWRCB.

The District has a pipeline cleaning program that is based on visual inspection of the sewers and a delineation of areas that are in need of cleaning due to slope conditions of the pipe. There are not any areas within the collection system that are "blind" to the discovery of SSO's, due to the location of the lines being adjacent to roadways for the most part, and the fact that running water

in the desert locale here is an unusual site and is reported immediately (in the case of waterline breaks) due to the high public conscientiousness of the community needing to preserve its' precious water resources.

While any SSO would be considered significant, there are no particular areas where an SSO would be considered critical due to the lack of waterways in the area. If an SSO were to occur it is likely to be contained to a relatively small area due to the soil conditions in the area, and the depth of the groundwater in the community is so deep that any percolated sewage overflow liguids would be cleansed through the natural soil filtration process (as demonstrated in the Whittier Narrows tests from the 1970's).

Roots from Oleander trees can be a problem in some areas, and are monitored regularly to insure that overflows are averted. The District maintains a procurement process which clearly delineates where work has been completed. Since the District does not have any sewer cleaning equipment, all sewer cleaning can be identified through the procurement records.

PREVENTATIVE MAINTENANCE:

SECTION 5.0.3: The District regularly inspects the collection system through manhole access on an annual basis to determine the need for cleaning and/or root control. Any evidence of oils and grease accumulation is also noted and results in stepped-up compliance of the District's FOG control program.

The District employs the use of a biological inoculant for the control of hydrogen sulfide gas in the collection system. The brand currently used is Persnickety 713. The product description, safety data and MSDA follow this section.

The area that has experienced some odor issues is near the intersection of Borrego Valley Road and Borrego Springs Road adjacent to the Borrego Ranch Resort, which is near where the force main from the District's lift station discharges back into gravity flow lines to the Rams Hill WWTP. The biological inoculant has performed satisfactorily.

Due to the nature of the climate and groundwater conditions in the Borrego Valley, neither infiltration nor inflow is experienced. Flow records from the WWTPs indicate extremely small increases in flow during runoff events, well below accepted levels for inflow. Infiltration is simply not an issue due to the depth to groundwater in the region.
The highest probability of experiencing an SSO would be at the lift stations operated by the District, with power outages being the most likely cause. In order to address this issue the

District has recently upgraded its' emergency generator capability through the purchase of two new mobile generators, and has an aggressive operation and maintenance program for all fixed generators.

REHABILITATION AND REPLACEMENT PROGRAM:

SECTION 5.0.4: The District constructed a new sewage lift station that includes automatic power transfer to back-up generators in case of power outages, and is sited in a bermed area. In case of a lift station failure and a backup of the collection system, the bermed area will contain any discharge of raw sewage offsite until which time that the District repairs the problem. Additionally, there is additional pumping capability built into the lift station to allow a temporary pump to be installed in the wet well if the main pumps are nonfunctional.

The District established a comprehensive Capital Improvement Program ("CIP"). The District's CIP is located on the District's website at www.borregowd.org, and is reviewed yearly by the District's Capital Project Committee based on input from operations and management staff. Funding for projects is achieved through District reserves and other financial vehicles such as low interest government loans, grants and development contributions.

TRAINING:

SECTION 5.0.5: The District participates in numerous training programs that are run by the Association of California Water Agencies Joint Powers Insurance Agency ("JPIA"). Additionally, the District provides for the training of its operations personnel to achieve certified operator licenses for operation of the WWTPs and the collection system.

In 2009, the District upgraded the Emergency Response Program to insure the ongoing availability of critical utility services in an emergency. The most likely emergency expected in the region is a long term power outage caused by a storm or possible earthquake. An earthquake is likely to also cause other problems to the facilities of the District, and the program provides for an assessment of all damage, and the assignment of personnel and equipment to the most critical areas following the event. The plan calls for periodic simulations of the response activities.

The District has maintained an excellent safety record due in large part to its on-going training efforts in conjunction with the JPIA. Incentive for safe operations is provided through the pass-through of any insurance premium rebates being placed into a fund for future employee bonus awards.

The District has three certified sewer system operators and a professional engineer on staff with 35 years of experience in wastewater collection systems.

EQUIPMENT AND REPLACEMENT INVENTORIES:

SECTION 5.0.6: The District maintains and extensive spare parts inventory for key system components due to the remote location of the service area. Pipe repair items, electrical switches and fuses are maintained in quantity, and a monthly check of the inventory is achieved through a computer software program utilized to track usage and expenditures. At present the District maintains approximately $150,000 worth of inventory which is available for use to insure the ongoing operation of the sewage system, including extra motors, backhoe spare parts, and other critical items.

Additionally the District has on-call contracts with local contractors to assist the District should the need arise in an emergency. These services include tanker trucks, cleaning and root cutting services, and labor assistance as may be necessary.

and total dissolved solids (TDS)

6. FOG CONTROL PROGRAM

and Section 7.4.4.E

Section (6.0.1): The BWD controls fats, oils and grease (FOG) in its collection system through the implementation of the requirements contained in Section 7.4.4.D of the Administrative Code which prohibits the discharge of FOG from entering the District's collection system. The District implements this provision through monthly inspection of all grease traps located within the District. Any violators are given orders to have their grease trap pumped if it is found to be overloaded or causing a discharge in violation of the aforementioned Code.

The legal authority for the Borrego Water District (BWD) to operate and maintain the sanitary sewer is contained generally in the California Water Code, and mandated by both the State Water Resources Control Board and Regional Water Quality Control Boards of California. The orders and mandates of these authorities stipulate several waste discharge requirements for sanitary sewer systems. These orders and mandates are documented in the BWD Sewer System Management Plan (SSMP). The following is general information regarding grease traps in food service establishments. In general, the BWD has not experienced any problems with these substances under the present method of inspection and through coordination with the San Diego Department of Environmental Health, which also regulates the restaurants that are the primary source of these contaminants.

delete

(FOG) and TD

Program Background

The District's Wastewater Division will permit and inspect grease and oil generating facilities to ensure control of discharges that may cause blockages. A Fats, Oil and Grease Control Program (FOG) is to be implemented by the District. It will include discharger education on the control of fats, oil and grease, and specific guidelines food facilities must follow. The program will be implemented by a District designated Industrial Waste Inspector. The California Regional Water Quality Control Board will require annual inspections and implementation of FOG control measures as a part of this recommended program as food service establishments are the largest non-domestic contributors of fats, oil and grease to the District's wastewater collection system.

Under the FOG program, the Food Service Establishment (FSE) is to document that each grease trap/interceptor is maintained to prevent FOG from entering the District's collection system. Inspections are to be conducted using an inspection form which addresses best management practices for the prevention of FOG discharges to the sewer. FSEs must maintain records of FOG program maintenance and disposal. Restaurant protocols that eliminate FOG from entering inside drains are considered including employee training and documentation of grease trap/interceptor cleaning. Inspections of FOG program and maintenance records may be completed on-site during any hour of operation.

Additionally, less preventive maintenance and fewer sanitary sewer overflows caused by fats, oil and grease allow the District to perform other required infrastructure work.

(6.0.2) Guidelines for the Control of Fats, Oil & Grease

As part of the District's FOG Program FSE's are provided the following guidelines as part of an inspection.

General Measures

- Train all restaurant/food service establishment staff on best management practices related to fat, oil and grease. Staff will be more willing to support an effort if they understand its basis. Trained staff will be more likely to implement best management practices and work to reduce grease discharges to the sewer.
- Train all staff how to properly dispose of grease or oils from cooking equipment and grease traps into a grease barrel or drum without spilling.
- Post "No Grease" signs above sinks. Signs serve as a constant reminder to staff of proper grease disposal practices. Reduction of grease entering the drain reduces the cleaning frequency of the grease removal device.
- "Dry wipe" pot, pans and kitchen equipment before cleaning. "Dry wiping" will reduce the amount of grease going into the grease removal devices and the sewer. This will reduce the cleaning frequency and maintenance costs for grease removal devices and reduce the amount of grease entering the drain.
- Use absorbents such as paper towels to pick up oil and grease spills prior to mopping. Decreases the amount of grease that will be put down the drain. This reduces the amount of grease entering the drain and protects sewers from grease blockages and overflows.
- Dispose of food waste as solid waste. Dispose of food waste to the trash. Solid waste disposal of food waste will reduce the frequency and cost of grease removal device cleaning.
- Use screens in sinks and floor drains to capture food waste and dispose of properly into the trash. Food waste can cause sewer lateral blockages. Proper disposal of food waste will protect laterals and sewer mains from blockages and overflows.
- Collect and recycle waste cooking oil. Excess oil is prevented from entering the grease removal device and the sewer. Reduction in the cleaning frequency of the grease removal device and less grease being passed to the sewer.

(6.0.3) Grease Trap/Interceptor Maintenance/General

- Complete grease trap or interceptor maintenance log to document cleaning intervals. Maintenance log can help your facility determine if cleaning frequency of the grease removal device is sufficient. A proper cleaning frequency will result in less grease accumulating in the lateral, fewer blockages and less pass through to the sewer lines.
- Inspect the Grease Trap daily and clean as needed using the appropriate equipment and place grease into barrel or drum. Contact barrel supplier when it is reaching 75% full for replacement.
- Clean grease traps at a frequency that will prevent the accumulation of grease or pass through to the sewer. Routine cleaning of the grease removal device ensures efficient

operations. Routine cleaning will prevent grease from passing through to the sewer lateral and from accumulating in the sewer mains.

- Use water temperatures less than 140° F in all sinks, especially in the pre-rinse sink. Temperatures above 140° F will dissolve grease, which will re-solidify in the sewer lines. Reduces costs for the energy to heat the water. Sewer lateral remains free of grease.
- Have a manager present during grease trap/interceptor cleaning to ensure the unit is properly serviced. The manager can ensure that the grease removal device is properly cleaned and no shortcuts are taken. Proper cleaning ensures that the grease removal device will function properly and efficiently.
- Do not store anything on or around the grease removal device that will block access. Proper maintenance is easier to complete if access to the grease removal device is not blocked. Routine maintenance is more likely to be performed if the grease removal device is easily accessible.
- Decanting or discharging of removed waste back into the grease interceptor from which the waste was removed or into any other grease interceptor, for the purpose of reducing the volume to be hauled is prohibited.

(6.0.4) Outdoor Housekeeping/Storm Water Best Management Practices

- Clean floor mats and exhaust filters and other equipment inside. Cleaning greasy equipment outside is one of the most common sources of fat, oil and grease in our storm drains. Grease and food waste will be properly disposed of and will not enter the storm drain where it will de-grade surface channel water quality.
- Sweep or mop outdoor surfaces. Sweeping and mopping outdoor surfaces will reduce non-storm water runoff and will save water. Elimination of non-storm water discharges that degrade water quality.
- Any water used to clean outside surfaces by contractors must be vacuumed up and properly disposed of to the sewer.
- Keep the area around the dumpster/trash storage clear of trash, debris, and grease. Debris, trash, and grease can be washed into the storm drain during the rainy season. Loose debris and trash will not enter the storm drain causing blockages and will not enter the waterways.

and TDS

and TDS

(6.0.5) FOG Program Education

Information on proper disposal of FOG and other SSO prevention measures, including house lateral maintenance, etc. is to be disseminated through brochures and flyers. The District would also utilize personal contacts with business owners by the District's appointed Industrial Waste Inspector. These methods have been proven to be very effective in relaying information on proper disposal of FOG and SSO prevention methods to FSEs. Expanded use of radio and television announcements and other aggressive means should be explored in the future, as well as a District website. A more aggressive public education and outreach program will be considered, if warranted.

Section (6.1.0):

GREASE TRAPS/INTERCEPTORS IN FOOD SERVICE ESTABLISHMENTS/FACILITIES

Sub-Sections:

(6.0.1) Purpose.

The purpose of this section is to set forth policies, procedures, and requirements for food service establishments governing the installation, maintenance, and use of grease traps, grease interceptors or other comparable devices which represent the best practicable control technology for fat, oil, and grease (FOG) removal, to control discharge of grease into the wastewater collection system and to establish procedures regarding implementation and enforcement of the regulations set forth in this chapter.

(6.2.1) Conflict between these provisions and Uniform Plumbing Code.

All new grease trap/interceptor installations shall be located outside the footprint of the food facility wherever possible. No garbage disposal connections are allowed. A separate grease trap interceptor is recommended for each dishwasher. All rules of the Uniform Plumbing Code must be followed. In the event of any conflict between the provisions of this chapter and the Uniform Plumbing Code, the provisions of this order shall prevail.

(6.3.1) Definitions.

“Fats, Oils, Grease” (FOG) means the collective fats, oils, and grease generated by an FSE. “Food service establishment” (FSE) ; means an establishment that prepares and/or sells food for consumption either on or off the premises, including, but not limited to, restaurants, sandwich shops, delicatessens, bakeries, or pizzerias. The term, as used in this chapter,

does not refer to food stores or establishments that do not prepare food on premises or process food in a manner so as to contribute grease to the sewer system.

“BWD” or “District” means the Borrego Water District.

“BWDSSMP” means Borrego Water District Sewer System Management Plan

“Gravity Grease Interceptor” (GGI) is a larger volume gravity grease removal system usually between 200-2000 gpm that is installed underground outside of a facility.

“Grease interceptor” means a device designed and installed to separate and retain deleterious, hazardous, or undesirable matter from normal wastes and to permit normal sewage or liquid wastes to discharge into the disposal terminal by gravity.

“Grease trap” means a device designed to retain grease from grease generating fixtures and piping.

“Hydro-mechanical Grease Interceptor” (HGI) previously referred to as a “grease trap” is a smaller volume grease removal system usually between 20 gpm and 100 gpm. Can be located inside or preferably outside the building and the food preparation areas.

(6.4.1) Requirement for grease trap, grease interceptor, or other device.

(a) A food service establishment, restaurant or any other business discharging grease, oil or other similar material shall have an operable Hydro-mechanical Grease Interceptor (HGI) or Gravity Grease Interceptor (GGI) as determined by the BWD and the County of San Diego (DEH for location outside of the building footprint of an FSE if logistically possible and Building Division for sizing on building permits). A properly sized interceptor or (HGI) shall be considered first, in conformity with the sizing guidelines set forth in the BWD grease trap policy. Should space limitations or other exceptional circumstances prevent their installation, BWD may grant exceptions to the requirement of grease traps or grease interceptors in this section. Generally, the BWD prohibits installation of a (GGI) unless exceptional circumstances require installation of a large volume gravity grease Interceptor (GGI). Jurisdiction for this requirement is mandated in the BWD Sewer Rules and Regulations Article VII section 7.4.5 titled Restaurant Grease Traps, which states: “Each restaurant connected to the sewer system shall properly install and maintain one or more grease traps to prevent prohibited substances, such as those described in Subsection 7.4.4 (the discharge of FOG in a concentration greater than 100 mg/l or containing substances which may solidify or become viscous at temperatures between 32 and 150 degrees Fahrenheit) from being discharged into the system. The District Engineer, (General Manager), or his authorized

representative shall determine (1.) the number, size, type and capacity of the grease traps for each restaurant (FSE), and (2) the method and frequency of cleaning of the traps to assure their proper working condition.

(b) All drains from food preparation and cleanup areas including, but not limited to, prewash sinks, floor drains, food waste disposal units, pots and pans sinks, scullery sinks, and garbage can wash areas shall be connected to such trap or interceptor. If the District determines it is not practical to install trap or interceptors on any of the aforementioned drains, disposal of any FOG is prohibited.

(c) Sizing Formula-The size of the grease trap/interceptor shall be as determined by the BWD on a case by case basis. Grease traps required by this chapter shall be no smaller than a **(75-gallon per minute flow rate and 150 lb capacity).** The BWD uses the Plumbing and Drainage Institute (PDI) sizing method which calculates actual drainage loads, flow rates, drainage periods and maximum total capacity for all fixtures. A small volume tank (75 gpm/150 lb) installed outside of the building footprint with a barrel for professional sanitary disposal of the grease is ideal. If this cannot occur it must be placed outside of the food preparation area. The location will be determined by the District (BWD) as directed by the General Manager and the San Diego County Department of Environmental Health
(d) Existing grease traps, grease interceptors or similar devices.

(1) Any food service establishment or other business that, on or after January 1, 1999, installed grease traps, grease interceptors, or other grease pretreatment equipment to comply with the requirements of the BWDSSMP, shall not be required to upgrade such equipment until January 1, 2016, so long as such equipment remains in good working order. Should the grease trap, grease interceptor or other grease pretreatment equipment become nonoperational or fail to operate in good working order, a grease trap or interceptor meeting the standards set forth in this chapter shall be immediately installed.

(2) Notwithstanding the foregoing subsection (a)(1) of this section, any food service establishment or other business that, on or after, January 1, 1999, installed grease traps, grease interceptors, or other grease pretreatment equipment to comply with the requirements of the BWDSSMP, shall upgrade such equipment to meet the standards set forth in this chapter upon the change of ownership of the business in which the equipment is located, or upon the remodeling of the business in which the equipment is located. Remodeling of the business not requiring a building permit shall be exempted from the upgrade requirement. The remodeling shall not

be separated into phases for the purpose of avoiding the requirement of a building permit.

(e). Maintenance. The District will allow for in house maintenance however in cases where it has been determined maintenance is not adequate on more than one occasion, the District may require that the grease trap be cleaned professionally as needed.

6.4.2.TDS Monitoring and Compliance Requirements

(a). Food Service Establishments that have caused or contributed t an increase in TDS in the sewer system, or that have sewer lateral connected to hotspots, or that have been determined to contribute significant salinity to the sewer system based on sampling, are subject to the District's legal authority as stated and covered in Leg Authority (Section 4) to prevent Sanitary Sewer Overflows (SSOs).

(b). To limit the discharge of TDS, refer to Chapter 7 Section 7.4.4. and ensure monitoring is in compliance with Section 7.4.6.

(6.5.1) General regulations and pro

(a) When waste treatment is required grease interceptor complying with the line leading from sinks, drains, and ot

(b) A plumbing permit shall be obtain prior to the installation of a grease tra also obtain approval from the County Food and Housing Division) to operat

(c) Each trap, interceptor, or comparable device required by this chapter shall have an approved volume not less than required by this chapter. Each new installation shall be required to install a sampling box. As stipulated in Section 7.4.4 D of the BWD administrative code the discharge of FOG in a concentration greater than 100 mg/l (ppm) is prohibited.

(d) Toilets, lavatories, and other sanitary fixtures shall not be connected to any grease trap, grease interceptor, or comparable device. Disposal of FOG or food waste into any toilet, lavatory and other sanitary fixture is prohibited.

(e) Location of Grease Traps, and Grease Interceptors.

(1) They shall be located outside buildings, unless a finding is made by the County of San Diego building inspector that the location of the building on the site or some other aspect of the use prevents an outside location and that placement within a building is not hazardous to public health and safety;

(2) They shall be located and maintained at all times so as to prevent electrical shock to workers/inspectors or electrical shorts in the FSE structure

(3) They shall also be located and maintained at all times so as to prevent the entrance of foreign materials, shall be easily accessible for cleaning inspection and removal of intercepted grease, and shall pose no hazard to public health or safety;

(3) If they are not designed in accordance with Uniform Plumbing Code (UPC) Section 711, they must be designed by a professional engineer, must be consistent with the standards of this chapter, and must be approved by BWD.

(f) Related Equipment.

(1) They shall be fitted with a standard service access cover or manhole. If a manhole is required, it shall be brought to grade and finished with standard manhole cover and ring;

(2) A sampling box shall be located on the discharge side.

(g) All discharging fixtures shall be individually trapped and vented in accordance with the UPC.

(h) They shall be constructed of durable materials and shall have a full-size gas-tight cover which can easily be removed.

(i) They shall not be installed until the type and/or model has been subjected to, and has fully complied with, tests acceptable to the chief building inspector. Where an existing grease trap or grease interceptor is found acceptable by the chief building inspector, such equipment will be allowed to remain in use. Whenever a grease trap or grease interceptor does not comply with the provisions of this chapter, the chief building inspector shall require corrective measures.

(j) Prohibited and/or Restricted Equipment.

(1) The installation and use of garbage grinders (disposals) in commercial-food establishments is prohibited;

(2) The connection of high-temperature/high-flow dishwashers to a grease trap or grease interceptor is prohibited; water temperature cannot exceed 140F. High water temperatures will enable dissolved grease to pass through the interceptor and solidify in the BWD wastewater collection system causing a potential blockage and/or a decreased flow rate.

(3) The use of enzymes or bacterial cultures designed to disperse grease is prohibited unless specifically approved in writing by the BWD.

(4) The use of degreasing chemicals and solvents entering the collecting system must be environmentally sustainable approved and will be monitored by BWD staff.

(k) After the effective date of the ordinance codified in this chapter, all establishments covered by this chapter shall install an approved grease trap or grease interceptor of sufficient size to prevent discharges into the sewer system.

(l) Maintenance-

(1) Traps and interceptors shall be maintained in efficient operating condition by periodic removal of the accumulated grease. No collected grease shall be introduced into any public or private drainage piping.

(2) Any grease trap or grease interceptor required by this chapter shall be readily accessible for inspection and properly maintained to assure that accumulations of grease or oil do not impair its efficiency or transport grease or oil into the sewer system.

(3) All food service establishments or businesses required under this chapter to install and maintain a grease trap or grease interceptor shall maintain a maintenance record for the grease trap or grease interceptor, which shall be transmitted to the BWD on a quarterly basis. This record shall include the date, quantity of FOG removed from the FSE, name of the person/company who performed cleaning and the disposal site of the waste. All FSE owners must sign a waste manifest form before having a waste load transported by a permitted hauler. The FSE owner shall also keep copies of the manifest form for a period of at least three years, and make all manifest records available for inspection by the District during normal business hours. Licensed haulers or an approved recycling facility must be used to dispose of waste cooking oil.

Grease traps shall be maintained free of all food residues and any FOG waste removed during the cleaning and scraping process. Grease traps shall be inspected periodically to check for leaking seams and pipes, and for effective operation of the baffles and flow regulating device. Grease traps and their baffles shall be maintained free of all caked-on FOG and waste. Removable baffles shall be removed and cleaned during the maintenance process.

All waste cooking oil and grease shall be collected and stored properly in recycling barrels or drums. Such recycling barrels or drums shall be maintained appropriately to ensure they do not leak.

The District will allow for in house maintenance however in cases where it has been determined maintenance is not adequate on more than one occasion, the District may require that the grease trap be cleaned professionally as needed.

Representatives from the FSE must be present to open and close the Grease Trap(s) during District inspections.

The record shall be posted in a conspicuous location and be available for review by the BWD's inspector at each routine inspection and at such other time as necessary to determine whether a particular establishment may be performing maintenance contrary to the provisions of this chapter.

(4) The BWD or its designee shall perform grease trap and grease interceptor inspections bi-annually, or more often at the discretion of the BWD should maintenance reports not be received or should a grease trap or grease interceptor fail to operate properly.

(5) In the event the BWD determines that a food service establishment or business required to install and maintain a grease trap either fails to maintain the maintenance record required by this section, or fails to maintain the grease trap as required by this section, the BWD may require the immediate installation of a grease interceptor.

(6) In the event a sewer spill, sewer main blockage or odor problem is reported and is determined to be caused by excessive grease generation BWD inspectors will investigate facilities contributing to the incident. A determination will be made as to which facilities contributed to the blockage, spill or odor problem. Subsequently more in-depth inspections of those facilities will be conducted where appropriate and additional requirements and/or procedures will be put in place. Where requirements are made for additional grease removal equipment or maintenance the facility (FSE) is given a date to comply. A notice of violation is issued once a facility has passed the final due date for compliance. Administrative hearings, permit revocation and termination of sewer service may occur for facilities who fail to comply.

(7) The District may require a FSE to construct and maintain in proper operating condition at the Food Service Establishment's sole expense, monitoring facilities and practices. The District may require a FSE to inspect and sample wastewater discharges of any Food Service Establishment to ascertain whether the intent of this Article is being met. The District may require the Food Service Establishment to submit waste analysis plans, contingency plans, and meet other necessary requirements to ensure proper operation and maintenance of the grease control device or grease interceptor and compliance with this Article.(m) Suspension or Termination of Health Permit- The BWD shall have the discretion

to request the County of San Diego Department of Environmental Health to terminate or cause to be terminated the health permit of any user if a violation of any provision of this chapter is found to cause a condition of contamination, pollution, nuisance, or other threat to public health or safety.

(n) Request for Ruling - If an applicant for a permit or the owner of a grease trap or grease interceptor disputes the interpretation or application of this chapter, he/she may request a written ruling from the General Manager of the BWD. The decision of the BWD General Manager shall be final for all purposes.

End FOG Control Program

BORREGO WATER DISTRICT
ARTICLE VII

Sewer Rules and Regulations

SECTION (7.1) PURPOSE AND POLICY

The Borrego Water District will provide for the maximum public benefit from the use of the District's facilities. This shall be accomplished by regulating sewer use and wastewater discharges, by providing equitable distributions of costs, and by establishing procedures that enable the District to comply with the standards, policies, and requirements of other regulatory agencies. The revenues derived from the fees and charges levied by the District for providing sewer services shall be used for the actual and necessary expenses related to those services only, including administration, operation monitoring, maintenance, capital improvements, replacements, and repair.

To comply with applicable State of California and County of San Diego policies and standards, provisions are made in this Article for the regulation of wastewater discharges. This Article may also establish quantity limitations on wastewater discharges in order to maintain an equitable distribution of the capacity rights in main trunk, collector and treatment facilities. It is also the intent of the limitations on the quality and quantity of discharges to assure the productions of a treated effluent satisfactory for reclamation and reuse purposes.

SECTION (7.2) DEFINITIONS

SECTION (7.3) USE OF DISTRICT SEWER SYSTEM

7.3.1 Unauthorized Use

No authorized person shall uncover, make any connections with or opening into, use, alter or disturb any public sewer without first obtaining a written permit from the Engineer and paying all applicable fees and charges.

7.3.2 Connection Rules and Regulations

The following rules and regulations for connection to the District's sewer system shall apply:

A. Each application for permission to connect to the sewer system shall be in writing and submitted to the District Office on forms provided by the District.

B. Application shall be made for a specific premise and is not transferable to any other premise.

C. Applicant shall specify the proposed use of the premise or project and the number of equivalent dwelling units required for that use.

D. Upon completion of a proper application and the payment of applicable fees and charges and meeting whatever stipulations, terms, or conditions established by the Engineer, a permit to connect to the sewer system may be issued.

E. Physical connection to the sewer system shall be made in a manner, size, and location as approved by the Engineer and shall be subject to the Engineer's inspection at any time during the connection process.

F. The connection permit shall not be deemed valid until the Engineer has inspected the completed connection and certified that it has been made in a reliable and satisfactory manner.

G. The owner of the premise for which the connection is made shall be responsible for the maintenance of the service lateral,

7.3.3 Facility Requirements for Sewer Construction Undertaken by Developers of Real Property within the Service Area of the Water District

Any construction of additions to the sewer system done by developers of real property will be done in conformance with the requirements of Policy 90-02 or such additional requirements as established by the District's Chief or Consulting Engineer.

SECTION (7.4) NON-SEWAGE WASTES

7.4.1 Discharge of Sanitary Sewage.

With the exception as provided by this Section, no person shall discharge or cause to be discharged anything other than sanitary sewage to any public sewer.

7.4.2 Discharge of Non-Sewage Waters.

No person shall discharge or cause to be discharged any storm water, surface waters, yard drainage, street drainage, roof runoff, swimming pool drainage, subsurface drainage, uncontaminated cooling water, or unpolluted industrial process waters to any sanitary sewer.

7.4.3 Water Softener Brine.

The discharge of water softener brine wastes is prohibited.

7.4.4 Other Prohibited Substances

No person shall discharge or cause to be discharged into the sewer system any of the following:

A. Any gasoline, benzene, naphtha, cleaning solvents, mineral oils, lubricating oils, fuel oil or other flammable or explosive solid or liquid.

B. Any solids or viscous substances in quantities, or of such size, capable of causing obstruction to the flow in sewers or interference with the proper operations of sewage facilities.

C. Any waters or wastes containing toxic or poisonous solid liquids or gases in sufficient quantity, whether singly or by interaction with other wastes, to interfere with the sewage treatment process, constitute a hazard to human or animal life, or create a public nuisance.

D. Any water or wastes containing fats, waste, grease or oils whether emulsified or not, in excess of 100 mg/L or containing substances which may solidify or become viscous at temperatures between 32 and 150 degrees Fahrenheit.

7.4.5 Restaurant Grease Traps.

Each restaurant connected to the sewer system shall properly install and maintain one or more grease traps to prevent prohibited substances, such as those described in Subsection D of Section 7.4.4, from being discharged into the system. The District Engineer or his authorized representative shall determine (1) the number, size, type, and capacity of the grease traps for each restaurant, and (2) the method and frequency of cleaning of the traps to assure their proper working condition.

SECTION 7.5 INSPECTION AND TESTING

The District Engineer or his authorized representative shall be permitted to enter upon any premises connected to or to be connected to the sewer system at any reasonable time and without prior notice for the purpose of:

7.4.6 Restaurant TDS Monitoring

(a). Each restaurant connected to the sewer system shall monitor Total Dissolved Solids (TDS) concentrations. Samples shall be collected annually and must meet the criteria described in Section 7.4.4.E.

(b). TDS results shall be reported to the BWD on an annual basis.

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D. Gathering any information required for the effective enforcement of any applicable state, federal, or local law or ordinance or any provisions of these rules and regulations.

SECTION 7.6 VIOLATION OF RULES

7.6.1 Notice of Violation

Any person violating any provisions of this Article shall be served by the District with written notice stating the nature of the violation, The offender shall, within the period of time stated on the notice, cease all violation. Continuance of violation shall be sufficient cause for the discontinuance of service,

7.6.2 Violation of a Misdemeanor.

Violation of any provisions, or the failure to comply with any of the requirements of the Articles or of any rule or regulation adopted herein shall constitute a misdemeanor. Any person convicted of such violation or such failure shall be punishable by a fine of not more than $500.00 or by imprisonment in the County Jail for a period of not more than six months, or by both such fine and imprisonment.

7.6.3 Other Criminal and Civil Liability.

In addition to Section 7.6.2, State statutes or regulations provide for other criminal and civil liability and penalties.

7.6.4 Revocation or Suspension of Permits

The District may revoke or suspend a permit issued to any person in the event of a violation by the permittee of any provision of any applicable state, federal, or local law or ordinance or any provisions of these rules and regulations. When a premise has been disconnected, it shall not be reconnected until the violation for which it was disconnected has ceased or been remedied and a reasonable charge for such disconnection and reconnection, as established by the District, has been paid.

7.6.5 Notice of intention to Disconnect

The District shall not give less than five days' notice of intention to disconnect the premise or suspend or revoke a permit, stating the reasons therefore, and may grant a reasonable time for the elimination of the violation; provided, however, that if the District determines that a dangerous situation exists or is imminent and such action is necessary for the immediate protection of the health, safety, or welfare of persons or property, or for the protection of the sewer system, any premise may be disconnected and service terminated concurrently with the giving of such notice. Notice may be given personally to the permittee or the permittee's agent or the recorded owner of the premise, by certified mail to the permittee or recorded owner of the premise or may be posted upon the premise.

7.6.6 Billings and Delinquent Accounts

There are monthly fees for those both holding EDUs for future use (Holders) and for those connected to and using the sewer system as set forth in the sewer service fee schedule. Under the provisions in the original contract failure of a Holder to pay fees within 30 days will result in a penalty of 10 percent per annum being applied on a

monthly basis at a rate of .83 percent a month. No holder may assign any EDU nor exercise his or her right of connection so long as the account is delinquent. Any account delinquent for a period of 90 days will result in written notification to the Holder that the account is in default and the total amount due. If payment is not received in full within 30 days following the date of notice the District shall terminate its performance of the Agreement with respect to all of the EDUs of the defaulting Holder, The EDUs of a defaulting Holder will become the property of the District for reassignment to others,

Failure of a User to pay the monthly fees will result in a 10 percent (10%) per month penalty and disconnect of water service based upon the conditions established in the water service provisions of this code.

Amended: Articles II, III, IV, V VI, AND VII, February 1999, September 2000, 10/29/2003,

SECTION (8.0.0): OVERFLOW EMERGENCY RESPONSE PLAN

CONTENTS / SECTION 8.0.0:

Section (8.0.1) RESPONSE TEAM MEMBERS:

The response team shall consist of the following personnel:

- General Manager
- Operations Manager
- District Engineer
- Compliance Manager
- Wastewater Operations Supervisor
- Water Operations Supervisor
- All Equipment Operators
- All Certified Operators and Field Personnel

The highest ranking responder onsite shall be responsible for all decisions relative to the response and correction of the SSO, and shall be responsible for compliance with applicable reporting requirements in consultation with the General Manager if he is not yet at the site.

The procedures for responding to a sewer system overflow within the Borrego Water District are established as follows:

SECTION (8.0.2) NOTIFICATION:

- The Duty Operator shall immediately notify the members of the District Management Team including the General Manager, Operations Manager and the Compliance Manager when informed or becoming aware that there is a sewer system overflow.

- The General Manager shall determine the extent of the overflow relative to regulatory requirements and make the appropriate notifications to the RWQCB and other agencies as may be appropriate for the size of spill and the extent of potential contamination.

SECTION (8.0.3) RESPONSE:

If the sewer system overflow or discharge is coming from a broken pipe, then the following procedures shall be implemented:

1. The immediate upstream manhole shall be sealed on the downstream side through use of a sewer plug or sand bags.

2. Diluted bleach shall be applied to the sewage spill to control pathogens, and warning tape and barricades placed to keep the public away from the site.

3. The emergency tanker truck contractor shall be called onsite.

4. The emergency gasoline pump shall be utilized to pump the manhole dry of sewage as it rises to the halfway point in the manhole, discharging the sewage into the tanker truck, which then shall deliver the sewage to the closest downstream manhole so that the sewage will be conveyed to the WWTP.

5. District Backhoes shall be brought onsite to construct berms to contain the sewage spill.

6. A sump shall be dug by the backhoe at the low end of the affected area so that the emergency trash pump can pump the sewage collecting in said spot into the tank truck for disposal at the closest downstream manhole.

7. The area affected by the spill shall be sprayed with a dilute dilution of bleach immediately after all sewage has been removed pursuant to step 6 above.

8. The response crew shall then use the backhoe to expose the portion of broken/leaking pipe, and utilizing all safety procedures for trench excavation shall repair or replace the damaged section of pipe. Once the pipe is repaired then the seal at the upstream manhole shall be removed after pumping the sewage down to the lowest point possible.

9. Once the land area that the spill impacted has dried sufficient to allow staff to traverse the site then the response team shall clean up all solid waste on the site and dispose of it properly at the WWTP.

10. Following drying of the area to a sufficient level for motorized equipment, the area shall be scarified with the District's Gannon Tractor, and the area again sprayed with dilute bleach.

11. The following day the area shall be smoothed over with the Gannon Tractor, and the warning tape shall be left in place for 1 week following the event.

Should the source of the overflow be a manhole, then the above procedures apply with the following modifications.

1. The emergency pump shall be used at the overflowing manhole to pump sewage into the tank truck.

2. The other members of the response crew shall seal the immediate upstream manhole. Once the sewage in the overflowing manhole is eliminated, the emergency pump shall be transferred to the upstream manhole and pump it out as outlined in procedure 4 above.

3. The District shall contact its sewer cleaning contractor to have the downstream lines cleaned to remove the obstruction causing the backup in the overflowing manhole.

If the source of the SSO is one of the District's existing sewage lift stations then Steps 1 through 11 above apply with the following modifications:

1. Place the emergency gasoline powered pump in the sump of the wetwell and pump to the tanker truck for disposal at the closest downstream manhole to allow the sewage to reach the WWTP.

2. Immediately call the District's on-call pump repair firm to respond to the problem and determine if the cause of the overflow is due to mechanical failure of the lift station pumps, or if the cause is due to a problem with the force main.

3. If the problem is mechanical, continue to implement emergency response procedures while the contractor repairs the lift station.

4. If the problem is with the force main, then contact the sewer cleaning on-call firm and have the line inspected and cleaned to determine if there is a collapsed section of pipe or a clog that need to be removed.

5. Once the portion of the force main that needs repairing is identified, then the response team shall replace that portion of pipe consistent with District practice and procedures for pipe repair, and upon completion of the repair the lift station shall be returned to service and a determination made if the problem has been resolved.

SECTION (8.0.4) REPORTING:

Consistent with SWRCB Order No. **WQ 2013-0058-EXEC**, the General Manager shall insure compliance with the following provisions. There are three categories of sewer spills:

SSO Categories

Category 1

Discharges of untreated or partially treated wastewater of any volume resulting from the District's sanitary sewer system failure or flow condition that:

a. Reach surface water and/or reach a drainage channel tributary to a surface water; or

b. Reach a MS4 and are not fully captured and returned to the sanitary sewer system or not otherwise captured and disposed of properly. Any volume of wastewater not recovered from the MS4 is considered to have reached surface water unless the storm drain system discharges to a dedicated storm water or groundwater infiltration basin (e.g., infiltration pit, percolation pond).

Category 2

Discharges of untreated or partially treated wastewater greater than or equal to 1,000 gallons resulting from the District's sanitary sewer system failure or flow condition that does not reach a surface water, a drainage channel, or the MS4 unless the entire SSO volume discharged to the storm drain system is fully recovered and disposed of properly.

Category 3

All other discharges of untreated or partially treated wastewater resulting from the District's sanitary sewer system failure or flow condition.

SECTION (8.0.5) NOTIFICATION REQUIREMENTS:

1. For any **Category 1 SSO** greater than or equal to 1,000 gallons that results in a discharge to a surface water or spilled in a location where it probably will be discharged to surface water, either directly or by way of a drainage channel or MS4, the District shall, as soon as possible, but not later than two **(2) hours** after (A) the District has knowledge of the discharge, (B) notification is possible, and (C) notification can be provided without substantially impeding cleanup or other emergency measures, notify the Cal OES and obtain a notification control number.

   State Office of Emergency Services (OES) phone number: **(800) 852-7550**

2. The District shall provide the information requested by Cal OES before receiving a control number. Spill information requested by Cal OES may include:

    i. Name of person notifying Cal OES and direct return phone number.
    ii. Estimated SSO volume discharged (gallons).
    iii. If ongoing, estimated SSO discharge rate (gallons per minute).
    iv. SSO Incident Description:
        a. Brief narrative.
        b. On-scene point of contact for additional information (name and cell phone number).
        c. Date and time District became aware of the SSO.
        d. Name of sanitary sewer system agency causing the SSO.
        e. SSO cause (if known).
    v. Indication of whether the SSO has been contained.
    vi. Indication of whether surface water is impacted.
    vii. Name of surface water impacted by the SSO, if applicable.
    viii. Indication of whether a drinking water supply is or may be impacted by the SSO.
    ix. Any other known SSO impacts.
    x. SSO incident location (address, city, state, and zip code).

3. Following the initial notification to Cal OES and until such time that the District certifies the SSO report in the CIWQS Online SSO Database, the District shall provide updates to Cal OES regarding substantial changes to the estimated volume of untreated or partially treated sewage discharged and any substantial change(s) to known impact(s).

4. The District shall notify Cal OES of discharges greater than or equal to 1,000 gallons of untreated or partially treated wastewater that result or may result in a discharge to surface water resulting from failures or flow conditions within a privately owned sewer lateral or from other private sewer asset(s) if the District becomes aware of the PLSD.

SECTION (8.0.6) SANITARY SEWER OVERFLOW REPORTING – TIMEFRAMES:

Category 1 and Category 2 SSOs – All SSOs that meet the above criteria for Category 1 or Category 2 SSOs shall be reported to the CIWQS Online SSO Database:

a. Draft reports for Category 1 and Category 2 SSOs shall be submitted to the CIWQS Online SSO Database within three **(3) business days** of the District becoming award of the SSO.

b. A final Category 1 or Category 2 SSO report shall be certified through the CIWQS Online SSO Database within **15 calendar days** of the end date of the SSO.

Category 3 SSOs – All SSOs that meet the above criteria for Category 3 SSOs shall be reported to the CIWQS Online SSO Database and certified within 30 calendar days after the end of the calendar month in which the SSO occurs (e.g., all Category 3 SSOs occurring in the month of February shall be entered into the database and certified by March 30).

"No Spill" Certification – If there are no SSOs during the calendar month, the District shall either 1) certify, within 30 calendar days after the end of each calendar month, a "No Spill" certification statement in the CIWQS Online SSO Database certifying that there were no SSOs for the designated month, or 2) certify, quarterly within 30 calendar days after the end of each quarter, "No Spill" certification statements in the CIWQS Online SSO Database certifying that there were no SSOs for each month in the quarter being reported on. For quarterly reporting, the quarters are Q1 - January/ February/ March, Q2 - April/May/June, Q3 July/August/September, and Q4 - October/November/December. If there are no SSOs during a calendar month but the District reported a PLSD, the District shall still certify a "No Spill" certification statement for that month.

Amended SSO Reports – The District may update or add additional information to a certified SSO report within 120 calendar days after the SSO end date by amending the report or by adding an attachment to the SSO report in the CIWQS Online SSO Database. SSO reports certified in the CIWQS Online SSO Database prior to the adoption date of this MRP may only be amended up to 120 days after the effective date of this MRP. After 120 days, the District may contact the SSO Program Manager to request to amend an SSO report if the District also submits justification for why the additional information was not available prior to the end of the 120 days.

SECTION (8.0.6) RECORD KEEPING REQUIREMENTS:

The following records shall be maintained by the District for a minimum of five (5) years and shall be made available for review by the Water Boards during an onsite inspection or through an information request:

1. General Records: The District shall maintain records to document compliance with all provisions of the SSS WDRs and this MRP for each sanitary sewer system owned

including any required records generated by an District's sanitary sewer system contractor(s).

2. SSO Records: The District shall maintain records for each SSO event, including but not limited to:

    a. Complaint records documenting how the District responded to all notifications of possible or actual SSOs, both during and after business hours, including complaints that do not result in SSOs. Each complaint record shall, at a minimum, include the following information:

        i. Date, time, and method of notification.
        ii. Date and time the complainant or informant first noticed the SSO.
        iii. Narrative description of the complaint, including any information the caller can provide regarding whether or not the complainant or informant reporting the potential SSO knows if the SSO has reached surface waters, drainage channels or storm drains.
        iv. Follow-up return contact information for complainant or informant for each complaint received, if not reported anonymously.
        v. Final resolution of the complaint.

    b. Records documenting steps and/or remedial actions undertaken by District, using all available information, to comply with section D.7 of the SSS WDRs.

    c. Records documenting how all estimate(s) of volume(s) discharged and, if applicable, volume(s) recovered were calculated.

3. Records documenting all changes made to the SSMP since its last certification indicating when a subsection(s) of the SSMP was changed and/or updated and who authorized the change or update. These records shall be attached to the SSMP.

4. Electronic monitoring records relied upon for documenting SSO events and/or estimating the SSO volume discharged, including, but not limited to records from:

    a. Supervisory Control and Data Acquisition (SCADA) systems
    b. Alarm system(s)
    c. Flow monitoring device(s) or other instrument(s) used to estimate wastewater levels, flow rates and/or volumes.

SECTION (8.0.7) OTHER REQUIREMENTS:

As defined and discussed in the Monitoring and Reporting Program Order No. **WQ 2013-0058-EXEC**, attached.

BORREGO WATER DISTRICT

POLICY STATEMENT

Subject: Issuance of Water and Sewer ill-Serve Letters
No : 85-1
Adopted: January 16, 1985

PURPOSE:

To guide the staff and those persons or organizations processing development projects which will require water, sewer, flood control or septic systems maintenance services from the District.

GOALS:

It is the intention of the Board of Directors to accomodate those involved in the processing of development proposals and to respond to referrals from the County Department of Planning and Land as expeditiously as possible. In doing so, however, the Board of Directors recognizes that the costs associated in the analysis and preparation of Will-Serve Letters should not be a burden upon the General Funds of the District. It is the Board's goal, therefore, to assure that all such costs are fully paid for by those benefiting from the issuance of Will-Serve Letters.

POLICY:

1. All requests for Will-Serve Letters will, upon receipt, be for referred to staff an estimate of the legal, administrative

   And engineering costs associated with the preparation of a responsible reply.

2. At the earliest practicable meeting of the Board of Directors, staff will present its estimate and the Board shall determine the amount to be deposited with the District by those submitting the request. Further action on the requests may be suspended until such funds have been deposited.

3. Should the actual costs exceed the estimate, the Board may withhold issuance of the final Will-Serve Letter until the District is fully reimbursed.

4. Should the actual costs be less than the estimate, the Board may authorize reimbursement.

5. The foregoing shall not apply to requests from owners or developers who have paid for and installed water, sewer or flood control facilities to District standards. In such cases, staff is authorized to execute will-Serve Letters without prior Board review or approval.

BORREGO WATER DISTRICT

POLICY STATEMENT

SUBJECT: Expansion of the Town Center Sewer

NO: 89-1

ADOPTED: May 24, 1989

PURPOSE:

The purpose of this policy is to guide the District staff, current holders of capacity in the Town Center Sewer and other interested persons on the conditions under which the Board of Directors would consider the expansion of this sewer facility beyond its current connection limit of 1,000 equivalent dwelling units (EDU's).

GOAL:

The Board of Directors recognizes that sometime in the future development in the District will reach levels that may make it desirable to expand the sage of the Town Center Sewer. In order to meet its other commitments, however, the Board must be assured that the Rams Hill Treatment Plant can be expanded to a 750,000 or 1,000,QOO gpd capacity. The Board is also aware that in order to expand the use of this sewer facility it must first obtain approval of the Local Agency Formation Commission (LAFCO) to expand its latent sewer service area beyond the current geographical limits. It is the goal of this Policy, therefore, to provide a means whereby the Board may satisfy its responsibilities to the residents and property owners within Rams Hill and to those agencies having regulatory jurisdiction.

89-1

POLICY :

1. Prior to considering the expansion of the Town Center Sewer within the existing approved sewer service area. the following conditions must be met:

   a. Petitioners seeking expa,nsion of this sewer facility shall deposit with District the amount of $100.00 per each EDU of expanded capacity required for the purpose of financing a feasibility study.

   b. No such study shall be undertaken until the District has received a total of $25.000 in deposits.

   c. The study shall investigate the economic and technital feasibility of expanding the capacity of the Rams Hill Treatment Plant and the Town Center Sewer, and may investigate other matters the Board deems relevant to such a project.

2. Prior to considering he expansion of the Town Center Sewer to serve areas outside of the existing approved service area, the following conditions must be met:

   a. All of the conditions set forth in Section 1 above; and

   b. An estimate shall be made of the costs of making an application to LAFCO for its approval to expand the sewer service area of the District and for an environmental impact analysis if one should be necessary. The petitioners shall deposit with the District an amount equal to this estimate in addition to any other deposits made under this Policy.

BORREGO WATER DISTRICT

POLICY NO. 91-1

Subject: Use of Septic Tank and Package Sewage Treatment Plants within the Borrego Water District

No.: 91-1 Supercedes Policy 84-2

Adopted: 2/20/91

Purpose

The Borrego Water District operates the Ram's Hill Wastewater Reclamation Plant and the Town Center Sewer. As other areas in the Borrego Valley develop consideration should be given to utilizing, expanding or extending these facilities to new service areas. Before any maps are approved which call for the use of septic tanks or package sewer treatment plants for installation in the Borrego Valley, the Borrego Water District should have the opportunity to review the project and to suggest alternative sewage collection and treatment methods.

This policy is intended to inform those doing business with the District, other public agencies having policy or regulatory jurisdiction over the subject matter, and the public in general, that the Board of Directors is concerned about the continued use of septic tank systems and isolated package sewage treatment plants within the Borrego Valley. It is the further purpose of this Policy Statement to guide and direct rather than to regulate the use of septic tank and package treatment plant systems.

Goals and Intent

It is the intent of the Borrego Water District to establish and carry out a groundwater management program to preserve and enhance the water resources of the Valley. In cooperation with their public agencies and privately owned water utilities, the ultimate goal of the District is to assure present and future residents a reliable source of water of a quality adequate to meet the needs of all classifications of users.

One of the elements of a groundwater management program is the regulation of methods for the collection, treatment and disposal of liquid waste in order that (a) groundwater supplies will not be polluted, and (b) wastewater may be reclaimed and reused to every extent practicable and economical.

It is the intent of the Board of Directors that all sewer improvement plans be referred to the District staff for review of (1) type and capacity of proposed sewage treatment plant, (2) comments regarding location of plant in the tract, (3) comments and right of approval of pipe layout, (4) right to make recommendations and to approve plans for treated wastewater disposal, (5) have the right to operate the plant under adequate fee structure or to approve outside operation provided operation is to district standards and the number of years said operation is specified. District should also be advised as to future responsibility after outside contractor (developer or County) ceases to be responsible for operation and (6) have the right to make recommendations and approve the plan for financial responsibility for maintenance.

POLICY:

1. The District will use its authority to raise funds and develop plans for programs that will lead to the construction of public sewer systems as rapidly as existing and future development density warrants.

2. As the sewer system is placed in service and periodically expanded, it shall be the Policy to require connection by all properties abutting the trunk lines. It is expected that, as such connections are made, septic systems will be phased out of existence in all areas served by the District except those isolated areas of low density in which service is not economically feasible.

3. By observing expansion actions taken by the District, property owners will be provided with fair notice of the type of disposal system which they will ultimately be required to use.

4 The costs of initial planning and program development will be borne by General Funds of the District based upon the principle that public sewer systems are the primary means for safeguarding groundwater resources, and are therefore, beneficial to all water users within the Borrego Valley.

5. Funds required for the design, permit approval, and construction of public sewer facilities will be required of owners whose properties directly benefit from the construction of such facilities.

6. The District will work with the County of San Diego to review package treatment plants when considered for use within the District.

IMPLEMENTATION:

The staff is directed to keep alert to and monitor new evelopment and proposals within the Valley that the use of septic tanks contemplate package iewage treatment plants. or

Staff is further directed to keep the Board of Directors informed of such developments and to analyze and maintain records on the cumulative impact the installation of new septic tanks will have on groundwater quality and the present or proposed program of the District.

A copy of this Policy Statement is to be transmitted to other agencies having jurisdiction in these matters along with a request that the District be notified:

1. When permits are applied for, to install new, or to replce or substantially modify existing septic tank systems: or

2. When any violation of the permit process relative to the installation, replacement, modification or maintenance of septic tanks is detected.

3. When any planning decision or map is being processed by the County of San Diego which lnvolves septic tanks or package sewage treatment plants.

BORREGO WATER DISTRICT

POLICY STATEMENT

SUBJECT: Extending Sewer Service to Areas Within the Borrego Water District But Outside of an Improvement District

NO: 2007-3-1

ADOPTED: March 28, 2007

Reference: Policy 81-1
Policy 87-1
Policy 89-1

PURPOSE

The District frequently receives inquiries from persons owning property within the boundary of the Borrego Water District, but outside of an Improvement District, as to the requirements for obtaining sewer service from the District.

Tills is a policy statement setting forth the procedure for those properties to obtain sewer service from the Borrego Water District. The policy does not apply to any land outside of the boundary of the District as provision of sewer service to such property would require atll1exation and approval of the Local Agency Formation Commission.*

BACKGROUND

The Borrego Water District has extended its service areas by creating Improvement Districts. When the District was activated in 1978 to provide water, sewer and flood control services to the Ram's Hill development, it created Improvement District No. 1 and established both taxing and service rates for that area. When sewer service was established to the Town Center area in 1988, the area was designated as Improvement District No. 2. When the water service areas of the Rancho Borrego Mutual Water Company and the Desert Sands Mutual Water Company were acquired in 1985, the area was designated Improvement District No. 3. When the assets of the Borrego Springs Water Company were acquired in 1997, the service area was designated Improvement District No. 4. Each of the Improvement Districts that provides water and sewer service has its own tax rate and service rates. Much of the area of the Borrego Water District does not have service by the District. Owners of land in this area frequently inquire as to what is needed to obtain service. The purpose of this policy is to specify the requirements. Sewer service at present is provided only in ID l (Ram's Hill/Montesoro) and ID 2 (the Town Center Sewer).

•Note: For inquiries regarding sewer service outside the District LAFCO would advise the property owner to contact the BWD regarding the feasibility of annexing to the District and then make application through LAFCO. The District would set the terms and conditions of the annexation through the LAFCO process.

GOALS

It is the goal of the Borrego Water District to extend sewer services of the District to all art?as within its boundaries where practicable, but not to create a situation that would be regarded as growth inducing under the provisions of the California Environmental Quality Act. Wherever service is extended, it should be done without adding to the costs of those already receiving service either interms of providing the initial service or maintaining the expanded system. All lands to be considered for new service shall fall under all other District standards and requirements including existing policies and regulations.

POLICY

1) The District may consider extending its sewer services to any property within the District boundary if that property may practicably be served by an e:<lsting or newly created Improvement District and the property is annexed by Board action to that Improvement District as provided in Section 36428 et seq. of the Water Code of the State of California.

2) Any property owner seeking the extension of Djstrict sewer service shall require a detem1ination by District staff of the property's status with regard to the District's Sewer Sphere of Influence (SOI). If it is determined that the property in question is not within the District's Sewer Sphere of Influence, the property owner shall be directed to LAFCO to process any changes required to be included within the District's Sewer SOI.

3) If tf1e property in question is in the SOI but not in an existing District Improvement District for sewer service, the property owner will be directed to LAFCO to process documentation for proceedings regarding Expansion of the District's Sewer Service Latent Powers Area. If approved by LAFCO for expansion of the sewer service latent powers area, the property owner will follow the procedure established below.

4) Any property owner seeking the extension of District sewer service to property shall submit a request to the District to be approved by the Board of Directors and shall comply with the Jntemal Annexation Procedures of the District.

5) All sewer extensions and facilities shall be provided by the property owners at their sole expense including, but not limited to, all permit costs, District staff, attorney and/or engineering costs and any environmental evaluations and clearances. All facilities shall be constructed to the standards of the District. Sewer line extehsions that may serve additional property in the future may include a reimbursement agreement.

6) All sewer line extensions and facilities shall be granted to theDistrict.

7) The property will be subject to the taxes and sewer service rates of the Improvement District to which it is annexed.

8) It is the general policy of the Board of Directors of the Borrego Water District to limit annexation of territory to an Improvement District to property that is ontiguous to the Improvement District and that has appropriate facilities available or that can practicably be made available to serve the subject land.

Attachments: Legal Description, Notary Form

APPENDIX:

STATE OF CALIFORNIA REGULATIONS, REQUIREMENTS, AND ORDERS FOR RAMS HILL WASTEWATER TREATMENT FACILITY, SANITARY SEWER SYSTEMS AND WASTEWATER TREATMENT FACILITIES.

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CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

ORDER NO. R7-2007-0053

WASTE DISCHARGE REQUIREMENTS
FOR
BORREGO WATER DISTRICT, OWNER/OPERATOR
RAMS HILL WASTEWATER TREATMENT FACILITY
Borrego Springs – San Diego County

The California Regional Water Quality Control Board, Colorado River Basin Region, finds that:

1. Borrego Water District, P. O. Box 1870, Borrego Springs, California 92004, (hereinafter referred to as the Discharger), submitted an updated Report of Waste Discharge (ROWD) to the California Regional Water Quality Control Board, Colorado River Basin Region (Regional Board), on September 14, 2005, for the Rams Hill Wastewater Treatment Facility.

2. The property for the Wastewater Treatment Facility (WWTF) (Assessor's Parcel No. 200-120-42 and 200-120-41) is located about four miles southeast of Borrego Springs in the E 1/2 of Section 23, T11S, R6E, SBB&M.

Wastewater Treatment and Disposal Facilities

3. The WWTF includes a comminutor, parshall flume, grit chamber, an oxidation ditch, two secondary clarifiers, a flow equalization basin, three evaporation-percolation ponds, and sludge drying beds. The WWTF has a design capacity of 250,000 gallons per day (gpd).

4. Current flows into the Facility average approximately 60,000 gpd. During the summer, flows average approximately 20,000 gpd. Effluent from the treatment Facility is discharged to evaporation/percolation ponds. Sludge from the Facility is discharged to on-site drying beds for stabilization. The sludge is removed every four to five years for off-site disposal at a waste management facility approved by the Regional Board.

5. The WWTF services approximately 20 percent of the community of Borrego Springs' specifically, the Rams Hill residential community and the Town Center area, which includes hotels, a motel, and small business along Palm Canyon Drive. The remaining 80 percent of Borrego Springs is serviced by individual septic tank-subsurface disposal systems.

6. The discharge from the WWTF is currently regulated by Waste Discharge Requirements Board Order No. 90-032. Board Order No. 90-032 is neither adequate nor consistent with the current plans and policies of the Board.

Hydrogeological Conditions

7. The WWTF is about 520 feet above mean sea level. Surface water runs off as sheet flow, draining to the east.

8. Soils at the WWTF from ground surface to approximately 35 feet below ground surface (bgs) consist of fine to coarse sands, and silty clays.

9. Average annual precipitation for the area is 6.8 inches, and average annual evaporation is 50 inches. Temperatures in the Borrego Springs area can reach 120° F in summer.

10. The Discharger owns and operates a network of eleven groundwater wells that provide domestic water for the community. Groundwater quality in Borrego Springs varies from good to excellent. Depth to first encountered groundwater is approximately 60 feet bgs.

11. The Discharger reports that domestic water for the sewered portion of the community is supplied by four wells. The wells are reportedly upgradient of the WWTF and show the following constituent concentrations for 2006:

Constituent	ID1–Well 12	ID1–Well 16	ID4–Well 3	ID4–Well 11
Total Dissolved Solids	410	370	790	430
Chloride	52	75	71	46
Nitrate-Nitrogen	0.32	1.2	2.6	0.43
Sulfate	92	58	390	90
Fluoride	0.5	0.5	0.4	0.3

Basin Plan, Beneficial Uses, and Regulatory Considerations

12. The Water Quality Control Plan for the Colorado River Basin Region of California (Basin Plan), as amended to date, designates the beneficial uses of ground and surface waters in this Region.

13. The discharge is taking place in the Anza-Borrego Hydrological Unit. The beneficial uses of groundwater in the Anza-Borrego Hydrological Unit are municipal supply, agricultural supply, and industrial supply.

14. The Basin Plan establishes narrative and numeric water quality objectives for groundwater that Waste Discharge Requirements (WDRs) implement. For groundwater designated as municipal and domestic supply, the numeric objectives are the maximum contaminant levels (MCLs), and bacteriological limits specified in Section 64421 et seq. of Title 22, California Code of Regulations (CCR). Regarding narrative objectives, the Basin Plan states in relevant part that:

    "Groundwater...shall not contain taste or odor producing substances in concentrations that adversely affect beneficial uses as a result of human activity..." (Basin Plan, page 3-9.)

    "Discharges of water softener regeneration brines...to disposal facilities which ultimately discharge in areas where such wastes can percolate to ground water usable for domestic and municipal purposes are prohibited." (Basin Plan, page 3-9.)

15. These WDRs implement narrative and numeric water quality objectives established by the Basin Plan for ground and surface waters.

16. The discharge authorized herein, and treatment and storage facilities associated with the discharge of treated municipal wastewater, except for discharges of residual sludge and solid waste, are exempt from the requirements of Title 27, CCR, Section 20005 et seq. (hereinafter Title 27). The exemption, pursuant to Section 20090(a) of Title 27, is based on the following:

    a. The waste consists primarily of domestic sewage and treated effluent;
    b. The WDRs are consistent with water quality objectives; and
    c. The treatment and disposal facilities described herein are associated with a domestic wastewater treatment facility.

17. State Water Resources Control Board (State Board) Resolution No. 68-16 ("Policy with Respect to Maintaining High Quality Waters of the State") (hereinafter Resolution No. 68-16) requires a regional board in regulating the discharge of waste to maintain high quality waters of the state (i.e., background water quality) until it is demonstrated that any change in quality will be consistent with maximum benefit to the people of the State, will not unreasonably affect beneficial uses, and will not result in water quality less than that described in plans and policies (e.g. violation of any water quality objective). The discharge is required to meet WDRs that result in the best practicable treatment or control necessary to assure that pollution or nuisance will not occur, and highest water quality consistent with maximum benefit to the people will be maintained.

18. Some degradation of groundwater from the discharge to the disposal ponds is consistent with Resolution No. 68-16 provided that degradation:

    a. Is confined to a reasonable area;
    b. Is minimized by means of full implementation, regular maintenance, and optimal operation of best practicable treatment and control (BPTC) measures;
    c. Is limited to waste constituents typically encountered in domestic wastewater; and
    d. Does not result in water quality less than that prescribed in the Basin Plan, including violation of any water quality objective.

19. The discharge from the WWTF as permitted herein reflects BPTC for wastewater. The control is intended to assure the discharge does not create a condition of pollution or of nuisance, and that the highest water quality defined by groundwater limits will be maintained, which is consistent with the antidegradation provisions of Resolution No. 68-16. The WWTF incorporates:

    a. Technology for secondary treated domestic wastewater;
    b. Sludge handling facilities;
    c. An operation and maintenance manual;
    d. Staffing to assure proper operation and maintenance; and
    e. A standby emergency power generator of sufficient size to operate the treatment Facility and ancillary equipment during commercial power loss.

20. Waste constituents in typical domestic WWTF effluent that present the greatest risk to groundwater quality are nitrogen, coliforms (pathogen-indicator organisms), and dissolved salts (TDS). The proposed WWTF provides substantial removal of soluble organic matter and solids. It also reduces fecal coliform densities by 90 to 99% however

the plant is ineffective reducing TDS, which in effluent discharged to ponds will concentrate through evaporation before percolating into the subsurface.

21. Given the above, disposal ponds are likely to degrade groundwater by increasing TDS. However, the degradation should be limited to the area directly underlying and immediately downgradient of the disposal ponds and limited to salinity constituents.

22. The typical incremental addition of dissolved salts from domestic water usage is 150 to 380 mg/L (i.e., $150 < TDS_{effluent} - TDS_{water\ supply} < 380$ mg/L). Excepting the TDS reported for ID4-Well 3, the TDS of groundwater supplied to residents and businesses is below the lower TDS limit prescribed by Title 22, CCR (i.e., it is of excellent quality). The TDS of the effluent discharged to the disposal ponds is reportedly 540 mg/L.

23. The Discharger has not provided the flow-weighted average TDS concentration of domestic water needed to determine the current incremental addition of TDS from domestic water usage. Likewise, the Discharger has not investigated, and appropriately addressed, the extent of water softener regeneration brine discharges into the sewage collection system (e.g., eliminate brine discharges to the extent practicable to comply with the Basin Plan). At such time, this Order may be reopened to establish a more appropriate TDS effluent limit for the discharge.

24. For domestic wastes without water softener discharges, a TDS effluent limit of 500 mg/L limits salt degradation to a reasonable amount, and reasonably protects present and anticipated, future uses of groundwater.

25. Groundwater limits equal to water quality objectives for indicator waste constituents and parameters are appropriate because they maintain background water quality to the maximum extent practicable. Economic prosperity of local communities and associated industry/commerce is of maximum benefit to the people of California. Therefore, it is reasonable to allow groundwater degradation immediately beneath the WWTF to accommodate growth, provided the terms and conditions of the Basin Plan are not violated.

26. This Order prescribes groundwater monitoring to establish background water quality, and to ensure compliance with Basin Plan objectives. To ensure groundwater degradation is limited, compliance with objectives will be determined through groundwater monitoring wells designated as points of compliance (POCs) to the extent they are necessary. In this context, the Discharger is investigating background water quality to allow the Regional Board to make a determination on appropriate groundwater protection standards and whether POCs are necessary.

27. Section 13241 of the California Water Code (CWC) requires the Regional Board to consider various factors, including economics, when adopting water quality objectives. Water Code Section 13263 requires the Regional Board to address factors in Section 13241 when adopting WDRs. The State Board, however, has held that Regional Boards need not address Section 13241 factors when implementing existing water quality objectives in WDRs, given that the factors were considered when initially

adopting water quality objectives. These WDRs implement adopted water quality objectives. Therefore, no additional analysis of Section 13241 factors is required.

28. The Monitoring and Reporting Program No. R7-2007-0053 is necessary to determine compliance with WDRs, and to determine Facility impacts, if any, to receiving water.

Other

29. Federal regulations for storm water discharges were promulgated by the United States Environmental Protection Agency (USEPA) (40 CFR Parts 122, 123, and 124). The regulations require specific categories of facilities which discharge storm water associated with industrial activity to obtain National Pollutant Discharge Elimination System (NPDES) permits, and to implement Best Conventional Pollutant Technology (BCT) and Best Available Technology Economically Achievable (BAT) to reduce or eliminate industrial storm water pollution.

30. The State Board adopted Order No. 97-03-DWQ (General Permit No. CAS000001) specifying WDRs for storm water discharges associated with industrial activities, excluding construction activities, and requiring submittal of a Notice of Intent by industries for coverage under the Permit.

31. The Discharger indicates that there are no discharges of pollutants, as defined in 33 U.S.C. Section 1362(12), from this site. Therefore, an NPDES permit is not necessary for this Facility.

32. Pursuant to CWC Section 13263(g), the discharge of waste is a privilege, not a right. Adoption of this Order does not create a vested right to continue this waste discharge.

CEQA and Public Participation

33. In accordance with Section 15301, Chapter 3, Division 6, Title 14 of the California Code of Regulations, the issuance of WDRs, which govern the operation of an existing facility involving negligible or no expansion of use beyond that previously existing, is categorically exempt from the provisions of the California Environmental Quality Act (CEQA) (Pub. Resources Code, Section 21000 et seq.).

34. The Board has notified the Discharger and all known interested agencies and persons of its intent to update WDRs for this discharge, and has provided them with an opportunity for a public meeting, and an opportunity to submit comments.

35. The Board, in a public meeting, heard and considered all comments pertaining to this discharge.

IT IS HEREBY ORDERED, that Board Order No. 90-032 be rescinded, and in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, the Discharger shall comply with the following:

A. DISCHARGE PROHIBITIONS

1. Discharge of wastes to surface waters or surface water drainage courses is prohibited.

2. Discharge of waste classified as 'hazardous,' as defined in Section 2521(a) of Title 23, CCR, Section 2510 et seq., or 'designated,' as defined in California Water Code Section 13173, is prohibited.

3. Bypass or overflow of untreated or partially treated waste is prohibited, except as allowed in Provision E.12.

4. Discharge of waste from the sewer collection system at any point upstream of the WWTF is prohibited.

5. Discharge of wastewater from the WWTF other than into the evaporation/percolation ponds described in Finding Nos. 3 and 4, above, is prohibited.

6. Discharges of water softener regeneration brines, other mineralized wastes, and toxic wastes to disposal ponds are prohibited.

B. DISCHARGE SPECIFICATIONS

1. The average monthly discharge flow from the Facility into the disposal ponds shall not exceed 250,000 gallons-per-day.

2. Effluent discharged into the ponds shall not exceed the following limits:

Constituent	Unit	Monthly Average
BOD_5[1]	mg/L[2]	30
Total Suspended Solids	mg/L	30
Settleable Matter	ml/L[3]	0.3

[1] 5-day biochemical oxygen demand at 20 °C.
[2] milligrams per liter
[3] milliliters per liter.

3. Ponds shall not have a pH below 6.0 or above 9.0.

4. The treatment or disposal of wastes from the Facility shall not cause pollution or nuisance, as defined in Sections 13050(l) and 13050(m) of Division 7 of the California Water Code.

5. Public contact with wastewater shall be precluded or controlled through such means as fences and signs, or acceptable alternatives.

6. The Discharger shall not cause degradation of any water supply.

7. No waste constituent shall be released or discharged, or placed where it will be released or discharged, in concentrations that cause violation of groundwater limits.

8. The WWTF (treatment, storage, and disposal areas, etc.) shall be operated and maintained to prevent inundation or washout due to floods with a 100-year return frequency.

9. Objectionable odor originating at the WWTF shall not be perceivable beyond the limits of the WWTF.

10. As a means of discerning compliance with Discharge Specification B.9 above, the dissolved oxygen content in the upper one foot of wastewater in all ponds shall not be less than 1.0 mg/L.

11. Freeboard shall never be less than two feet in any pond (measured vertically). Lesser freeboard may be allowed if certified in writing by a California registered civil engineer as adequate to prevent overtopping, overflows, or levee failures.

12. Ponds shall have sufficient capacity to accommodate allowable wastewater flow and design seasonal precipitation. Design seasonal precipitation shall be based on total annual precipitation using a return period of 100 years, distributed monthly in accordance with historical rainfall patterns.

13. Ponds shall be managed to prevent breeding of mosquitoes. In particular:

    a. An erosion control plan should assure that small coves and irregularities are not created around the perimeter of the water surface.
    b. Weeds shall be minimized through control of water depth, harvesting, and herbicides.
    c. Dead algae, vegetation, and debris shall not accumulate on the water surface.

14. Adequate measures shall be taken to assure that flood or surface drainage waters do not erode or otherwise render portions of the discharge facilities inoperable.

C. SLUDGE DISPOSAL

Sludge defined in this document is solid, semisolid, and liquid residues removed during primary, secondary, or advanced wastewater treatment processes. Solid waste refers to grit and screening material generated during preliminary treatment. Residual sludge is sludge that will not undergo further treatment at the WWTF. Biosolids are sludge that is treated, tested, and demonstrated to be beneficial, and legal to use pursuant to federal and state regulations, as a soil amendment for agriculture, silviculture, horticulture, and land reclamation.

1. Collected screenings, biosolids, grease and oil, and other solids removed from liquid wastes shall be disposed of in a manner consistent with Title 27 and approved by the Executive Officer.

2. Treatment and storage of sludge generated by the WWTF shall be confined to the Facility property, and conducted in a manner that precludes infiltration of waste constituents into soils in concentrations that will violate groundwater limits.

3. Storage of residual sludge, solid waste, and biosolids on property of the WWTF shall be temporary, and controlled/contained in a manner that minimizes leachate formation, and precludes infiltration of waste constituents into soil in concentrations that will violate groundwater limits.

4. Any proposed change in biosolids use or disposal practice, from a previously approved use/practice, shall be reported to the Regional Board Executive Officer and U.S. Environmental Protection Agency Regional Administrator at least 90 days in advance of the change.

5. Use and disposal of sludge shall comply with existing Federal and State laws and regulations, including permitting requirements and technical standards included in Title 40 of the Code of Federal Regulations (CFR), Part 503. If the Federal government delegates to the State and Regional Boards the authority to implement regulations contained in 40 CFR Part 503, this Order may be reopened to incorporate time schedules and technical standards. The Discharger must comply with the standards and time schedules contained in 40 CFR Part 503 whether or not incorporated into this Order.

D. GROUNDWATER LIMITS

The discharge to disposal ponds, in combination with other sources, shall not cause groundwater at the Facility to:

1. Contain waste constituents in concentrations statistically greater than receiving water limits, where specified below, or background water quality where not specified. (For purposes of comparison, background water quality shall be determined when background monitoring provides sufficient data. Quality determined in this manner establishes "water quality protection standards.")

2. Contain chemicals, heavy metals, or trace elements in concentrations that adversely affect beneficial uses or exceed maximum contaminant levels specified in the 22 CCR, Division 4, Chapter 15.

3. Exceed a most probable number of total coliform organisms of 2.2/100 ml over any seven-day period.

4. Exceed concentrations of radionuclides specified in 22 CCR, Division 4, Chapter 15.

5. Contain taste or odor-producing substances in concentrations that cause nuisance or adversely affect beneficial uses.

6. Contain chemical constituents in concentrations that adversely affect agricultural use.

7. Exhibit a pH less than 6.5 or greater than 8.5.

E. PROVISIONS

1. The Discharger shall comply with "Monitoring and Reporting Program No. R7-2007-0053, and future revisions thereto, as specified by the Regional Board Executive Officer.

2. Standby power generating facilities shall be available to operate the Facility during a commercial power failure.

3. The WWTF shall be supervised and operated by persons possessing certification of appropriate grade pursuant to Section 3680, Chapter 26, Division 3, Title 23 CCR. The Discharger shall ensure that all operating personnel are familiar with the content of this Board Order.

4. Prior to any modification at this Facility that would result in a material change in the quality or quantity of wastewater treated or discharged, or a material change in the location of the discharge, the Discharger shall report all pertinent information in writing to the Regional Board, and obtain revised requirements before implementing the modification.

5. Prior to any change in ownership or management of this Facility, the Discharger shall transmit a copy of this Board Order to the succeeding owner/operator, and forward a copy of the transmittal letter to the Regional Board.

6. This Board Order does not authorize violation of any federal, state, or local laws or regulations.

7. The Discharger shall allow the Regional Board, or an authorized representative, upon presentation of credentials and other documents as may be required by law, to:

   a. Enter upon the premises regulated by this Board Order, or the place where records must be kept under the conditions of this Board Order;

   b. Have access to and copy, at reasonable times, any records that shall be kept under the conditions of this Board Order;

   c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Board Order; and

   d. Sample or monitor at reasonable times, for the purpose of assuring compliance with this Board Order or as otherwise authorized by the California Water Code, any substances or parameters at this location.

8. The Discharger shall comply with all of the conditions of this Board Order, including timely submittal of technical and monitoring reports as directed herein, or by the Executive Officer pursuant to Section 13267 of the CWC. Any noncompliance with this Board Order constitutes a violation of the CWC, and is grounds for enforcement action.

9. The Discharger shall at all times properly operate and maintain all systems and components of collection, treatment and control that are installed or used by the Discharger to achieve compliance with this Board Order. Proper operation and maintenance includes effective performance, adequate process controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities, or similar systems when necessary to achieve compliance with this Board Order. All systems both in service and reserved, shall be inspected and maintained on a regular basis. Records shall be kept of inspection results and maintenance performed, and made available to the Regional Board upon demand.

10. The Discharger shall comply with the following:

    a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

    b. The Discharger shall retain records of all monitoring information including: all calibration and maintenance records; original strip chart recordings for continuous monitoring instrumentation; copies of all reports required by this Board Order; and records of all data used to complete the Board Order application. The records shall be retained for at least five years from the date of the sample, measurement and/or report of application.

    c. Records of monitoring information shall include:

        1. The date, exact place, and time of sampling or measurement;
        2. The individual(s) who performed the sampling or measurement;
        3. The date the analysis was performed;
        4. The individual(s) who performed the analysis;
        5. The analytical technique or method used; and
        6. The result of each analysis.

11. The Discharger shall furnish, under penalty of perjury, technical monitoring program reports, submitted in accordance with the specifications ordered by the Regional Board Executive Officer. Such specifications are subject to periodic revisions as may be warranted.

12. By-pass (i.e., the intentional diversion of waste streams from any portion of a treatment facility, except diversions designed to meet variable effluent limits) is prohibited. The Board may take enforcement action against the discharger for by-pass unless:

    a. By-pass is required for essential maintenance to assure efficient operation;
    b. Effluent and receiving water limits are not exceeded;
    c. The discharger notifies the Board ten days in advance;

d. By-pass was unavoidable to prevent loss of life, personal injury, or severe property damage. Severe property damage means: substantial physical damage to property; damage to treatment facilities that cause loss of function; and substantial or permanent loss of natural resources. Severe property damage does not mean economic loss caused by delays in production.

e. There are no feasible alternatives to by-pass, such as use of auxiliary treatment facilities, or retention of untreated waste. This condition is not satisfied if the Discharger did not implement preventive maintenance, or install adequate back-up equipment to prevent a by-pass likely to occur during equipment downtime.

The Discharger shall submit notice of an unanticipated by-pass as required in paragraph c. above.

13. Unless otherwise approved by the Regional Board Executive Officer, all analyses shall be conducted at a laboratory certified for such analyses by the State Department of Health Services. All analyses shall be conducted in accordance with the latest edition of "Guidelines Establishing Test Procedures for Analysis of Pollutants", promulgated by the United States Environmental Protection Agency.

14. **By November 15, 2007**, the Discharger shall submit a technical report in the form of a work plan that includes a time schedule for implementation, and specific tasks and milestones to identify and/or control discharges of water softener brines into the collection system to ensure compliance with Discharge Prohibition A.6, and to establish an appropriate TDS effluent limit. The work plan is subject to review and approval by the Regional Board Executive Officer.

15. The Discharger is responsible for compliance with these WDRs, and the Monitoring and Reporting Program for the Facility. The Discharger shall comply with all conditions of these WDRs. Violations may result in enforcement action, including Regional Board Orders or court orders requiring corrective action or imposing civil monetary liability, or in modification or revocation of these WDRs by the Regional Board.

16. The Discharger shall provide a report to the Regional Board when the treatment Facility average flow rate for any month exceeds 80 percent of the design capacity specified in Finding No. 3 above. The report shall indicate steps the Discharger will take to accommodate wastes received in excess of the Facility's current design capacity.

17. The Discharger shall retain records of all monitoring information including all calibration and maintenance records, copies of all reports required by this Board Order, and records of all data used to complete the application for this Board Order. Records shall be maintained for a minimum of five years from the date of the sample, measurement, or report. This period may be extended during the course of any unresolved litigation regarding this discharge or when requested by the Regional Board Executive Officer.

18. The Discharger shall provide adequate notice to the Regional Board Executive Officer of the following:

a. Introduction of new pollutants into any treatment Facility described in the Findings of this Board Order from an indirect Discharger subject to Section 301 or 306 of the Clean Water Act if discharging the pollutants directly.

b. A substantial change in the volume or character of pollutants introduced into any treatment Facility described in this Board Order, by an existing or new source.

c. A physical alteration or addition to any Facility described in this Board Order, or a change in the Discharger's sludge use or disposal practice, where such alteration, addition, or change may justify a Board Order revision prior to implementation (e.g., adding disposal sites not reported during the Board Order application process, or not reported pursuant to an approved land application plan).

19. The Discharger shall report all instances of noncompliance. Reports of noncompliance shall be submitted with the next scheduled self-monitoring report, or earlier if requested by the Regional Board Executive Officer, or if required by an applicable standard for sludge use and disposal.

20. The Discharger shall provide a plan describing the method to treat, handle, and dispose of sludge that is consistent with State and Federal laws and regulations. The Discharger shall obtain written approval from the Regional Board Executive Office prior to disposing of treated or untreated sludge (or similar solid wastes) using a method not described in Finding No. 4.

21. The Discharger shall maintain a permanent log of all solids removed from the treatment Facility for use and/or disposal offsite, and provide a summary of the volume, type (screenings, grit, raw sludge, digested sludge), use (agricultural, composting, etc.), and destination in accordance with the Monitoring and Reporting Program No. 2007-0053. Sludge stockpiled at the treatment Facility shall be sampled and analyzed for constituents listed in the sludge monitoring section of Monitoring and Reporting Program No. 2007-0053, and as required by 40 CFR, Part 503. The results of the analyses should be submitted to the Regional Board as part of the Monitoring and Reporting Program.

22. This Board Order may be modified, terminated, or revoked and reissued for cause. Filing a request for a Board Order modification, termination, or revocation and reissuance, does not stay any Board Order condition. Likewise, notifying the Board of anticipated noncompliance does not stay any Board Order condition. Situations that may require a Board Order update include promulgation of new State or Federal regulation, a revision to the Basin Plan, or a change in land application plans, sludge use, or sludge disposal.

23. This Board Order does not convey property rights of any sort, or any exclusive privileges, nor does it authorize injury to private property or invasion of personal rights, nor any infringement of federal, state or local laws and regulations.

24. The Discharger shall report any noncompliance that may endanger human health or the environment. The Discharger shall immediately report orally information of noncompliance to the Regional Board office and the Office of Emergency Services as soon as:

(1) The Discharger has knowledge of the discharge,
(2) Notification is possible, and

During non-business hours, the Discharger shall leave a message on the Regional Board office voice recorder. A written report shall be provided within five business days of the time the Discharger is aware of the incident. The written report shall describe the noncompliance and its cause, the period of noncompliance, the anticipated time to achieve full compliance, and steps taken or planned, to reduce, eliminate, and prevent recurrence of the noncompliance.

25. The Discharger shall report intentional or unintentional sewage spills in excess of one thousand (1,000) gallons occurring within the Facility or collection system to the Regional Board office in accordance with the time limits in Provision No. 24.

I, Robert Perdue, Executive Officer do hereby certify the foregoing is a full, true and correct copy of a Board Order adopted by the California Regional Water Quality Control Board, Colorado River Basin Region, on September 19, 2007.

for Jose Angel, PE.

ROBERT PERDUE
Executive Officer

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

MONITORING AND REPORTING PROGRAM NO. R7-2007-0053
FOR
BORREGO WATER DISTRICT, OWNER/OPERATOR
RAMS HILL WASTEWATER TREATMENT FACILITY
Borrego Springs – San Diego County

Location of Discharge: E 1/2 of Section 23, T11S, R6E, SBB&M

MONITORING

1. The collection, preservation and holding times of all samples shall be in accordance with United States Environmental Protection Agency (USEPA) approved procedures. Unless otherwise approved by the Regional Water Board Executive Officer, all analyses shall be conducted by a laboratory certified by the California Department of Public Health, except Dissolved Oxygen and pH, which may be performed by WWTF staff using EPA approved methods. All analyses shall be conducted in accordance with the latest edition of "Guidelines Establishing Test Procedures for Analysis of Pollutants" (40CFR Part 136), promulgated by the USEPA.

2. Samples shall be collected at the location specified in the Permit and in this Program. If no location is specified, sampling shall be conducted at the most representative sampling point available.

INFLUENT MONITORING

At a minimum, wastewater influent shall be monitored for the following constituents from samples collected at the specified frequency:

October through April (high-season)				
Constituents	**Units**	**Type of Sample**	**Sampling Frequency**	**Reporting Frequency**
Flow	gpd[1]	Flow Measurement	Daily[2]	Monthly
20°C BOD_5[3]	mg/L[4]	Grab	Monthly	Monthly
Suspended Solids	mg/L	Grab	Monthly	Monthly

[1] Gallons per day
[2] Reported for each day with average monthly flow
[3] 5-day biochemical oxygen demand at 20 °C
[4] Milligrams per liter

May through September (off-season)				
Constituents	**Units**	**Type of Sample**	**Sampling Frequency**	**Reporting Frequency**
Flow	gpd[1]	Flow Measurement	Daily[2]	Quarterly
20°C BOD_5[3]	mg/L[4]	Grab	Quarterly	Quarterly
Total Suspended Solids	mg/L	Grab	Quarterly	Quarterly

[1] Gallons per day
[2] Reported for each day with average monthly flow
[3] 5-day biochemical oxygen demand at 20 °C
[4] Milligrams per liter

Monitoring and Reporting Program
Borrego Water District
Rams Hill WWTF

EFFLUENT MONITORING

Effluent samples shall be representative of the discharge, and collected immediately before discharge into disposal ponds. The time the grab sample is collected shall be recorded. At a minimum, wastewater effluent shall be monitored for the following constituents from samples collected at the specified frequency:

October through April (high-season)				
Constituent	**Units**	**Type of Sample**	**Sampling Frequency**	**Reporting Frequency**
Total Suspended Solids	mg/L	Grab	2/month[1]	Monthly
20° C BOD_5	mg/L	Grab	2/month	Monthly
Settleable Solids	mg/L	Grab	2/month	Monthly
Total Nitrogen	mg/L	Grab	2/month	Monthly
Total Dissolved Solids	mg/L	Grab	2/month	Monthly
pH	pH units	Grab	2/month	Monthly
VOCs[2]	µg/L[3]	Grab	2/year	Semi-annually

[1] 2 samples per month with at least 2 weeks between samples
[2] Volatile Organic Compounds testing is to be accomplished using USEPA Test Method 601 and 602, or 624.
[3] Micrograms per liter.

May through September (off-season)				
Constituent	**Units**	**Type of Sample**	**Sampling Frequency**	**Reporting Frequency**
Total Suspended Solids	mg/L	Grab	Quarterly	Quarterly
20° C BOD_5	mg/L	Grab	Quarterly	Quarterly
Settleable Solids	mg/L	Grab	Quarterly	Quarterly
Total Nitrogen	mg/L	Grab	Quarterly	Quarterly
Total Dissolved Solids	mg/L	Grab	Quarterly	Quarterly
pH	pH units	Grab	Quarterly	Quarterly
VOCs[1]	µg/L[2]	Grab	2/year	Semi-annually

[1] Volatile Organic Compounds testing is to be accomplished using USEPA Test Method 601 and 602, or 624.
[2] Micrograms per liter.

DISPOSAL PONDS MONITORING

A permanent marker shall be placed in each pond calibrated to indicate the water level at design capacity, and available operational freeboard. The Discharger shall inspect ponds in use at least weekly, and document visual observations in a bound log book. Observations shall indicate:

a. The occurrence and location of weeds within the pond, or along the bank;
b. The occurrence and location of dead algae, vegetation, scum, or debris on the pond surface;
c. Burrowing animals or insects; and
d. Color of the pond/cell.

A copy of the entries shall be submitted with the next self-monitoring report. If corrective action is required, the self-monitoring report shall include a description of actions taken or scheduled. At a minimum, wastewater ponds shall be monitored for the following constituents from samples collected at the specified frequency:

October through April (high-season)				
Constituent	**Unit**	**Type of Sample**	**Sampling Frequency**	**Reporting Frequency**
Dissolved Oxygen[1]	mg/L	Grab	2/month	Monthly
pH	pH Units	Grab	2/month	Monthly
Freeboard	Feet	Observation	2/month	Monthly
[1] Samples shall be collected from each pond opposite the inlet, at a depth of one foot or less. Samples shall be collected between 8:00 A.M. and 9:00 A.M.				

May through September (off-season)				
Constituent	**Unit**	**Type of Sample**	**Sampling Frequency**	**Reporting Frequency**
Dissolved Oxygen[1]	mg/L	Grab	Quarterly	Quarterly
pH	pH Units	Grab	Quarterly	Quarterly
Freeboard	Feet	Observation	Quarterly	Quarterly
[1] Samples shall be collected from each pond opposite the inlet, at a depth of one foot or less. Samples shall be collected between 8:00 A.M. and 9:00 A.M.				

WATER SUPPLY TO THE COMMUNITY

By (30 days following adoption of this Order), the Discharger shall propose a station for obtaining representative samples from the community domestic water supply. The proposed station is subject to review and approval by the Regional Board Executive Officer. If source water is obtained from more than one well, TDS shall be reported as a weighted average, with supporting calculations included. At a minimum, supply water shall be monitored for the following constituents from samples collected at the specified frequency:

Constituents	**Units**	**Sampling Frequency**	**Reporting Frequency**
Standard Minerals[1]	mg/l	Annually	Annually
pH	pH units	Quarterly	Quarterly
[1] At a minimum, Standard Minerals shall include: total dissolved solids, calcium, chloride, fluoride, iron, magnesium, manganese, nitrate, potassium, sodium, sulfate, barium, total alkalinity (including alkalinity series), and hardness.			

GROUNDWATER MONITORING

By November 31, 2007, the Discharger shall submit a work plan that includes a time schedule for developing a groundwater monitoring network to characterize background groundwater quality in the vicinity of the disposal ponds. Groundwater monitoring wells shall be constructed as prescribed in California Well Standards (Bulletin 74-90, supplement to Bulletin 74-81). The work plan shall be subject to review and approval by the Regional Board Executive Officer, and prepared by a California registered civil engineer or registered engineering geologist with experience in this type of investigation.

At a minimum, the groundwater monitoring network shall include:

1. A sufficient number of background monitoring points installed at appropriate locations and depths to yield groundwater samples from the uppermost aquifer that represent the quality of groundwater not affected by a release from the wastewater pond;
2. A map of the proposed well locations, and
3. A schematic of the proposed wells.

Following approval of the proposed network by the Regional Board Executive Officer, a minimum of one groundwater monitoring well shall be established upgradient of the disposal ponds. To determine the appropriate water quality protection standards, monthly samples shall be collected from the background monitoring well(s) for a period of one year. Further, groundwater elevation relative to mean sea level shall be measured in all wells on a monthly basis, and used to the extent practicable to determine ground water direction, and gradient.

If subsequent sampling of the background monitoring well(s) indicates significant variations in water quality due to seasonal fluctuations or reasons unrelated to waste disposal activities, the Discharger may request modification of the water quality protection standards. At a minimum, groundwater shall be monitored for the following constituents from samples collected at the specified frequency:

Constituent	Units	Type of Sample	Sampling Frequency (during 1st year)	Sampling Frequency (after 1st year)
Standard Minerals[1]	mg/L	Grab	Monthly	Quarterly
Total Nitrogen	mg/L	Grab	Monthly	Quarterly
VOCs	mg/L	Grab	Quarterly	Quarterly
pH	pH Units	Grab	Monthly	Quarterly

[1] At a minimum, Standard Minerals shall include: total dissolved solids, calcium, chloride, fluoride, iron, magnesium, manganese, nitrate, potassium, sodium, sulfate, barium, total alkalinity (including alkalinity series), and hardness.

Following completion of the 12 months of sampling, the Discharger shall submit a technical report in the form of an engineering report. The report shall statistically analyze water quality monitoring data for each sampled parameter to interpret the data to establish background water quality, and provide recommendations regarding future groundwater monitoring, including the need to establish POCs. The specifications for each statistical analysis method used shall be provided. The report shall also include the results of groundwater elevations and to the extent possible the elevations shall be represented graphically using flow nets. This technical report is requested pursuant to Section 13267 of the California Water Code. The report shall **be submitted to the Regional Board within 60 days following the last sampling event** to determine background water quality and shall be prepared by a California Registered civil engineering or engineering geologist with experience in hydrogeological investigations.

SLUDGE MONITORING

On an annual basis, the Discharger shall submit a monitoring report describing current and proposed sludge disposal methods, and quantity of sludge disposed of in the previous calendar year. If more than one method of sludge disposal was used, the report shall quantify sludge disposal by method:

1. For **landfill disposal**, include: (1) the Board Order number for the facility Waste Discharge Requirements, (2) the waste classification of the landfill(s), and (3) the name and location of facilities receiving sludge.

2. For **land application**, include: (1) the location of the site(s), (2) the Board Order number for the facility Waste Discharge Requirements, (3) a technical report analyzing application rates and procedures in relation to the Department of Health Services *Manual of Good Practices for Landspreading of Sewage Sludge*, and EPA's *Process Design Manual for Land Application of Municipal Sludges,* and Title 23, CCR, Section 2511(f), and (4) for subsequent uses of the land.

3. For **incineration**, include: (1) the name and location of sludge incineration site(s), (2) the Board Order number for the facility Waste Discharge Requirements, (3) the method for disposing ash, and (4) the name and location of facilities receiving ash (if applicable).

4. For **composting**, include: (1) the location of the site(s), and (2) the Board Order number for the facility Waste Discharge Requirements.

REPORTING

1. The discharger shall arrange the data in tabular form so that the specified information is readily discernible. The data shall be summarized in such a manner as to clearly illustrate whether the Facility is operating in compliance with WDRs. Where appropriate, the Discharger shall include supporting calculations (e.g., for monthly averages).

2. Records of monitoring information shall include:

   a. The date, exact place, and time of sampling or measurement(s);
   b. The individual(s) who performed the sampling or measurement(s);
   c. The date the analysis was performed;
   d. The individual(s) performing the analysis;
   e. The analytical technique or method used; and
   f. The result of each analysis.

3. The results of any analysis obtained more frequently than required by this Board Order at the locations specified in the Monitoring and Reporting Program, shall be reported to the Regional Board.

4. Monitoring reports shall be certified under penalty of perjury to be true and correct, and shall contain the required information at the frequency designated in this monitoring report.

5. Each report shall contain the following statement:

   "I declare under the penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment for knowing violations".

6. The Monitoring and Reporting Program, and other information requested by the Regional Board, shall be signed by a principal executive officer or ranking elected official.

7. A duly authorized representative of the Discharger may sign the documents if:

   a. The authorization is made in writing by the person described above;
   b. The authorization specifies an individual or person having responsibility for the overall operation of the regulated disposal system; and
   c. The written authorization is submitted to the Regional Water Board Executive Officer.

8. Reporting of any failure at the Facility (wastewater treatment plant, and collection and disposal system) shall be as described in Provision No. 19. Results of any analysis performed as a result of a failure of the Facility shall be provided within ten (10) days after collection of the samples.

9. The discharger shall attach a cover letter to the Self-Monitoring Report. The information contained in the cover letter shall clearly identify violations of the WDRs, discuss corrective actions taken or planned, and propose a time schedule for planned corrective actions. Identified violations shall include a description of the requirement that was violated and a description of the violation.

10. Daily, weekly and monthly monitoring reports shall be submitted to the Regional Board by the 15th day of the following month. Quarterly monitoring reports shall be submitted to the Regional Board by January 15th, April 15th, July 15th, and October 15th of each year. Annual monitoring reports shall be submitted to the Regional Board by January 15th of each year.

11. The Discharger shall submit monitoring reports to:

    California Regional Water Quality Control Board
    Colorado River Basin Region
    73-720 Fred Waring, Suite 100
    Palm Desert, CA 92260

Ordered by: for Jane Arye (,)PE

ROBERT PERDUE
Executive Officer

September 19, 2007
Date

STATE WATER RESOURCES CONTROL BOARD
ORDER NO. 2006-0003-DWQ

STATEWIDE GENERAL WASTE DISCHARGE REQUIREMENTS FOR SANITARY SEWER SYSTEMS

The State Water Resources Control Board, hereinafter referred to as "State Water Board", finds that:

1. All federal and state agencies, municipalities, counties, districts, and other public entities that own or operate sanitary sewer systems greater than one mile in length that collect and/or convey untreated or partially treated wastewater to a publicly owned treatment facility in the State of California are required to comply with the terms of this Order. Such entities are hereinafter referred to as "Enrollees".

2. Sanitary sewer overflows (SSOs) are overflows from sanitary sewer systems of domestic wastewater, as well as industrial and commercial wastewater, depending on the pattern of land uses in the area served by the sanitary sewer system. SSOs often contain high levels of suspended solids, pathogenic organisms, toxic pollutants, nutrients, oxygen-demanding organic compounds, oil and grease and other pollutants. SSOs may cause a public nuisance, particularly when raw untreated wastewater is discharged to areas with high public exposure, such as streets or surface waters used for drinking, fishing, or body contact recreation. SSOs may pollute surface or ground waters, threaten public health, adversely affect aquatic life, and impair the recreational use and aesthetic enjoyment of surface waters.

3. Sanitary sewer systems experience periodic failures resulting in discharges that may affect waters of the state. There are many factors (including factors related to geology, design, construction methods and materials, age of the system, population growth, and system operation and maintenance), which affect the likelihood of an SSO. A proactive approach that requires Enrollees to ensure a system-wide operation, maintenance, and management plan is in place will reduce the number and frequency of SSOs within the state. This approach will in turn decrease the risk to human health and the environment caused by SSOs.

4. Major causes of SSOs include: grease blockages, root blockages, sewer line flood damage, manhole structure failures, vandalism, pump station mechanical failures, power outages, excessive storm or ground water inflow/infiltration, debris blockages, sanitary sewer system age and construction material failures, lack of proper operation and maintenance, insufficient capacity and contractor-caused damages. Many SSOs are preventable with adequate and appropriate facilities, source control measures and operation and maintenance of the sanitary sewer system.

SEWER SYSTEM MANAGEMENT PLANS

5. To facilitate proper funding and management of sanitary sewer systems, each Enrollee must develop and implement a system-specific Sewer System Management Plan (SSMP). To be effective, SSMPs must include provisions to provide proper and efficient management, operation, and maintenance of sanitary sewer systems, while taking into consideration risk management and cost benefit analysis. Additionally, an SSMP must contain a spill response plan that establishes standard procedures for immediate response to an SSO in a manner designed to minimize water quality impacts and potential nuisance conditions.

6. Many local public agencies in California have already developed SSMPs and implemented measures to reduce SSOs. These entities can build upon their existing efforts to establish a comprehensive SSMP consistent with this Order. Others, however, still require technical assistance and, in some cases, funding to improve sanitary sewer system operation and maintenance in order to reduce SSOs.

7. SSMP certification by technically qualified and experienced persons can provide a useful and cost-effective means for ensuring that SSMPs are developed and implemented appropriately.

8. It is the State Water Board's intent to gather additional information on the causes and sources of SSOs to augment existing information and to determine the full extent of SSOs and consequent public health and/or environmental impacts occurring in the State.

9. Both uniform SSO reporting and a centralized statewide electronic database are needed to collect information to allow the State Water Board and Regional Water Quality Control Boards (Regional Water Boards) to effectively analyze the extent of SSOs statewide and their potential impacts on beneficial uses and public health. The monitoring and reporting program required by this Order and the attached Monitoring and Reporting Program No. 2006-0003-DWQ, are necessary to assure compliance with these waste discharge requirements (WDRs).

10. Information regarding SSOs must be provided to Regional Water Boards and other regulatory agencies in a timely manner and be made available to the public in a complete, concise, and timely fashion.

11. Some Regional Water Boards have issued WDRs or WDRs that serve as National Pollution Discharge Elimination System (NPDES) permits to sanitary sewer system owners/operators within their jurisdictions. This Order establishes minimum requirements to prevent SSOs. Although it is the State Water Board's intent that this Order be the primary regulatory mechanism for sanitary sewer systems statewide, Regional Water Boards may issue more stringent or more

prescriptive WDRs for sanitary sewer systems. Upon issuance or reissuance of a Regional Water Board's WDRs for a system subject to this Order, the Regional Water Board shall coordinate its requirements with stated requirements within this Order, to identify requirements that are more stringent, to remove requirements that are less stringent than this Order, and to provide consistency in reporting.

REGULATORY CONSIDERATIONS

12. California Water Code section 13263 provides that the State Water Board may prescribe general WDRs for a category of discharges if the State Water Board finds or determines that:

- The discharges are produced by the same or similar operations;
- The discharges involve the same or similar types of waste;
- The discharges require the same or similar treatment standards; and
- The discharges are more appropriately regulated under general discharge requirements than individual discharge requirements.

This Order establishes requirements for a class of operations, facilities, and discharges that are similar throughout the state.

13. The issuance of general WDRs to the Enrollees will:
    a) Reduce the administrative burden of issuing individual WDRs to each Enrollee;
    b) Provide for a unified statewide approach for the reporting and database tracking of SSOs;
    c) Establish consistent and uniform requirements for SSMP development and implementation;
    d) Provide statewide consistency in reporting; and
    e) Facilitate consistent enforcement for violations.

14. The beneficial uses of surface waters that can be impaired by SSOs include, but are not limited to, aquatic life, drinking water supply, body contact and non-contact recreation, and aesthetics. The beneficial uses of ground water that can be impaired include, but are not limited to, drinking water and agricultural supply. Surface and ground waters throughout the state support these uses to varying degrees.

15. The implementation of requirements set forth in this Order will ensure the reasonable protection of past, present, and probable future beneficial uses of water and the prevention of nuisance. The requirements implement the water quality control plans (Basin Plans) for each region and take into account the environmental characteristics of hydrographic units within the state. Additionally, the State Water Board has considered water quality conditions that could reasonably be achieved through the coordinated control of all factors that affect

water quality in the area, costs associated with compliance with these requirements, the need for developing housing within California, and the need to develop and use recycled water.

16. The Federal Clean Water Act largely prohibits any discharge of pollutants from a point source to waters of the United States except as authorized under an NPDES permit. In general, any point source discharge of sewage effluent to waters of the United States must comply with technology-based, secondary treatment standards, at a minimum, and any more stringent requirements necessary to meet applicable water quality standards and other requirements. Hence, the unpermitted discharge of wastewater from a sanitary sewer system to waters of the United States is illegal under the Clean Water Act. In addition, many Basin Plans adopted by the Regional Water Boards contain discharge prohibitions that apply to the discharge of untreated or partially treated wastewater. Finally, the California Water Code generally prohibits the discharge of waste to land prior to the filing of any required report of waste discharge and the subsequent issuance of either WDRs or a waiver of WDRs.

17. California Water Code section 13263 requires a water board to, after any necessary hearing, prescribe requirements as to the nature of any proposed discharge, existing discharge, or material change in an existing discharge. The requirements shall, among other things, take into consideration the need to prevent nuisance.

18. California Water Code section 13050, subdivision (m), defines nuisance as anything which meets all of the following requirements:
    a. Is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property.
    b. Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal.
    c. Occurs during, or as a result of, the treatment or disposal of wastes.

19. This Order is consistent with State Water Board Resolution No. 68-16 (Statement of Policy with Respect to Maintaining High Quality of Waters in California) in that the Order imposes conditions to prevent impacts to water quality, does not allow the degradation of water quality, will not unreasonably affect beneficial uses of water, and will not result in water quality less than prescribed in State Water Board or Regional Water Board plans and policies.

20. The action to adopt this General Order is exempt from the California Environmental Quality Act (Public Resources Code §21000 et seq.) because it is an action taken by a regulatory agency to assure the protection of the environment and the regulatory process involves procedures for protection of the environment. (Cal. Code Regs., tit. 14, §15308). In addition, the action to adopt

this Order is exempt from CEQA pursuant to Cal.Code Regs., title 14, §15301 to the extent that it applies to existing sanitary sewer collection systems that constitute "existing facilities" as that term is used in Section 15301, and §15302, to the extent that it results in the repair or replacement of existing systems involving negligible or no expansion of capacity.

21. The Fact Sheet, which is incorporated by reference in the Order, contains supplemental information that was also considered in establishing these requirements.

22. The State Water Board has notified all affected public agencies and all known interested persons of the intent to prescribe general WDRs that require Enrollees to develop SSMPs and to report all SSOs.

23. The State Water Board conducted a public hearing on February 8, 2006, to receive oral and written comments on the draft order. The State Water Board received and considered, at its May 2, 2006, meeting, additional public comments on substantial changes made to the proposed general WDRs following the February 8, 2006, public hearing. The State Water Board has considered all comments pertaining to the proposed general WDRs.

IT IS HEREBY ORDERED, that pursuant to California Water Code section 13263, the Enrollees, their agents, successors, and assigns, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted hereunder, shall comply with the following:

A. DEFINITIONS

1. **Sanitary sewer overflow (SSO)** - Any overflow, spill, release, discharge or diversion of untreated or partially treated wastewater from a sanitary sewer system. SSOs include:
   (i) Overflows or releases of untreated or partially treated wastewater that reach waters of the United States;
   (ii) Overflows or releases of untreated or partially treated wastewater that do not reach waters of the United States; and
   (iii) Wastewater backups into buildings and on private property that are caused by blockages or flow conditions within the publicly owned portion of a sanitary sewer system.

2. **Sanitary sewer system** – Any system of pipes, pump stations, sewer lines, or other conveyances, upstream of a wastewater treatment plant headworks used to collect and convey wastewater to the publicly owned treatment facility. Temporary storage and conveyance facilities (such as vaults, temporary piping, construction trenches, wet wells, impoundments, tanks, etc.) are considered to be part of the sanitary sewer system, and discharges into these temporary storage facilities are not considered to be SSOs.

For purposes of this Order, sanitary sewer systems include only those systems owned by public agencies that are comprised of more than one mile of pipes or sewer lines.

3. **Enrollee** - A federal or state agency, municipality, county, district, and other public entity that owns or operates a sanitary sewer system, as defined in the general WDRs, and that has submitted a complete and approved application for coverage under this Order.

4. **SSO Reporting System** – Online spill reporting system that is hosted, controlled, and maintained by the State Water Board. The web address for this site is http://ciwqs.waterboards.ca.gov. This online database is maintained on a secure site and is controlled by unique usernames and passwords.

5. **Untreated or partially treated wastewater** – Any volume of waste discharged from the sanitary sewer system upstream of a wastewater treatment plant headworks.

6. **Satellite collection system** – The portion, if any, of a sanitary sewer system owned or operated by a different public agency than the agency that owns and operates the wastewater treatment facility to which the sanitary sewer system is tributary.

7. **Nuisance** - California Water Code section 13050, subdivision (m), defines nuisance as anything which meets all of the following requirements:
   a. Is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property.
   b. Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal.
   c. Occurs during, or as a result of, the treatment or disposal of wastes.

B. APPLICATION REQUIREMENTS

1. Deadlines for Application – All public agencies that currently own or operate sanitary sewer systems within the State of California must apply for coverage under the general WDRs within six (6) months of the date of adoption of the general WDRs. Additionally, public agencies that acquire or assume responsibility for operating sanitary sewer systems after the date of adoption of this Order must apply for coverage under the general WDRs at least three (3) months prior to operation of those facilities.

2. Applications under the general WDRs – In order to apply for coverage pursuant to the general WDRs, a legally authorized representative for each agency must submit a complete application package. Within sixty (60) days of adoption of the general WDRs, State Water Board staff will send specific instructions on how to

apply for coverage under the general WDRs to all known public agencies that own sanitary sewer systems. Agencies that do not receive notice may obtain applications and instructions online on the Water Board's website.

3. Coverage under the general WDRs – Permit coverage will be in effect once a complete application package has been submitted and approved by the State Water Board's Division of Water Quality.

C. PROHIBITIONS

1. Any SSO that results in a discharge of untreated or partially treated wastewater to waters of the United States is prohibited.

2. Any SSO that results in a discharge of untreated or partially treated wastewater that creates a nuisance as defined in California Water Code Section 13050(m) is prohibited.

D. PROVISIONS

1. The Enrollee must comply with all conditions of this Order. Any noncompliance with this Order constitutes a violation of the California Water Code and is grounds for enforcement action.

2. It is the intent of the State Water Board that sanitary sewer systems be regulated in a manner consistent with the general WDRs. Nothing in the general WDRs shall be:

   (i) Interpreted or applied in a manner inconsistent with the Federal Clean Water Act, or supersede a more specific or more stringent state or federal requirement in an existing permit, regulation, or administrative/judicial order or Consent Decree;
   (ii) Interpreted or applied to authorize an SSO that is illegal under either the Clean Water Act, an applicable Basin Plan prohibition or water quality standard, or the California Water Code;
   (iii) Interpreted or applied to prohibit a Regional Water Board from issuing an individual NPDES permit or WDR, superseding this general WDR, for a sanitary sewer system, authorized under the Clean Water Act or California Water Code; or
   (iv) Interpreted or applied to supersede any more specific or more stringent WDRs or enforcement order issued by a Regional Water Board.

3. The Enrollee shall take all feasible steps to eliminate SSOs. In the event that an SSO does occur, the Enrollee shall take all feasible steps to contain and mitigate the impacts of an SSO.

4. In the event of an SSO, the Enrollee shall take all feasible steps to prevent untreated or partially treated wastewater from discharging from storm drains into

flood control channels or waters of the United States by blocking the storm drainage system and by removing the wastewater from the storm drains.

5. All SSOs must be reported in accordance with Section G of the general WDRs.

6. In any enforcement action, the State and/or Regional Water Boards will consider the appropriate factors under the duly adopted State Water Board Enforcement Policy. And, consistent with the Enforcement Policy, the State and/or Regional Water Boards must consider the Enrollee's efforts to contain, control, and mitigate SSOs when considering the California Water Code Section 13327 factors. In assessing these factors, the State and/or Regional Water Boards will also consider whether:

   (i) The Enrollee has complied with the requirements of this Order, including requirements for reporting and developing and implementing a SSMP;

   (ii) The Enrollee can identify the cause or likely cause of the discharge event;

   (iii) There were no feasible alternatives to the discharge, such as temporary storage or retention of untreated wastewater, reduction of inflow and infiltration, use of adequate backup equipment, collecting and hauling of untreated wastewater to a treatment facility, or an increase in the capacity of the system as necessary to contain the design storm event identified in the SSMP. It is inappropriate to consider the lack of feasible alternatives, if the Enrollee does not implement a periodic or continuing process to identify and correct problems.

   (iv) The discharge was exceptional, unintentional, temporary, and caused by factors beyond the reasonable control of the Enrollee;

   (v) The discharge could have been prevented by the exercise of reasonable control described in a certified SSMP for:
   - Proper management, operation and maintenance;
   - Adequate treatment facilities, sanitary sewer system facilities, and/or components with an appropriate design capacity, to reasonably prevent SSOs (e.g., adequately enlarging treatment or collection facilities to accommodate growth, infiltration and inflow (I/I), etc.);
   - Preventive maintenance (including cleaning and fats, oils, and grease (FOG) control);
   - Installation of adequate backup equipment; and
   - Inflow and infiltration prevention and control to the extent practicable.

   (vi) The sanitary sewer system design capacity is appropriate to reasonably prevent SSOs.

(vii) The Enrollee took all reasonable steps to stop and mitigate the impact of the discharge as soon as possible.

7. When a sanitary sewer overflow occurs, the Enrollee shall take all feasible steps and necessary remedial actions to 1) control or limit the volume of untreated or partially treated wastewater discharged, 2) terminate the discharge, and 3) recover as much of the wastewater discharged as possible for proper disposal, including any wash down water.

   The Enrollee shall implement all remedial actions to the extent they may be applicable to the discharge and not inconsistent with an emergency response plan, including the following:

   (i) Interception and rerouting of untreated or partially treated wastewater flows around the wastewater line failure;
   (ii) Vacuum truck recovery of sanitary sewer overflows and wash down water;
   (iii) Cleanup of debris at the overflow site;
   (iv) System modifications to prevent another SSO at the same location;
   (v) Adequate sampling to determine the nature and impact of the release; and
   (vi) Adequate public notification to protect the public from exposure to the SSO.

8. The Enrollee shall properly, manage, operate, and maintain all parts of the sanitary sewer system owned or operated by the Enrollee, and shall ensure that the system operators (including employees, contractors, or other agents) are adequately trained and possess adequate knowledge, skills, and abilities.

9. The Enrollee shall allocate adequate resources for the operation, maintenance, and repair of its sanitary sewer system, by establishing a proper rate structure, accounting mechanisms, and auditing procedures to ensure an adequate measure of revenues and expenditures. These procedures must be in compliance with applicable laws and regulations and comply with generally acceptable accounting practices.

10. The Enrollee shall provide adequate capacity to convey base flows and peak flows, including flows related to wet weather events. Capacity shall meet or exceed the design criteria as defined in the Enrollee's System Evaluation and Capacity Assurance Plan for all parts of the sanitary sewer system owned or operated by the Enrollee.

11. The Enrollee shall develop and implement a written Sewer System Management Plan (SSMP) and make it available to the State and/or Regional Water Board upon request. A copy of this document must be publicly available at the Enrollee's office and/or available on the Internet. This SSMP must be approved by the Enrollee's governing board at a public meeting.

12. In accordance with the California Business and Professions Code sections 6735, 7835, and 7835.1, all engineering and geologic evaluations and judgments shall be performed by or under the direction of registered professionals competent and proficient in the fields pertinent to the required activities. Specific elements of the SSMP that require professional evaluation and judgments shall be prepared by or under the direction of appropriately qualified professionals, and shall bear the professional(s)' signature and stamp.

13. The mandatory elements of the SSMP are specified below. However, if the Enrollee believes that any element of this section is not appropriate or applicable to the Enrollee's sanitary sewer system, the SSMP program does not need to address that element. The Enrollee must justify why that element is not applicable. The SSMP must be approved by the deadlines listed in the SSMP Time Schedule below.

Sewer System Management Plan (SSMP)

(i) **Goal**: The goal of the SSMP is to provide a plan and schedule to properly manage, operate, and maintain all parts of the sanitary sewer system. This will help reduce and prevent SSOs, as well as mitigate any SSOs that do occur.

(ii) **Organization**: The SSMP must identify:

(a) The name of the responsible or authorized representative as described in Section J of this Order.

(b) The names and telephone numbers for management, administrative, and maintenance positions responsible for implementing specific measures in the SSMP program. The SSMP must identify lines of authority through an organization chart or similar document with a narrative explanation; and

(c) The chain of communication for reporting SSOs, from receipt of a complaint or other information, including the person responsible for reporting SSOs to the State and Regional Water Board and other agencies if applicable (such as County Health Officer, County Environmental Health Agency, Regional Water Board, and/or State Office of Emergency Services (OES)).

(iii) **Legal Authority**: Each Enrollee must demonstrate, through sanitary sewer system use ordinances, service agreements, or other legally binding procedures, that it possesses the necessary legal authority to:

(a) Prevent illicit discharges into its sanitary sewer system (examples may include I/I, stormwater, chemical dumping, unauthorized debris and cut roots, etc.);

(b) Require that sewers and connections be properly designed and constructed;

(c) Ensure access for maintenance, inspection, or repairs for portions of the lateral owned or maintained by the Public Agency;

(d) Limit the discharge of fats, oils, and grease and other debris that may cause blockages, and

(e) Enforce any violation of its sewer ordinances.

(iv) **Operation and Maintenance Program**. The SSMP must include those elements listed below that are appropriate and applicable to the Enrollee's system:

(a) Maintain an up-to-date map of the sanitary sewer system, showing all gravity line segments and manholes, pumping facilities, pressure pipes and valves, and applicable stormwater conveyance facilities;

(b) Describe routine preventive operation and maintenance activities by staff and contractors, including a system for scheduling regular maintenance and cleaning of the sanitary sewer system with more frequent cleaning and maintenance targeted at known problem areas. The Preventative Maintenance (PM) program should have a system to document scheduled and conducted activities, such as work orders;

(c) Develop a rehabilitation and replacement plan to identify and prioritize system deficiencies and implement short-term and long-term rehabilitation actions to address each deficiency. The program should include regular visual and TV inspections of manholes and sewer pipes, and a system for ranking the condition of sewer pipes and scheduling rehabilitation. Rehabilitation and replacement should focus on sewer pipes that are at risk of collapse or prone to more frequent blockages due to pipe defects. Finally, the rehabilitation and replacement plan should include a capital improvement plan that addresses proper management and protection of the infrastructure assets. The plan shall include a time schedule for implementing the short- and long-term plans plus a schedule for developing the funds needed for the capital improvement plan;

(d) Provide training on a regular basis for staff in sanitary sewer system operations and maintenance, and require contractors to be appropriately trained; and

(vii) **FOG Control Program:** Each Enrollee shall evaluate its service area to determine whether a FOG control program is needed. If an Enrollee determines that a FOG program is not needed, the Enrollee must provide justification for why it is not needed. If FOG is found to be a problem, the Enrollee must prepare and implement a FOG source control program to reduce the amount of these substances discharged to the sanitary sewer system. This plan shall include the following as appropriate:

(a) An implementation plan and schedule for a public education outreach program that promotes proper disposal of FOG;

(b) A plan and schedule for the disposal of FOG generated within the sanitary sewer system service area. This may include a list of acceptable disposal facilities and/or additional facilities needed to adequately dispose of FOG generated within a sanitary sewer system service area;

(c) The legal authority to prohibit discharges to the system and identify measures to prevent SSOs and blockages caused by FOG;

(d) Requirements to install grease removal devices (such as traps or interceptors), design standards for the removal devices, maintenance requirements, BMP requirements, record keeping and reporting requirements;

(e) Authority to inspect grease producing facilities, enforcement authorities, and whether the Enrollee has sufficient staff to inspect and enforce the FOG ordinance;

(f) An identification of sanitary sewer system sections subject to FOG blockages and establishment of a cleaning maintenance schedule for each section; and

(g) Development and implementation of source control measures for all sources of FOG discharged to the sanitary sewer system for each section identified in (f) above.

(viii) **System Evaluation and Capacity Assurance Plan:** The Enrollee shall prepare and implement a capital improvement plan (CIP) that will provide hydraulic capacity of key sanitary sewer system elements for dry weather peak flow conditions, as well as the appropriate design storm or wet weather event. At a minimum, the plan must include:

(a) **Evaluation:** Actions needed to evaluate those portions of the sanitary sewer system that are experiencing or contributing to an SSO discharge caused by hydraulic deficiency. The evaluation must provide estimates of peak flows (including flows from SSOs

that escape from the system) associated with conditions similar to those causing overflow events, estimates of the capacity of key system components, hydraulic deficiencies (including components of the system with limiting capacity) and the major sources that contribute to the peak flows associated with overflow events;

(b) **Design Criteria:** Where design criteria do not exist or are deficient, undertake the evaluation identified in (a) above to establish appropriate design criteria; and

(c) **Capacity Enhancement Measures:** The steps needed to establish a short- and long-term CIP to address identified hydraulic deficiencies, including prioritization, alternatives analysis, and schedules. The CIP may include increases in pipe size, I/I reduction programs, increases and redundancy in pumping capacity, and storage facilities. The CIP shall include an implementation schedule and shall identify sources of funding.

(d) **Schedule:** The Enrollee shall develop a schedule of completion dates for all portions of the capital improvement program developed in (a)-(c) above. This schedule shall be reviewed and updated consistent with the SSMP review and update requirements as described in Section D. 14.

(ix) **Monitoring, Measurement, and Program Modifications:** The Enrollee shall:

(a) Maintain relevant information that can be used to establish and prioritize appropriate SSMP activities;

(b) Monitor the implementation and, where appropriate, measure the effectiveness of each element of the SSMP;

(c) Assess the success of the preventative maintenance program;

(d) Update program elements, as appropriate, based on monitoring or performance evaluations; and

(e) Identify and illustrate SSO trends, including: frequency, location, and volume.

(x) **SSMP Program Audits** - As part of the SSMP, the Enrollee shall conduct periodic internal audits, appropriate to the size of the system and the number of SSOs. At a minimum, these audits must occur every two years and a report must be prepared and kept on file. This audit shall focus on evaluating the effectiveness of the SSMP and the

Enrollee's compliance with the SSMP requirements identified in this subsection (D.13), including identification of any deficiencies in the SSMP and steps to correct them.

(xi) **Communication Program** – The Enrollee shall communicate on a regular basis with the public on the development, implementation, and performance of its SSMP. The communication system shall provide the public the opportunity to provide input to the Enrollee as the program is developed and implemented.

The Enrollee shall also create a plan of communication with systems that are tributary and/or satellite to the Enrollee's sanitary sewer system.

14. Both the SSMP and the Enrollee's program to implement the SSMP must be certified by the Enrollee to be in compliance with the requirements set forth above and must be presented to the Enrollee's governing board for approval at a public meeting. The Enrollee shall certify that the SSMP, and subparts thereof, are in compliance with the general WDRs within the time frames identified in the time schedule provided in subsection D.15, below.

In order to complete this certification, the Enrollee's authorized representative must complete the certification portion in the Online SSO Database Questionnaire by checking the appropriate milestone box, printing and signing the automated form, and sending the form to:

State Water Resources Control Board
Division of Water Quality
Attn: SSO Program Manager
P.O. Box 100
Sacramento, CA 95812

The SSMP must be updated every five (5) years, and must include any significant program changes. Re-certification by the governing board of the Enrollee is required in accordance with D.14 when significant updates to the SSMP are made. To complete the re-certification process, the Enrollee shall enter the data in the Online SSO Database and mail the form to the State Water Board, as described above.

15. The Enrollee shall comply with these requirements according to the following schedule. This time schedule does not supersede existing requirements or time schedules associated with other permits or regulatory requirements.

Sewer System Management Plan Time Schedule

Task and Associated Section	Completion Date			
	Population > 100,000	Population between 100,000 and 10,000	Population between 10,000 and 2,500	Population < 2,500
Application for Permit Coverage ***Section C***	6 months after WDRs Adoption			
Reporting Program ***Section G***	6 months after WDRs Adoption[1]			
SSMP Development Plan and Schedule ***No specific Section***	9 months after WDRs Adoption[2]	12 months after WDRs Adoption[2]	15 months after WDRs Adoption[2]	18 months after WDRs Adoption[2]
Goals and Organization Structure ***Section D 13 (i) & (ii)***	12 months after WDRs Adoption[2]		18 months after WDRs Adoption[2]	
Overflow Emergency Response Program ***Section D 13 (vi)***	24 months after WDRs Adoption[2]	30 months after WDRs Adoption[2]	36 months after WDRs Adoption[2]	39 months after WDRs Adoption[2]
Legal Authority ***Section D 13 (iii)***				
Operation and Maintenance Program ***Section D 13 (iv)***				
Grease Control Program ***Section D 13 (vii)***				
Design and Performance ***Section D 13 (v)***	36 months after WDRs Adoption	39 months after WDRs Adoption	48 months after WDRs Adoption	51 months after WDRs Adoption
System Evaluation and Capacity Assurance Plan ***Section D 13 (viii)***				
Final SSMP, incorporating all of the SSMP requirements ***Section D 13***				

1. In the event that by July 1, 2006 the Executive Director is able to execute a memorandum of agreement (MOA) with the California Water Environment Association (CWEA) or discharger representatives outlining a strategy and time schedule for CWEA or another entity to provide statewide training on the adopted monitoring program, SSO database electronic reporting, and SSMP development, consistent with this Order, then the schedule of Reporting Program Section G shall be replaced with the following schedule:

Reporting Program ***Section G***	
Regional Boards 4, 8, and 9	8 months after WDRs Adoption
Regional Boards 1, 2, and 3	12 months after WDRs Adoption
Regional Boards 5, 6, and 7	16 months after WDRs Adoption

If this MOU is not executed by July 1, 2006, the reporting program time schedule will remain six (6) months for all regions and agency size categories.

2. In the event that the Executive Director executes the MOA identified in note 1 by July 1, 2006, then the deadline for this task shall be extended by six (6) months. The time schedule identified in the MOA must be consistent with the extended time schedule provided by this note. If the MOA is not executed by July 1, 2006, the six (6) month time extension will not be granted.

E. WDRs and SSMP AVAILABILITY

1. A copy of the general WDRs and the certified SSMP shall be maintained at appropriate locations (such as the Enrollee's offices, facilities, and/or Internet homepage) and shall be available to sanitary sewer system operating and maintenance personnel at all times.

F. ENTRY AND INSPECTION

1. The Enrollee shall allow the State or Regional Water Boards or their authorized representative, upon presentation of credentials and other documents as may be required by law, to:

    a. Enter upon the Enrollee's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order;

    b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order;

c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order; and

d. Sample or monitor at reasonable times, for the purposes of assuring compliance with this Order or as otherwise authorized by the California Water Code, any substances or parameters at any location.

G. GENERAL MONITORING AND REPORTING REQUIREMENTS

1. The Enrollee shall furnish to the State or Regional Water Board, within a reasonable time, any information that the State or Regional Water Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order. The Enrollee shall also furnish to the Executive Director of the State Water Board or Executive Officer of the applicable Regional Water Board, upon request, copies of records required to be kept by this Order.

2. The Enrollee shall comply with the attached Monitoring and Reporting Program No. 2006-0003 and future revisions thereto, as specified by the Executive Director. Monitoring results shall be reported at the intervals specified in Monitoring and Reporting Program No. 2006-0003. Unless superseded by a specific enforcement Order for a specific Enrollee, these reporting requirements are intended to replace other mandatory routine written reports associated with SSOs.

3. All Enrollees must obtain SSO Database accounts and receive a "Username" and "Password" by registering through the California Integrated Water Quality System (CIWQS). These accounts will allow controlled and secure entry into the SSO Database. Additionally, within 30days of receiving an account and prior to recording spills into the SSO Database, all Enrollees must complete the "Collection System Questionnaire", which collects pertinent information regarding a Enrollee's collection system. The "Collection System Questionnaire" must be updated at least every 12 months.

4. Pursuant to Health and Safety Code section 5411.5, any person who, without regard to intent or negligence, causes or permits any untreated wastewater or other waste to be discharged in or on any waters of the State, or discharged in or deposited where it is, or probably will be, discharged in or on any surface waters of the State, as soon as that person has knowledge of the discharge, shall immediately notify the local health officer of the discharge. Discharges of untreated or partially treated wastewater to storm drains and drainage channels, whether man-made or natural or concrete-lined, shall be reported as required above.

   Any SSO greater than 1,000 gallons discharged in or on any waters of the State, or discharged in or deposited where it is, or probably will be, discharged in or on any surface waters of the State shall also be reported to the Office of Emergency Services pursuant to California Water Code section 13271.

H. CHANGE IN OWNERSHIP

1. This Order is not transferable to any person or party, except after notice to the Executive Director. The Enrollee shall submit this notice in writing at least 30 days in advance of any proposed transfer. The notice must include a written agreement between the existing and new Enrollee containing a specific date for the transfer of this Order's responsibility and coverage between the existing Enrollee and the new Enrollee. This agreement shall include an acknowledgement that the existing Enrollee is liable for violations up to the transfer date and that the new Enrollee is liable from the transfer date forward.

I. INCOMPLETE REPORTS

1. If an Enrollee becomes aware that it failed to submit any relevant facts in any report required under this Order, the Enrollee shall promptly submit such facts or information by formally amending the report in the Online SSO Database.

J. REPORT DECLARATION

1. All applications, reports, or information shall be signed and certified as follows:

   (i) All reports required by this Order and other information required by the State or Regional Water Board shall be signed and certified by a person designated, for a municipality, state, federal or other public agency, as either a principal executive officer or ranking elected official, or by a duly authorized representative of that person, as described in paragraph (ii) of this provision. (For purposes of electronic reporting, an electronic signature and accompanying certification, which is in compliance with the Online SSO database procedures, meet this certification requirement.)

   (ii) An individual is a duly authorized representative only if:

      (a) The authorization is made in writing by a person described in paragraph (i) of this provision; and

      (b) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity.

K. CIVIL MONETARY REMEDIES FOR DISCHARGE VIOLATIONS

1. The California Water Code provides various enforcement options, including civil monetary remedies, for violations of this Order.

2. The California Water Code also provides that any person failing or refusing to furnish technical or monitoring program reports, as required under this Order, or

falsifying any information provided in the technical or monitoring reports is subject to civil monetary penalties.

L. SEVERABILITY

1. The provisions of this Order are severable, and if any provision of this Order, or the application of any provision of this Order to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this Order, shall not be affected thereby.

2. This order does not convey any property rights of any sort or any exclusive privileges. The requirements prescribed herein do not authorize the commission of any act causing injury to persons or property, nor protect the Enrollee from liability under federal, state or local laws, nor create a vested right for the Enrollee to continue the waste discharge.

CERTIFICATION

The undersigned Clerk to the State Water Board does hereby certify that the foregoing is a full, true, and correct copy of general WDRs duly and regularly adopted at a meeting of the State Water Resources Control Board held on May 2, 2006.

AYE: Tam M. Doduc
Gerald D. Secundy

NO: Arthur G. Baggett

ABSENT: None

ABSTAIN: None

Song Her
Clerk to the Board

STATE WATER RESOURCES CONTROL BOARD

MONITORING AND REPORTING PROGRAM NO. 2006-0003-DWQ
STATEWIDE GENERAL WASTE DISCHARGE REQUIREMENTS
FOR
SANITARY SEWER SYSTEMS

This Monitoring and Reporting Program (MRP) establishes monitoring, record keeping, reporting and public notification requirements for Order No. 2006-2003-DWQ, "Statewide General Waste Discharge Requirements for Sanitary Sewer Systems." Revisions to this MRP may be made at any time by the Executive Director, and may include a reduction or increase in the monitoring and reporting.

A. SANITARY SEWER OVERFLOW REPORTING

SSO Categories

1. Category 1 - All discharges of sewage resulting from a failure in the Enrollee's sanitary sewer system that:
   A. Equal or exceed 1000 gallons, or
   B. Result in a discharge to a drainage channel and/or surface water; or
   C. Discharge to a storm drainpipe that was not fully captured and returned to the sanitary sewer system.

2. Category 2 – All other discharges of sewage resulting from a failure in the Enrollee's sanitary sewer system.

3. Private Lateral Sewage Discharges – Sewage discharges that are caused by blockages or other problems within a privately owned lateral.

SSO Reporting Timeframes

4. Category 1 SSOs – All SSOs that meet the above criteria for Category 1 SSOs must be reported as soon as: (1) the Enrollee has knowledge of the discharge, (2) reporting is possible, and (3) reporting can be provided without substantially impeding cleanup or other emergency measures. Initial reporting of Category 1 SSOs must be reported to the Online SSO System as soon as possible but no later than 3 business days after the Enrollee is made aware of the SSO. Minimum information that must be contained in the 3-day report must include all information identified in section 9 below, except for item 9.K. A final certified report must be completed through the Online SSO System, within 15 calendar days of the conclusion of SSO response and remediation. Additional information may be added to the certified report, in the form of an attachment, at any time.

   The above reporting requirements do not preclude other emergency notification requirements and timeframes mandated by other regulatory agencies (local

County Health Officers, local Director of Environmental Health, Regional Water Boards, or Office of Emergency Services (OES)) or State law.

5. Category 2 SSOs – All SSOs that meet the above criteria for Category 2 SSOs must be reported to the Online SSO Database within 30 days after the end of the calendar month in which the SSO occurs (e.g. all SSOs occurring in the month of January must be entered into the database by March 1st).

6. Private Lateral Sewage Discharges – All sewage discharges that meet the above criteria for Private Lateral sewage discharges may be reported to the Online SSO Database based upon the Enrollee's discretion. If a Private Lateral sewage discharge is recorded in the SSO Database, the Enrollee must identify the sewage discharge as occurring and caused by a private lateral, and a responsible party (other than the Enrollee) should be identified, if known.

7. If there are no SSOs during the calendar month, the Enrollee will provide, within 30 days after the end of each calendar month, a statement through the Online SSO Database certifying that there were no SSOs for the designated month.

8. In the event that the SSO Online Database is not available, the enrollee must fax all required information to the appropriate Regional Water Board office in accordance with the time schedules identified above. In such event, the Enrollee must also enter all required information into the Online SSO Database as soon as practical.

Mandatory Information to be Included in SSO Online Reporting

All Enrollees must obtain SSO Database accounts and receive a "Username" and "Password" by registering through the California Integrated Water Quality System (CIWQS). These accounts will allow controlled and secure entry into the SSO Database. Additionally, within thirty (30) days of receiving an account and prior to recording SSOs into the SSO Database, all Enrollees must complete the "Collection System Questionnaire", which collects pertinent information regarding an Enrollee's collection system. The "Collection System Questionnaire" must be updated at least every 12 months.

At a minimum, the following mandatory information must be included prior to finalizing and certifying an SSO report for each category of SSO:

9. Category 2 SSOs:

   A. Location of SSO by entering GPS coordinates;
   B. Applicable Regional Water Board, i.e. identify the region in which the SSO occurred;
   C. County where SSO occurred;
   D. Whether or not the SSO entered a drainage channel and/or surface water;
   E. Whether or not the SSO was discharged to a storm drain pipe that was not fully captured and returned to the sanitary sewer system;

F. Estimated SSO volume in gallons;
G. SSO source (manhole, cleanout, etc.);
H. SSO cause (mainline blockage, roots, etc.);
I. Time of SSO notification or discovery;
J. Estimated operator arrival time;
K. SSO destination;
L. Estimated SSO end time; and
M. SSO Certification. Upon SSO Certification, the SSO Database will issue a Final SSO Identification (ID) Number.

10. Private Lateral Sewage Discharges:

A. All information listed above (if applicable and known), as well as;
B. Identification of sewage discharge as a private lateral sewage discharge; and
C. Responsible party contact information (if known).

11. Category 1 SSOs:

A. All information listed for Category 2 SSOs, as well as;
B. Estimated SSO volume that reached surface water, drainage channel, or not recovered from a storm drain;
C. Estimated SSO amount recovered;
D. Response and corrective action taken;
E. If samples were taken, identify which regulatory agencies received sample results (if applicable). If no samples were taken, NA must be selected.
F. Parameters that samples were analyzed for (if applicable);
G. Identification of whether or not health warnings were posted;
H. Beaches impacted (if applicable). If no beach was impacted, NA must be selected;
I. Whether or not there is an ongoing investigation;
J. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the overflow and a schedule of major milestones for those steps;
K. OES control number (if applicable);
L. Date OES was called (if applicable);
M. Time OES was called (if applicable);
N. Identification of whether or not County Health Officers were called;
O. Date County Health Officer was called (if applicable); and
P. Time County Health Officer was called (if applicable).

Reporting to Other Regulatory Agencies

These reporting requirements do not preclude an Enrollee from reporting SSOs to other regulatory agencies pursuant to California state law. These reporting requirements do not replace other Regional Water Board telephone reporting requirements for SSOs.

1. The Enrollee shall report SSOs to OES, in accordance with California Water Code Section 13271.

Office of Emergency Services
Phone (800) 852-7550

2. The Enrollee shall report SSOs to County Health officials in accordance with California Health and Safety Code Section 5410 et seq.

3. The SSO database will automatically generate an e-mail notification with customized information about the SSO upon initial reporting of the SSO and final certification for all Category 1 SSOs. E-mails will be sent to the appropriate County Health Officer and/or Environmental Health Department if the county desires this information, and the appropriate Regional Water Board.

B. Record Keeping

1. Individual SSO records shall be maintained by the Enrollee for a minimum of five years from the date of the SSO. This period may be extended when requested by a Regional Water Board Executive Officer.

3. All records shall be made available for review upon State or Regional Water Board staff's request.

4. All monitoring instruments and devices that are used by the Enrollee to fulfill the prescribed monitoring and reporting program shall be properly maintained and calibrated as necessary to ensure their continued accuracy;

5. The Enrollee shall retain records of all SSOs, such as, but not limited to and when applicable:

   a. Record of Certified report, as submitted to the online SSO database;
   b. All original recordings for continuous monitoring instrumentation;
   c. Service call records and complaint logs of calls received by the Enrollee;
   d. SSO calls;
   e. SSO records;
   f. Steps that have been and will be taken to prevent the SSO from recurring and a schedule to implement those steps.
   g. Work orders, work completed, and any other maintenance records from the previous 5 years which are associated with responses and investigations of system problems related to SSOs;
   h. A list and description of complaints from customers or others from the previous 5 years; and
   I. Documentation of performance and implementation measures for the previous 5 years.

6. If water quality samples are required by an environmental or health regulatory agency or State law, or if voluntary monitoring is conducted by the Enrollee or its agent(s), as a result of any SSO, records of monitoring information shall include:

a. The date, exact place, and time of sampling or measurements;
b. The individual(s) who performed the sampling or measurements;
c. The date(s) analyses were performed;
d. The individual(s) who performed the analyses;
e. The analytical technique or method used; and,
f. The results of such analyses.

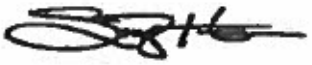
C. Certification

1. All final reports must be certified by an authorized person as required by Provision J of the Order.
2. Registration of authorized individuals, who may certify reports, will be in accordance with the CIWQS' protocols for reporting.

Monitoring and Reporting Program No. 2006-0003 will become effective on the date of adoption by the State Water Board.

CERTIFICATION

The undersigned Clerk to the Board does hereby certify that the foregoing is a full, true, and correct copy of a resolution duly and regularly adopted at a meeting of the State Water Board held on May 2, 2006.



Song Her
Clerk to the Board

STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD

ORDER NO. WQ 2008-0002-EXEC

ADOPTING AMENDED MONITORING AND REPORTING REQUIREMENTS FOR STATEWIDE GENERAL WASTE DISCHARGE REQUIREMENTS FOR SANITARY SEWER SYSTEMS

The State of California, Water Resources Control Board (State Water Board) finds:

1. The State Water Board is authorized to prescribe statewide general waste discharge requirements for categories of discharges that involve the same or similar operations and the same of similar types of waste pursuant to Water Code 13263, subdivision (i).

2. The State Water Board on May 2, 2006, adopted Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, Order No. 2006-0003-DWQ, pursuant to that authority.

3. The State Water Board on May 2, 2006, adopted Monitoring and Reporting Requirements to implement the General Waste Discharge Requirements for Sanitary Sewer Systems.

4. State Water Board Order No. 2006-0003-DWQ, paragraph G.2., and the Monitoring and Reporting Requirements, both provide that the Executive Director may modify the terms of the Monitoring and Reporting Requirements at any time.

5. The time allowed in those Monitoring and Reporting Requirements for the filing of the initial report of an overflow is too long to adequately protect the public health and safety or the beneficial uses of the waters of the state when there is a sewage collection system spill. An additional notification requirement is necessary and appropriate to ensure the Office of Emergency Services, local public health officials, and the applicable regional water quality control board are apprised of a spill that reaches a drainage channel or surface water.

6. Further, the burden of providing a notification as soon as possible is de minimis and will allow response agencies to take action as soon as possible to protect public health and safety and beneficial uses of the waters of the state.

IT IS HEREBY ORDERED THAT:

Pursuant to the authority delegated by Resolution No. 2002-0104 and Order No. 2006-0003-DWQ, the Monitoring and Reporting Requirements for Statewide General Waste Discharge Requirements for Sanitary Sewer Systems No. 2006-0003-DWQ is hereby amended as shown in Attachment A, with new text indicated by double-underline.

Dated: February 20, 2008

Dorothy Rice
Executive Director

ATTACHMENT A

STATE WATER RESOURCES CONTROL BOARD
MONITORING AND REPORTING PROGRAM NO. 2006-0003-DWQ
(AS REVISED BY ORDER NO. WQ 2008-0002-EXEC)

STATEWIDE GENERAL WASTE DISCHARGE REQUIREMENTS
FOR
SANITARY SEWER SYSTEMS

This Monitoring and Reporting Program (MRP) establishes monitoring, record keeping, reporting and public notification requirements for Order No. 2006-2003-DWQ, "Statewide General Waste Discharge Requirements for Sanitary Sewer Systems." Revisions to this MRP may be made at any time by the Executive Director, and may include a reduction or increase in the monitoring and reporting.

NOTIFICATION
Although State and Regional Water Board staff do not have duties as first responders, this Monitoring and Reporting Program is an appropriate mechanism to ensure that the agencies that do have first responder duties are notified in a timely manner in order to protect public health and beneficial uses.

1. For any discharges of sewage that results in a discharge to a drainage channel or a surface water, the Discharger shall, as soon as possible, but not later then two (2) hours after becoming aware of the discharge, notify the State Office of Emergency Services, the local health officer or directors of environmental health with jurisdiction over affected water bodies, and the appropriate Regional Water Quality Control Board.

2. As soon as possible, but no later then twenty-four (24) hours after becoming aware of a discharge to a drainage channel or a surface water, the Discharger shall submit to the appropriate Regional Water Quality Control Board a certification that the State Office of Emergency Services and the local health officer or directors of environmental health with jurisdiction over the affected water bodies have been notified of the discharge.

A. SANITARY SEWER OVERFLOW REPORTING

SSO Categories

1. Category 1 - All discharges of sewage resulting from a failure in the Enrollee's sanitary sewer system that:
   A. Equal or exceed 1000 gallons, or
   B. Result in a discharge to a drainage channel and/or surface water; or
   C. Discharge to a storm drainpipe that was not fully captured and returned to the sanitary sewer system.

2. Category 2 – All other discharges of sewage resulting from a failure in the Enrollee's sanitary sewer system.

3. Private Lateral Sewage Discharges – Sewage discharges that are caused by blockages or other problems within a privately owned lateral.

SSO Reporting Timeframes

4. Category 1 SSOs – Except as provided above, all SSOs that meet the above criteria for Category 1 SSOs must be reported as soon as: (1) the Enrollee has knowledge of the discharge, (2) reporting is possible, and (3) reporting can be provided without substantially impeding cleanup or other emergency measures. Initial reporting of Category 1 SSOs must be reported to the Online SSO System as soon as possible but no later than 3 business days after the Enrollee is made aware of the SSO. Minimum information that must be contained in the 3-day report must include all information identified in section 9 below, except for item 9.K. A final certified report must be completed through the Online SSO System, within 15 calendar days of the conclusion of SSO response and remediation. Additional information may be added to the certified report, in the form of an attachment, at any time.

   The above reporting requirements are in addition to do not preclude other emergency notification requirements and timeframes mandated by other regulatory agencies (local County Health Officers, local Director of Environmental Health, Regional Water Boards, or Office of Emergency Services (OES)) or State law.

5. Category 2 SSOs – All SSOs that meet the above criteria for Category 2 SSOs must be reported to the Online SSO Database within 30 days after the end of the calendar month in which the SSO occurs (e.g. all SSOs occurring in the month of January must be entered into the database by March 1st).

6. Private Lateral Sewage Discharges – All sewage discharges that meet the above criteria for Private Lateral sewage discharges may be reported to the Online SSO Database based upon the Enrollee's discretion. If a Private Lateral sewage discharge is recorded in the SSO Database, the Enrollee must identify the sewage discharge as occurring and caused by a private lateral, and a responsible party (other than the Enrollee) should be identified, if known.

7. If there are no SSOs during the calendar month, the Enrollee will provide, within 30 days after the end of each calendar month, a statement through the Online SSO Database certifying that there were no SSOs for the designated month.

8. In the event that the SSO Online Database is not available, the enrollee must fax all required information to the appropriate Regional Water Board office in

accordance with the time schedules identified above. In such event, the Enrollee must also enter all required information into the Online SSO Database as soon as practical.

Mandatory Information to be Included in SSO Online Reporting

All Enrollees must obtain SSO Database accounts and receive a "Username" and "Password" by registering through the California Integrated Water Quality System (CIWQS). These accounts will allow controlled and secure entry into the SSO Database. Additionally, within thirty (30) days of receiving an account and prior to recording SSOs into the SSO Database, all Enrollees must complete the "Collection System Questionnaire", which collects pertinent information regarding an Enrollee's collection system. The "Collection System Questionnaire" must be updated at least every 12 months.

At a minimum, the following mandatory information must be included prior to finalizing and certifying an SSO report for each category of SSO:

9. Category 2 SSOs:

    A. Location of SSO by entering GPS coordinates;
    B. Applicable Regional Water Board, i.e. identify the region in which the SSO occurred;
    C. County where SSO occurred;
    D. Whether or not the SSO entered a drainage channel and/or surface water;
    E. Whether or not the SSO was discharged to a storm drain pipe that was not fully captured and returned to the sanitary sewer system;
    F. Estimated SSO volume in gallons;
    G. SSO source (manhole, cleanout, etc.);
    H. SSO cause (mainline blockage, roots, etc.);
    I. Time of SSO notification or discovery;
    J. Estimated operator arrival time;
    K. SSO destination;
    L. Estimated SSO end time; and
    M. SSO Certification. Upon SSO Certification, the SSO Database will issue a Final SSO Identification (ID) Number.

10. Private Lateral Sewage Discharges:

    A. All information listed above (if applicable and known), as well as;
    B. Identification of sewage discharge as a private lateral sewage discharge; and
    C. Responsible party contact information (if known).

11. Category 1 SSOs:

A. All information listed for Category 2 SSOs, as well as;
B. Estimated SSO volume that reached surface water, drainage channel, or not recovered from a storm drain;
C. Estimated SSO amount recovered;
D. Response and corrective action taken;
E. If samples were taken, identify which regulatory agencies received sample results (if applicable). If no samples were taken, NA must be selected.
F. Parameters that samples were analyzed for (if applicable);
G. Identification of whether or not health warnings were posted;
H. Beaches impacted (if applicable). If no beach was impacted, NA must be selected;
I. Whether or not there is an ongoing investigation;
J. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the overflow and a schedule of major milestones for those steps;
K. OES control number (if applicable);
L. Date OES was called (if applicable);
M. Time OES was called (if applicable);
N. Identification of whether or not County Health Officers were called;
O. Date County Health Officer was called (if applicable); and
P. Time County Health Officer was called (if applicable).

Reporting to Other Regulatory Agencies

These reporting requirements do not preclude an Enrollee from reporting SSOs to other regulatory agencies pursuant California state law. These reporting requirements do not replace other Regional Water Board telephone reporting requirements for SSOs.

1. The Enrollee shall report SSOs to OES, in accordance with California Water Code Section 13271.

Office of Emergency Services
Phone (800) 852-7550

2. The Enrollee shall report SSOs to County Health officials in accordance with California Health and Safety Code Section 5410 et seq.

3. The SSO database will automatically generate an e-mail notification with customized information about the SSO upon initial reporting of the SSO and final certification for all Category 1 SSOs. E-mails will be sent to the appropriate County Health Officer and/or Environmental Health Department if the county desires this information, and the appropriate Regional Water Board.

B. Record Keeping

1. Individual SSO records shall be maintained by the Enrollee for a minimum of five years from the date of the SSO. This period may be extended when requested by a Regional Water Board Executive Officer.

[2. Omitted.]

3. All records shall be made available for review upon State or Regional Water Board staff's request.

4. All monitoring instruments and devices that are used by the Enrollee to fulfill the prescribed monitoring and reporting program shall be properly maintained and calibrated as necessary to ensure their continued accuracy;

5. The Enrollee shall retain records of all SSOs, such as, but not limited to and when applicable:

   a. Record of Certified report, as submitted to the online SSO database;
   b. All original recordings for continuous monitoring instrumentation;
   c. Service call records and complaint logs of calls received by the Enrollee;
   d. SSO calls;
   e. SSO records;
   f. Steps that have been and will be taken to prevent the SSO from recurring and a schedule to implement those steps.
   g. Work orders, work completed, and any other maintenance records from the previous 5 years which are associated with responses and investigations of system problems related to SSOs;
   h. A list and description of complaints from customers or others from the previous 5 years; and
   i. Documentation of performance and implementation measures for the previous 5 years.

6. If water quality samples are required by an environmental or health regulatory agency or State law, or if voluntary monitoring is conducted by the Enrollee or its agent(s), as a result of any SSO, records of monitoring information shall include:

   a. The date, exact place, and time of sampling or measurements;
   b. The individual(s) who performed the sampling or measurements;
   c. The date(s) analyses were performed;
   d. The individual(s) who performed the analyses;
   e. The analytical technique or method used; and,
   f. The results of such analyses.

C. Certification

1. All final reports must be certified by an authorized person as required by Provision J of the Order.
2. Registration of authorized individuals, who may certify reports, will be in accordance with the CIWQS' protocols for reporting.

Monitoring and Reporting Program No. 2006-0003 will become effective on the date of adoption by the State Water Board. The notification requirements added by Order No. WQ 2008-0002-EXEC will become effective upon issuance by the Executive Director.

CERTIFICATION

The undersigned Clerk to the Board does hereby certify that the foregoing is a full, true, and correct copy of an order amended by the Executive Director of the State Water Board.

Jeanine Townsend
Clerk to the Board

STATE OF CALIFORNIA
WATER RESOURCES CONTROL BOARD
ORDER NO. WQ 2013-0058-EXEC

AMENDING MONITORING AND REPORTING PROGRAM
FOR
STATEWIDE GENERAL WASTE DISCHARGE REQUIREMENTS FOR
SANITARY SEWER SYSTEMS

The State of California, Water Resources Control Board (hereafter State Water Board) finds:

1. The State Water Board is authorized to prescribe statewide general Waste Discharge Requirements (WDRs) for categories of discharges that involve the same or similar operations and the same or similar types of waste pursuant to Water Code section 13263(i).

2. Water Code section 13193 *et seq.* requires the Regional Water Quality Control Boards (Regional Water Boards) and the State Water Board (collectively, the Water Boards) to gather Sanitary Sewer Overflow (SSO) information and make this information available to the public, including but not limited to, SSO cause, estimated volume, location, date, time, duration, whether or not the SSO reached or may have reached waters of the state, response and corrective action taken, and an enrollee's contact information for each SSO event. An enrollee is defined as the public entity having legal authority over the operation and maintenance of, or capital improvements to, a sanitary sewer system greater than one mile in length.

3. Water Code section 13271, *et seq.* requires notification to the California Office of Emergency Services (Cal OES), formerly the California Emergency Management Agency, for certain unauthorized discharges, including SSOs.

4. On May 2, 2006, the State Water Board adopted Order 2006-0003-DWQ, "Statewide Waste Discharge Requirements for Sanitary Sewer Systems"[1] (hereafter SSS WDRs) to comply with Water Code section 13193 and to establish the framework for the statewide SSO Reduction Program.

5. Subsection G.2 of the SSS WDRs and the Monitoring and Reporting Program (MRP) provide that the Executive Director may modify the terms of the MRP at any time.

6. On February 20, 2008, the State Water Board Executive Director adopted a revised MRP for the SSS WDRs to rectify early notification deficiencies and ensure that first responders are notified in a timely manner of SSOs discharged into waters of the state.

7. When notified of an SSO that reaches a drainage channel or surface water of the state, Cal OES, pursuant to Water Code section 13271(a)(3), forwards the SSO notification information[2] to local government agencies and first responders including local public health officials and the applicable Regional Water Board. Receipt of notifications for a single SSO event from both the SSO reporter

[1] Available for download at:
http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2006/wqo/wqo2006_0003.pdf

[2] Cal OES Hazardous Materials Spill Reports available Online at:
http://w3.calema.ca.gov/operational/malhaz.nsf/$defaultview and http://w3.calema.ca.gov/operational/malhaz.nsf

and Cal OES is duplicative. To address this, the SSO notification requirements added by the February 20, 2008 MRP revision are being removed in this MRP revision.

8. In the February 28, 2008 Memorandum of Agreement between the State Water Board and the California Water and Environment Association (CWEA), the State Water Board committed to re-designing the CIWQS[3] Online SSO Database to allow "event" based SSO reporting versus the original "location" based reporting. Revisions to this MRP and accompanying changes to the CIWQS Online SSO Database will implement this change by allowing for multiple SSO appearance points to be associated with each SSO event caused by a single asset failure.

9. Based on stakeholder input and Water Board staff experience implementing the SSO Reduction Program, SSO categories have been revised in this MRP. In the prior version of the MRP, SSOs have been categorized as Category 1 or Category 2. This MRP implements changes to SSO categories by adding a Category 3 SSO type. This change will improve data management to further assist Water Board staff with evaluation of high threat and low threat SSOs by placing them in unique categories (i.e., Category 1 and Category 3, respectively). This change will also assist enrollees in identifying SSOs that require Cal OES notification.

10. Based on over six years of implementation of the SSS WDRs, the State Water Board concludes that the February 20, 2008 MRP must be updated to better advance the SSO Reduction Program[4] objectives, assess compliance, and enforce the requirements of the SSS WDRs.

IT IS HEREBY ORDERED THAT:

Pursuant to the authority delegated by Water Code section 13267(f), Resolution 2002-0104, and Order 2006-0003-DWQ, the MRP for the SSS WDRs (Order 2006-0003-DWQ) is hereby amended as shown in Attachment A and shall be effective on September 9, 2013.

8/6/13
Date

Thomas Howard
Executive Director

[3] California Integrated Water Quality System (CIWQS) publicly available at http://www.waterboards.ca.gov/ciwqs/publicreports.shtml

[4] Statewide Sanitary Sewer Overflow Reduction Program information is available at: http://www.waterboards.ca.gov/water_issues/programs/sso/

ATTACHMENT A

STATE WATER RESOURCES CONTROL BOARD
ORDER NO. WQ 2013-0058-EXEC

AMENDING MONITORING AND REPORTING PROGRAM
FOR
STATEWIDE GENERAL WASTE DISCHARGE REQUIREMENTS FOR
SANITARY SEWER SYSTEMS

This Monitoring and Reporting Program (MRP) establishes monitoring, record keeping, reporting and public notification requirements for Order 2006-0003-DWQ, "Statewide General Waste Discharge Requirements for Sanitary Sewer Systems" (SSS WDRs). This MRP shall be effective from September 9, 2013 until it is rescinded. The Executive Director may make revisions to this MRP at any time. These revisions may include a reduction or increase in the monitoring and reporting requirements. All site specific records and data developed pursuant to the SSS WDRs and this MRP shall be complete, accurate, and justified by evidence maintained by the enrollee. Failure to comply with this MRP may subject an enrollee to civil liabilities of up to $5,000 a day per violation pursuant to Water Code section 13350; up to $1,000 a day per violation pursuant to Water Code section 13268; or referral to the Attorney General for judicial civil enforcement. The State Water Resources Control Board (State Water Board) reserves the right to take any further enforcement action authorized by law.

A. SUMMARY OF MRP REQUIREMENTS

Table 1 – Spill Categories and Definitions

CATEGORIES	DEFINITIONS [see Section A on page 5 of Order 2006-0003-DWQ, for Sanitary Sewer Overflow (SSO) definition]
CATEGORY 1	Discharges of untreated or partially treated wastewater of **any volume** resulting from an enrollee's sanitary sewer system failure or flow condition that: • Reach surface water and/or reach a drainage channel tributary to a surface water; or • Reach a Municipal Separate Storm Sewer System (MS4) and are not fully captured and returned to the sanitary sewer system or not otherwise captured and disposed of properly. Any volume of wastewater not recovered from the MS4 is considered to have reached surface water unless the storm drain system discharges to a dedicated storm water or groundwater infiltration basin (e.g., infiltration pit, percolation pond).
CATEGORY 2	Discharges of untreated or partially treated wastewater of **1,000 gallons or greater** resulting from an enrollee's sanitary sewer system failure or flow condition that **do not** reach surface water, a drainage channel, or a MS4 unless the entire SSO discharged to the storm drain system is fully recovered and disposed of properly.
CATEGORY 3	All other discharges of untreated or partially treated wastewater resulting from an enrollee's sanitary sewer system failure or flow condition.
PRIVATE LATERAL SEWAGE DISCHARGE (PLSD)	Discharges of untreated or partially treated wastewater resulting from blockages or other problems **within a privately owned sewer lateral** connected to the enrollee's sanitary sewer system or from other private sewer assets. PLSDs that the enrollee becomes aware of may be voluntarily reported to the California Integrated Water Quality System (CIWQS) Online SSO Database.

Table 2 – Notification, Reporting, Monitoring, and Record Keeping Requirements

ELEMENT	REQUIREMENT	METHOD
NOTIFICATION (see section B of MRP)	• Within two hours of becoming aware of any Category 1 SSO **greater than or equal to 1,000 gallons discharged to surface water or spilled in a location where it probably will be discharged to surface water**, notify the California Office of Emergency Services (Cal OES) and obtain a notification control number.	Call Cal OES at: **(800) 852-7550**
REPORTING (see section C of MRP)	• Category 1 SSO: Submit draft report within three business days of becoming aware of the SSO and certify within 15 calendar days of SSO end date. • Category 2 SSO: Submit draft report within 3 business days of becoming aware of the SSO and certify within 15 calendar days of the SSO end date. • Category 3 SSO: Submit certified report within 30 calendar days of the end of month in which SSO the occurred. • SSO Technical Report: Submit within 45 calendar days after the end date of any Category 1 SSO in which 50,000 gallons or greater are spilled to surface waters. • "No Spill" Certification: Certify that no SSOs occurred within 30 calendar days of the end of the month or, if reporting quarterly, the quarter in which no SSOs occurred. • Collection System Questionnaire: Update and certify every 12 months.	Enter data into the CIWQS Online SSO Database (http://ciwqs.waterboards.ca.gov/), certified by enrollee's Legally Responsible Official(s).
WATER QUALITY MONITORING (see section D of MRP)	• Conduct water quality sampling **within 48 hours** after initial SSO notification for Category 1 SSOs in which 50,000 gallons or greater are spilled to surface waters.	Water quality results are required to be uploaded into CIWQS for Category 1 SSOs in which 50,000 gallons or greater are spilled to surface waters.
RECORD KEEPING (see section E of MRP)	• SSO event records. • Records documenting Sanitary Sewer Management Plan (SSMP) implementation and changes/updates to the SSMP. • Records to document Water Quality Monitoring for SSOs of 50,000 gallons or greater spilled to surface waters. • Collection system telemetry records if relied upon to document and/or estimate SSO Volume.	Self-maintained records shall be available during inspections or upon request.

B. NOTIFICATION REQUIREMENTS

Although Regional Water Quality Control Boards (Regional Water Boards) and the State Water Board (collectively, the Water Boards) staff do not have duties as first responders, this MRP is an appropriate mechanism to ensure that the agencies that have first responder duties are notified in a timely manner in order to protect public health and beneficial uses.

1. For any Category 1 SSO greater than or equal to 1,000 gallons that results in a discharge to a surface water or spilled in a location where it probably will be discharged to surface water, either directly or by way of a drainage channel or MS4, the enrollee shall, as soon as possible, but not later than two (2) hours after (A) the enrollee has knowledge of the discharge, (B) notification is possible, and (C) notification can be provided without substantially impeding cleanup or other emergency measures, notify the Cal OES and obtain a notification control number.

2. To satisfy notification requirements for each applicable SSO, the enrollee shall provide the information requested by Cal OES before receiving a control number. Spill information requested by Cal OES may include:

   i. Name of person notifying Cal OES and direct return phone number.
   ii. Estimated SSO volume discharged (gallons).
   iii. If ongoing, estimated SSO discharge rate (gallons per minute).
   iv. SSO Incident Description:
      a. Brief narrative.
      b. On-scene point of contact for additional information (name and cell phone number).
      c. Date and time enrollee became aware of the SSO.
      d. Name of sanitary sewer system agency causing the SSO.
      e. SSO cause (if known).
   v. Indication of whether the SSO has been contained.
   vi. Indication of whether surface water is impacted.
   vii. Name of surface water impacted by the SSO, if applicable.
   viii. Indication of whether a drinking water supply is or may be impacted by the SSO.
   ix. Any other known SSO impacts.
   x. SSO incident location (address, city, state, and zip code).

3. Following the initial notification to Cal OES and until such time that an enrollee certifies the SSO report in the CIWQS Online SSO Database, the enrollee shall provide updates to Cal OES regarding substantial changes to the estimated volume of untreated or partially treated sewage discharged and any substantial change(s) to known impact(s).

4. PLSDs: The enrollee is strongly encouraged to notify Cal OES of discharges greater than or equal to 1,000 gallons of untreated or partially treated wastewater that result or may result in a discharge to surface water resulting from failures or flow conditions within a privately owned sewer lateral or from other private sewer asset(s) if the enrollee becomes aware of the PLSD.

C. REPORTING REQUIREMENTS

1. **CIWQS Online SSO Database Account:** All enrollees shall obtain a CIWQS Online SSO Database account and receive a "Username" and "Password" by registering through CIWQS. These accounts allow controlled and secure entry into the CIWQS Online SSO Database.

2. **SSO Mandatory Reporting Information:** For reporting purposes, if one SSO event results in multiple appearance points in a sewer system asset, the enrollee shall complete one SSO report in the CIWQS Online SSO Database which includes the GPS coordinates for the location of the SSO appearance point closest to the failure point, blockage or location of the flow condition that caused the SSO, and provide descriptions of the locations of all other discharge points associated with the SSO event.

3. **SSO Categories**

   i. **Category 1** – Discharges of untreated or partially treated wastewater of any volume resulting from an enrollee's sanitary sewer system failure or flow condition that:

      a. Reach surface water and/or reach a drainage channel tributary to a surface water; or

      b. Reach a MS4 and are not fully captured and returned to the sanitary sewer system or not otherwise captured and disposed of properly. Any volume of wastewater not recovered from the MS4 is considered to have reached surface water unless the storm drain system discharges to a dedicated storm water or groundwater infiltration basin (e.g., infiltration pit, percolation pond).

   ii. **Category 2** – Discharges of untreated or partially treated wastewater greater than or equal to 1,000 gallons resulting from an enrollee's sanitary sewer system failure or flow condition that does not reach a surface water, a drainage channel, or the MS4 unless the entire SSO volume discharged to the storm drain system is fully recovered and disposed of properly.

   iii. **Category 3** – All other discharges of untreated or partially treated wastewater resulting from an enrollee's sanitary sewer system failure or flow condition.

4. **Sanitary Sewer Overflow Reporting to CIWQS - Timeframes**

   i. **Category 1 and Category 2 SSOs** – All SSOs that meet the above criteria for Category 1 or Category 2 SSOs shall be reported to the CIWQS Online SSO Database:

      a. Draft reports for Category 1 and Category 2 SSOs shall be submitted to the CIWQS Online SSO Database within three (3) business days of the enrollee becoming aware of the SSO. Minimum information that shall be reported in a draft Category 1 SSO report shall include all information identified in section 8.i.a. below. Minimum information that shall be reported in a Category 2 SSO draft report shall include all information identified in section 8.i.c below.

      b. A final Category 1 or Category 2 SSO report shall be certified through the CIWQS Online SSO Database within 15 calendar days of the end date of the SSO. Minimum information that shall be certified in the final Category 1 SSO report shall include all information identified in section 8.i.b below. Minimum information that shall be certified in a final Category 2 SSO report shall include all information identified in section 8.i.d below.

ii. **Category 3 SSOs** – All SSOs that meet the above criteria for Category 3 SSOs shall be reported to the CIWQS Online SSO Database and certified within 30 calendar days after the end of the calendar month in which the SSO occurs (e.g., all Category 3 SSOs occurring in the month of February shall be entered into the database and certified by March 30). Minimum information that shall be certified in a final Category 3 SSO report shall include all information identified in section 8.i.e below.

iii. **"No Spill" Certification** – If there are no SSOs during the calendar month, the enrollee shall either 1) certify, within 30 calendar days after the end of each calendar month, a "No Spill" certification statement in the CIWQS Online SSO Database certifying that there were no SSOs for the designated month, or 2) certify, quarterly within 30 calendar days after the end of each quarter, "No Spill" certification statements in the CIWQS Online SSO Database certifying that there were no SSOs for each month in the quarter being reported on. For quarterly reporting, the quarters are Q1 - January/ February/ March, Q2 - April/May/June, Q3 - July/August/September, and Q4 - October/November/December.

If there are no SSOs during a calendar month but the enrollee reported a PLSD, the enrollee shall still certify a "No Spill" certification statement for that month.

iv. **Amended SSO Reports** – The enrollee may update or add additional information to a certified SSO report within 120 calendar days after the SSO end date by amending the report or by adding an attachment to the SSO report in the CIWQS Online SSO Database. SSO reports certified in the CIWQS Online SSO Database prior to the adoption date of this MRP may only be amended up to 120 days after the effective date of this MRP. After 120 days, the enrollee may contact the SSO Program Manager to request to amend an SSO report if the enrollee also submits justification for why the additional information was not available prior to the end of the 120 days.

5. **SSO Technical Report**

The enrollee shall submit an SSO Technical Report in the CIWQS Online SSO Database within 45 calendar days of the SSO end date for any SSO in which 50,000 gallons or greater are spilled to surface waters. This report, which does not preclude the Water Boards from requiring more detailed analyses if requested, shall include at a minimum, the following:

i. **Causes and Circumstances of the SSO:**

a. Complete and detailed explanation of how and when the SSO was discovered.

b. Diagram showing the SSO failure point, appearance point(s), and final destination(s).

c. Detailed description of the methodology employed and available data used to calculate the volume of the SSO and, if applicable, the SSO volume recovered.

d. Detailed description of the cause(s) of the SSO.

e. Copies of original field crew records used to document the SSO.

f. Historical maintenance records for the failure location.

ii. **Enrollee's Response to SSO:**

a. Chronological narrative description of all actions taken by enrollee to terminate the spill.

b. Explanation of how the SSMP Overflow Emergency Response plan was implemented to respond to and mitigate the SSO.

c. Final corrective action(s) completed and/or planned to be completed, including a schedule for actions not yet completed.

iii. **Water Quality Monitoring:**

a. Description of all water quality sampling activities conducted including analytical results and evaluation of the results.

b. Detailed location map illustrating all water quality sampling points.

6. **PLSDs**

Discharges of untreated or partially treated wastewater resulting from blockages or other problems within a privately owned sewer lateral connected to the enrollee's sanitary sewer system or from other private sanitary sewer system assets may be voluntarily reported to the CIWQS Online SSO Database.

i. The enrollee is also encouraged to provide notification to Cal OES per section B above when a PLSD greater than or equal to 1,000 gallons has or may result in a discharge to surface water. For any PLSD greater than or equal to 1,000 gallons regardless of the spill destination, the enrollee is also encouraged to file a spill report as required by Health and Safety Code section 5410 et. seq. and Water Code section 13271, or notify the responsible party that notification and reporting should be completed as specified above and required by State law.

ii. If a PLSD is recorded in the CIWQS Online SSO Database, the enrollee must identify the sewage discharge as occurring and caused by a private sanitary sewer system asset and should identify a responsible party (other than the enrollee), if known. Certification of PLSD reports by enrollees is not required.

7. **CIWQS Online SSO Database Unavailability**

In the event that the CIWQS Online SSO Database is not available, the enrollee must fax or e-mail all required information to the appropriate Regional Water Board office in accordance with the time schedules identified herein. In such event, the enrollee must also enter all required information into the CIWQS Online SSO Database when the database becomes available.

8. **Mandatory Information to be Included in CIWQS Online SSO Reporting**

All enrollees shall obtain a CIWQS Online SSO Database account and receive a "Username" and "Password" by registering through CIWQS which can be reached at CIWQS@waterboards.ca.gov or by calling (866) 792-4977, M-F, 8 A.M. to 5 P.M. These accounts will allow controlled and secure entry into the CIWQS Online SSO Database. Additionally, within thirty (30) days of initial enrollment and prior to recording SSOs into the CIWQS Online SSO Database, all enrollees must complete a Collection System Questionnaire (Questionnaire). The Questionnaire shall be updated at least once every 12 months.

i. **SSO Reports**

At a minimum, the following mandatory information shall be reported prior to finalizing and certifying an SSO report for each category of SSO:

a. **Draft Category 1 SSOs**: At a minimum, the following mandatory information shall be reported for a draft Category 1 SSO report:

1. SSO Contact Information: Name and telephone number of enrollee contact person who can answer specific questions about the SSO being reported.
2. SSO Location Name.
3. Location of the overflow event (SSO) by entering GPS coordinates. If a single overflow event results in multiple appearance points, provide GPS coordinates for the appearance point closest to the failure point and describe each additional appearance point in the SSO appearance point explanation field.
4. Whether or not the SSO reached surface water, a drainage channel, or entered and was discharged from a drainage structure.
5. Whether or not the SSO reached a municipal separate storm drain system.
6. Whether or not the total SSO volume that reached a municipal separate storm drain system was fully recovered.
7. Estimate of the SSO volume, inclusive of all discharge point(s).
8. Estimate of the SSO volume that reached surface water, a drainage channel, or was not recovered from a storm drain.
9. Estimate of the SSO volume recovered (if applicable).
10. Number of SSO appearance point(s).
11. Description and location of SSO appearance point(s). If a single sanitary sewer system failure results in multiple SSO appearance points, each appearance point must be described.
12. SSO start date and time.
13. Date and time the enrollee was notified of, or self-discovered, the SSO.
14. Estimated operator arrival time.
15. For spills greater than or equal to 1,000 gallons, the date and time Cal OES was called.
16. For spills greater than or equal to 1,000 gallons, the Cal OES control number.

b. **Certified Category 1 SSOs**: At a minimum, the following mandatory information shall be reported for a certified Category 1 SSO report, in addition to all fields in section 8.i.a :

1. Description of SSO destination(s).
2. SSO end date and time.
3. SSO causes (mainline blockage, roots, etc.).
4. SSO failure point (main, lateral, etc.).
5. Whether or not the spill was associated with a storm event.
6. Description of spill corrective action, including steps planned or taken to reduce, eliminate, and prevent reoccurrence of the overflow; and a schedule of major milestones for those steps.
7. Description of spill response activities.
8. Spill response completion date.
9. Whether or not there is an ongoing investigation, the reasons for the investigation and the expected date of completion.

10. Whether or not a beach closure occurred or may have occurred as a result of the SSO.
11. Whether or not health warnings were posted as a result of the SSO.
12. Name of beach(es) closed and/or impacted. If no beach was impacted, NA shall be selected.
13. Name of surface water(s) impacted.
14. If water quality samples were collected, identify parameters the water quality samples were analyzed for. If no samples were taken, NA shall be selected.
15. If water quality samples were taken, identify which regulatory agencies received sample results (if applicable). If no samples were taken, NA shall be selected.
16. Description of methodology(ies) and type of data relied upon for estimations of the SSO volume discharged and recovered.
17. SSO Certification: Upon SSO Certification, the CIWQS Online SSO Database will issue a final SSO identification (ID) number.

c. **Draft Category 2 SSOs**: At a minimum, the following mandatory information shall be reported for a draft Category 2 SSO report:

   1. Items 1-14 in section 8.i.a above for Draft Category 1 SSO.

d. **Certified Category 2 SSOs**: At a minimum, the following mandatory information shall be reported for a certified Category 2 SSO report:

   1. Items 1-14 in section 8.i.a above for Draft Category 1 SSO and Items 1-9, and 17 in section 8.i.b above for Certified Category 1 SSO.

e. **Certified Category 3 SSOs**: At a minimum, the following mandatory information shall be reported for a certified Category 3 SSO report:

   1. Items 1-14 in section 8.i.a above for Draft Category 1 SSO and Items 1-5, and 17 in section 8.i.b above for Certified Category 1 SSO.

ii. **Reporting SSOs to Other Regulatory Agencies**

These reporting requirements do not preclude an enrollee from reporting SSOs to other regulatory agencies pursuant to state law. In addition, these reporting requirements do not replace other Regional Water Board notification and reporting requirements for SSOs.

iii. **Collection System Questionnaire**

The required Questionnaire (see subsection G of the SSS WDRs) provides the Water Boards with site-specific information related to the enrollee's sanitary sewer system. The enrollee shall complete and certify the Questionnaire at least every 12 months to facilitate program implementation, compliance assessment, and enforcement response.

iv. **SSMP Availability**

The enrollee shall provide the publicly available internet web site address to the CIWQS Online SSO Database where a downloadable copy of the enrollee's approved SSMP, critical supporting documents referenced in the SSMP, and proof of local governing board approval of the SSMP is posted. If all of the SSMP documentation listed in this subsection is not publicly available on the Internet, the enrollee shall comply with the following procedure:

a. Submit an **electronic** copy of the enrollee's approved SSMP, critical supporting documents referenced in the SSMP, and proof of local governing board approval of the SSMP to the State Water Board, within 30 days of that approval and within 30 days of any subsequent SSMP re-certifications, to the following mailing address:

State Water Resources Control Board
Division of Water Quality
Attn: SSO Program Manager
1001 I Street, 15th Floor, Sacramento, CA 95814

D. WATER QUALITY MONITORING REQUIREMENTS:

To comply with subsection D.7(v) of the SSS WDRs, the enrollee shall develop and implement an SSO Water Quality Monitoring Program to assess impacts from SSOs to surface waters in which 50,000 gallons or greater are spilled to surface waters. The SSO Water Quality Monitoring Program, shall, at a minimum:

1. Contain protocols for water quality monitoring.

2. Account for spill travel time in the surface water and scenarios where monitoring may not be possible (e.g. safety, access restrictions, etc.).

3. Require water quality analyses for ammonia and bacterial indicators to be performed by an accredited or certified laboratory.

4. Require monitoring instruments and devices used to implement the SSO Water Quality Monitoring Program to be properly maintained and calibrated, including any records to document maintenance and calibration, as necessary, to ensure their continued accuracy.

5. Within 48 hours of the enrollee becoming aware of the SSO, require water quality sampling for, at a minimum, the following constituents:
   i. Ammonia
   ii. Appropriate Bacterial indicator(s) per the applicable Basin Plan water quality objective or Regional Board direction which may include total and fecal coliform, enterococcus, and e-coli.

E. RECORD KEEPING REQUIREMENTS:

The following records shall be maintained by the enrollee for a minimum of five (5) years and shall be made available for review by the Water Boards during an onsite inspection or through an information request:

1. General Records: The enrollee shall maintain records to document compliance with all provisions of the SSS WDRs and this MRP for each sanitary sewer system owned including any required records generated by an enrollee's sanitary sewer system contractor(s).

2. SSO Records: The enrollee shall maintain records for each SSO event, including but not limited to:
   i. Complaint records documenting how the enrollee responded to all notifications of possible or actual SSOs, both during and after business hours, including complaints that do not

result in SSOs. Each complaint record shall, at a minimum, include the following information:

a. Date, time, and method of notification.

b. Date and time the complainant or informant first noticed the SSO.

c. Narrative description of the complaint, including any information the caller can provide regarding whether or not the complainant or informant reporting the potential SSO knows if the SSO has reached surface waters, drainage channels or storm drains.

d. Follow-up return contact information for complainant or informant for each complaint received, if not reported anonymously.

e. Final resolution of the complaint.

ii. Records documenting steps and/or remedial actions undertaken by enrollee, using all available information, to comply with section D.7 of the SSS WDRs.

iii. Records documenting how all estimate(s) of volume(s) discharged and, if applicable, volume(s) recovered were calculated.

3. Records documenting all changes made to the SSMP since its last certification indicating when a subsection(s) of the SSMP was changed and/or updated and who authorized the change or update. These records shall be attached to the SSMP.

4. Electronic monitoring records relied upon for documenting SSO events and/or estimating the SSO volume discharged, including, but not limited to records from:

i. Supervisory Control and Data Acquisition (SCADA) systems

ii. Alarm system(s)

iii. Flow monitoring device(s) or other instrument(s) used to estimate wastewater levels, flow rates and/or volumes.

F. CERTIFICATION

1. All information required to be reported into the CIWQS Online SSO Database shall be certified by a person designated as described in subsection J of the SSS WDRs. This designated person is also known as a Legally Responsible Official (LRO). An enrollee may have more than one LRO.

2. Any designated person (i.e. an LRO) shall be registered with the State Water Board to certify reports in accordance with the CIWQS protocols for reporting.

3. Data Submitter (DS): Any enrollee employee or contractor may enter draft data into the CIWQS Online SSO Database on behalf of the enrollee if authorized by the LRO and registered with the State Water Board. However, only LROs may certify reports in CIWQS.

4. The enrollee shall maintain continuous coverage by an LRO. Any change of a registered LRO or DS (e.g., retired staff), including deactivation or a change to the LRO's or DS's contact information, shall be submitted by the enrollee to the State Water Board within 30 days of the change by calling (866) 792-4977 or e-mailing help@ciwqs.waterboards.ca.gov.

5. A registered designated person (i.e., an LRO) shall certify all required reports under penalty of perjury laws of the state as stated in the CIWQS Online SSO Database at the time of certification.

CERTIFICATION

The undersigned Clerk to the Board does hereby certify that the foregoing is a full, true, and correct copy of an order amended by the Executive Director of the State Water Resources Control Board.

7/30/13
Date

Jeanine Townsend
Clerk to the Board

Appendix E
Water Softener Survey

Customer Survey On
Drinking Water
The Borrego Water District
September 2023

BORREGO WATER DISTRICT CUSTOMER SURVEY ON WATER SOFTENERS

Instructions: Answer the questionnaire by marking/crossing on of the boxes provided or answer where necessary. Please answer all questions.

Why this information is important: The use of certain types of water softeners can contribute salt to your local groundwater, which is the primary source of drinking water in Borrego Springs. The Borrego Water District will use the information gathered from this survey to help develop programs aimed at protecting your local drinking water sources.

CUSTOMER ADDRESS: _____

Complete this survey if you are currently using a water softener OR have used one in the past 2 years and have discontinued its use.

1) Do you currently use a water softener at home OR discontinued its use in the past 2 years?
CONTINUE SURVEY

☐ YES, I Do Now ☐ YES, I did, BUT No Longer

2) What type of softener did you have or currently have?

☐ Salt-based ☐ Electronic Salt-Free Hard Water Conditioner
☐ Reverse Osmosis ☐ Other? (describe)

3) How often did/do you add salt?

☐ Every Day ☐ Every 6 Months
☐ Every Week ☐ Never
☐ Every Month ☐ Other? (describe) _____

4) What was/is the approximate quantity (lbs) of salt utilized for softening each month?

_____
(describe above)

5) What type of salt did/do you use?

☐ Sodium Chloride
☐ Potassium Chloride
☐ Other (describe) _____

BORREGO WATER DISTRICT
BOARD OF DIRECTORS MEETING
OTOBER 14, 2025
AGENDA ITEM II.D

October 8, 2025

TO: Board of Directors

FROM: Geoffrey Poole, General Manager

SUBJECT: Country Club Tank Repairs – A Asche

RECOMMENDED ACTION:
Approve Contract with Superior Tank for repairs on the Country Club Tank.

ITEM EXPLANATION:
Earlier in 2025, BWD contracted with a tank inspection company to create a video of the County Club Tank's condition. The video was shared with Superior Tank and USG to receive a quote to perform the repairs. During the process, USG backed out and a quote for $XXX,XXX was received from Superior. Since Superior Tank was the original Contractor and has completed all of the recent BWD tank replacements, Staff is comfortable proceeding under a sole source contract.

Below is the notification from USG:

Good morning Geoff,

Hope all is well. Following up my voicemail message regarding rehab and recoat of the bolted tank. Upon review of the diver inspections pictures and discussion with our engineers, it was determined USG Water is unable to provide recoating due to the nature of the rust areas and risks of leakage after recoating bolted tanks. Appreciate the opportunity to evaluate your water asset and please let me know if you've more questions.

Best regards,

George

NEXT STEPS
1. Execute Agreement with Superior

FISCAL IMPACT
1. $XXX,XXX from cash reserves.

ATTACHMENTS
1. Superior Proposal
2. Construction Contract with Superior (Prepared by BBK for this specific project)

DATE: OCTOBER 8, 2025

BORREGO WATER DISTRICT
ATTN: MR. ALAN ASCHE
RE: 1MG COUNTRY CLUB BOLTED STEEL TANK
REVISION – 1

Superior Tank Solutions, Inc. is pleased to offer the following **PROPOSAL** for your consideration. The proposal is applicable to the bolted steel tank, both 86'D x 24'H. To furnish Materials, equipment, Labor & Insurance to Fabricate, Coat, Deliver and Install the following:

(Plans & specifications have not been provided.)

SCOPE OF WORK

GENERAL PROJECT INFORMATION:

- Prior to initiating the tank operations, the following activities must be completed in a regulatory compliant manner.
  - The Owner is responsible for de-watering the tank to the lowest possible level and performing a lock-out tag-out procedure on all inlet valves and sources of energy. STS will add a LOTO lock where necessary at mobilization.
  - The Owner is responsible for ensuring the valves fully seal.
  - STS will remove the last few inches of water and deposits. Residual water removal/disposal shall be accomplished through the use of an onsite Owner designated disposal area.
- Superior Tank Solutions, Inc will perform the following:
  - Prior to entry into the tank, the specific site conditions and confined space conditions shall be evaluated in accordance with OSHA 29 CFR 1910.146.
  - Coating oversight provided by NACE inspector.
  - The project will be documented photographically.
  - Submittals will be provided prior to mobilization for coatings, upgrades, abrasive, safety, cathodic protection, and project management.

BASE SCOPE – UPGRADES AND REPAIRS:

- Provide and install a new Fusion bonded powder 8" fill line with:
  - Internal elbow and duckbill check valve.
  - Exterior pipe supports and termination at ground level with a 150# flange.
- Provide and install confined space stickers at large openings.
- Provide and install a new gasket on the roof hatch.
- Provide and install a new #24 fine mesh screen on the roof vent.
- Provide and install an OSHA compliant self-closing gate at the top of the exterior ladder.
- Provide and install two (2) OSHA compliant tie off points on the tank roof.

BASE SCOPE – INTERIOR COATING RENOVATION:

- The below scope is only applicable to the tank immersion zone.
- Surface Preparation:
    - Remaining water and deposits will be removed from the tank interior.
    - Remove all accumulated sediment and mud from the tank floor.
    - Cut back and remove exposed gasket material on the tank interior.
    - SSPC-SP 10 "Near White Metal Blast" interior surfaces.
        - CA compliant abrasive designed for dry abrasive blasting will be used.
        - Profile 2-4 mils
    - Blow down and vacuum to remove dust and debris.

- Coating Application:
    - Atmospheric Zone - Apply ANSI/NSF 61 AND NSF 600 approved coating system:
        - Prime Coat:
            - Zinc primer to an average of 2-3 mils DFT
            - Sherwin Williams – Corothane 1 Galvapac 1k
        - Stripe Coat all plate overlaps, hardware and edges.
            - Sherwin Willilams – Sherplate 600
        - Finish Coat:
            - Apply **100% solids polyurethane** on the shell and floor in one coat:
            - Polyurethane/Polyurea Coating applied from 25-80 mils DFT.
            - Sherwin Williams – Poly-cote 115
    - Apply ANSI/NSF 61 caulking to the vapor spaces as necessary.
        - Sika-Flex 1A
    - Coatings will be allowed to cure per the manufacturer's instructions.
    - Immersion areas will be holiday detected per NACE SP-0188 and repaired per the manufacturer's recommendations.

- Testing and Disinfection:
    - Upon Completion of work the tank will be disinfected in accordance with AWWA C-652 – Method 2 Disinfection of Water Tanks.
    - Manways will be resealed with new gaskets and hardware.
    - Bacteriological tests and filling the tank are the responsibility of the Owner.

CATHODIC PROTECTION:

- Design, fabricate, and install one cathodic protection system per AWWA and AMPP criteria with a minimum 20 year design life.
    - Impressed Current Cathodic Protection system - solar powered.
    - Designed and Installed by certified AMPP CP technicians.
    - Start up and commissioning is included once the tank is full and in operation.

BREAKDOWN:

OPTION	SCOPE	RATE	FINAL COST
Base Scope	Interior Renovation and Upgrades	$ 294,500.00	$ 294,500.00
Cathodic Protection	County Club Tank	$ 29,000.00	$ 29,000.00
Bonds	100% payment and performance bonds	1.5%	$ 4,850.00
TOTAL			**$ 328,350.00**

**Above price includes all insurances, licenses and taxes.*

CONDITIONS AND CLARIFICATIONS:

- Prevailing wages and certified payroll per the DIR are included.
- 100% payment and performance bonds are included and will be provided following contract execution.
- Superior assumes the site is compact, level and fully accessible for the delivery of materials.
- Work will be performed in a continuous manner without interruption.
- One mobilization is included for the coating renovation.
- One mobilization is included for the cathodic protection installation.
- The above costs do not take into consideration any restrictive work hour rules, union labor or any special provisions such as safety schooling, safety clothing or hazardous training seminars that may be required.
- Superior will provide a one (1) year warranty on the work performed. Deficiencies identified will be repaired by STS at no additional charge.
- NTP must be provided with a reasonable amount of time for STS to gather materials, fabricate parts, mobilize and complete the work.
- If unforeseen conditions or unanticipated costs are identified during the welding or repair process, STS will contact the Owner for direction prior to proceeding.
- Residual water and deposits removed from the tank will be disposed of onsite. Containment, haul off or disposal are not included.
- If the tank is not drained and ready when STS arrives on site, standby charges maybe incurred.
- The Owner will provide water for washing and cleaning operations.
- Cathodic protection does not include electrical work from the onsite power to the rectifier.
- Damage to the exterior coatings will be repaired.

EXCLUSIONS:

Permits, Coating repairs to the interior roof, Confined Space Rescue Team, Climate Control or Dehumidification, Hardware replacement, Concrete or Gravel Foundation, hazardous waste handing or disposal, Foundation work of any kind, Transducers, Special Inspections, Anchor Bolt Assemblies, Fiber Expansion Board, Level Switch, Process Piping, Probes, Internal Vortex Breakers, Transmitters, Subgrade, Alarms, Blinds, Flex Coupling, Heat Tape, Instrumentation, Downcomers or Supports thereof (Except Where Specified Above), Flex Tends, Valves, Meters, Grading, Gauges, Flap Gates, Water to Hydro-Test or Vacuum Test or Disposal thereof, Bact-T or V.O.C. Tests, Electrical Wiring or Controls thereof, Conduits, Surveying, External or Internal or Below Grade Piping, Fittings, or Internals or items not specifically mentioned above.

QUOTE VALIDITY: 30 DAYS

TERMS: Monthly Progress Payments

DELIVERY TIME: 3-6 weeks depending on the time of year

Thank you for the opportunity to be of service. If you have any questions or require additional information, please do not hesitate to contact me at your earliest convenience.

Matthew Tasch
Director of Operations
Phone: 480-390-0487
MTasch@superiortanksolutions.com

_____ _____

Owner's Authorized Signature Date

_____ _____

Name Printed Title

BORREGO WATER DISTRICT
CONSTRUCTION CONTRACT FOR
COUNTRY CLUB BOLTED STEEL TANK PROJECT

1. PARTIES AND DATE.

This Contract is made and entered into this [***INSERT DAY***] day of [***INSERT MONTH***], 2025, by and between the Borrego Water District, a public agency organized under the laws of the State of California with its principal place of business at 806 Palm Canyon Drive, Borrego Springs, CA 92004 ("District") and Superior Tank Solutions, Inc., a California Corporation, with its principal place of business at [***INSERT ADDRESS***] ("Contractor"). District and Contractor are sometimes individually referred to as "Party" and collectively as "Parties" in this Contract.

2. RECITALS.

2.1 District. District is a public agency organized under the laws of the State of California, with power to contract for services necessary to achieve its purpose.

2.2 Contractor. Contractor desires to perform and assume responsibility for the provision of certain construction services required by the District on the terms and conditions set forth in this Contract. Contractor represents that it is duly licensed and experienced in providing water tank installation, repair, and related construction services to public clients, that it and its employees or subcontractors have all necessary licenses and permits to perform the services in the State of California, and that it is familiar with the plans of District. The following license classifications are required for this Project: [***INSERT LICENSE CLASSIFICATIONS***]

2.3 Project. District desires to engage Contractor to render such services for the Country Club Bolted Steel Tank Project ("Project") as set forth in this Contract.

2.4 Project Documents & Certifications. Contractor has obtained, and delivers concurrently herewith, a Performance Bond, Payment Bond, Insurance documents, Workers' Compensation Certification, Public Works Contractor Registration Certification, and Fleet Compliance Certification, as required by the Contract.

3. TERMS

3.1 Compensation and Payment.

3.1.1 Amount of Compensation. As consideration for performance of the Work required herein, District agrees to pay Contractor the Total Contract Price of Two Hundred Ninety-Four Thousand Five Hundred Dollars ($294,500.00) ("Total Contract Price") provided that such amount shall be subject to adjustment pursuant to the applicable terms of this Contract or written change orders approved and signed in advance by the District.

3.1.2 Payment of Compensation. If the Work is scheduled for completion in thirty (30) or less calendar days, District will arrange for payment of the Total Contract Price upon completion and approval by District of the Work. If the Work is scheduled for completion in more than thirty (30) calendar days, District will pay Contractor on a monthly basis as provided for herein. On or before the fifth (5th) day of each month, Contractor shall submit to the District an itemized application for payment in the format supplied by the District indicating the amount of Work completed since commencement of the Work or since the last progress payment. These

applications shall be supported by evidence which is required by this Contract and such other documentation as the District may require. The Contractor shall certify that the Work for which payment is requested has been done and that the materials listed are stored where indicated. Contractor may be required to furnish a detailed schedule of values upon request of the District and in such detail and form as the District shall request, showing the quantities, unit prices, overhead, profit, and all other expenses involved in order to provide a basis for determining the amount of progress payments.

3.1.3 Prompt Payment. District shall review and pay all progress payment requests in accordance with the provisions set forth in Section 20104.50 of the California Public Contract Code. However, no progress payments will be made for Work not completed in accordance with this Contract. Contractor shall comply with all applicable laws, rules and regulations relating to the proper payment of its employees, subcontractors, suppliers or others.

3.1.4 Contract Retentions. If this Contract is greater than Five Thousand dollars ($5,000), from each approved progress estimate, five percent (5%) will be deducted and retained by the District, and the remainder will be paid to Contractor. All Contract retention shall be released and paid to Contractor and subcontractors pursuant to California Public Contract Code Section 7107.

3.1.5 Other Retentions. In addition to Contract retentions, the District may deduct from each progress payment an amount necessary to protect District from loss because of: (1) liquidated damages which have accrued as of the date of the application for payment; (2) any sums expended by the District in performing any of Contractor's obligations under the Contract which Contractor has failed to perform or has performed inadequately; (3) defective Work not remedied; (4) stop notices as allowed by state law; (5) reasonable doubt that the Work can be completed for the unpaid balance of the Total Contract Price or within the scheduled completion date; (6) unsatisfactory prosecution of the Work by Contractor; (7) unauthorized deviations from the Contract; (8) failure of Contractor to maintain or submit on a timely basis proper and sufficient documentation as required by the Contract or by District during the prosecution of the Work; (9) erroneous or false estimates by Contractor of the value of the Work performed; (10) any sums representing expenses, losses, or damages as determined by the District, incurred by the District for which Contractor is liable under the Contract; and (11) any other sums which the District is entitled to recover from Contractor under the terms of the Contract or pursuant to state law, including Section 1727 of the California Labor Code. The failure by the District to deduct any of these sums from a progress payment shall not constitute a waiver of the District's right to such sums.

3.1.6 Substitutions for Contract Retentions. Pursuant to California Public Contract Code section 22300, Contractor may substitute securities for any money withheld by the District to ensure the performance under the Contract. At the request and expense of Contractor, securities equivalent to the amount withheld shall be deposited with the District, with the State or a federally chartered bank as the escrow agent, who shall return such securities to Contractor upon satisfactory completion of the Contract. Deposit of securities with an escrow agent shall be subject to a written agreement between the escrow agent and the District, which provides that no portion of the securities shall be paid to Contractor until the District has certified to the escrow agent, in writing, that the Contract has been satisfactorily completed. The District shall certify that the Contract has been satisfactorily completed within sixty (60) days of work "completion" as defined in Section 7107(c) of the California Public Contract Code. Securities eligible for investment under this section shall be limited to those listed in Section 16430 of the Government

Code, bank or savings & loan certificates of deposit, interest-bearing demand deposit accounts, stand-by letters of credit, or any other security mutually agreed to by Contractor.

3.1.7 Payment to Subcontractors. Contractor shall pay all subcontractors for and on account of work performed by such subcontractors in accordance with the terms of their respective subcontracts and as provided for in Section 7108.5 of the California Business and Professions Code. Such payments to subcontractors shall be based on the measurements and estimates made and progress payments provided to Contractor pursuant to this Contract.

3.1.8 Title to Work. As security for partial, progress, or other payments, title to Work for which such payments are made shall pass to the District at the time of payment. To the extent that title has not previously been vested in the District by reason of payments, full title shall pass to the District at delivery of the Work at the destination and time specified in this Contract. Such transferred title shall in each case be good, free and clear from any and all security interests, liens, or other encumbrances. Contractor promises and agrees that it will not pledge, hypothecate, or otherwise encumber the items in any manner that would result in any lien, security interest, charge, or claim upon or against said items. Such transfer of title shall not imply acceptance by the District, nor relieve Contractor from the responsibility to strictly comply with the Contract, and shall not relieve Contractor of responsibility for any loss of or damage to items.

3.1.9 Labor and Material Releases. Contractor shall furnish District with labor and material releases from all subcontractors performing work on, or furnishing materials for, the Work governed by this Contract prior to final payment by District.

3.2 Incorporation of Documents. This Contract includes and hereby incorporates in full by reference the following documents, including all exhibits, drawings, specifications and documents therein, and attachments and addenda thereto:

- Scope of Work (Exhibit “A”)
- Special Conditions (Exhibit “B”)
- Contractor’s Certificate Regarding Workers’ Compensation (Exhibit “C”)
- Public Works Contractor Registration Certification (Exhibit “D”)
- Payment and Performance Bonds (Exhibit “E”)
- Fleet Compliance Certification. (Exhibit “F”)
- Addenda
- Change Orders executed by the District
- 2024 Edition of the Standard Specifications for Public Works Construction (The Greenbook), Excluding Sections 1-9
- Notice Inviting Bids, if any
- Instructions to Bidders, if any
- Contractor’s Bid

To the extent there is a conflict between any portions of this Contract, the order of precedence shall be as follows: change orders, special conditions, technical specifications, plans/construction drawings, general contract terms, scope of work, standard plans, advertisements for bid/proposals, bids/proposals or other documents submitted by Contractor.

3.3 Contractor’s Basic Obligation; Scope of Work.

3.3.1 Scope of Work. Contractor promises and agrees, at its own cost and expense, to furnish to the District all labor, materials, tools, equipment, services, and incidental and customary work necessary to fully and adequately complete the Project, including all structures and facilities necessary for the Project or described in the Contract (hereinafter sometimes referred to as the "Work"), for a Total Contract Price as specified pursuant to this Contract. All Work shall be subject to, and performed in accordance with the above referenced documents, as well as the exhibits attached hereto and incorporated herein by reference. The plans and specifications for the Work are further described in Exhibit "B" attached hereto and incorporated herein by this reference. Special Conditions, if any, relating to the Work are described in Exhibit "C" attached hereto and incorporated herein by this reference.

3.3.2 Change in Scope of Work. Any change in the scope of the Work, method of performance, nature of materials or price thereof, or any other matter materially affecting the performance or nature of the Work shall not be paid for or accepted unless such change, addition or deletion is approved in advance and in writing by a valid change order executed by the District.

3.3.3 Change Orders. Changes to the Contract Time (as defined in Section 3.3) or Total Contract Price shall be in the form of a written Change Order, either signed by both parties or issued unilaterally by the District. No adjustment shall be made to the Contract Time unless the delay impacts the critical path to completion and the delay was not caused in whole or in part by the Contractor. The District's liability to Contractor for delays for which the District is responsible shall be limited to only an extension of time unless such delays were unreasonable under the circumstances. Failure to timely request a Change Order shall constitute a waiver of any right to adjust the Contract Time or the Total Contract Price. All requests for Change Orders shall be accompanied by detailed supporting documentation, including but not limited to payroll records, invoices, schedules, and any other documentation requested by the District for the purpose of determining the additional costs or the impact of any delay. If the change involves Work bid at a unit price, then the Total Contract Price shall be increased at the unit price. If there is no unit price, then the Total Contract Price shall be adjusted to account for costs actually incurred plus an allowed mark-up of fifteen percent (15%), which shall constitute the entire amount of profit, mark-ups, field or home office overhead costs, including personnel, equipment or office space, any materials, or any costs of equipment idle time for such work. Regardless of ownership, equipment rates shall not exceed the listed prevailing rates at local equipment rental agencies, or distributors, at the time the work is performed. Nothing herein shall prevent the Parties from agreeing to a lump sum cost.

3.3.4 Changes Ordered By District. District may at any time issue a written directive ordering additions, deletions, or changes to the Work. Contractor shall proceed with the work in accordance with the directive. To the extent the directive results in extra work or requires additional Contract Time, Contractor shall request a Change Order within seven (7) days of receiving the Work Directive. If any costs are not capable of being determined within seven (7) days, then Contractor shall request a Change Order within seven (7) days of when the costs are capable of being determined.

3.3.5 Changes Requested By Contractor. With respect to any matter that may involve or require an adjustment to the Contract Time or the Contract Price, Contractor shall provide written notice of the underlying facts and circumstances that gave rise to the potential change within seven (7) days or prior to the alteration of conditions, whichever is earlier. Failure to give notice shall constitute a waiver of Contractor's right to a change order. If any costs are not

capable of being determined within seven (7) days, then Contractor shall request a Change Order within seven (7) days of when the costs are capable of being determined.

3.4 Substitutions/"Or Equal". Pursuant to Public Contract Code Section 3400(b), the District may make a finding that designates certain products, things, or services by specific brand or trade name. Unless specifically designated in this Contract, whenever any material, process, or article is indicated or specified by grade, patent, or proprietary name or by name of manufacturer, such Specifications shall be deemed to be used for the purpose of facilitating the description of the material, process or article desired and shall be deemed to be followed by the words "or equal."

Contractor may, unless otherwise stated, offer for substitution any material, process or article which shall be substantially equal or better in every respect to that so indicated or specified in this Contract. However, the District may have adopted certain uniform standards for certain materials, processes and articles. Contractor shall submit requests, together with substantiating data, for substitution of any "or equal" material, process or article no later than thirty-five (35) days after award of the Contract. To facilitate the construction schedule and sequencing, some requests may need to be submitted before thirty-five (35) days after award of Contract. Provisions regarding submission of "or equal" requests shall not in any way authorize an extension of time for performance of this Contract. If a proposed "or equal" substitution request is rejected, Contractor shall be responsible for providing the specified material, process or article. The burden of proof as to the equality of any material, process or article shall rest with Contractor.

The District has the complete and sole discretion to determine if a material, process or article is an "or equal" material, process or article that may be substituted. Data required to substantiate requests for substitutions of an "or equal" material, process or article data shall include a signed affidavit from Contractor stating that, and describing how, the substituted "or equal" material, process or article is equivalent to that specified in every way except as listed on the affidavit. Substantiating data shall include any and all illustrations, specifications, and other relevant data including catalog information which describes the requested substituted "or equal" material, process or article, and substantiates that it is an "or equal" to the material, process or article. The substantiating data must also include information regarding the durability and lifecycle cost of the requested substituted "or equal" material, process or article. Failure to submit all the required substantiating data, including the signed affidavit, to the District in a timely fashion will result in the rejection of the proposed substitution.

Contractor shall bear all of the District's costs associated with the review of substitution requests. Contractor shall be responsible for all costs related to a substituted "or equal" material, process or article. Contractor is directed to the Special Conditions (if any) to review any findings made pursuant to Public Contract Code section 3400.

3.5 Period of Performance and Liquidated Damages.

3.5.1 Contractor shall perform and complete all Work under this Contract within [***INSERT NUMBER OF CALENDAR OR WORKING DAYS***] days, beginning the effective date of the Notice to Proceed ("Contract Time"). Contractor shall perform its Work in strict accordance with any completion schedule, construction schedule or project milestones developed by the District. Such schedules or milestones may be included as part of Exhibit "A" or may be provided separately in writing to Contractor. Contractor agrees that if such Work is not completed within the aforementioned Contract Time and/or pursuant to any such completion schedule, construction schedule or project milestones developed pursuant to provisions of the

Contract, it is understood, acknowledged and agreed that the District will suffer damage. Pursuant to Government Code Section 53069.85, Contractor shall pay to the District as fixed and liquidated damages the sum of [***INSERT WRITTEN DOLLAR AMOUNT***] ($[INSERT NUMERICAL DOLLAR AMOUNT_) per day for each and every calendar day of delay beyond the Contract Time or beyond any completion schedule, construction schedule or Project milestones established pursuant to the Contract.

3.5.2 If Contractor is delayed in the performance or progress of the Work by a Force Majeure Event (as defined herein), then the Contractor shall be entitled to a time extension, as provided herein, when the Work stopped is on the critical path and shall not be charged liquidated damages. Such a non-compensable adjustment shall be Contractor's sole and exclusive remedy for such delays and the Contractor will not receive an adjustment to the Total Contract Price or any other compensation. Contractor must submit a timely request in accordance with the requirements of the Contract.

3.5.3 A Force Majeure Event shall mean an event that materially affects a party's performance and is one or more of the following: (1) Acts of God or other natural disasters occurring at the project site; (2) terrorism or other acts of a public enemy; (3) orders of governmental authorities (including, without limitation, unreasonable and unforeseeable delay in the issuance of permits or approvals by governmental authorities that are required for the work); (4) pandemics, epidemics or quarantine restrictions; and (5) strikes and other organized labor action occurring at the project site and the effects thereof on the work, only to the extent such strikes and other organized labor action are beyond the control of Contractor and its subcontractors, of every tier, and to the extent the effects thereof cannot be avoided by use of replacement workers. For purposes of this section, "orders of governmental authorities," includes ordinances, emergency proclamations and orders, rules to protect the public health, welfare and safety, and other actions of the District in its capacity as a municipal authority.

3.6 Standard of Performance; Performance of Employees. Contractor shall perform all Work under this Contract in a skillful and workmanlike manner, and consistent with the standards generally recognized as being employed by professionals in the same discipline in the State of California. Contractor represents and maintains that it is skilled in the professional calling necessary to perform the Work. Contractor warrants that all employees and subcontractors shall have sufficient skill and experience to perform the Work assigned to them. Finally, Contractor represents that it, its employees and subcontractors have all licenses, permits, qualifications and approvals of whatever nature that are legally required to perform the Work, including a Business License, and that such licenses and approvals shall be maintained throughout the term of this Contract. As provided for in the indemnification provisions of this Contract, Contractor shall perform, at its own cost and expense and without reimbursement from the District, any work necessary to correct errors or omissions which are caused by Contractor's failure to comply with the standard of care provided for herein. Any employee who is determined by the District to be uncooperative, incompetent, a threat to the safety of persons or the Work, or any employee who fails or refuses to perform the Work in a manner acceptable to the District, shall be promptly removed from the Project by Contractor and shall not be re-employed on the Work.

3.7 Control and Payment of Subordinates; Contractual Relationship. District retains Contractor on an independent contractor basis and Contractor is not an employee of District. Any additional personnel performing the work governed by this Contract on behalf of Contractor shall at all times be under Contractor's exclusive direction and control. Contractor shall pay all wages, salaries, and other amounts due such personnel in connection with their

performance under this Contract and as required by law. Contractor shall be responsible for all reports and obligations respecting such additional personnel, including, but not limited to: social security taxes, income tax withholding, unemployment insurance, and workers' compensation insurance.

3.8 District's Basic Obligation. District agrees to engage and does hereby engage Contractor as an independent contractor to furnish all materials and to perform all Work according to the terms and conditions herein contained for the sum set forth above. Except as otherwise provided in the Contract, the District shall pay to Contractor, as full consideration for the satisfactory performance by Contractor of the services and obligations required by this Contract, the below-referenced compensation in accordance with compensation provisions set forth in the Contract.

3.9 Labor.

3.9.1 Prevailing Wages. Contractor is aware of the requirements of California Labor Code Section 1720 et seq., and 1770 et seq., as well as California Code of Regulations, Title 8, Section 16000 et seq., ("Prevailing Wage Laws"), which require the payment of prevailing wage rates and the performance of other requirements on "public works" and "maintenance" projects. Since the Work is being performed as part of an applicable "public works" or "maintenance" project, as defined by the Prevailing Wage Laws, and if the total compensation is $1,000 or more, Contractor agrees to fully comply with such Prevailing Wage Laws. District shall provide Contractor with a copy of the prevailing rates of per diem wages in effect at the commencement of this Contract. Contractor shall make copies of the prevailing rates of per diem wages for each craft, classification or type of worker needed to execute the Services available to interested parties upon request, and shall post copies at Contractor's principal place of business and at the project site. Contractor shall defend, indemnify and hold the District, its officials, officers, employees and agents free and harmless from any claim or liability arising out of any failure or alleged failure to comply with the Prevailing Wage Laws. Contractor and any subcontractor shall forfeit a penalty of up to $200 per calendar day or portion thereof for each worker paid less than the prevailing wage rates.

3.9.2 Apprenticeable Crafts. When Contractor employs workmen in an apprenticeable craft or trade, Contractor shall comply with the provisions of Section 1777.5 of the California Labor Code with respect to the employment of properly registered apprentices upon public works. The primary responsibility for compliance with said section for all apprenticeable occupations shall be with Contractor. The Contractor or any subcontractor that is determined by the Labor Commissioner to have knowingly violated Section 1777.5 shall forfeit as a civil penalty an amount not exceeding $100 for each full calendar day of noncompliance, or such greater amount as provided by law.

3.9.3 Hours of Work. Contractor is advised that eight (8) hours labor constitutes a legal day's work. Pursuant to Section 1813 of the California Labor Code, Contractor shall forfeit a penalty of $25.00 per worker for each day that each worker is permitted to work more than eight (8) hours in any one calendar day and forty (40) hours in any one calendar week, except when payment for overtime is made at not less than one and one-half (1-1/2) times the basic rate for that worker.

3.9.4 Payroll Records. Contractor and each subcontractor shall keep an accurate payroll record, showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid

to each journeyman, apprentice, worker, or other employee employed by him or her in connection with the public work. The payroll records shall be certified and shall be available for inspection at all reasonable hours at the principal office of Contractor in the manner provided in Labor Code section 1776. In the event of noncompliance with the requirements of this section, Contractor shall have 10 days in which to comply subsequent to receipt of written notice specifying in what respects such Contractor must comply with this section. Should noncompliance still be evident after such 10-day period, Contractor shall, as a penalty to District, forfeit not more than $100.00 for each calendar day or portion thereof, for each worker, until strict compliance is effectuated. The amount of the forfeiture is to be determined by the Labor Commissioner. A contractor who is found to have violated the provisions of law regarding wages on Public Works with the intent to defraud shall be ineligible to bid on Public Works contracts for a period of one to three years as determined by the Labor Commissioner. Upon the request of the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement, such penalties shall be withheld from progress payments then due. The responsibility for compliance with this section is on Contractor. In accordance with Labor Code section 1771.4, the Contractor and each subcontractor shall furnish the certified payroll records directly to the Department of Industrial Relations ("DIR") on a weekly basis and in the format prescribed by the DIR, which may include electronic submission. The requirement to submit certified payroll records directly to the Labor Commissioner under Labor Code section 1771.4 shall not apply to work performed on a public works project that is exempt pursuant to the small project exemption specified in Labor Code Section 1771.4.

3.9.5 Contractor and Subcontractor Registration. Pursuant to Labor Code sections 1725.5 and 1771.1, all contractors and subcontractors that wish to bid on, be listed in a bid proposal, or enter into a contract to perform public work must be registered with the DIR. No bid will be accepted nor any contract entered into without proof of the contractor's and subcontractors' current registration with the DIR to perform public work. Contractor is directed to review, fill out and execute the Public Works Contractor Registration Certification attached hereto as Exhibit "E" prior to contract execution. Notwithstanding the foregoing, the contractor registration requirements mandated by Labor Code Sections 1725.5 and 1771.1 shall not apply to work performed on a public works project that is exempt pursuant to the small project exemption specified in Labor Code Sections 1725.5 and 1771.1.

3.9.6 Labor Compliance; Stop Orders. This Project is subject to compliance monitoring and enforcement by the DIR. It shall be the Contractor's sole responsibility to evaluate and pay the cost of complying with all labor compliance requirements under this Contract and applicable law. Any stop orders issued by the DIR against Contractor or any subcontractor that affect Contractor's performance of Work, including any delay, shall be Contractor's sole responsibility. Any delay arising out of or resulting from such stop orders shall be considered Contractor caused delay subject to any applicable liquidated damages and shall not be compensable by the District. Contractor shall defend, indemnify and hold the District, its officials, officers, employees and agents free and harmless from any claim or liability arising out of stop orders issued by the DIR against Contractor or any subcontractor.

3.10 Performance of Work; Jobsite Obligations.

3.10.1 Water Quality Management and Compliance.

3.10.1.1 Water Quality Management and Compliance. Contractor shall keep itself and all subcontractors, staff, and employees fully informed of and in compliance with all local, state and federal laws, rules and regulations that may impact, or be implicated by the performance of the Work including, without limitation, all applicable provisions of the Federal

Water Pollution Control Act (33 U.S.C. §§ 1300); the California Porter-Cologne Water Quality Control Act (Cal Water Code §§ 13000-14950); local ordinances regulating discharges of storm water; and any and all regulations, policies, or permits issued pursuant to any such authority regulating the discharge of pollutants, as that term is used in the Porter-Cologne Water Quality Control Act, to any ground or surface water in the State.

3.10.1.2 Compliance with the Statewide Construction General Permit. Contractor shall comply with all conditions of the most recent iteration of the National Pollutant Discharge Elimination System General Permit for Storm Water Discharges Associated with Construction Activity, issued by the California State Water Resources Control Board ("Permit"). It shall be Contractor's sole responsibility to file a Notice of Intent and procure coverage under the Permit for all construction activity which results in the disturbance of more than one acre of total land area or which is part of a larger common area of development or sale. Prior to initiating work, Contractor shall be solely responsible for preparing and implementing a Storm Water Pollution Prevention Plan (SWPPP) as required by the Permit. Contractor shall be responsible for procuring, implementing and complying with the provisions of the Permit and the SWPPP, including the standard provisions, and monitoring and reporting requirements as required by the Permit. The Permit requires the SWPPP to be a "living document" that changes as necessary to meet the conditions and requirements of the job site as it progresses through difference phases of construction and is subject to different weather conditions. It shall be Contractor's sole responsibility to update the SWPPP as necessary to address conditions at the project site.

3.10.1.3 Other Water Quality Rules Regulations and Policies. Contractor shall comply with the lawful requirements of any applicable municipality, drainage District, or local agency regarding discharges of storm water to separate storm drain systems or other watercourses under their jurisdiction, including applicable requirements in municipal storm water management programs.

3.10.1.4 Cost of Compliance. Storm, surface, nuisance, or other waters may be encountered at various times during construction of the Work. Therefore, the Contractor, hereby acknowledges that it has investigated the risk arising from such waters and assumes any and all risks and liabilities arising therefrom.

3.10.1.5 Liability for Non-Compliance. Failure to comply with laws, regulations, standards, ordinances, and permits listed in Sections 3.10.1.1, 3.10.1.2, 3.10.1.3, and 3.10.1.4 of the Contract is a violation of federal and state law. Pursuant to the indemnification provisions of this Contract, Contractor hereby agrees to defend, indemnify and hold harmless the District and its directors, officials, officers, employees, volunteers and agents for any alleged violations. In addition, District may seek damages from Contractor for any delay in completing the Work in accordance with the Contract, if such delay is caused by or related to Contractor's failure to comply with the Permit.

3.10.1.6 Reservation of Right to Defend. District reserves the right to defend any enforcement action brought against the District for Contractor's failure to comply with the Permit or any other relevant water quality law, regulation, or policy. Pursuant to the indemnification provisions of this Contract, Contractor hereby agrees to be bound by, and to reimburse the District for the costs (including the District's attorney's fees) associated with, any settlement reached between the District and the relevant enforcement entity.

3.10.1.7 Training. In addition to the standard of performance requirements set forth in this Contract, Contractor warrants that all employees and subcontractors

shall have sufficient skill and experience to perform the work assigned to them without impacting water quality in violation of the laws, regulations and policies described in paragraph 3.10.1. Contractor further warrants that it, its employees and subcontractors will receive adequate training, as determined by District, regarding the requirements of the laws, regulations and policies described in paragraph 3.10.1 as they may relate to the Work provided under this Contract. Upon request, District will provide the Contractor with a list of training programs that meet the requirements of this paragraph.

3.10.2 Safety. Contractor shall execute and maintain its work so as to avoid injury or damage to any person or property. Contractor shall comply with the requirements of the specifications relating to safety measures applicable in particular operations or kinds of work. In carrying out its Work, Contractor shall at all times be in compliance with all applicable local, state and federal laws, rules and regulations, and shall exercise all necessary precautions for the safety of employees appropriate to the nature of the Work and the conditions under which the Work is to be performed. Safety precautions as applicable shall include, but shall not be limited to, adequate life protection and lifesaving equipment; adequate illumination for underground and night operations; instructions in accident prevention for all employees, such as machinery guards, safe walkways, scaffolds, ladders, bridges, gang planks, confined space procedures, trenching and shoring, fall protection and other safety devices, equipment and wearing apparel as are necessary or lawfully required to prevent accidents or injuries; and adequate facilities for the proper inspection and maintenance of all safety measures. Furthermore, Contractor shall prominently display the names and telephone numbers of at least two medical doctors practicing in the vicinity of the Project, as well as the telephone number of the local ambulance service, adjacent to all telephones at the Project site.

3.10.3 Laws and Regulations. Contractor shall keep itself fully informed of and in compliance with all local, state and federal laws, rules and regulations in any manner affecting the performance of the Contract or the Work, including all Cal/OSHA requirements, and shall give all notices required by law. Contractor shall be liable for all violations of such laws and regulations in connection with the Work. If Contractor observes that the drawings or specifications are at variance with any law, rule or regulation, it shall promptly notify the District in writing. Any necessary changes shall be made by written change order. If Contractor performs any work knowing it to be contrary to such laws, rules and regulations and without giving written notice to the District, Contractor shall be solely responsible for all costs arising therefrom. District is a public entity of the State of California subject to certain provisions of the Health & Safety Code, Government Code, Public Contract Code, and Labor Code of the State. It is stipulated and agreed that all provisions of the law applicable to the public contracts of a municipality are a part of this Contract to the same extent as though set forth herein and will be complied with. Contractor shall defend, indemnify and hold District, its officials, directors, officers, employees and agents free and harmless, pursuant to the indemnification provisions of this Contract, from any claim or liability arising out of any failure or alleged failure to comply with such laws, rules or regulations.

3.10.4 Permits and Licenses. Contractor shall be responsible for securing District permits and licenses necessary to perform the Work described herein. While Contractor will not be charged a fee for any District permits, Contractor shall pay the District's applicable business license fee. Any ineligible contractor or subcontractor pursuant to Labor Code Sections 1777.1 and 1777.7 may not perform work on this Project.

3.10.5 Trenching Work. If the Total Contract Price exceeds $25,000 and if the Work governed by this Contract entails excavation of any trench or trenches five (5) feet or more in depth, Contractor shall comply with all applicable provisions of the California Labor Code,

including Section 6705. To this end, Contractor shall submit for District's review and approval a detailed plan showing the design of shoring, bracing, sloping, or other provisions to be made for worker protection from the hazard of caving ground during the excavation of such trench or trenches. If such plan varies from the shoring system standards, the plan shall be prepared by a registered civil or structural engineer.

3.10.6 Hazardous Materials and Differing Conditions. As required by California Public Contract Code Section 7104, if this Contract involves digging trenches or other excavations that extend deeper than four (4) feet below the surface, Contractor shall promptly, and prior to disturbance of any conditions, notify District of: (1) any material discovered in excavation that Contractor believes to be a hazardous waste that is required to be removed to a Class I, Class II or Class III disposal site; (2) subsurface or latent physical conditions at the site differing from those indicated by District; and (3) unknown physical conditions of an unusual nature at the site, significantly different from those ordinarily encountered in such contract work. Upon notification, District shall promptly investigate the conditions to determine whether a change order is appropriate. In the event of a dispute, Contractor shall not be excused from any scheduled completion date and shall proceed with all Work to be performed under the Contract, but shall retain all rights provided by the Contract or by law for making protests and resolving the dispute.

3.10.7 Underground Utility Facilities. To the extent required by Section 4215 of the California Government Code, District shall compensate Contractor for the costs of: (1) locating and repairing damage to underground utility facilities not caused by the failure of Contractor to exercise reasonable care; (2) removing or relocating underground utility facilities not indicated in the construction drawings; and (3) equipment necessarily idled during such work. Contractor shall not be assessed liquidated damages for delay caused by failure of District to provide for removal or relocation of such utility facilities.

3.10.8 Air Quality. Contractor shall comply, and shall ensure all subcontractors comply, with all applicable requirements of the most current version of the regulations imposed by California Air Resources Board ("CARB") including, without limitation, all applicable terms of Title 13, California Code of Regulations Division 3, Chapter 9 and all pending amendments ("Regulation"). Throughout the Project, and for three (3) years thereafter, Contractor shall make available for inspection and copying any and all documents or information associated with Contractor's and its subcontractors' fleets including, without limitation, the Certificates of Reported Compliance ("CRCs"), fuel/refueling records, maintenance records, emissions records, and any other information the Contractor is required to produce, keep or maintain pursuant to the Regulation upon two (2) calendar days' notice from the City. Contractor shall be solely liable for any and all costs associated with compliance with the Regulation as well as for any and all penalties, fines, damages, or costs associated with any and all violations, or failures to comply with the Regulation. Contractor shall defend, indemnify and hold harmless the City, its officials, officers, employees and authorized volunteers free and harmless from any claims, liabilities, costs, penalties or interest arising out of any failure or alleged failure to comply with the Regulation.

3.10.9 State Recycling Mandates. Contractor shall comply with State Recycling Mandates. Any recyclable materials/debris collected by the contractor that can be feasibly diverted via reuse or recycling must be hauled by the appropriate handler for reuse or recycling.

3.10.10 Inspection Of Site. Contractor has visited sites where Work is to be performed and has become acquainted with all conditions affecting the Work. Contractor warrants

that it has made such examinations as it deems necessary to determine the condition of the Work sites, its accessibility to materials, workmen and equipment, and to determine the Contractor's ability to protect existing surface and subsurface improvements. No claim for allowances–time or money–will be allowed as to such matters.

3.10.11 Field Measurements. Contractor shall make field measurements, verify field conditions and shall carefully compare such field measurements and conditions and other information known to Contractor with the Contract Documents before commencing activities. Errors, inconsistencies or omissions discovered shall be reported to the District immediately and prior to performing any work or altering the condition.

3.11 Completion of Work. When Contractor determines that it has completed the Work required herein, Contractor shall so notify District in writing and shall furnish all labor and material releases required by this Contract. District shall thereupon inspect the Work. If the Work is not acceptable to the District, the District shall indicate to Contractor in writing the specific portions or items of Work which are unsatisfactory or incomplete. Once Contractor determines that it has completed the incomplete or unsatisfactory Work, Contractor may request a re-inspection by the District. Once the Work is acceptable to District, District shall pay to Contractor the Total Contract Price remaining to be paid, less any amount which District may be authorized or directed by law to retain. Payment of retention proceeds due to Contractor shall be made in accordance with Section 7107 of the California Public Contract Code.

3.12 Claims; Government Code Claim Compliance.

3.12.1 Intent. Effective January 1, 1991, Section 20104 et seq., of the California Public Contract Code prescribes a process utilizing informal conferences, non-binding judicial supervised mediation, and judicial arbitration to resolve disputes on construction claims of $375,000 or less. Effective January 1, 2017, Section 9204 of the Public Contract Code prescribes a process for negotiation and mediation to resolve disputes on construction claims. The intent of this Section is to implement Sections 20104 et seq. and Section 9204 of the California Public Contract Code. This Section shall be construed to be consistent with said statutes.

3.12.2 Claims. For purposes of this Section, "Claim" means a separate demand by the Contractor, after a change order duly requested in accordance with the terms of this Contract has been denied by the District, for (A) a time extension, (B) payment of money or damages arising from Work done by or on behalf of the Contractor pursuant to the Contract, or (C) an amount the payment of which is disputed by the District. A "Claim" does not include any demand for payment for which the Contractor has failed to provide notice, request a change order, or otherwise failed to follow any procedures contained in the Contract Documents.

3.12.3 Filing Claims. Claims governed by this Section may not be filed unless and until the Contractor completes all procedures for giving notice of delay or change and for the requesting of a time extension or change order, including but not necessarily limited to the change order procedures contained herein, and Contractor's request for a change has been denied in whole or in part. Claims governed by this Section must be filed no later than fourteen (14) days after a request for change has been denied in whole or in part or after any other event giving rise to the Claim. The Claim shall be submitted in writing to the District and shall include on its first page the following in 16 point capital font: "THIS IS A CLAIM." Furthermore, the claim shall include the documents necessary to substantiate the claim. Nothing in this Section is intended to extend the time limit or supersede notice requirements otherwise provided by contract for the filing

of claims, including all requirements pertaining to compensation or payment for extra Work, disputed Work, and/or changed conditions. Failure to follow such contractual requirements shall bar any claims or subsequent lawsuits for compensation or payment thereon.

3.12.4 Supporting Documentation. The Contractor shall submit all claims in the following format:

3.12.4.1 Summary of claim merit and price, reference Contract Document provisions pursuant to which the claim is made

3.12.4.2 List of documents relating to claim:

(A) Specifications

(B) Drawings

(C) Clarifications (Requests for Information)

(D) Schedules

(E) Other

3.12.4.3 Chronology of events and correspondence

3.12.4.4 Analysis of claim merit

3.12.4.5 Analysis of claim cost, including calculations and supporting documents

3.12.4.6 Time impact analysis in CPM format

3.12.5 District's Response. Upon receipt of a Claim pursuant to this Section, District shall conduct a reasonable review of the Claim and, within a period not to exceed 45 days of receipt of the Claim, or as extended by mutual agreement, shall provide the Contractor a written statement identifying what portion of the Claim is disputed and what portion is undisputed. Any payment due on an undisputed portion of the Claim will be processed and made within 60 days after the District issues its written statement.

3.12.5.1 If District needs approval from its governing body to provide the Contractor a written statement identifying the disputed portion and the undisputed portion of the Claim, and the governing body does not meet within the 45 days or within the mutually agreed to extension of time following receipt of a Claim sent by registered mail or certified mail, return receipt requested, District shall have up to three (3) days following the next duly publicly noticed meeting of the governing body after the 45-day period, or extension, expires to provide the Contractor a written statement identifying the disputed portion and the undisputed portion.

3.12.5.2 Within 30 days of receipt of a Claim, District may request in writing additional documentation supporting the Claim or relating to defenses or claims District may have against the Contractor. If additional information is thereafter required, it shall be requested and provided pursuant to this subdivision, upon mutual agreement of District and the Contractor. District's written response to the Claim, shall be submitted to the Contractor within 30

Days (if the Claim is less than $50,000, within 15 Days) after receipt of the additional documentation, or within a period of time no greater than that taken by the Contractor in producing the additional information or requested documentation, whichever is greater.

3.12.6 Meet and Confer. If the Contractor disputes District's written response, or District fails to respond within the time prescribed, the Contractor may so notify District, in writing, within 15 Days of receipt of District's response or the District's failure to respond, and demand an informal conference to meet and confer for settlement of the issues in dispute. Upon receipt of a demand, District shall schedule a meet and confer conference within 30 Days for settlement of the dispute.

3.12.7 Mediation. Within 10 business days following the conclusion of the meet and confer conference, if the Claim or any portion of the Claim remains in dispute, District shall provide the Contractor a written statement identifying the portion of the Claim that remains in dispute and the portion that is undisputed. Any payment due on an undisputed portion of the Claim shall be processed and made within 60 Days after District issues its written statement. Any disputed portion of the Claim, as identified by the Contractor in writing, shall be submitted to nonbinding mediation, with District and the Contractor sharing the associated costs equally. District and Contractor shall mutually agree to a mediator within 10 business days after the disputed portion of the Claim has been identified in writing, unless the Parties agree to select a mediator at a later time.

3.12.7.1 If the Parties cannot agree upon a mediator, each Party shall select a mediator and those mediators shall select a qualified neutral third party to mediate with regard to the disputed portion of the claim. Each Party shall bear the fees and costs charged by its respective mediator in connection with the selection of the neutral mediator.

3.12.7.2 For purposes of this section, mediation includes any nonbinding process, including, but not limited to, neutral evaluation or a dispute review board, in which an independent third party or board assists the Parties in dispute resolution through negotiation or by issuance of an evaluation. Any mediation utilized shall conform to the timeframes in this section.

3.12.7.3 Unless otherwise agreed to by District and the Contractor in writing, the mediation conducted pursuant to this section shall excuse any further obligation under Section 20104.4 to mediate after litigation has been commenced.

3.12.7.4 The mediation shall be held no earlier than the date the Contractor completes the Work or the date that the Contractor last performs Work, whichever is earlier. All unresolved Claims shall be considered jointly in a single mediation, unless a new unrelated Claim arises after mediation is completed.

3.12.8 Procedures After Mediation. If following the mediation, the Claim or any portion remains in dispute, the Contractor must file a claim pursuant to Chapter 1 (commencing with Section 900) and Chapter 2 (commencing with Section 910) of Part 3 of Division 3.6 of Title 1 of the Government Code. For purposes of those provisions, the running of the period of time within which a claim must be filed shall be tolled from the time the Contractor submits his or her written Claim pursuant to subdivision (a) until the time the Claim is denied, including any period of time utilized by the meet and confer conference or mediation.

3.12.9 Civil Actions. The following procedures are established for all civil actions filed to resolve Claims of $375,000 or less:

3.12.9.1 Within 60 Days, but no earlier than 30 Days, following the filing or responsive pleadings, the court shall submit the matter to non-binding mediation unless waived by mutual stipulation of both Parties or unless mediation was held prior to commencement of the action in accordance with Public Contract Code section 9204 and the terms of these procedures. The mediation process shall provide for the selection within 15 Days by both Parties of a disinterested third person as mediator, shall be commenced within 30 Days of the submittal, and shall be concluded within 15 Days from the commencement of the mediation unless a time requirement is extended upon a good cause showing to the court.

3.12.9.2 If the matter remains in dispute, the case shall be submitted to judicial arbitration pursuant to Chapter 2.5 (commencing with Section 1141.10) of Title 3 of Part 3 of the Code of Civil Procedure, notwithstanding Section 1114.11 of that code. The Civil Discovery Act of 1986 (Article 3 (commencing with Section 2016) of Chapter 3 of Title 3 of Part 4 of the Code of Civil Procedure) shall apply to any proceeding brought under this subdivision consistent with the rules pertaining to judicial arbitration.

3.12.9.3 In addition to Chapter 2.5 (commencing with Section 1141.10) of Title 3 of Part 3 of the Code of Civil Procedure, (A) arbitrators shall, when possible, be experienced in construction law, and (B) any party appealing an arbitration award who does not obtain a more favorable judgment shall, in addition to payment of costs and fees under that chapter, also pay the attorney's fees on appeal of the other party.

3.12.10 Government Code Claim Procedures.

3.12.10.1 This section does not apply to tort claims and nothing in this section is intended nor shall be construed to change the time periods for filing tort claims or actions specified by Chapter 1 (commending with Section 900) and Chapter 2 (commencing with Section 910) of Part 3 of Division 3.5 of Title 1 of the Government Code.

3.12.10.2 In addition to any and all Contract requirements pertaining to notices of and requests for adjustments to the Contract Time, Contract Price, or compensation or payment for extra work, disputed work, claims and/or changed conditions, Contractor must comply with the claim procedures set forth in Government Code sections 900 et seq. prior to filing any lawsuit against the District.

3.12.10.3 Such Government Code claims and any subsequent lawsuit based upon the Government Code claims shall be limited to those matters that remain unresolved after all procedures pertaining to adjustment of the Contract Time, Contract Price, or compensation or payment for extra work, disputed work, claims, and/or changed conditions have been followed by Contractor. If no such Government Code claim is submitted, or if any prerequisite contractual requirements are not otherwise satisfied as specified herein, Contractor may not file any action against the District.

3.12.10.4 **A Government Code claim must be filed no earlier than the date the work is completed or the date the Contractor last performs work on the Project, whichever occurs first. A Government Code claim shall be inclusive of all unresolved Claims known to the Contractor excepting only new unrelated Claims that arise after the Government Code claim is submitted.**

3.12.11 Non-Waiver. District's failure to respond to a Claim from the Contractor within the time periods described in this section or to otherwise meet the time requirements of this section shall result in the Claim being deemed rejected in its entirety and shall not constitute a waiver of any rights under this section.

3.13 Loss and Damage. Except as may otherwise be limited by law, Contractor shall be responsible for all loss and damage which may arise out of the nature of the Work agreed to herein, or from the action of the elements, or from any unforeseen difficulties which may arise or be encountered in the prosecution of the Work until the same is fully completed and accepted by District. In the event of damage proximately caused by an Act of God, as defined by Section 7105 of the Public Contract Code, the District may terminate this Contract pursuant to the termination provisions in this Contract; provided, however, that the District needs to provide Contractor with only one (1) day advanced written notice.

3.14 Indemnification.

3.14.1 Scope of Indemnity**.** To the fullest extent permitted by law, Contractor shall defend, indemnify and hold the District, its officials, employees, agents and volunteers free and harmless from any and all claims, demands, causes of action, suits, actions, proceedings, costs, expenses, liability, judgments, awards, decrees, settlements, loss, damage or injury of any kind, in law or equity, regardless of whether the allegations are false, fraudulent, or groundless, to property or persons, including wrongful death, (collectively, "Claims") in any manner arising out of, pertaining to, or incident to any acts, errors or omissions, or willful misconduct of Contractor, its officials, officers, employees, subcontractors, consultants or agents in connection with the performance of the Contractor's services, the Project or this Contract, including without limitation the payment of all expert witness fees, attorneys' fees and other related costs and expenses. Notwithstanding the foregoing, to the extent required by Civil Code section 2782, Contractor's indemnity obligation shall not apply to such loss or damage which is caused by the sole or active negligence or willful misconduct of the District.

3.14.2 Additional Indemnity Obligations**.** Contractor shall defend, with counsel of District's choosing and at Contractor's own cost, expense and risk, any and all Claims covered by this section that may be brought or instituted against District or its officials, employees, agents and authorized volunteers. In addition, Contractor shall pay and satisfy any judgment, award or decree that may be rendered against District or its officials, employees, agents and authorized volunteers as part of any such claim, suit, action or other proceeding. Contractor shall also reimburse District for the cost of any settlement paid by District or its officials, employees, agents and authorized volunteers as part of any such claim, suit, action or other proceeding. Such reimbursement shall include payment for District's attorney's fees and costs, including expert witness fees. Contractor shall reimburse District and its officials, employees, agents and authorized volunteers, for any and all legal expenses and costs incurred by each of them in connection therewith or in enforcing the indemnity herein provided. Contractor's obligation to indemnify shall survive expiration or termination of this Contract, and shall not be restricted to insurance proceeds, if any, received by the District, its officials, employees, agents and authorized volunteers.

3.15 Insurance.

Commented [1]: District Risk Manager should review to determine whether requirements and limits are acceptable

3.15.1 Time for Compliance. Contractor shall not commence Work under this Contract until it has provided evidence satisfactory to the District that it has secured all insurance required under this section. In addition, Contractor shall not allow any subcontractor to

commence work on any subcontract until it has provided evidence satisfactory to the District that the subcontractor has secured all insurance required under this section. Failure to provide and maintain all required insurance shall be grounds for the District to terminate this Contract for cause.

3.15.2 Minimum Requirements. Contractor shall, at its expense, procure and maintain for the duration of the Contract insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the Work hereunder by Contractor, its agents, representatives, employees or subcontractors. Contractor shall also require all of its subcontractors to procure and maintain the same insurance for the duration of the Contract. Such insurance shall meet at least the following minimum levels of coverage:

3.15.2.1 Minimum Scope of Insurance. Coverage shall be at least as broad as the latest version of the following: (1) *General Liability:* Insurance Services Office Commercial General Liability coverage (occurrence form CG 00 01) OR Insurance Services Office Owners and Contractors Protective Liability Coverage Form (CG 00 09 11 88) (coverage for operations of designated contractor); (2) *Automobile Liability:* Insurance Services Office Business Auto Coverage form number CA 00 01, code 1 (any auto); (3) *Workers' Compensation and Employer's Liability:* Workers' Compensation insurance as required by the State of California and Employer's Liability Insurance; and (4) *Builders'/All Risk:* Builders'/All Risk insurance covering for all risks of loss, including explosion, collapse, underground excavation and removal of lateral support (and including earthquakes and floods if requested by the District). Policies shall not contain exclusions contrary to this Contract.

3.15.2.2 Minimum Limits of Insurance. Contractor shall maintain limits no less than: (1) *General Liability:* $2,000,000 per occurrence and $4,000,000 general aggregate for bodily injury, personal injury and property damage; (2) *Automobile Liability:* $1,000,000 per accident for bodily injury and property damage; (3) *Workers' Compensation and Employer's Liability:* Workers' compensation limits as required by the Labor Code of the State of California. Employer's Liability limits of $1,000,000 each accident, policy limit bodily injury or disease, and each employee bodily injury or disease; and (4) *Builders'/All Risk:* Completed value of the project. Defense costs shall be available in addition to the limits. Notwithstanding the minimum limits specified herein, any available coverage shall be provided to the parties required to be named as additional insureds pursuant to this Contract.

3.15.2.3 Notices; Cancellation or Reduction of Coverage. At least fifteen (15) days prior to the expiration of any such policy, evidence showing that such insurance coverage has been renewed or extended shall be filed with the District. If such coverage is cancelled or materially reduced, Contractor shall, within ten (10) days after receipt of written notice of such cancellation or reduction of coverage, file with the District evidence of insurance showing that the required insurance has been reinstated or has been provided through another insurance company or companies. In the event any policy of insurance required under this Contract does not comply with these specifications or is canceled and not replaced, the District has the right but not the duty to obtain the insurance it deems necessary and any premium paid by the District will be promptly reimbursed by Contractor or the District may withhold amounts sufficient to pay premium from Contractor payments. In the alternative, the District may suspend or terminate this Contract.

3.15.3 Insurance Endorsements. The insurance policies shall contain the following provisions, or Contractor shall provide endorsements (amendments) on forms supplied or approved by the District to add the following provisions to the insurance policies:

3.15.3.1 General Liability. (1) Such policy shall give the District, its officials, employees, agents and volunteers additional insured status using ISO endorsements CG20 10 10 01 plus CG20 37 10 01, or endorsements providing the exact same coverage, with respect to the Work or operations performed by or on behalf of Contractor, including materials, parts or equipment furnished in connection with such work; (2) all policies shall waive or shall permit Contractor to waive all rights of subrogation which may be obtained by the Contractor or any insurer by virtue of payment of any loss or any coverage provided to any person named as an additional insured pursuant to this Contract, and Contractor agrees to waive all such rights of subrogation; and (3) the insurance coverage shall be primary insurance as respects the District, its officials, employees, agents and volunteers, or if excess, shall stand in an unbroken chain of coverage excess of Contractor's scheduled underlying coverage. Any insurance or self-insurance maintained by the District, its officials, employees, agents and volunteers shall be excess of Contractor's insurance and shall not be called upon to contribute with it.

3.15.3.2 Automobile Liability. (1) Such policy shall give the District, its officials, employees, agents and volunteers additional insured status with respect to the ownership, operation, maintenance, use, loading or unloading of any auto owned, leased, hired or borrowed by Contractor or for which Contractor is responsible; (2) all policies shall waive or shall permit Contractor to waive all rights of subrogation which may be obtained by the Contractor or any insurer by virtue of payment of any loss or any coverage provided to any person named as an additional insured pursuant to this Contract, and Contractor agrees to waive all such rights of subrogation; and (3) the insurance coverage shall be primary insurance as respects the District, its officials, employees, agents and volunteers, or if excess, shall stand in an unbroken chain of coverage excess of Contractor's scheduled underlying coverage. Any insurance or self-insurance maintained by the District, its officials, employees, agents and volunteers shall be excess of Contractor's insurance and shall not be called upon to contribute with it in any way.

3.15.3.3 Workers' Compensation and Employer's Liability Coverage. The insurer shall agree to waive all rights of subrogation against the District, its officials, employees, agents and volunteers for losses paid under the terms of the insurance policy which arise from work performed by Contractor.

3.15.3.4 All Coverages. Each insurance policy required by this Contract shall be endorsed to state that: (1) coverage shall not be suspended, voided, reduced or canceled except after thirty (30) days prior written notice by certified mail, return receipt requested, has been given to the District; and (2) any failure to comply with reporting or other provisions of the policies, including breaches of warranties, shall not affect coverage provided to the District, its officials, employees, agents and volunteers.

3.15.4 Builders'/All Risk Policy Requirements. The builders'/all risk insurance shall provide that the District be named as loss payee. In addition, the insurer shall waive all rights of subrogation against the District.

3.15.5 Separation of Insureds; No Special Limitations. All insurance required by this Section shall contain standard separation of insureds provisions. In addition, such insurance shall not contain any special limitations on the scope of protection afforded to the District, its officials, employees, agents and volunteers.

3.15.6 Professional Liability Insurance. All architects, engineers, consultants or design professionals retained by Contractor shall also procure and maintain, for a period of five (5) years following completion of the Contract, errors and omissions liability insurance with a limit of not less than $1,000,000 per occurrence. This insurance shall name the District, its directors, officials, officers, employees, agents and volunteers as additional and insureds with respect to Work performed, and shall otherwise comply with all requirements of this Section. Defense costs shall be paid in addition to the limits.

3.15.7 Deductibles and Self-Insurance Retentions. Any deductibles or self-insured retentions must be declared to and approved by the District. Contractor shall guarantee that, at the option of the District, either: (1) the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the District, its officials, employees, agents and authorized volunteers; or (2) the Contractor shall procure a bond or other financial guarantee acceptable to the District guaranteeing payment of losses and related investigation costs, claims and administrative and defense expenses.

3.15.8 Acceptability of Insurers. Insurance is to be placed with insurers with a current A.M. Best's rating no less than A:VII, licensed to do business in California, and satisfactory to the District. Exception may be made for the State Compensation Insurance Fund when not specifically rated.

3.15.9 Verification of Coverage. Contractor shall furnish District with original certificates of insurance and endorsements effecting coverage required by this Contract on forms satisfactory to the District. The certificates and endorsements for each insurance policy shall be signed by a person authorized by that insurer to bind coverage on its behalf, and shall be on forms supplied or approved by the District. All certificates and endorsements must be received and approved by the District before work commences. The District reserves the right to require complete, certified copies of all required insurance policies, at any time.

3.15.10 Subcontractors. All subcontractors shall meet the requirements of this Section before commencing Work. Contractor shall furnish separate certificates and endorsements for each subcontractor. Subcontractor policies of General Liability insurance shall name the District, its officials, employees, agents and authorized volunteers as additional insureds using form ISO 20 38 04 13 or endorsements providing the exact same coverage. All coverages for subcontractors shall be subject to all of the requirements stated herein except as otherwise agreed to by the District in writing.

3.15.11 Reporting of Claims. Contractor shall report to the District, in addition to Contractor's insurer, any and all insurance claims submitted by Contractor in connection with the Work under this Contract.

3.16 Bond Requirements.

3.16.1 Payment Bond. If required by law or otherwise specifically requested by District in Exhibit "C" attached hereto and incorporated herein by reference, Contractor shall execute and provide to District concurrently with this Contract a Payment Bond in an amount required by the District and in a form provided or approved by the District. If such bond is required, no payment will be made to Contractor until the bond has been received and approved by the District.

3.16.2 Performance Bond. If specifically requested by District in Exhibit "C" attached hereto and incorporated herein by reference, Contractor shall execute and provide to District concurrently with this Contract a Performance Bond in an amount required by the District and in a form provided or approved by the District. If such bond is required, no payment will be made to Contractor until the bond has been received and approved by the District.

3.16.3 Bond Provisions. Should, in District's sole opinion, any bond become insufficient or any surety be found to be unsatisfactory, Contractor shall renew or replace the effected bond within (ten) 10 days of receiving notice from District. In the event the surety or Contractor intends to reduce or cancel any required bond, at least thirty (30) days prior written notice shall be given to the District, and Contractor shall post acceptable replacement bonds at least ten (10) days prior to expiration of the original bonds. No further payments shall be deemed due or will be made under this Contract until any replacement bonds required by this Section are accepted by the District. To the extent, if any, that the Total Contract Price is increased in accordance with the Contract, Contractor shall, upon request of the District, cause the amount of the bond to be increased accordingly and shall promptly deliver satisfactory evidence of such increase to the District. If Contractor fails to furnish any required bond, the District may terminate the Contract for cause.

3.16.4 Surety Qualifications. Only bonds executed by an admitted surety insurer, as defined in California Code of Civil Procedure Section 995.120, shall be accepted. If a California-admitted surety insurer issuing bonds does not meet these requirements, the insurer will be considered qualified if it is in conformance with Section 995.660 of the California Code of Civil Procedure, and proof of such is provided to the District.

3.17 Warranty. Contractor warrants all Work under the Contract (which for purposes of this Section shall be deemed to include unauthorized work which has not been removed and any non-conforming materials incorporated into the Work) to be of good quality and free from any defective or faulty material and workmanship. Contractor agrees that for a period of one year (or the period of time specified elsewhere in the Contract or in any guarantee or warranty provided by any manufacturer or supplier of equipment or materials incorporated into the Work, whichever is later) after the date of final acceptance, Contractor shall within ten (10) days after being notified in writing by the District of any defect in the Work or non-conformance of the Work to the Contract, commence and prosecute with due diligence all Work necessary to fulfill the terms of the warranty at its sole cost and expense. Contractor shall act sooner as requested by the District in response to an emergency. In addition, Contractor shall, at its sole cost and expense, repair and replace any portions of the Work (or work of other contractors) damaged by its defective Work or which becomes damaged in the course of repairing or replacing defective Work. For any Work so corrected, Contractor's obligation hereunder to correct defective Work shall be reinstated for an additional one year period, commencing with the date of acceptance of such corrected Work. Contractor shall perform such tests as the District may require to verify that any corrective actions, including, without limitation, redesign, repairs, and replacements comply with the requirements of the Contract. All costs associated with such corrective actions and testing, including the removal, replacement, and reinstitution of equipment and materials necessary to gain access, shall be the sole responsibility of Contractor. All warranties and guarantees of subcontractors, suppliers and manufacturers with respect to any portion of the Work, whether express or implied, are deemed to be obtained by Contractor for the benefit of the District, regardless of whether or not such warranties and guarantees have been transferred or assigned to the District by separate agreement and Contractor agrees to enforce such warranties and guarantees, if necessary, on behalf of the District. In the event that Contractor fails to perform its obligations under this Section, or under any other warranty or guaranty under this Contract, to the reasonable satisfaction of the

District, the District shall have the right to correct and replace any defective or non-conforming Work and any work damaged by such work or the replacement or correction thereof at Contractor's sole expense. Contractor shall be obligated to fully reimburse the District for any expenses incurred hereunder upon demand.

3.18 Employee/Labor Certifications.

3.18.1 Contractor's Labor Certification. By its signature hereunder, Contractor certifies that he is aware of the provisions of Section 3700 of the California Labor Code which require every employer to be insured against liability for Worker's Compensation or to undertake self-insurance in accordance with the provisions of that Code, and agrees to comply with such provisions before commencing the performance of the Work. A certification form for this purpose, which is attached to this Contract as Exhibit "D" and incorporated herein by reference, shall be executed simultaneously with this Contract.

3.18.2 Equal Opportunity Employment. Contractor represents that it is an equal opportunity employer and that it shall not discriminate against any employee or applicant for employment because of race, religion, color, national origin, ancestry, sex, age or other interests protected by the State or Federal Constitutions. Such non-discrimination shall include, but not be limited to, all activities related to initial employment, upgrading, demotion, transfer, recruitment or recruitment advertising, layoff or termination.

3.18.3 Verification of Employment Eligibility. By executing this Contract, Contractor verifies that it fully complies with all requirements and restrictions of state and federal law respecting the employment of undocumented aliens, including, but not limited to, the Immigration Reform and Control Act of 1986, as may be amended from time to time, and shall require all subcontractors and sub-subcontractors to comply with the same.

3.19 Termination. This Contract may be terminated by District at any time, either with our without cause, by giving Contractor three (3) days advance written notice. In the event of termination by District for any reason other than the fault of Contractor, District shall pay Contractor for all Work performed up to that time as provided herein. In the event of breach of the Contract by Contractor, District may terminate the Contract immediately without notice, may reduce payment to Contractor in the amount necessary to offset District's resulting damages, and may pursue any other available recourse against Contractor. Contractor may not terminate this Contract except for cause. In the event this Contract is terminated in whole or in part as provided, District may procure, upon such terms and in such manner as it may determine appropriate, services similar to those terminated. Further, if this Contract is terminated as provided, District may require Contractor to provide all finished or unfinished documents, data, diagrams, drawings, materials or other matter prepared or built by Contractor in connection with its performance of this Contract. Contractor shall be required to provide such document and other information within fifteen (15) days of the request.

3.20 General Provisions.

3.20.1 District's Representative. The District hereby designates the [***INSERT NAME], or his or her designee, to act as its representative for the performance of this Contract ("District's Representative"). District's Representative shall have the power to act on behalf of the District for all purposes under this Contract. Contractor shall not accept direction or orders from any person other than the District's Representative or his or her designee.

3.20.2 Contractor's Representative. Before starting the Work, Contractor shall submit in writing the name, qualifications and experience of its proposed representative who shall be subject to the review and approval of the District ("Contractor's Representative"). Following approval by the District, Contractor's Representative shall have full authority to represent and act on behalf of Contractor for all purposes under this Contract. Contractor's Representative shall supervise and direct the Work, using his best skill and attention, and shall be responsible for all construction means, methods, techniques, sequences and procedures and for the satisfactory coordination of all portions of the Work under this Contract. Contractor's Representative shall devote full time to the Project and either he or his designee, who shall be acceptable to the District, shall be present at the Work site at all times that any Work is in progress and at any time that any employee or subcontractor of Contractor is present at the Work site. Arrangements for responsible supervision, acceptable to the District, shall be made for emergency Work which may be required. Should Contractor desire to change its Contractor's Representative, Contractor shall provide the information specified above and obtain the District's written approval.

3.20.3 Contract Interpretation. Should any question arise regarding the meaning or import of any of the provisions of this Contract or written or oral instructions from District, the matter shall be referred to District's Representative, whose decision shall be binding upon Contractor.

3.20.4 Anti-Trust Claims. This provision shall be operative if this Contract is applicable to California Public Contract Code Section 7103.5. In entering into this Contract to supply goods, services or materials, Contractor hereby offers and agrees to assign to the District all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Section 15) or under the Cartwright Act (Chapter 2, commencing with Section 16700, of Part 2 of Division 7 of the Business and Professions Code) arising from purchases of goods, services, or materials pursuant to the Contract. This assignment shall be made and become effective at the time the District tender final payment to Contractor, without further acknowledgment by the Parties.

3.20.5 Notices. All notices hereunder and communications regarding interpretation of the terms of the Contract or changes thereto shall be provided by the mailing thereof by registered or certified mail, return receipt requested, postage prepaid and addressed as follows:

CONTRACTOR:

SUPERIOR TANK SOLUTIONS, INC.
[***INSERT CONTRACTOR ADDRESS***]
ATTN: [***INSERT CONTRACTOR REP. NAME AND TITLE***]

CITY:

BORREGO WATER DISTRICT
806 PALM CANYON DRIVE
BORREGO SPRINGS, CA 92004
ATTN: [***INSERT NAME AND TITLE***]

Any notice so given shall be considered received by the other Party three (3) days after deposit in the U.S. Mail as stated above and addressed to the Party at the above address. Actual notice shall be deemed adequate notice on the date actual notice occurred, regardless of the method of

service.

3.20.6 Time of Essence. Time is of the essence in the performance of this Contract.

3.20.7 Assignment Forbidden. Contractor shall not, either voluntarily or by action of law, assign or transfer this Contract or any obligation, right, title or interest assumed by Contractor herein without the prior written consent of District. If Contractor attempts an assignment or transfer of this Contract or any obligation, right, title or interest herein, District may, at its option, terminate and revoke the Contract and shall thereupon be relieved from any and all obligations to Contractor or its assignee or transferee.

3.20.8 No Third Party Beneficiaries. There are no intended third party beneficiaries of any right or obligation assumed by the Parties.

3.20.9 Laws; Venue. This Contract shall be interpreted in accordance with the laws of the State of California. If any action is brought to interpret or enforce any term of this Contract, the action shall be brought in a state or federal court situated in the County of San Diego, State of California.

3.20.10 Attorneys' Fees. If either Party commences an action against the other party, either legal, administrative or otherwise, arising out of or in connection with this Agreement, the prevailing party in such litigation shall be entitled to have and recover from the losing party reasonable attorneys' fees and all other costs of such action.

3.20.11 Counterparts. This Contract may be executed in counterparts, each of which shall constitute an original.

3.20.12 Successors. The Parties do for themselves, their heirs, executors, administrators, successors, and assigns agree to the full performance of all of the provisions contained in this Contract.

3.20.13 Solicitation. Contractor maintains and warrants that it has not employed nor retained any company or person, other than a bona fide employee working solely for Contractor, to solicit or secure this Contract. Further, Contractor warrants that it has not paid nor has it agreed to pay any company or person, other than a bona fide employee working solely for Contractor, any fee, commission, percentage, brokerage fee, gift or other consideration contingent upon or resulting from the award or making of this Contract. For breach or violation of this warranty, District shall have the right to terminate this Contract without liability.

3.20.14 Conflict of Interest. Contractor maintains and warrants that it has not employed nor retained any company or person, other than a bona fide employee working solely for Contractor, to solicit or secure this Contract. Further, Contractor warrants that it has not paid nor has it agreed to pay any company or person, other than a bona fide employee working solely for Contractor, any fee, commission, percentage, brokerage fee, gift or other consideration contingent upon or resulting from the award or making of this Contract. For breach or violation of this warranty, District shall have the right to rescind this Contract without liability. For the term of this Contract, no director, official, officer or employee of District, during the term of his or her service with District, shall have any direct interest in this Contract, or obtain any present or anticipated material benefit arising therefrom. In addition, Contractor agrees to file, or to cause

its employees or subcontractors to file, a Statement of Economic Interest with the District's Filing Officer as required under state law in the performance of the Work.

3.20.15 Certification of License.

3.20.15.1 Contractor certifies that as of the date of execution of this Contract, Contractor has a current contractor's license of the classification indicated below under Contractor's signature.

3.20.15.2 Contractors are required by law to be licensed and regulated by the Contractors' State License Board which has jurisdiction to investigate complaints against contractors if a complaint regarding a patent act or omission is filed within four (4) years of the date of the alleged violation. A complaint regarding a latent act or omission pertaining to structural defects must be filed within ten (10) years of the date of the alleged violation. Any questions concerning a contractor may be referred to the Registrar, Contractors' State License Board, P.O. Box 26000, Sacramento, California 95826.

3.20.16 Authority to Enter Contract. Each Party warrants that the individuals who have signed this Contract have the legal power, right and authority to make this Contract and bind each respective Party.

3.20.17 Entire Contract; Modification. This Contract contains the entire agreement of the Parties with respect to the subject matter hereof, and supersedes all prior negotiations, understandings or agreements. This Contract may only be modified by a writing signed by both Parties.

3.20.18 Non-Waiver. None of the provisions of this Contract shall be considered waived by either party, unless such waiver is specifically specified in writing.

3.20.19 District's Right to Employ Other Contractors. District reserves right to employ other contractors in connection with this Project or other projects.

[Signatures on Next Page]

SIGNATURE PAGE FOR CONSTRUCTION CONTRACT
BETWEEN BORREGO WATER DISTRICT
AND SUPERIOR TANK SOLUTIONS, INC.

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement as of the date first written above.

BORREGO WATER DISTRICT

Approved:

By: _____
[INSERT NAME]
[INSERT TITLE]

ATTESTED:

By: _____
Board Clerk

APPROVED AS TO FORM:

_____
Best Best & Krieger LLP
General Counsel

SUPERIOR TANK SOLUTIONS, INC.

[If Corporation, TWO SIGNATURES, President OR Vice President AND Secretary OR Treasurer REQUIRED]

By: _____

Its: _____

Printed Name: _____

By: _____

Its: _____

Printed Name: _____

_____
Contractor's License Number and Classification

_____
DIR Registration Number

EXHIBIT "A"

SCOPE OF WORK

[INSERT SCOPE]

EXHIBIT "B"

SPECIAL CONDITIONS

ARTICLE 1. BONDS

Concurrently with this Contract, the Contractor shall deliver to the District four identical counterparts of the Performance Bond and Payment Bond on the forms supplied by the District and included as Exhibit "F" to the Contract. The surety supplying the bond must be an admitted surety insurer, as defined in Code of Civil Procedure Section 995.120, authorized to do business as such in the State of California and satisfactory to the District. The Performance Bond and the Payment Bond shall be for one hundred percent (100%) of the Total Contract Price.

EXHIBIT "C"

CERTIFICATION
LABOR CODE - SECTION 1861

I, the undersigned Contractor, am aware of the provisions of Section 3700, et seq., of the California Labor Code which require every employer to be insured against liability for Worker's Compensation or to undertake self-insurance in accordance with the provisions of the Code, and I, the undersigned Contractor, agree to and will comply with such provisions before commencing the performance of the Work on this Contract.

SUPERIOR TANK SOLUTIONS, INC.

By: _____
Signature

_____
Name (Print)

_____
Title (Print)

EXHIBIT "D"

PUBLIC WORKS CONTRACTOR REGISTRATION CERTIFICATION

Pursuant to Labor Code sections 1725.5 and 1771.1, all contractors and subcontractors that wish to bid on, be listed in a bid proposal, or enter into a contract to perform public work must be registered with the Department of Industrial Relations. See http://www.dir.ca.gov/Public-Works/PublicWorks.html for additional information.

No bid will be accepted nor any contract entered into without proof of the contractor's and subcontractors' current registration with the Department of Industrial Relations to perform public work.

Contractor hereby certifies that it is aware of the registration requirements set forth in Labor Code sections 1725.5 and 1771.1 and is currently registered as a contractor with the Department of Industrial Relations.[1]

Name of Contractor:_____

DIR Registration Number:_____

DIR Registration Expiration:_____

Small Project Exemption: _____ Yes or _____ No

Unless Contractor is exempt pursuant to the small project exemption, Contractor further acknowledges:

1. Contractor shall maintain a current DIR registration for the duration of the project.

2. Contractor shall include the requirements of Labor Code sections 1725.5 and 1771.1 in its contract with subcontractors and ensure that all subcontractors are registered at the time of bid opening and maintain registration status for the duration of the project.

3. Failure to submit this form or comply with any of the above requirements may result in a finding that the bid is non-responsive.

Name of Contractor:_____

Signature:_____

Name and Title:_____

Dated:_____

[1] If the Project is exempt from the contractor registration requirements pursuant to the small project exemption under Labor Code Sections 1725.5 and 1771.1, please mark "Yes" in response to "Small Project Exemption."

EXHIBIT "E"

PAYMENT AND PERFORMANCE BONDS

PERFORMANCE BOND

KNOW ALL PERSONS BY THESE PRESENTS:

THAT WHEREAS, the Borrego Water District (hereinafter referred to as "District") has awarded to _____, (hereinafter referred to as the "Contractor") _____ an agreement for _____ (hereinafter referred to as the "Project").

WHEREAS, the work to be performed by the Contractor is more particularly set forth in the Contract Documents for the Project dated _____, (hereinafter referred to as "Contract Documents"), the terms and conditions of which are expressly incorporated herein by reference; and

WHEREAS, the Contractor is required by said Contract Documents to perform the terms thereof and to furnish a bond for the faithful performance of said Contract Documents.

NOW, THEREFORE, we, _____, the undersigned Contractor and _____ as Surety, a corporation organized and duly authorized to transact business under the laws of the State of California, are held and firmly bound unto the District in the sum of _____ DOLLARS, ($_____), said sum being not less than one hundred percent (100%) of the total amount of the Contract, for which amount well and truly to be made, we bind ourselves, our heirs, executors and administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that, if the Contractor, his or its heirs, executors, administrators, successors or assigns, shall in all things stand to and abide by, and well and truly keep and perform the covenants, conditions and agreements in the Contract Documents and any alteration thereof made as therein provided, on its part, to be kept and performed at the time and in the manner therein specified, and in all respects according to their intent and meaning; and shall faithfully fulfill all obligations including the one-year guarantee of all materials and workmanship; and shall indemnify and save harmless the District, its officers and agents, as stipulated in said Contract Documents, then this obligation shall become null and void; otherwise it shall be and remain in full force and effect.

As a condition precedent to the satisfactory completion of the Contract Documents, unless otherwise provided for in the Contract Documents, the above obligation shall hold good for a period of one (1) year after the acceptance of the work by District, during which time if Contractor shall fail to make full, complete, and satisfactory repair and replacements and totally protect the District from loss or damage resulting from or caused by defective materials or faulty workmanship, Surety shall undertake and faithfully fulfill all such obligations. The obligations of Surety hereunder shall continue so long as any obligation of Contractor remains. Nothing herein shall limit the District's rights or the Contractor or Surety's obligations under the Contract, law or equity, including, but not limited to, California Code of Civil Procedure section 337.15.

Whenever Contractor shall be, and is declared by the District to be, in default under the Contract Documents, the Surety shall remedy the default pursuant to the Contract Documents, or shall promptly, at the District's option:

(1) Take over and complete the Project in accordance with all terms and conditions in the Contract Documents; or

(2) Obtain a bid or bids for completing the Project in accordance with all terms and conditions in the Contract Documents and upon determination by Surety of the lowest responsive and responsible bidder, arrange for a Contract between such bidder, the Surety and the District, and make available as work progresses sufficient funds to pay the cost of completion of the Project, less the balance of the contract price, including other costs and damages for which Surety may be liable. The term "balance of the contract price" as used in this paragraph shall mean the total amount payable to Contractor by the District under the Contract and any modification thereto, less any amount previously paid by the District to the Contractor and any other set offs pursuant to the Contract Documents.

(3) Permit the District to complete the Project in any manner consistent with local, California and federal law and make available as work progresses sufficient funds to pay the cost of completion of the Project, less the balance of the contract price, including other costs and damages for which Surety may be liable. The term "balance of the contract price" as used in this paragraph shall mean the total amount payable to Contractor by the District under the Contract and any modification thereto, less any amount previously paid by the District to the Contractor and any other set offs pursuant to the Contract Documents.

Surety expressly agrees that the District may reject any contractor or subcontractor which may be proposed by Surety in fulfillment of its obligations in the event of default by the Contractor.

Surety shall not utilize Contractor in completing the Project nor shall Surety accept a bid from Contractor for completion of the Project if the District, when declaring the Contractor in default, notifies Surety of the District's objection to Contractor's further participation in the completion of the Project.

The Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract Documents or to the Project to be performed thereunder shall in any way affect its obligations on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract Documents or to the Project, including but not limited to the provisions of sections 2819 and 2845 of the California Civil Code.

IN WITNESS WHEREOF, we have hereunto set our hands and seals this _____ day of _____, 20__).

(Corporate Seal)

_____
Contractor/ Principal

By_____

Title_____

(Corporate Seal)

_____
Surety

By_____
Attorney-in-Fact

Signatures of those signing for the Contractor and Surety must be notarized and evidence of corporate authority attached.

(Attach Attorney-in-Fact Certificate) Title_____

The rate of premium on this bond is _____ per thousand. The total amount of premium charges, $_____.

(The above must be filled in by corporate attorney.)

THIS IS A REQUIRED FORM

Any claims under this bond may be addressed to:

(Name and Address of Surety) _____

_____

_____

(Name and Address of Agent or Representative for service of process in California, if different from above) _____

_____

_____

(Telephone number of Surety and Agent or Representative for service of process in California) _____

_____

NOTE: A copy of the Power-of-Attorney authorizing the person signing on behalf of the Surety to do so must be attached hereto.

Notary Acknowledgment

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA
COUNTY OF _____
On _____, 20___, before me, _____, Notary Public, personally

appeared _____, who proved to me on the basis of satisfactory

evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature of Notary Public _____

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document

and could prevent fraudulent removal and reattachment of this form to another document.

CAPACITY CLAIMED BY SIGNER

☐ Individual
☐ Corporate Officer

_____
Title(s)

☐ Partner(s) ☐ Limited ☐ General
☐ Attorney-In-Fact
☐ Trustee(s)
☐ Guardian/Conservator
☐ Other:

Signer is representing:
Name Of Person(s) Or Entity(ies)

_____
_____

DESCRIPTION OF ATTACHED DOCUMENT

_____
Title or Type of Document

_____
Number of Pages

_____
Date of Document

_____
Signer(s) Other Than Named Above

PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS That

WHEREAS, the Borrego Water District (hereinafter designated as the "District"), by action taken or a resolution passed_____, 20____has awarded to _____ hereinafter designated as the "Principal," a contract for the work described as follows:

_____ (the "Project"); and

WHEREAS, the work to be performed by the Principal is more particularly set forth in the Contract Documents for the Project dated _____ ("Contract Documents"), the terms and conditions of which are expressly incorporated by reference; and

WHEREAS, said Principal is required to furnish a bond in connection with said contract; providing that if said Principal or any of its Subcontractors shall fail to pay for any materials, provisions, provender, equipment, or other supplies used in, upon, for or about the performance of the work contracted to be done, or for any work or labor done thereon of any kind, or for amounts due under the Unemployment Insurance Code or for any amounts required to be deducted, withheld, and paid over to the Employment Development Department from the wages of employees of said Principal and its Subcontractors with respect to such work or labor the Surety on this bond will pay for the same to the extent hereinafter set forth.

NOW THEREFORE, we, the Principal and _____ as Surety, are held and firmly bound unto the District in the penal sum of _____ _____ Dollars ($_____) lawful money of the United States of America, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH that if said Principal, his or its subcontractors, heirs, executors, administrators, successors or assigns, shall fail to pay any of the persons named in Section 9100 of the Civil Code, fail to pay for any materials, provisions or other supplies, used in, upon, for or about the performance of the work contracted to be done, or for any work or labor thereon of any kind, or amounts due under the Unemployment Insurance Code with respect to work or labor performed under the contract, or for any amounts required to be deducted, withheld, and paid over to the Employment Development Department or Franchise Tax Board from the wages of employees of the contractor and his subcontractors pursuant to Section 18663 of the Revenue and Taxation Code, with respect to such work and labor the Surety or Sureties will pay for the same, in an amount not exceeding the sum herein above specified, and also, in case suit is brought upon this bond, all litigation expenses incurred by District in such suit, including reasonable attorneys' fees, court costs, expert witness fees and investigation expenses.

This bond shall inure to the benefit of any of the persons named in Section 9100 of the Civil Code so as to give a right of action to such persons or their assigns in any suit brought upon this bond.

It is further stipulated and agreed that the Surety on this bond shall not be exonerated or released from the obligation of this bond by any change, extension of time for performance, addition, alteration or modification in, to, or of any contract, plans, specifications, or agreement pertaining or relating to any scheme or work of improvement herein above described, or pertaining

or relating to the furnishing of labor, materials, or equipment therefore, nor by any change or modification of any terms of payment or extension of the time for any payment pertaining or relating to any scheme or work of improvement herein above described, nor by any rescission or attempted rescission of the contract, agreement or bond, nor by any conditions precedent or subsequent in the bond attempting to limit the right of recovery of claimants otherwise entitled to recover under any such contract or agreement or under the bond, nor by any fraud practiced by any person other than the claimant seeking to recover on the bond and that this bond be construed most strongly against the Surety and in favor of all persons for whose benefit such bond is given, and under no circumstances shall Surety be released from liability to those for whose benefit such bond has been given, by reason of any breach of contract between the owner or District and original contractor or on the part of any obligee named in such bond, but the sole conditions of recovery shall be that claimant is a person described in Section 9100 of the Civil Code, and has not been paid the full amount of his claim and that Surety does hereby waive notice of any such change, extension of time, addition, alteration or modification herein mentioned and the provisions of sections 2819 and 2845 of the California Civil Code.

IN WITNESS WHEREOF, we have hereunto set our hands and seals this _____ day of _____, 20__.

(Corporate Seal)_____

Contractor/ Principal

By_____

Title_____

_____

(Corporate Seal) Surety

By_____

Attorney-in-Fact

Title_____

Signatures of those signing for the Contractor and Surety must be notarized and evidence of corporate authority attached. A Power-of-Attorney authorizing the person signing on behalf of the Surety to do so much be attached hereto.

NOTE: A copy of the Power-of-Attorney authorizing the person signing on behalf of the Surety to do so must be attached hereto.

Notary Acknowledgment

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA
COUNTY OF _____
On _____, 20___, before me, _____, Notary Public, personally

appeared _____, who proved to me on the basis of satisfactory

evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature of Notary Public _____

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document

and could prevent fraudulent removal and reattachment of this form to another document.

CAPACITY CLAIMED BY SIGNER

☐ Individual
☐ Corporate Officer

_____
Title(s)

☐ Partner(s) ☐ Limited ☐ General
☐ Attorney-In-Fact
☐ Trustee(s)
☐ Guardian/Conservator
☐ Other:

Signer is representing:
Name Of Person(s) Or Entity(ies)

_____

_____

DESCRIPTION OF ATTACHED DOCUMENT

_____
Title or Type of Document

_____
Number of Pages

_____
Date of Document

_____
Signer(s) Other Than Named Above

EXHIBIT "F"

Fleet Compliance Certification

Contractor hereby acknowledges that they have reviewed the California Air Resources Board's policies, rules and regulations and are familiar with the requirements of Title 13, California Code of Regulations, Division 3, Chapter 9, effective on January 1, 2024 (the "Regulation"). Contractor hereby certifies, subject to penalty for perjury, that the option checked below relating to the Contractor's fleet, and/or that of their subcontractor(s) ("Fleet") is true and correct:

- ☐ The Fleet is subject to the requirements of the Regulation, and the appropriate Certificate(s) of Reported Compliance have been attached hereto.

- ☐ The Fleet is exempt from the Regulation under section 2449.1(f)(2), and a signed description of the subject vehicles, and reasoning for exemption has been attached hereto.

- ☐ Contractor and/or their subcontractor is unable to procure R99 or R100 renewable diesel fuel as defined in the Regulation pursuant to section 2449.1(f)(3). Contractor shall keep detailed records describing the normal refueling methods, their attempts to procure renewable diesel fuel and proof that shows they were not able to procure renewable diesel (i.e. third party correspondence or vendor bids).

- ☐ The Fleet is exempt from the requirements of the Regulation pursuant to section 2449(i)(4) because this Project has been deemed an Emergency, as defined under section 2449(c)(18). Contractor shall only operate the exempted vehicles in the emergency situation and records of the exempted vehicles must be maintained, pursuant to section 2449(i)(4).

- ☐ The Fleet does not fall under the Regulation or are otherwise exempted and a detailed reasoning is attached hereto.

Name of Contractor :_____

Signature: _____

Name: _____

Title: _____

Date: _____

BORREGO WATER DISTRICT
BOARD OF DIRECTORS MEETING
OTOBER 14, 2025
AGENDA ITEM II.E

October 8, 2025

TO: Board of Directors

FROM: Geoffrey Poole, General Manager

SUBJECT: Status Report on Rams Hill Water Related Planning Activities and Planned Next Steps – G Poole

RECOMMENDED ACTION:
Receive status report on Rams Hill water related planning activities.

ITEM EXPLANATION: During BWDs "summer vacation" there has been quite a bit of activity at the Watermaster that could directly impact how irrigation water is provided to Rams Hill in the future. BWD WM Reps, Staff and Consultants have been closely monitoring this situation, which is outlined below. There is no BWD Board action needed at this time.

UPDATE: As required by DWR, the WM has been working on the development of long range projections to look at Basin conditions thru 2070. During this process, it was discovered that the BVHM predicts declining GW elevations in the So CMA at BWD Well #12 thru 2070. In an effort to address this Undesirable Result, the WM proposed generating additional model runs that increase pumping out of the Basins Northern Management Area (NMA) and decrease it from the CMA and SMA, which should have a beneficial impact on So CMA wells elevations over time.

In the WM model run currently under development, NMA pumping will be increased to 1,720 afy, including shifting 400 afy of existing RH SMA pumping and the remainder from the CMA. When the current model run is complete, the WM will then have the info needed to determine if the GW elevations in the So CMA are predicted to stabilize/flatten in the future, or not.

If the answer is NO the So CMA elevations do not stabilize, additional NMA model runs and/or other alternatives would need to be considered by RH. If the answer is yes the So CMA elevations do stabilize, the next logical step would be to determine if BWD existing water pipelines can transport 1,720 afy. A draft Proposal is under development by Intera to perform the work that would be required to check the existing BWD hydraulic modeling software, update the BWD distribution system files to reflect changes/additions to the BWD system over the past 6 years (last time the model was updated) and identify any bottlenecks that would need to be fixed to eliminate any major flow restrictions that are discovered.

NEXT STEPS
1. If the results of the WM 1,720 afy NMA pumping show stabilization of So CMA GW elevations, Staff will present the Intera Hydraulic Analysis Proposal to the Board and the work could commence in November 2025.
2. Increased Potable Water Sales Revenues: BWD Staff is also in the process of quantifying the potential future residential/potable water sales revenues and will share the results in November. At build out, RH residential demands are projected to be over 1,200 afy which is close to total BWD residential consumption today. A doubling of revenues could have a positive impact in a number of ways including faster replenishment of reserve funds, increase in Operations /Maintenance Staff and or reduced future rate increases.

FISCAL IMPACT
1. All BWD planning related activities in this area will be funded by RH/T2.

ATTACHMENTS
1. None

BORREGO WATER DISTRICT
BOARD OF DIRECTORS MEETING
OTOBER 14, 2025
AGENDA ITEM II.F

October 8, 2025

TO: Board of Directors

FROM: Geoffrey Poole, General Manager

SUBJECT: Request to Purchase 8 af of BWD Carry Over by Susan Carpenter

RECOMMENDED ACTION:
Discuss price setting calculation and conditionally approve 8 af C/O transfer, pending further clarification of WM Board policy in planned upcoming discussions/deliberations and a "green light" from WM Staff.

ITEM EXPLANATION:
Susan Carpenter, has requested the purchase of 8 acre feet of BWD carry over. BWD reaches the maximum carry over amount in the future, so there will be carry over not purchased by BWD in the future. Therefore, the sale of 8 af to Susan will have not impact since BWD will be able to purchase the 8 af next year to replace it. Part of the Basin transfer process currently includes notification to the BS Basin Watermaster of any pending request. In anticipation, I sent an email to the Sam and received the response below.

From: *Samantha Adams sadams@westyost.com* ***Sent:*** *08 October 2025 11:05* ***To:*** *geoff borregowd.org <geoff@borregowd.org>*
hi Geoff. Transfers will be a topic of discussion at the meeting next week given that modeling work has identified the importance of the balance of recharge and discharge. I don't know what will be approvable until we have Board direction. We are trying to work on a temporary solution that would allow Carryover transfers where the transferor is located to the SOUTH of the transferee. I'll keep you updated.

From: *geoff borregowd.org geoff@borregowd.org* ***Sent:*** *08 October 2025 11:19* ***To:*** *Samantha Adams <sadams@westyost.com>*
HOLA!! Okey Dokey
Please note it is Carpenter who is asking and hopefully she can avoid any fees/penalties while we are in the holding pattern.
Seems like the volume and nature of the transfer should also be a factor considered by the WM. In this case, 8 af of CARRY OVER water should not have any identifiable impact on Basin hydraulics. *G*

Based on Sam's response, the subject transfer will need to wait until the WM Board considers its water transfer policy at an upcoming meeting.

On the topic of price, Jessica has calculated the total GW Management costs for BWD to be $220,000 that is spread over 1,500 afy of BWD pumping = $146/af. Staff is requesting a Board discussion/direction on the Proposed price and conditional approval at this time

NEXT STEPS
1. Wait for WM decision re: Water Transfers and OK to proceed from WM staff
2. Receive payment from Susan
3. Notify Watermaster of the C/O Transfer Request

FISCAL IMPACT
2. Staff has calculated the BWD cost as follows: All budgeted Groundwater Management in the current years budget, including pumping fees = $219,498/1,500 AF = $146/AF * 8 af = $1,168

ATTACHMENTS
1. None

BORREGO WATER DISTRICT
BOARD OF DIRECTORS MEETING
OTOBER 14, 2025
AGENDA ITEM II.G

October 8, 2025

TO: Board of Directors

FROM: Geoffrey Poole, General Manager

SUBJECT: Borrego Springs Subbasin Watermaster Board

1. Update on Board Activities – G Moran/K Dice
2. Discuss Agenda Items from Upcoming Meeting – G Moran
3. Update on Technical Advisory Committee Activities – T Driscoll
   i. Technical Comments on UC GDE Study – T Driscoll
   ii. Ranking of WM GDE Consultants - T Driscoll
   iii. Water Quality Sustainability Management Criteria – T Driscoll/S Anderson

RECOMMENDED ACTION:
Discuss upcoming Watermaster related activities and items from next Board and or TAC Agendas. Direct the Representatives, staff and/or Consultants as needed.

ITEM EXPLANATION:
BWD Representatives from the Watermaster and TAC will provide a verbal review of recent and upcoming events.

i. Technical Comments on UC GDE Study – T Driscoll

In preparation for the planned TAC review of the UC GDE Study, Trey has reviewed the document and prepared his comments, which will be presented at the Meeting.

ii. Ranking of WM GDE Consultants - T Driscoll

Trey has ranked the GDE Review

Consultants: UCR, Rhodes, USGS and NAU.

He will share his thoughts leading to those rankings at the BWD Meeting. Trey has informed Andy that these are his recommendations and subject to change after BWD Board discussion on 10-14.

iii. Water Quality Sustainability Management Criteria – T Driscoll/S Anderson

In preparation for the planned TAC review of the SMC criteria, Trey will be recommending that Title 22 or its equivalent, be the standard for WQ and a setting a BWD well specific minimum elevation taking into consideration the precise location of the impeller. Trey will be available to provide additional information and answer any questions.

In a related item, Steve will be available to clarify BWDs position on WM responsibility if BWD WQ or minimum elevations were to be threatened. Although the WM is not technically on the hook to fix the problem = damages, it is responsible for any management actions it takes and impacts to the Basin. Instead of suing the WM for damages, the BWD response would be to inform the WM of how their actions are impacting BWD and that corrective measures are needed. If the WM response is not appropriate in the eyes of BWD, we would then take the issue to our Judge.

NEXT STEPS
1. TBD

FISCAL IMPACT
1. TBD

ATTACHMENTS
1. UC GDE Comments from Trey

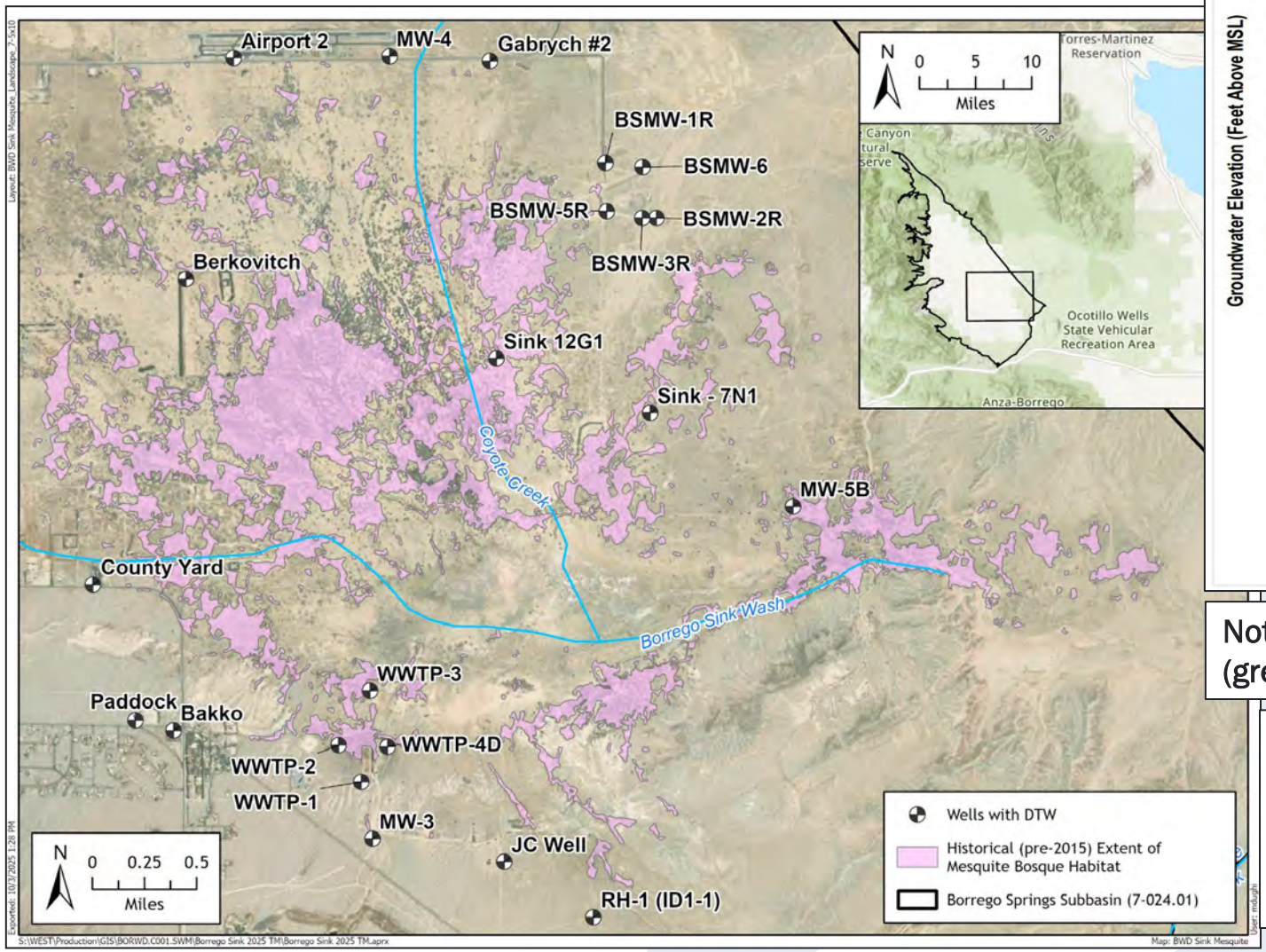
Borrego Sink Groundwater Levels – Working Draft

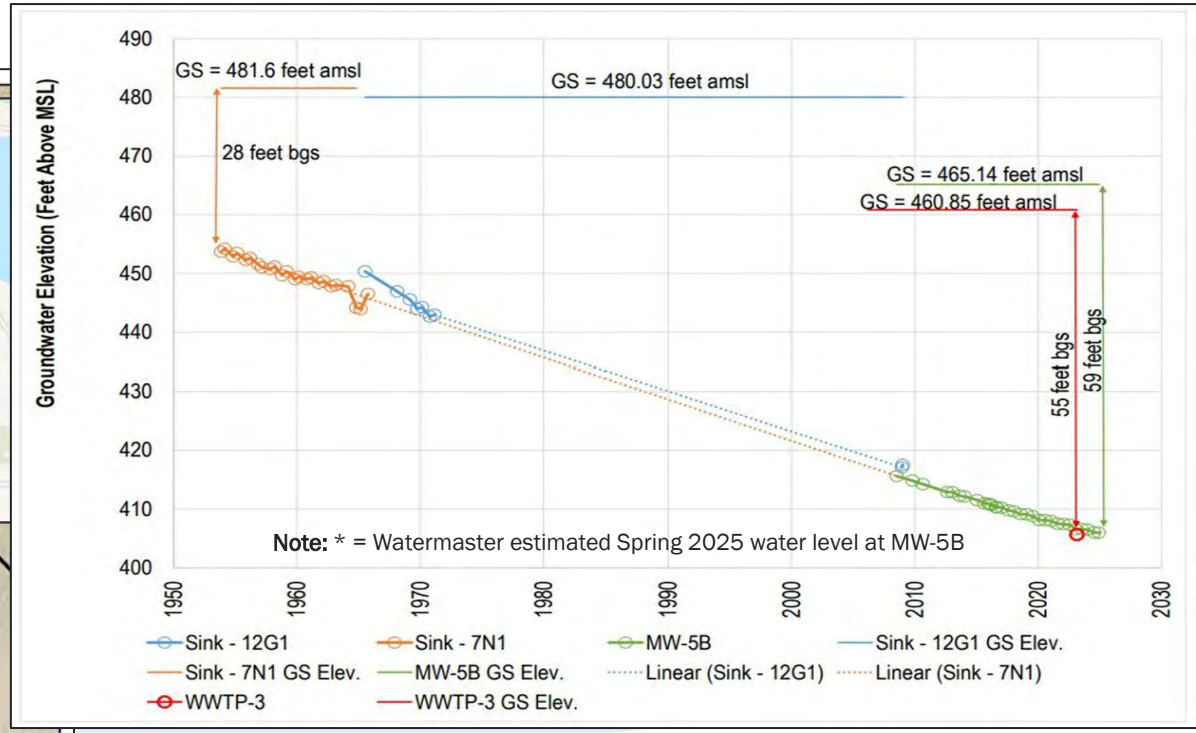
Presented to: Borrego Water District

October 14, 2025

INTERA

Best Available Groundwater Level Data – Borrego Sink





Note overlap in groundwater level for Sink – 12G1 (blue) and MW-5B (green)

From Spring 2018 to Spring 2025 the groundwater level at MW-5B has declined an additional 4.2 feet to 59.16 feet bgs*. Decline is now approx. 46.8 feet in the Borrego Sink over last 71 years.

INTERA

Measured Groundwater Level Data in Vicinity of Borrego Sink and Mesquite Bosque

- Measured Depth to Water in Vicinity of Borrego Sink Ranges from 26.4 ft bgs to 148.1 ft bgs.
- The depth to groundwater at WWTP Wells 1-4 is influenced by recharge at Rams Hill WWTF percolation ponds.

Table 1 –Groundwater Depth and Elevation in the Vicinity of the Borrego Sink and Mesquite Bosque

Well	Latitude	Longitude	GS Elev. (feet amsl)	Date	DTW (feet bgs)	GW Elev. (feet amsl)	Well Screen (feet bgs)
Bakko	33.210901	-116.330845	530.84	5/18/2021	77.10	454.05	134*
Bing Cosby	33.199489	-116.267939	570.47	3/19/2025	78.36	492.11	NA
BSMW-1R	33.2502340	-116.2950935	539.19	6/20/2024	124.42	414.02	115-155
BSMW-2R	33.2464501	-116.2908171	533.51	6/20/2024	113.51	419.27	113-153
BSMW-3R	33.2464501	-116.2920140	533.74	6/20/2024	113.61	419.03	117-157
BSMW-5R	33.2469030	-116.2949623	524.06	6/20/2024	108.58	415.42	90-120
BSMW-6	33.2499754	-116.2919914	540.31	6/20/2024	118.73	418.27	100-130
Elementary School	33.2564273	-116.347511	540.02	5/4/2020	137.96	402.06	NA
JC Well	33.201936	-116.303268	503.00	3/19/2025	53.66	449.34	230-315
MW-3	33.203481	-116.314252	521.80	3/17/2025	77.23	445.42	175-325
MW-4	33.25756	-116.313107	516.86	3/18/2025	113.97	403.78	85-390
MW-5A	33.226556	-116.279352	466.45	3/17/2025	59.23	407.22	200-340
MW-5B	33.226556	-116.279351	465.14	3/17/2025	59.16	405.98	45-155
Airport 2	33.257385	-116.326102	516.17	4/4/2023	114.47	402.44	60-400
County Yard	33.220964	-116.337612	508.85	3/17/2025	108.44	400.59	280*
Paddock	33.21159	-116.33403	536.47	3/19/2025	87.04	449.43	185-430
RH-1 (ID1-1)	33.19812	-116.29585	526.32	3/20/2025	59.41	466.91	180-230 240-456 465-580
Abandoned Motel-1	33.23060	-116.34720	524.24	3/11/2009	124.16	400.08	312*
Berkovitch	33.242102	-116.329989	502.23	3/18/2009	83.47	418.76	NA
Sink 7N1	33.23298	-116.291279	481.6	3/19/1965	38.58	443.02	>39*
Sink 12G1	33.23670	-116.30410	480.03	3/26/2009	62.94	414.73	>63*
ID1-12	33.22603	-116.34832	532.65	3/20/2025	148.05	384.60	248-568
Gabrych #2	33.25725	-116.30475	519.42	10/31/2018	109.00	410.42	425*
WWTP-1	33.207405	-116.315176	497.83	3/18/2025	26.40	471.43	60-100
WWTP-2	33.209933	-116.317111	483.36	6/8/2023	29.36	454.00	115-140
WWTP-3	33.213711	-116.314500	460.85	6/8/2023	55.21	405.64	50-70
WWTP-4S**	33.209901	-116.313026	473.79	6/8/2023	18.5**	455.29**	15-25
WWTP-4D	33.209850	-116.313019	474.01	6/8/2023	32.08	441.93	35-50

Notes: AMSL = above mean sea level; bgs = below ground surface; DTW = depth to water; GS Elev. = ground surface elevation; GW Elev. = groundwater elevation; NA = not available

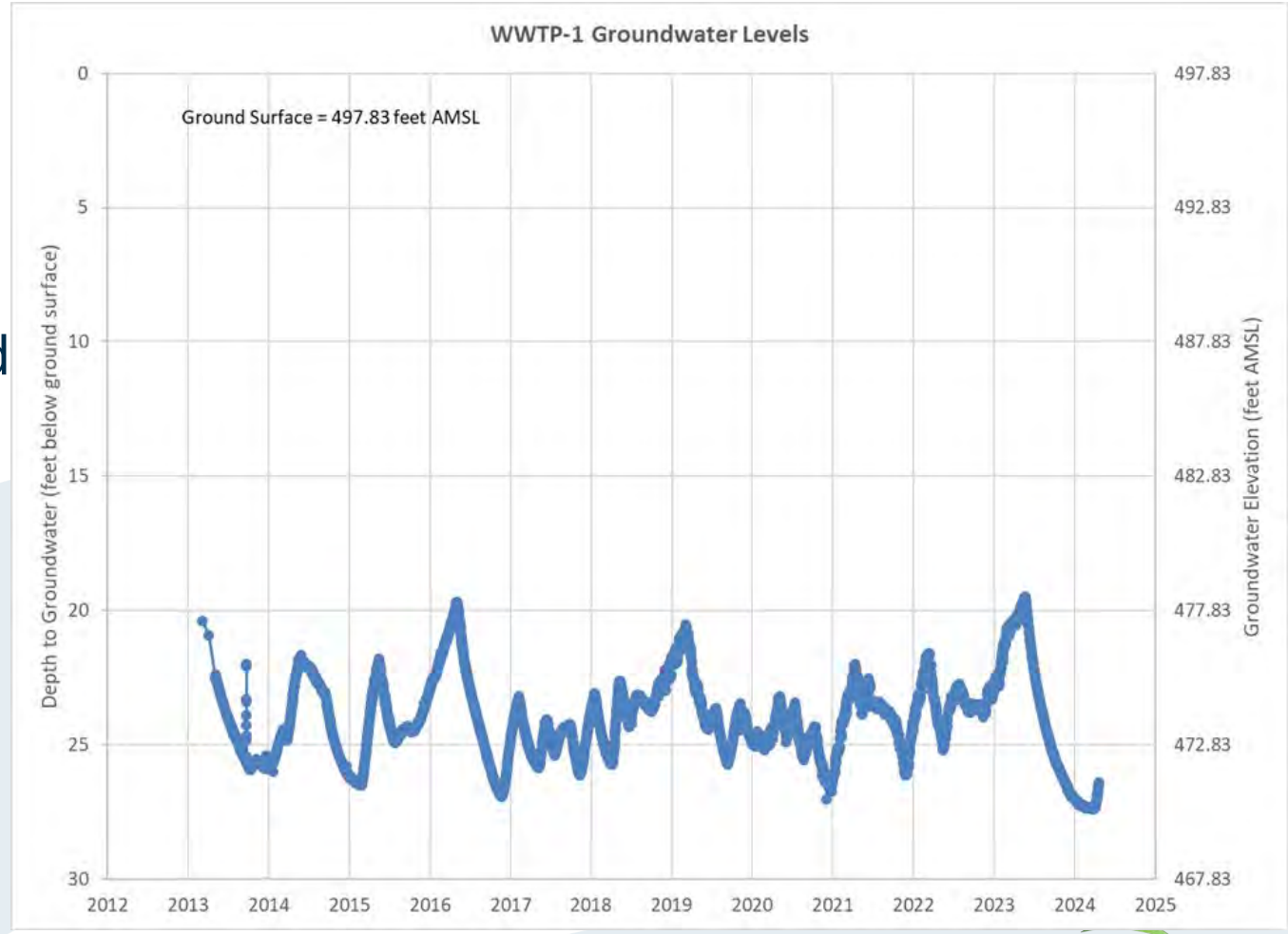
*Well depth. The screen interval is not reported.

**Groundwater was observed to be perched at WWTP-4S (Dudek 2023).

INTERA

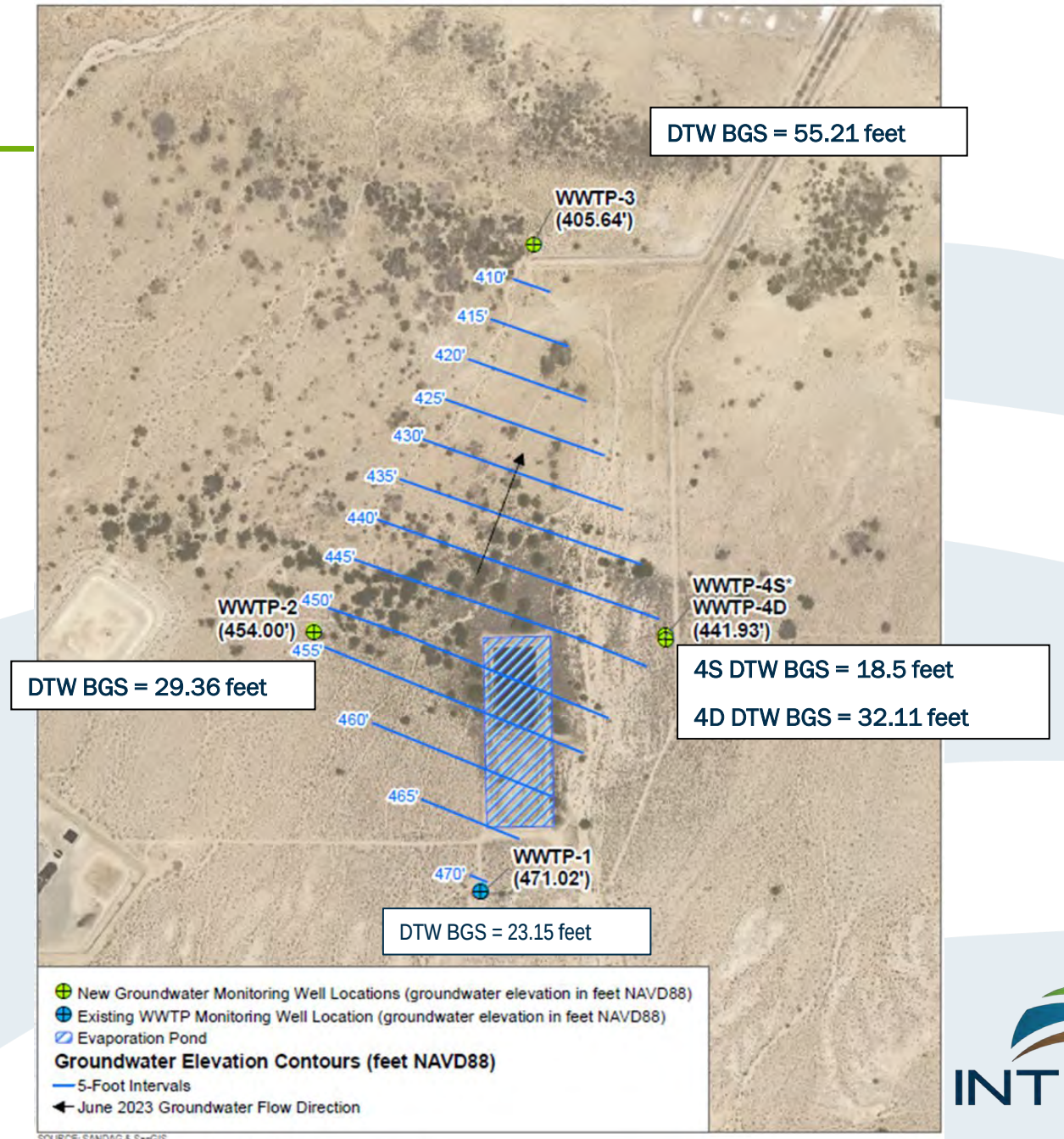
Variable Percolation From Rams Hill WWTP

- The shallowest groundwater level measured in the Basin occurs at the Rams Hill WWTP at monitoring well, WWTP-1 with a depth to groundwater of 26.40 feet measured on March 18, 2025
- Based on review of sub-daily groundwater level data (every 15 minutes) collected at WWTP-1 using a pressure transducer, the groundwater level measured at WWTP-1 is influenced by mounding of groundwater in the vicinity of the percolation ponds

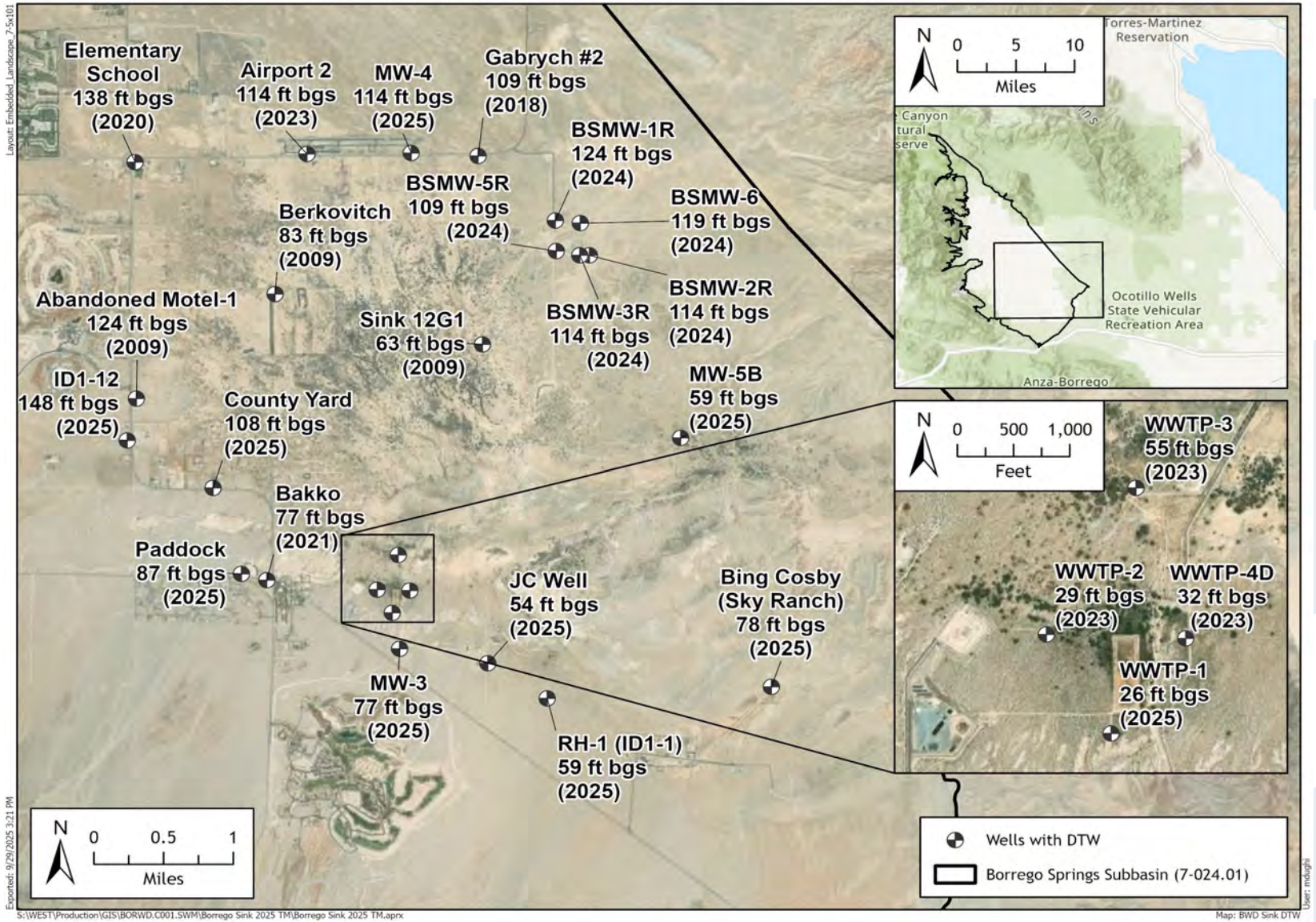


Percolation Pond Groundwater Levels

- Lens of perched groundwater identified at WWTP-4S
- Shallow groundwater levels (within 20 to 25 feet of ground surface appear to be isolated to immediate vicinity of percolation ponds based on WWTP-3.
- As indicated in UCI Report, shallow groundwater supports a health pocket of GDEs in vicinity of WWTP based on remotely sensed data.

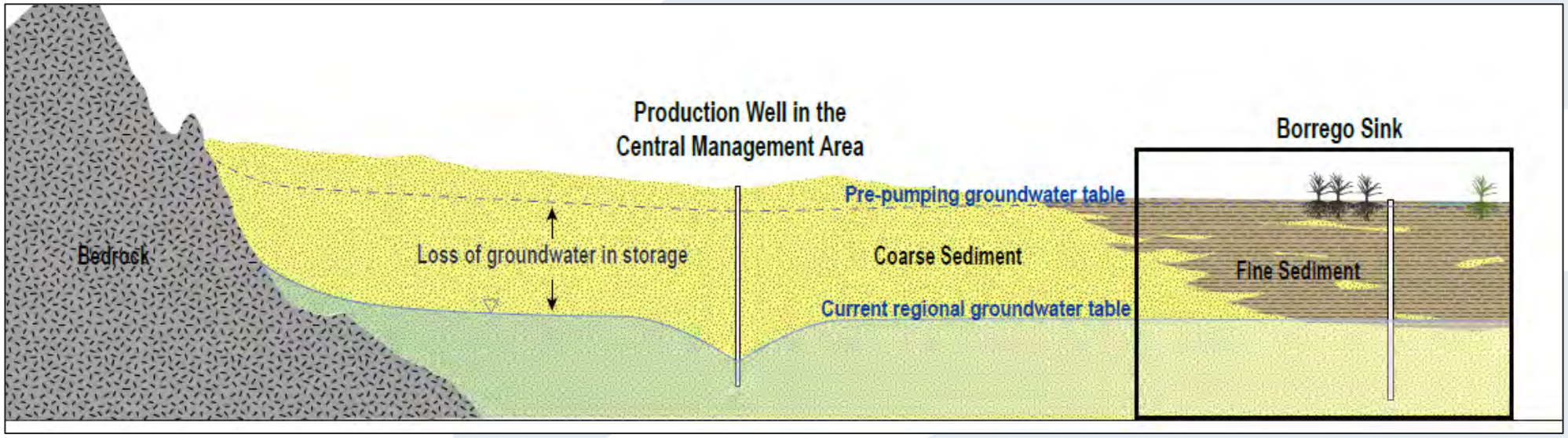


Groundwater Levels– Borrego Sink



Hydrogeological Conceptual Model

- As observed at WWTP-4S, localized lenses of perched groundwater may occur in the vicinity of the Borrego Sink and mesquite bosque as a result of infiltration of wastewater or floodwater.
- A very localized shallower depth to groundwater currently estimated at 26 to 32 ft bgs exists at the Rams Hill WWTP.
- The true depth to regional groundwater in the Borrego Sink Area predominantly ranges from 54 to 148 ft bgs and is continuing to decline.



Thank You

Trey Driscoll, PG, CHG
tdriscoll@intera.com

IVA

WATER &WASTE WATER OPERATIONS REPORT

BORREGO WATER DISTRICT

SEPTEMBER 2025

WASTEWATER OPERATIONS REPORT

There's no know problems with wastewater system at the moment:

Rams Hill Wastewater Treatment Facility serving ID-1, ID-2 and ID-5 Total Cap. 0.25 MGD (million gallons per day):

Average flow: 85633 (gallons per day)

Peak flow: 145000 gpd Thursday, September 18 - 2025

BORREGO WATER DISTRICT

RAMS HILL WASTEWATER TREATMENT FACILITY

4861 Borrego Springs Rd, BORREGO SPRINGS, CA 92004

(760) 767-5806 FAX (760) 767-5994

10/06/2025

CALIFORNIA REGIONAL WATER QUALITY
CONTROL BOARD – REGION 7
73-720 FRED WARING DR. SUITE 100
PALM DESERT, CA. 92260

Attn: Adrian Lopez/WRCE

RE: SEPTEMBER 2025 Borrego Springs WWTP

Dear Adrian,

Please find attached the SEPTEMBER 2025 monthly monitoring reports and Lab results for Borrego springs district WWTP.

We are pleased to inform you that there's no known violations for this month.

If you have any questions please contact ROGELIO MARTINEZ/WT-III. (760)419-2764.

Respectfully,

Rogelio Martinez/ water plant operator III

CC: Geoff Poole/GM

MONTHLY REPORT: R.H.W.T.F

MONTH: SEPTEMBER

YEAR: 2025

BORREGO WATER DISTRICT,

RAMS HILL WASTEWATER TREATMENT FACILITY,

4861 BORREGO SPRINGS ROAD,

BORREGO SPRINGS, CA 92004

760-767-5806; phone

760-767-5994; fax

COMMENTS: THERE ARE NO SPILLS TO REPORT FOR September 2025; THE FLOW REPORT IS ATTACHED.

Submitted by: ROGELIO MARTINEZ/BWD TO: GEOFF POOLE/BWD;

10/06/2025

SEP 2025	INFLUENT DAILY FLOW GAL.	TOTAL FLOW GAL.
1	83000 GAL	33744000 GAL
2	108000 GAL	33853000 GAL
3	82000 GAL	33935000 GAL
4	79000 GAL	34014000 GAL
5	78000 GAL	34092000 GAL
6	73000 GAL	34165000 GAL
7	77000 GAL	34242000 GAL
8	100000 GAL	34342000 GAL
9	72000 GAL	34414000 GAL
10	77000 GAL	34491000 GAL
11	79000 GAL	34570000 GAL
12	86000 GAL	34656000 GAL
13	89000 GAL	34745000 GAL
14	92000 GAL	34837000 GAL
15	91000 GAL	34928000 GAL
16	78000 GAL	35006000 GAL
17	80000 GAL	35086000 GAL
18	145000 GAL	35232000 GAL
19	93000 GAL	35325000 GAL
20	96000 GAL	35421000 GAL
21	89000 GAL	35510000 GAL
22	84000 GAL	35595000 GAL
23	76000 GAL	35671000 GAL
24	75000 GAL	35746000 GAL
25	78000 GAL	35824000 GAL
26	84000 GAL	35908000 GAL
27	87000 GAL	35995000 GAL
28	88000 GAL	36084000 GAL
29	76000 GAL	36160000 GAL
30	74000 GAL	36234000 GAL

P.H. / D.O. LOG ; R.H.W.T.F., BORREGO WATER DISTRICT **YEAR,2025**

September

DATE	LOCATION	P.H.	D.O	Alkalinity	Freeboard
9/3/2025	EFFLUENT	7.32	5.25mg/l	160ppm	
9/3/2025	POND	7.32	8.00mg/l	160ppm	3.5ft
9/17/2025	EFFLUENT	7.06	4.66mg/l	160ppm	
9/17/2025	POND	7.03	7.58mg/l	160ppm	3.5ft

Berm Condition: Good and no Odors around the pond

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BAIS REGION

WDID NO.: **7A 37 0125 001**
ORDER NO.: **R7-2007-0053**

MONITORING AND REPORTING
BORREGO WATER DISTRICT - RAMS HILL WWTF
MONTH: September
YEAR: 2025

REPORTING FREQUENCIES: **MONTHLY (Oct-March)**

September

TYPE OF SAMPLE:	INFLUENT			PONDS		
CONSTITUENTS:	Flow	BOD	TSS	PH	DO	Freeboard
FREQUENCY:	Daily	Monthly	Monthly	Twice Monthly	Twice Monthly	Twice Monthly
DESCRIPTION:	Measurement	Grab	Grab	Grab	Grab	Measurement
UNITS:	gpd	mg/L	mg/L	s.u	mg/l	ft
REQUIREMENTS						
30-DAY MEAN:						
MAXIMUM:						
MINIMUM:						
DATE OF SAMPLE	September					
1	83000					
2	108000					
3	82000	71	40	7.32	8.00	3.5
4	79000					
5	78000					
6	73000					
7	77000					
8	100000					
9	72000					
10	77000					
11	79000					
12	86000					
13	89000					
14	92000					
15	91000					
16	78000					
17	80000			7.03	7.58	3.5
18	145000					
19	93000					
20	96000					
21	89000					
22	84000					
23	76000					
24	75000					
25	78000					
26	84000					
27	87000					
28	88000					
29	76000					
30	74000					
31						
30-DAY MEAN	**85633**	**71**	**40**	**7.18**	**7.79**	**3.5**
MAXIMUM	**145000**	**71**	**40**	**7.32**	**8.00**	**3.5**
MINIMUM	**72000**	**71**	**40**	**7.03**	**7.58**	**3.5**

I declare under the penalty of law that I personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: Rogelio Mata
Date: 10/6/2025

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BAIS REGION

WDID NO.: **7A 37 0125 001**
ORDER NO.: **R7-2007-0053**

MONITORING AND REPORTING
BORREGO WATER DISTRICT - RAMS HILL WWTF
MONTH: September
YEAR: 2025

REPORTING FREQUENCY: **MONTHLY (Oct - March)**

September

TYPE OF SAMPLE:	EFFLUENT					
CONSTITUENTS:	BOD	TSS	SS	T. Nitrogen	TDS	pH
FREQUENCY:	Twice Monthly	Twice Monthly	Twice Monthly	Twice Monthly	Twice Monthly	Twice Monthly
DESCRIPTION:	Grab	Grab	Grab	Grab	Grab	Grab
UNITS:	mg/L	mg/L	ml/L		ml/L	
REQUIREMENTS						
30-DAY MEAN:						
MAXIMUM:	30mg/l	30mg/l	0.3ml/l		700mg/l	9.0
MINIMUM:						
DATE OF SAMPLE						
1						
2						
3	0.0	5.0	0.0	11.0	480	7.32
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17	0.0	4.0	0.0	16.0	520	7.06
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
30-DAY MEAN	**0.0**	**4.5**	**0.0**	**13.5**	**500**	**7.19**
MAXIMUM	**0.0**	**5.0**	**0.0**	**16.0**	**520**	**7.32**
MINIMUM	**0.0**	**4.0**	**0.0**	**11.0**	**480**	**7.06**

I declare under the penalty of law that I personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: Rogelio Martinez
Date: 10/6/2025

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

WDID NO.: **7A 37 0125 001**
ORDER NO: R **7-2019-0015**

MONITORING AND REPORTING
BORREGO WATER DISTRICT - RAMS HILL WWTF
Month **September**
YEAR **2025**

REPORTING FREQUENCY: **Monthly**

TYPE OF SAMPLE:	**Domestic Water Supply Well #11**			**Domestic Water Supply Well #12**		
CONSTITUENTS:	TDS	PH		TDS	pH	
FREQUENCY:	Monthly	Monthly		Monthly	Monthly	
DESCRIPTION:	Grab	Grab		Grab	Grab	
UNITS:	mg/l	mg/L				
REQUIREMENTS						
30-DAY MEAN:						
MAXIMUM:						
MINIMUM:						
DATE OF SAMPLE						
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17	340	8.0		300	8.4	
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
30-DAY MEAN	**340**	**8.0**		**300**	**8.4**	
MAXIMUM	**340**	**8.0**		**300**	**8.4**	
MINIMUM	**340**	**8.0**		**300**	**8.4**	

I declare under the penalty of law that I personally examined and am familiar with the information submitted in this document, and that based on my inqu
of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that
there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: Roylo
Date: 10/6/2025

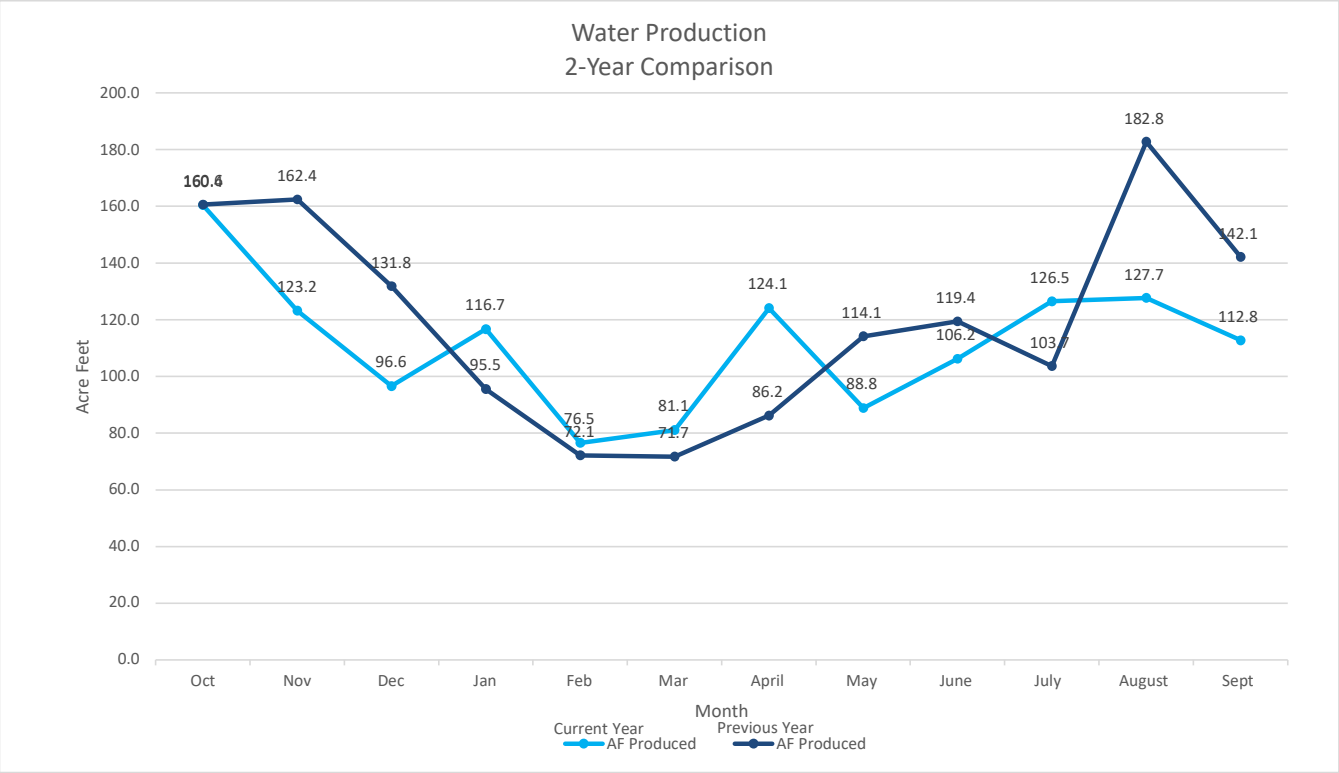
IVB

WATER OPERATIONS REPORT

BORREGO WATER DISTRICT

WATER PRODUCTION SUMMARY

Sept 2025



Past 12 months Production vs. Sales

	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Past 12 Mo. TOT
AF Used	133.3	108.0	83.6	100.2	81.6	75.1	93.5	100.6	109.2	116.9	223.2	105.8	1331.0
AF Produced	160.4	123.2	96.6	116.7	76.5	81.1	124.1	88.8	106.2	126.5	127.7	112.8	1340.6
% Non Rev.	16.9%	12.3%	13.5%	14.2%	-6.6%	7.4%	24.7%	-13.3%	-2.8%	24.7%	-13.3%	6.2%	0.7%

Previous 12 Months Production vs. Sales

	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Prior 12 Mo. TOT
AF Used	180.8	154.2	121.9	89.3	67.9	65.4	78.9	101.2	104.6	113.4	142.0	121.6	1341.1
AF Produced	160.6	162.4	131.8	95.5	72.1	71.7	86.2	114.1	119.4	103.7	182.8	142.1	1442.4
% Non Rev.	-12.6%	5.0%	7.5%	6.5%	5.9%	8.8%	8.5%	11.3%	12.4%	-9.4%	22.3%	14.4%	7.5%

Non Revenue Water Summary

Sep-25	6.2%
Avg. Past 12 Mos.	7.0%
Avg. Past 24 Mos.	6.9%

IVC

FINANCE REPORTS

TREASURER'S REPORT
JUNE 2025

	Bank Balance	Carrying Value	Fair Value	% of Portfolio Current Actual	Rate of Interest	Maturity	Valuation Source
Cash and Cash Equivalents:							
Demand Accounts at CVB/LAIF							
General Account/Petty Cash	$ 3,022,446	$ 3,005,632	$ 3,005,632	67.71%	0.68%	N/A	CVB/WF
Payroll Account	$ 111,427	$ 96,016	$ 96,016	2.16%	0.68%	N/A	WF
Grant Fund Account	$ 212,032	$ 99,806	$ 99,806	2.25%	0.00%	N/A	WF
LAIF	$ 1,237,258	$ 1,237,258	$ 1,237,258	27.87%	4.40%	N/A	LAIF
Total Cash and Cash Equivalents	**$ 4,583,162**	**$ 4,438,712**	**$ 4,438,712**	**100.00%**			

Cash and investments conform to the District's Investment Policy statement filed with the Board of Directors on June 2024

Cash, investments and future cash flows are sufficient to meet the needs of the District for the next six months.

Sources of valuations are CVB Bank, LAIF and US Trust Bank.

Jessica Clabaugh, Finance Officer

Borrego Water District
Water Enterprise Operating Budget Analysis
06/01/2025 to 06/30/2025

	Budgeted FY2025	Actual June FY2025	*Projected June FY2025*	% of Months Budget	Year to Date FY2025	% of Annual Budget TD
INCOME						
RATE REVENUE						
Water Rates Revenues						
Commodity Rates						
Residential T1 & T2 Revenues	*1,154,187*	93,362	*89,799*	*104%*	1,052,570	120%
Residential T3 Revenues	*267,750*	54,234	*20,832*	*260%*	646,850	
Commercial	*645,750*	69,626	*50,241*	*139%*	706,186	109%
Irrigation	*363,825*	29,893	*28,307*	*106%*	384,211	106%
Total Commodity	*2,431,512*	247,115	*189,190*	*131%*	2,789,817	115%
Non-Commodity Charges					-	
Base Meter Charges	*1,518,300*	130,047	*126,525*	*103%*	1,512,095	100%
Meter Install/Repair	*36,750*	-	*3,063*	*0%*	25,175	69%
New Water Supply Connection Fee	*26,124*	-	*2,177*	*0%*	5,532	21%
Backflow Testing/Install	*5,985*	5,350	*499*	*1073%*	12,018	201%
Bulk Water Sales	*6,825*	646	*569*	*114%*	41,040	601%
Total Non-Commodity	*1,593,984*	136,043	*132,832*	*102%*	1,595,860	100%
					-	
Total Water Rate Revenues	*4,025,496*	383,158	*322,022*	*119%*	4,385,677	109%
Availability Charges Collected thru Tax Roll			*0*			
ID1 - Water	*34,965*	440	*137*	*321%*	35,855	103%
ID3/ID4 - Water Standby	*117,000*	3,621	*458*	*791%*	114,943	98%
Total Availability (Tax Roll)	*151,965*	4,061	*595*	*683%*	150,798	99%
Other Income			*0*			
Sale of Viking Ranch Property	*225,000*				247,089	110%
Sale of Retired Fleet Truck					8,000	
Total Other Income	-	-	-		255,089	
TOTAL WATER REVENUE	***4,177,461***	**387,219**	***322,617***	*120.02%*	**4,791,564**	115%

Borrego Water District
Water Enterprise Operating Budget Analysis
06/01/2025 to 06/30/2025

	Budgeted FY2025	Actual June FY2025	*Projected June FY2025*	% of Months Budget	Year to Date FY2025	% of Annual Budget TD
EXPENSES						
OPERATING EXPENSES						
Operations & Maintenance Expense						
R&M Water	*279,928*	20,082	*23,327*	*86.09%*	145,279	52%
Telemetry	*4,963*	-	*414*	*0.00%*	18,284	368%
Trash Removal	*5,956*	616	*496*	*124.09%*	6,895	116%
Vehicle Expense	*22,080*	5,606	*1,840*	*304.69%*	41,497	188%
Fuel & Oil	*42,445*	3,326	*3,537*	*94.04%*	41,188	97%
Lab/Testing	*34,338*	2,594	*2,862*	*90.66%*	48,311	141%
Permit Fees	*28,820*	-	*2,402*	*0.00%*	29,614	103%
Pumping Electricity	*525,000*	46,836	*43,750*	*107.05%*	520,056	99%
Total Operations & Maintenance Expense	*943,530*	79,060	*78,628*	*100.55%*	851,124	90%
Professional Services						
Accounting (Tax & Debt Filings)	*4,268*	1,269			1,269	30%
Payroll Services	*3,077*	374	*256*	*145.88%*	4,118	134%
Audit Fees	*27,350*	3,520	*2,279*	*154.44%*	23,578	86%
IT & Cyber Security	*38,400*	18,931	*3,200*	*591.59%*	64,694	168%
Financial Consulting	*79,411*	7,563	*6,618*	*114.28%*	99,023	125%
Engineering (Dudek)	*45,584*	-	*3,799*	*0.00%*	3,704	8%
Legal Services - General	*67,000*	3,888	*5,583*	*69.64%*	75,674	113%
Advocacy	*59,558*	5,280	*4,963*	*106.38%*	67,760	114%
Total Professional Services	*324,648*	40,825	*26,698*	*152.91%*	339,820	105%
Insurance Expense						
ACWA/JPIA Program Insurance	*120,322*	-			98,890	82%
ACWA/JPIA Workers Comp	*15,803*	4,521			17,334	110%
Total Insurance Expense	*136,125*	4,521	-		116,223	85%
Personnel Expense						
Board Meeting Expense	*22,830*	1,162	*1,903*	*61.06%*	10,961	48%
Salaries & Wages	*1,131,468*	104,103	*94,289*	*110.41%*	1,144,878	101%
Contra Account - Salaries & Wages	*(57,436)*	(36,375)	*(4,786)*	*759.98%*	(110,457)	192%
Contract Labor/Consulting	*9,926*	-	*827*	*0.00%*	-	0%
Payroll Taxes	*23,226*	1,659	*1,936*	*85.72%*	21,405	92%
Benefits - Medical	*190,841*	19,499	*15,903*	*122.61%*	220,159	115%
Benefits - CalPERS	*188,140*	16,276	*15,678*	*103.81%*	187,210	100%
Trainings & Conferences	*17,867*	1,954	*1,489*	*131.20%*	24,595	138%
Uniforms	*6,949*	460	*579*	*79.42%*	6,126	88%
Safety Compliance & Emergency Prep	*4,963*	-	*414*	*0.00%*	2,439	49%
Total Personnel Expense	*1,538,774*	108,736	*128,231*	*84.80%*	1,507,315	98%

Borrego Water District
Water Enterprise Operating Budget Analysis
06/01/2025 to 06/30/2025

	Budgeted FY2025	Actual June FY2025	*Projected June FY2025*	% of Months Budget	Year to Date FY2025	% of Annual Budget TD
OPERATING EXPENSES (Con't)						
Office Expense						
Office Supplies	*23,823*	1,736	*1,985*	87.46%	31,815	134%
Office Equipment	*49,632*	2,757	*4,136*	66.67%	40,568	82%
Postage & Freight	*14,890*	3,068	*1,241*	247.27%	19,518	131%
Property Tax	*2,978*	-			1,399	47%
Telephone Expense	*27,350*	2,790	*2,006*	139.06%	30,577	112%
Dues & Subscriptions (ACWA/AWWA)	*22,830*	702	*1,903*	36.88%	25,945	114%
Printing & Publication	*4,963*	1,861	*414*	450.02%	4,633	93%
Office/Shop utilities	*9,117*	1,707	*760*	224.64%	15,193	167%
Total Office Expense	*155,583*	14,622	*12,444*	117.50%	169,648	109%
TOTAL OPERATING EXPENSES	***3,098,660***	**247,765**	**246,001**	100.72%	**2,984,130**	96%
Debt Expense						
BBVA Bank Note 2018A/B - Principal	*337,138*	-			349,860	104%
BBVA Bank Note 2018A/B - Interest	*49,821*	-			45,159	91%
2021 Bond Cap One - Principal	*376,605*	-			382,555	102%
2021 Bond Cap One - Interest	*140,571*	-			137,058	98%
Total Debt Expense	*904,135*	-	-		948,766	105%
GROUNDWATER MANAGEMENT EXPENSES						
Pumping Fees	*100,000*	32,885	*50,000*		65,770	66%
GWM Expense	*79,158*	1,464	*6,597*	22.19%	4,464	6%
Legal Expense	*100,000*	837	*8,333*	10.04%	70,423	70%
Engineering/TAC Expense (Intera)	*135,000*	4,338	*11,250*	38.56%	78,842	58%
TOTAL GROUNDWATER MGMT EXPENSES	*414,158*	39,523	*76,180*	51.88%	219,498	53%
TOTAL EXPENSES	***4,416,953***	**287,287**	**322,181**	89.17%	**4,152,395**	94%
NET INCOME	***(239,492)***	**99,932**	***436***	22936.17%	**639,169**	

Borrego Water District
Sewer Enterprise Operating Budget Analysis
06/01/2025 TO 06/30/2025

	Budgeted FY2025	Actual June FY2025	*Projected June FY2025*	*% of Months Budget*	Year to Date FY2025	% of Annual Budget TD
INCOME						
RATE REVENUE						
Sewer Rates						
TCS Holder Fees (SA2)	*170,532*	14,508	14,211	102%	174,099	102%
TCS User Fees (SA2)	*135,653*	12,099	11,304	107%	145,389	107%
RH Sewer User Fees (ID1)	*171,377*	14,342	14,281	100%	176,078	103%
Sewer Standby/Capacity Fees	-	-			19,736	
Sewer User Fees (ID5)	*193,989*	17,156	16,166	106%	194,403	100%
Total Sewer Rates	*671,551*	58,105	55,963	104%	709,706	106%
Availability Charges Collected thru Tax Roll						
ID1 - Sewer Standby	*34,965*	440	137	321%	35,855	103%
Total Availability (Tax Roll)	*34,965*	440	137	321%	35,855	103%
TOTAL SEWER REVENUE	***706,516***	**58,545**	***56,099***	104%	**745,561**	106%

Borrego Water District
Sewer Enterprise Operating Budget Analysis
06/01/2025 TO 06/30/2025

	Budgeted FY2025	Actual June FY2025	*Projected June FY2025*	*% of Months Budget*	Year to Date FY2025	% of Annual Budget TD
EXPENSES						
OPERATING EXPENSES						
Operations & Maintenance Expense						
R&M WWTF	*135,360*	41,633	*11,280*	369%	107,973	80%
Telemetry	*677*	-	*100*	0%	3,315	490%
Trash Removal	*812*	104	*150*	69%	1,848	228%
Vehicle Expense	*3,011*	804	*251*	320%	5,686	189%
Fuel & Oil	*6,676*	445	*556*	80%	9,644	144%
Lab/Testing	*11,650*	2,192	*1,059*	207%	18,745	161%
Permit Fees	*12,352*	-	*1,029*	0%	14,770	120%
Total Operations & Maintenance Expense	*170,538*	45,179	*14,426*	313%	161,982	95%
Professional Services						
Accounting (Tax & Debt Filings)	*582*	173			173	30%
Payroll Services	*420*	51	52.50	97%	508	121%
Audit Fees	*3,730*	480	310.83	154%	2,922	78%
IT & Cyber Security	*5,236*	2,582	436.33	592%	8,816	168%
Financial Consulting	*10,829*	1,031	902.42	114%	13,355	123%
Engineering (Dudek)	*6,216*	-	518.00	0%	2,905	47%
Legal Services - General	*9,136*	709	761.33	93%	7,280	80%
Advocacy	*8,122*	720	676.83	106%	9,240	114%
Total Professional Services	*44,271*	5,746	*3,658*	157%	45,199	102%
Insurance Expense						
ACWA/JPIA Program Insurance	*16,408*	-			13,744	84%
ACWA/JPIA Workers Comp	*3,659*	848			3,611	99%
Total Insurance Expense	*20,067*	848	-		17,354	86%
Personnel Expense						
Board Meeting Expense	*3,113*	158	*259*	61%	1,495	48%
Salaries & Wages	*261,561*	28,101	*21,797*	129%	266,487	102%
Contra Account - Salaries & Wages	*(7,832)*	-	*(653)*	0%	(12,193)	156%
Contract Labor/Consulting	*1,354*	-	*113*	0%	7,931	586%
Payroll Taxes	*5,369*	450	*447*	100%	3,688	69%
Benefits - Medical	*44,117*	2,661	*3,676*	72%	48,543	110%
Benefits - CalPERS	*43,492*	3,363	*3,624*	93%	43,655	100%
Trainings & Conferences	*2,436*	-	*203*	0%	1,434	59%
Uniforms	*948*	63	*79*	79%	836	88%
Safety Compliance & Emergency Prep	*677*	-	*56*	0%	-	0%
Total Personnel Expense	*355,235*	34,795	*29,603*	118%	361,876	102%

Borrego Water District
Sewer Enterprise Operating Budget Analysis
06/01/2025 TO 06/30/2025

	Budgeted FY2025	Actual June FY2025	*Projected June FY2025*	*% of Months Budget*	Year to Date FY2025	% of Annual Budget TD
OPERATING EXPENSES (Con't)						
Office Expense						
Office Supplies	*3,249*	216	*271*	80%	4,110	127%
Office Equipment	*6,768*	510	*564*	90%	6,749	100%
Postage & Freight	*2,030*	418	*169*	247%	2,934	145%
Property Tax	*406*	-			-	0%
Telephone Expense	*3,730*	381	*311*	122%	4,169	112%
Dues & Subscriptions (ACWA/AWWA)	*3,113*	96	*259*	37%	3,530	113%
Printing & Publication	*677*	254	*56*	450%	632	93%
Office/Shop utilities	*1,243*	769	*104*	742%	6,906	556%
Total Office Expense	*21,216*	2,642	*1,734*	152%	29,031	137%
TOTAL OPERATING EXPENSES	***611,327***	**89,210**	**49,421**	181%	**615,442**	101%
Debt Expense						
2021 Bond Cap One - Principal	*64,545*	-			64,545	100%
2021 Bond Cap One - Interest	*5,979*	183			6,162	103%
Total Debt Expense	*70,524*	183	-		70,707	100%
TOTAL EXPENSES	***681,851***	**89,393**	**49,421**	181%	**686,149**	101%
NET INCOME	***24,665***	**(30,849)**	***6,678***	-462%	**59,412**	

Borrego Water District
Pest Control Operating Budget Analysis
06/01/2025 to 06/31/2025

	Budgeted FY2025	Actual June FY2025	*Projected June FY2025*	Year to Date FY2025	% of Annual Budget TD
INCOME					
Charges Collected thru Tax Roll					
Pest Control Standby	*17,150*	445	*67*	20,236	118%
TOTAL PEST CONTROL FUND REVENUE	***17,150***	445	*67*	20,236	118%
EXPENSES					
R&M Pest Control	*1,500*	-	*150*	1,391	93%
ACWA/JPIA Program Insurance	*500*	-	*50*	241	48%
Salaries & Wages	*4,193*	-	*419*	3,508	84%
Benefits - Medical	*711*	-	*71*	685	96%
Benefits - CalPERS	*701*	-	*70*	616	88%
ACWA/JPIA Workers Comp	*59*	-	*6*	68	115%
Payroll Taxes	*87*	-	*9*	75	86%
TOTAL PEST CONTROL FUND REVENUE	***7,751***	-	*775*	4,809	62%
Net Income Pest Control Enterprise Fund	*9,399*	445	*(708)*		

Borrego Water District
Flood Enterprise Operating Budget Analysis
06/01/2025 to 06/31/2025

	Budgeted FY2025	Actual June FY2025	*Projected June FY2025*	Year to Date FY2025	% of Annual Budget TD
INCOME					
ID1 - Flood Standby	*34,965*	440	*8,995*	49,884	143%
TOTAL FLOOD CONTROL FUND REVENUE	*34,965*	440	*8,995*	49,884	143%
EXPENSES					
ACWA/JPIA Program Insurance	*550*	-		482	88%
Legal Services - General	*5,000*	-	*625*	-	0%
Salaries & Wages	*8,434*	-	*1,054*	-	0%
Benefits - Medical	*1,423*	-	*178*	-	0%
Benefits - CalPERS	*1,402*	-	*175*	-	0%
ACWA/JPIA Workers Comp	*118*	-	*15*	32	27%
Payroll Taxes	*173*	-	*22*	-	0%
TOTAL FLOOD CONTROL FUND EXPENSES	*17,100*	-	*2,047*	514	3%
Net Income Flood Enterprise Fund	***17,865***	***440***	***6,948***	49,370	

Borrego Water District
Non-Rate Revenue Budget Analysis
06/01/2025 to 06/31/2025

	Budgeted FY2025	Actual June FY2025	*Projected June FY2025*	Year to Date FY2025
INCOME				
OTHER INCOME				
Penalties & Fees	*50,000*	17,320	*5,000*	137,136
BSUSD Well Agreement	*35,000*	1,546	-	3,046
1% Property Assessments	*70,000*	1,137	*11,345*	82,622
Interest Income	*35,000*	13,635	*2,917*	78,378
Sale of Parcels		-		15,212
WM Meter Reading Income	*3,333*	1,190	*550*	*7,830*
TOTAL OTHER INCOME	***193,333***	**34,828**	***19,811***	**324,225**
EXPENSES				
Air Quality Study	*36,341*	-	*3,028*	4,031
TOTAL NON-RATE REVENUE EXPENSES	***36,341***	**-**	***3,028***	4,031
Net Income Non-Rate Revenue	***156,992***	34,828	*16,783*	320,194

Borrego Water District
Consolidated Enterprise Budget Analysis
06/01/2025 to 06/31/2025

	Budgeted FY2025	Actual June FY2025	*Projected June FY2025*	*YTD FY2025*
INCOME				
TOTAL WATER RATE REVENUE	*4,402,461*	*387,219*	*322,617*	*4,791,564*
TOTAL WASTEWATER RATE REVENUE	*706,517*	*58,545*	*56,099*	*745,561*
TOTAL PEST CONTROL FUND REVENUE	*17,150*	*445*	*67*	*20,236*
TOTAL FLOOD CONTROL FUND REVENUE	*34,965*	*440*	*8,995*	*49,370*
TOTAL OTHER INCOME	*193,333*	*34,828*	*19,811*	*324,225*
GROSS INCOME	*5,354,426*	*481,477*	*407,590*	*5,930,956*
EXPENSES				
TOTAL WATER ENTERPRISE EXPENSES	*4,402,461*	*287,287*	*322,181*	*4,152,395*
TOTAL WASTEWATER ENTERPRISE EXPENSES	*681,848*	*89,393*	*49,421*	*686,149*
TOTAL PEST CONTROL ENTERPRISE EXPENSES	*7,751*	-	*775*	*4,809*
TOTAL FLOOD CONTROL ENTERPRISE EXPENSES	*17,100*	-	*2,047*	*514*
TOTAL NON-RATE REVENUE EXPENSES	*36,341*	-	*3,028*	*4,031*
TOTAL EXPENSES	*5,145,501*	*376,680*	*377,453*	*4,847,898*
CONSOLIDATED NET INCOME	**208,925**	**104,797**	**30,137**	**1,083,058**

Borrego Water District
BPA Purchase & Capital Improvements Budget
06/01/2025 to 06/31/2025

	Budgeted FY2025	Actual June FY2025	Year to Date FY2025
BPA Purchase Expense			
Land - Installment Agreement Payment	*361,956*	-	425,384
Fallowing Expense	*124,738*	-	65,893
BPA Purchase Expense	*486,694*	-	490,384
			-
CAPITAL IMPROVEMENT PROJECTS (CIP)			-
Water Enterprise CIP			-
Water Projects			-
Upgrade Indian Head Booster Station	*118,000*	-	119,481
AMI Cash Funded Portion (Prop 68 Grant)	*100,000*	-	-
ID4-11 Generator Switch	*80,500*	-	86,089
Well Site Security Upgrades	*30,000*	-	3,481
Lugo Building Upgrades (From Water R&M)		-	8,030
DB20 Pre Explorations		753	
Emergency System Repairs	*66,150*	-	-
Total Water Projects	*394,650*	753	217,099
Sewer Projects			-
Manhole Refurbishments	*52,267*	-	-
Lift Station Pump	*11,000*	-	-
Total Sewer Projects	*63,267*	-	-
			-
CASH FUNDED BPA PURCHASE & CIP TOTAL	***944,611***	**753**	**707,483**

Borrego Water District
Grant Funded CIP Budget Analysis
06/01/2025 to 06/31/2025

	Budgeted FY2025	Actual June FY2025	Year to Date FY2025
GRANT FUNDED CIP			
Prop 68 Grant			
AMI ($1,428,000)	*1,200,000*	-	1,240,687
Component 5 ($152,000)	*125,000*	-	91,826
Grant Administration	*75,000*	-	3,045
Total Prop 68 Grant Projects	*1,400,000*	-	603,041
2023 Appropriations Bill			
BSR Pipeline	*928,000*	-	48,900
Sungold Pipeline	*2,464,000*	-	48,900
2023 Appropriations Bill Total	*3,392,000*	-	97,800
TOTAL GRANT FUNDED CIP	***4,792,000***	**-**	**700,841**

Borrego Water District
Cash Flow Analysis
06/01/2025 to 06/31/2025

		Actual June FY25	
Cash and Reserves at Beginning of Period			*3,520,140*
Cash Flows from Operating Activities			
Income Provided by Operating Activities		*69,969*	
Decrease in Accounts Receivable		*837,474*	
Incease in Accounts Payable		*123,257*	
Increase in Inventory		*(1,754)*	
Customer Deposits Returned		-	
Net Cash Provided by Operating Activities		**$**	**1,028,946**
Cash Flows from Non-Operating Activities			
Other Income Received		*34,828*	
Debt Service Disbursement			
Net Cash Provided by Other Income		**$**	**34,828**
Cash Flows from Capital Improvement Activities			
All CIP/BPA Purchase Activities (Cash + Grant)		*(753)*	
Grant Monies Received		-	
Net Cash Paid for Capital Improvements		**$**	**(753)**
Net Change in Cash		**$**	**1,063,022**
Cash and Reserves at End of Period			**$ 4,583,162**
Restricted Reserves at End of Period		*$ 1,306,291*	
Unrestricted Reserves at End of Period		*$ 3,276,871*	
Water Reserves Portion	*$4,002,201*		
Sewer Reserves Portion	*$580,947*		
Non-218 Reserves Portion	*$880,105*		
Fiscal Year Reserves Target			**$ 6,853,714**
Fiscal Year Reserves Surplus/Shortfall to Date			**$ (2,270,552)**

ASSETS

	BALANCE SHEET June 30, 2025 (unaudited)	BALANCE SHEET March 31, 2025 (unaudited)	MONTHLY CHANGE (unaudited)
CURRENT ASSETS			
Cash & Cash Equivalents	$ 4,771,905.16	$ 4,105,131.46	$ 666,773.70
Accounts Receivable - Water/Sewer Charges	$ 804,198.02	$ 673,975.19	$ 130,222.83
Accounts Receivable - Other	$ 145,070.27	$ 71,735.48	$ 73,334.79
Grant Reimbursements Receivable	$ 1,686,141.11	$ (195.00)	
Inventory	$ 248,808.76	$ 254,604.00	$ (5,795.24)
TOTAL CURRENT ASSETS	**$ 7,882,414.48**	**$ 5,338,350.45**	$ 2,544,064.03
RESTRICTED ASSETS			
Debt Service:			
Unamortized bond issue costs	$ 125,185.22	$ 125,185.22	$ -
Viking Ranch Refinance issue costs	$ (120,155.55)	$ (120,155.55)	$ -
Deferred Outflow of Resources-CalPERS	$ 426,139.00	$ 591,442.00	$ (165,303.00)
Total Debt service	$ 431,168.67	$ 596,471.67	$ (165,303.00)
Trust/Bond funds:			
Investments with fiscal agent -CFD 2017-1	$ 810,327.39	$ 803,607.67	$ 6,719.72
Total Trust/Bond funds	$ 810,327.39	$ 803,607.67	$ 6,719.72
TOTAL RESTRICTED ASSETS	**$ 1,241,496.06**	**$ 1,400,079.34**	
UTILITY PLANT IN SERVICE			
Land	$ 4,810,354.99	$ 4,167,643.77	$ 642,711.22
Flood Control Facilities	$ 4,287,340.00	$ 4,287,340.00	$ -
Capital Improvement Projects	$ 129,755.58	$ 4,680,311.08	$ (4,550,555.50)
Sewer Facilities	$ 7,860,618.28	$ 7,310,085.54	$ 550,532.74
Water facilities	$ 25,582,958.26	$ 21,701,440.68	$ 3,881,517.58
General facilities	$ 1,038,449.39	$ 1,056,594.59	$ (18,145.20)
Equipment and furniture	$ 1,151,790.37	$ 1,151,790.37	$ -
Vehicles	$ 811,340.92	$ 840,125.22	$ (28,784.30)
Accumulated depreciation	$ (18,062,478.36)	$ (16,854,759.03)	$ 1,207,719.33
NET UTILITY PLANT IN SERVICE	**$ 27,610,129.43**	**$ 28,340,572.22**	$ (730,442.79)
OTHER ASSETS			
Water Rights/BPA	$ 185,000.00	$ 433,011.85	$ (248,011.85)
TOTAL OTHER ASSETS	**$ 185,000.00**	**$ 433,011.85**	
TOTAL ASSETS	**$ 36,919,039.97**	**$ 35,512,013.86**	$ 1,407,026.11

Balance sheet continued

LIABILITIES

	BALANCE SHEET June 30, 2025 (unaudited)	BALANCE SHEET March 31, 2025 (unaudited)	MONTHLY CHANGE (unaudited)
CURRENT LIABILITIES PAYABLE FROM CURRENT ASSETS			
Accounts Payable	$ 253,396.69	$ 249,675.99	$ 3,720.70
Accrued expenses	$ 352,478.39	$ 284,196.60	$ 68,281.79
Deposits	$ 105,000.00	$ 108,988.01	$ (3,988.01)
TOTAL CURRENT LIABILITIES PAYABLE FROM CURRENT ASSETS	**$ 710,875.08**	**$ 642,860.60**	$ 68,014.48
CURRENT LIABILITIES PAYABLE FOM RESTRICTED ASSETS			
Debt Service:			
Accounts Payable to CFD 2017-1	$ 810,327.39	$ 803,607.67	$ 6,719.72
TOTAL CURRENT LIABILITIES PAYABLE FROM RESTRICTED ASSETS	**$ 810,327.39**	**$ 803,607.67**	$ 6,719.72
LONG TERM LIABILITIES			
2018A & 2018B Refinance ID4/Viking Ranch	$ 915,000.00	$ 915,000.00	$ -
2021 Installment Purchase Agreement	$ 6,196,800.00	$ 6,196,800.00	$ -
Net Pension Liability-CalPERS	$ 1,259,747.00	$ 1,273,881.00	$ (14,134.00)
Deferred Inflow of Resources-CalPERS	$ 54,192.00	$ 70,052.00	$ (15,860.00)
TOTAL LONG TERM LIABILITIES	**$ 8,425,739.00**	**$ 8,455,733.00**	$ (29,994.00)
TOTAL LIABILITIES	**$ 9,946,941.47**	**$ 9,902,201.27**	$ 44,740.20
FUND EQUITY			
Contributed equity	$ 9,611,814.35	$ 9,611,814.35	$ -
Retained Earnings:	$ 17,360,284.15	$ 15,997,998.24	$ 1,362,285.91
TOTAL FUND EQUITY	**$ 26,972,098.50**	**$ 25,609,812.59**	$ 1,362,285.91
TOTAL LIABILITIES AND FUND EQUITY	**$ 36,919,039.97**	**$ 35,512,013.86**	$ 1,407,026.11

To: BWD Board of Directors
From: Jessica Clabaugh
Subject: Consideration of the Disbursements and Claims Paid
Month Ending June 30, 2025

Vendor disbursements paid during this period:		$	421,591.98
Significant items:			
Atel Communications	Work on Office Phone Network	$	4,162.77
Babcock	Lab Services	$	3,666.49
Bay City Equipment	Generator PM at Wilcox Well	$	1,112.28
BSUSD	Prop 68 Reimbursement No 7	$	13,683.75
CalPERS	Employee Retirement Benefits	$	19,638.79
Employee Health Benefits	Medical JPIA & AFLAC	$	22,159.43
Ramona Disposal	Garbage Collection	$	5,218.30
SC Fuels	Fuel For District Vehicles	$	3,698.52
SDGE	Payment on May Use	$	46,187.80
SD Registrar of Voters	November Election Support	$	1,955.00
UCI	Prop 68 Reimbursement No 7	$	98,541.84
Capital Projects/Fixed Asset Outlays:			
American Backflow	Backflow Testing Supplies	$	2,482.91
Cal Valve	Backflow Testing Station	$	5,576.33
Customer Refund	Credit Balance on Account Closure	$	1,219.94
David Bauer	Payment for fallowing on 904 DiGiorgio	$	12,972.00
Pacific Pipeline Supply, Inc.	Parts for Inventory	$	4,778.05
Total Professional Services for this Period:			
BBK	General Feb		
BBK	General May	$	5,711.10
BBK	Watermaster May	$	1,794.70
BBK	Advocacy May	$	6,000.00
BBK	Twin Tank Land Swap	$	3,819.60
Davis Farr, LP	Fees for FY25 Audit	$	4,000.00
Interra Inc.	GWM Technical Support May	$	8,552.50
Interra Inc.	Special Project	$	5,243.50
Raftelis	Financial Consuting - FY25 Rate Study	$	3,965.00
Payroll for this Period:			
Gross Payroll		$	132,203.33
Employer Payroll Taxes and ADP Fee		$	2,533.77
Total		$	134,737.10

June 2025

41962	1109	ABILITY ANSWERING/PAGING SER	06/26/2025	259.50
42018	3035	ACWA / JPIA Finance Dept.	07/30/2025	5,369.64
41963	1266	AFLAC	06/26/2025	1,420.38
41964	9338	AMERICAN BACKFLOW SPECIALTIES	06/26/2025	2,482.91
42041	9338	AMERICAN BACKFLOW SPECIALTIES	08/05/2025	2,370.38
41973	1001	AMERICAN LINEN INC.	07/10/2025	522.64
41974	61	AT&T MOBILITY	07/10/2025	794.58
41975	9529	AT&T-CALNET 3	07/10/2025	672.10
41976	9255	BABCOCK LABORATORIES	07/10/2025	4,746.46
41977	10884	BEST BEST & KRIEGER ATTORNEYS AT LAW	07/10/2025	12,147.50
42054	10900	BORREGO AUTO PARTS & SUPPLY CO	08/06/2025	383.26
41979	11140	BORREGO SPRINGS HARDWARE	07/10/2025	193.36
100010	11170	BORREGO SPRINGS UNIFIED SCHOOL DISTRICT	06/26/2025	13,683.75
42002	11102	BORREGO SPRINGS WATERMASTER, INTERIM	07/15/2025	34,348.45
41957	1037	BORREGO SUN	06/16/2025	80.00
41980	1037	BORREGO SUN	07/10/2025	80.00
41965	11202	CAL VALVE	06/26/2025	5,576.33
41966	9039	COUNTY OF SAN DIEGO REGISTRAR OF VOTERS	06/26/2025	1,955.00
42003	39	DAVID TAUSSIG & ASSOCIATES,INC	07/15/2025	1,442.50
41967	11190	DAVIS FARR LLP	06/26/2025	4,000.00
41986	1222	DEBBIE MORETTI	07/10/2025	140.00
42019	1222	DEBBIE MORETTI	07/30/2025	140.00
42056	96	DISH	08/15/2025	88.80
41983	10876	GEOFFREY POOLE	07/10/2025	1,200.00
41968	3026	HACH COMPANY	06/26/2025	224.18
42013	11198	HOLLY A. SMIT KICKLIGHTER	07/15/2025	7,250.00
41984	1136	HOME DEPOT CREDIT SERVICES	07/10/2025	1,516.94
42004	11137	INTERA INCORPORATED	07/15/2025	10,198.50
41982	11161	ISSAC FREDERICKS	07/10/2025	15,600.00
41948	UB*000	JENNY FONTENOT	06/16/2025	1,219.94
41958	UB*000	JENNY FONTENOT	06/16/2025	504.78
41985	11090	LUPE'S GARDENING MAINTENANCE INC.	07/10/2025	585.00
41903	1000	MEDICAL ACWA-JPIA	05/14/2025	23,575.29
42057	11178	MOTION INDUSTRIES, INC	08/15/2025	9,733.09
41969	11175	NEW YORK LIFE INSURANCE COMPANY	06/26/2025	290.92
41970	11114	OCEANUS BOTTLED WATER, INC	06/26/2025	56.00
41971	1208	PACIFIC PIPELINE SUPPLY INC	06/26/2025	4,778.05
41987	1208	PACIFIC PIPELINE SUPPLY INC	07/10/2025	2,266.15
41972	11028	POOL & ELECTRICAL PRODUCTS	06/26/2025	32.38
41988	11028	POOL & ELECTRICAL PRODUCTS	07/10/2025	420.90
41989	11083	QUADIENT FINANCE USA, INC.	07/10/2025	2,000.00
41960	11165	QUADIENT LEASING USA INC	06/16/2025	442.04
42006	9546	RAFTELIS FINANCIAL CONSULTANTS, INC.	07/15/2025	8,594.09
41990	9633	RAMONA DISPOSAL SERVICE	07/10/2025	5,218.30
41991	11189	RELIANT WATER TECHNOLOGIES	07/10/2025	914.85
41992	1065	SAN DIEGO GAS & ELECTRIC	07/10/2025	49,186.94
42014	1065	SAN DIEGO GAS & ELECTRIC	07/16/2025	124.00
41961	11067	SC FUELS	06/16/2025	1,969.33
41993	11067	SC FUELS	07/10/2025	1,740.75
42042	11086	SPRINGBROOK HOLDING COMPANY LLC	08/05/2025	1,527.00
42020	11179	STRATEGIC COMMUNICATION CONSULTANTS	07/30/2025	600.00
41994	11193	THE DATA CENTER LLC	07/10/2025	1,025.48
100011	11174	THE REGENTS OF THE UNIVERSITY OF CALIFORNIA	06/26/2025	98,541.84
41995	9581	TRAVIS PARKER	07/10/2025	21,512.49
42007	3000	U.S.BANK CORPORATE PAYMENT SYS	07/15/2025	9,059.76
41996	1023	UNDERGROUND SERVICE ALERT	07/10/2025	24.80
42008	9439	USABLUEBOOK	07/15/2025	4,557.11
42009	1100	VERIZON WIRELESS	07/15/2025	244.57
41997	92	XEROX FINANCIAL SERVICES	07/10/2025	365.28
42058	92	XEROX FINANCIAL SERVICES	08/15/2025	365.28
41998	11050	ZITO MEDIA	07/10/2025	289.50
		Report Total (61 checks):		380,653.07

TREASURER'S REPORT
JULY 2025

	Bank Balance	Carrying Value	Fair Value	% of Portfolio Current Actual	Rate of Interest	Maturity	Valuation Source
Cash and Cash Equivalents:							
Demand Accounts at CVB/LAIF							
General Account/Petty Cash	$ 3,034,724	$ 2,884,353	$ 2,884,353	56.90%	0.68%	N/A	CVB/WF
Payroll Account	$ 63,161	$ 47,354	$ 47,354	0.93%	0.68%	N/A	WF
Grant Fund Account	$ 886,787	$ 886,788	$ 886,788	17.49%	0.00%	N/A	WF
LAIF	$ 1,250,813	$ 1,250,813	$ 1,250,813	24.67%	4.26%	N/A	LAIF
Total Cash and Cash Equivalents	**$ 5,235,485**	**$ 5,069,308**	**$ 5,069,308**	**100.00%**			

Cash and investments conform to the District's Investment Policy statement filed with the Board of Directors on June 2024

Cash, investments and future cash flows are sufficient to meet the needs of the District for the next six months.

Sources of valuations are CVB Bank, LAIF and US Trust Bank.

Jessica Clabaugh, Finance Officer

Borrego Water District
Water Enterprise Operating Budget Analysis
07/01/2025 to 07/31/2025

	Budgeted FY2026	Actual July FY2026	*Projected July FY2026*	% of Months Budget	Year to Date FY2026
INCOME					
RATE REVENUE					
Water Rates Revenues					
Commodity Rates					
Residential T1 & T2 Revenues	*1,015,987*	96,439	*89,204*	*108%*	96,439
Residential T3 Revenues	*676,567*	67,289	*59,403*	*113%*	67,289
Commercial	*643,522*	68,261	*56,501*	*121%*	68,261
Irrigation	*423,161*	34,439	*37,154*	*93%*	34,439
Total Commodity	*2,759,237*	266,428	*242,262*	*110%*	266,428
Non-Commodity Charges					-
Base Meter Charges	*1,689,581*	137,016	*140,798*	*97%*	137,016
Meter Install/Repair	*36,750*	-	*3,063*	*0%*	-
New Water Supply Connection Fee	*26,124*	-	*2,177*	*0%*	-
Backflow Testing/Install	*11,400*	7,364	*950*	*775%*	7,364
Bulk Water Sales	*6,825*	936	*569*	*165%*	936
Total Non-Commodity	*1,770,680*	145,316	*147,557*	*98%*	145,316
					-
Total Water Rate Revenues	*4,529,917*	411,744	*389,819*	*106%*	411,744
Availability Charges Collected thru Tax Roll			-		
ID1 - Water	*34,965*	-	-	*#DIV/0!*	-
ID3/ID4 - Water Standby	*117,000*	-	-	*#DIV/0!*	-
Total Availability (Tax Roll)	*151,965*	-	-	*#DIV/0!*	-
TOTAL WATER REVENUE	***4,681,882***	**411,744**	***389,819***	*105.62%*	**411,744**

Borrego Water District
Water Enterprise Operating Budget Analysis
07/01/2025 to 07/31/2025

	Budgeted FY2026	Actual July FY2026	*Projected July FY2026*	% of Months Budget	Year to Date FY2026
EXPENSES					
OPERATING EXPENSES					
Operations & Maintenance Expense					
R&M Water	*286,926*	6,337	*23,911*	*26.50%*	6,337
Telemetry	*15,000*	-	*1,250*	*0.00%*	-
Trash Removal	*7,500*	617	*625*	*98.77%*	617
Vehicle Expense	*30,000*	5,960	*6,000*	*99.33%*	5,960
Fuel & Oil	*45,007*	2,921	*3,751*	*77.89%*	2,921
Lab/Testing	*45,000*	3,493	*3,750*	*93.15%*	3,493
Permit Fees	*29,541*	2,076	*2,462*	*84.34%*	2,076
Pumping Electricity	*566,528*	44,456	*47,211*	*94.17%*	44,456
Total Operations & Maintenance Expense	*1,025,502*	65,860	88958.50	*74.04%*	65,860
Professional Services					
Accounting (Lockbox/Debt Filings)	*9,680*	372	*800*		372
Payroll Services	*4,400*	384	*367*	*104.71%*	384
Audit Fees	*28,034*	-	*3,500*	*0.00%*	-
IT & Cyber Security	*39,360*	5,127	*6,512*	*78.74%*	5,127
Financial Consulting	-	-	*1*	*0.00%*	-
Engineering Consultant	*10,000*	-	*833*	*0.00%*	-
Legal Services - General	*68,675*	828	*5,723*	*14.47%*	828
Legal Services - Reimbursible	-		-		
Federal & State Legislative Advocacy	*64,944*	5,280	*5,412*	*97.56%*	5,280
Total Professional Services	*225,093*	11,991	23147.92	*51.80%*	11,991
Insurance Expense					
ACWA/JPIA Program Insurance	*132,355*	52,061	*46,324*		52,061
ACWA/JPIA Workers Comp	*17,068*	-			-
Total Insurance Expense	*149,423*	52,061	*46,324*		52,061
Personnel Expense					
Board Meeting Expense	*13,939*	1,016	*1,162*	*87.50%*	1,016
Salaries & Wages	*1,221,985*	98,623	*101,832*	*96.85%*	98,623
Contra Account - Salaries & Wages	*(62,031)*	-	*(5,169)*	*0.00%*	-
Contract Labor/Consulting	*10,175*	-	*848*	*0.00%*	-
Payroll Taxes	*25,084*	1,940	*2,090*	*92.82%*	1,940
Benefits - Medical	*200,383*	18,345	*16,699*	*109.86%*	18,345
Benefits - CalPERS	*222,721*	106,392	*112,948*	*94.20%*	106,392
Trainings & Conferences	*18,314*	609	*1,526*	*39.93%*	609
Uniforms	*7,123*	582	*594*	*97.97%*	582
Safety Compliance & Emergency Prep	*5,087*	-	*424*	*0.00%*	-
Total Personnel Expense	*1,662,780*	227,508	*232,953*	*97.66%*	227,508

Borrego Water District
Water Enterprise Operating Budget Analysis
07/01/2025 to 07/31/2025

	Budgeted FY2026	Actual July FY2026	*Projected July FY2026*	% of Months Budget	Year to Date FY2026
OPERATING EXPENSES (Con't)					
Office Expense					
Office Supplies	*22,659*	2,038	*1,888*	*107.91%*	2,038
Office Equipment	*49,641*	6,059	*7,233*	*83.77%*	6,059
Postage & Freight	*4,400*	1,103	*367*	*300.85%*	1,103
Property Tax	*3,052*	-	*254*		-
Telephone Expense	*28,034*	3,848	*4,272*	*90.07%*	3,848
Dues & Subscriptions (ACWA/AWWA)	*17,401*	265	*1,450*	*18.25%*	265
Statement Printing & Mialing	*25,087*	2,036	*2,091*	*97.37%*	2,036
Office/Shop utilities	*18,897*	-	*1,575*	*0.00%*	-
Total Office Expense	*169,171*	15,347	*20,129*	*76.24%*	15,347
TOTAL OPERATING EXPENSES	***3,231,969***	**372,767**	**411,512**	*90.58%*	**372,767**
Debt Expense					
BBVA Bank Note 2018A/B - Principal	*220,000*	-			-
BBVA Bank Note 2018A/B - Interest	*26,967*	-			-
2021 Bond Cap One - Principal	*393,063*	-			-
2021 Bond Cap One - Interest	*125,477*	-			-
Total Debt Expense	*765,507*	-	-		-
GROUNDWATER MANAGEMENT EXPENSES					
Pumping Fees	*103,000*	-			-
GWM Expense	*81,532*	-	*6,794*	*0.00%*	-
Legal Expense	*103,000*	8,152	*8,583*	*94.98%*	8,152
Engineering/TAC Expense (Intera)	*139,050*	5,643	*11,588*	*48.69%*	5,643
TOTAL GROUNDWATER MGMT EXPENSES	*426,582*	13,795	*26,965*	*51.16%*	13,795
TOTAL EXPENSES	***4,424,058***	**386,562**	**438,477**	*88.16%*	**386,562**
NET INCOME	***257,824***	**25,182**	***(48,658)***	*-51.75%*	**25,182**

Borrego Water District
Sewer Enterprise Operating Budget Analysis
07/01/2025 TO 07/31/2025

	Budgeted FY2026	Actual July FY2026	*Projected July FY2026*	*% of Months Budget*	Year to Date FY2025
INCOME					
RATE REVENUE					
Sewer Rates					
TCS Holder Fees (SA2)	*192,073*	14,454	16,006	90%	14,454
TCS User Fees (SA2)	*155,060*	12,117	12,922	94%	12,117
RH Sewer User Fees (ID1)	*182,674*	15,940	15,223	105%	15,940
Sewer Standby/Capacity Fees	-	-			-
Sewer User Fees (ID5)	*210,192*	17,581	17,516	100%	17,581
Total Sewer Rates	*739,999*	60,092	61,667	97%	60,092
Availability Charges Collected thru Tax Roll			*0*		
ID1 - Sewer Standby	*34,965*	-	-	#DIV/0!	-
Total Availability (Tax Roll)	*34,965*	-	-	#DIV/0!	-
			-		
TOTAL SEWER REVENUE	***774,964***	**60,092**	***61,667***	97%	**60,092**

Borrego Water District
Sewer Enterprise Operating Budget Analysis
07/01/2025 TO 07/31/2025

	Budgeted FY2026	Actual July FY2026	*Projected July FY2026*	*% of Months Budget*	Year to Date FY2025
EXPENSES					
OPERATING EXPENSES					
Operations & Maintenance Expense					
R&M WWTF	*138,744*	789	*11,562*	7%	789
Telemetry	*1,000*	-	*83*	0%	-
Trash Removal	*2,400*	104	*200*	52%	104
Vehicle Expense	*3,086*	310	*257*	121%	310
Fuel & Oil	*8,533*	398	*711*	56%	398
Lab/Testing	*20,437*	1,566	*1,703*	92%	1,566
Electricity	*5,723*	409	*477*	86%	409
Permit Fees	*15,000*	283	*1,250*	23%	283
Total Operations & Maintenance Expense	*194,923*	3,859	*16,244*	24%	3,859
Professional Services					
Accounting (Lockbox/Debt Filings)	*1,320*	51	*110*		51
Payroll Services	*600*	52	*50*	105%	52
Audit Fees	*3,823*	-	*319*	0%	-
IT & Cyber Security	*7,688*	699	*641*	109%	699
Financial Consulting	-	-	*0*	0%	-
Engineering (Dudek)	*6,371*	-	*531*	0%	-
Legal Services - General	*9,365*	113	*780*	14%	113
Advocacy	*8,325*	-	*694*	0%	-
Total Professional Services	*37,492*	915	*3,124*	29%	915
Insurance Expense					
ACWA/JPIA Program Insurance	*18,048*	7,099	*7,100*		7,099
ACWA/JPIA Workers Comp	*3,952*	-			-
Total Insurance Expense	*22,000*	7,099	*7,100*		7,099
Personnel Expense					
Board Meeting Expense	*2,000*	139	*167*	83%	139
Salaries & Wages	*282,486*	20,929	*23,541*	89%	20,929
Contra Account - Salaries & Wages	*(8,459)*	-	*(705)*	0%	-
Contract Labor/Consulting	*10,000*	-	*833*	0%	-
Payroll Taxes	*5,799*	412	*483*	85%	3,688
Benefits - Medical	*47,646*	2,661	*3,971*	67%	2,661
Benefits - CalPERS	*51,486*	16,136	*16,136*	100%	16,136
Trainings & Conferences	*2,497*	79	*208*	38%	79
Uniforms	*971*	79	*81*	98%	79
Safety Compliance & Emergency Prep	*694*	-	*58*	0%	-
Total Personnel Expense	*395,120*	40,435	*44,772*	90%	43,711

Borrego Water District
Sewer Enterprise Operating Budget Analysis
07/01/2025 TO 07/31/2025

	Budgeted FY2026	Actual July FY2026	*Projected July FY2026*	*% of Months Budget*	Year to Date FY2025
OPERATING EXPENSES (Con't)					
Office Expense					
Office Supplies	*3,100*	195	*258*	76%	195
Office Equipment	*6,769*	960	*960*	100%	960
Postage & Freight	*600*	246	*50*	492%	246
Property Tax	*416*	-			-
Telephone Expense	*3,823*	525	*525*	100%	525
Dues & Subscriptions (ACWA/AWWA)	*3,191*	36	*266*	14%	36
Printing & Publication	*694*	90	*58*	156%	90
Office/Shop utilities	*2,129*	-	*177*	0%	-
Total Office Expense	*20,722*	2,052	*2,295*	89%	2,052
TOTAL OPERATING EXPENSES	***670,257***	**54,360**	**73,535**	74%	**57,636**
Debt Expense					
2021 Bond Cap One - Principal	*31,994*	-			-
2021 Bond Cap One - Interest	*9,149*	-			-
Total Debt Expense	*41,143*	-	-		-
TOTAL EXPENSES	***711,400***	**54,360**	**73,535**	74%	**57,636**
NET INCOME	***63,564***	**5,731**	***(11,868)***	-48%	**2,456**

Borrego Water District
Pest Control Operating Budget Analysis
07/01/2025 to 07/31/2025

	Budgeted FY2025	Actual July FY2026	*Projected July FY2026*	Year to Date FY2026
INCOME				
Charges Collected thru Tax Roll				
Pest Control Standby	*17,150*	-	-	-
TOTAL PEST CONTROL FUND REVENUE	***17,150***	-	-	-
EXPENSES				
Pest Control Plan Consultant	*15,600*			
R&M Pest Control	-	-	-	-
ACWA/JPIA Program Insurance	*500*	-	*100*	-
Salaries & Wages	*1,000*	-	*200*	-
Benefits - Medical		-	-	-
Benefits - CalPERS		-	-	-
ACWA/JPIA Workers Comp		-	-	-
Payroll Taxes		-	-	-
TOTAL PEST CONTROL FUND REVENUE	***17,100***	-	*300*	-
Net Income Pest Control Enterprise Fund	*50*	-	*(300)*	

Borrego Water District
Flood Enterprise Operating Budget Analysis
07/01/2025 to 07/31/2025

	Budgeted FY2026	Actual July FY2026	*Projected July FY2026*	Year to Date FY2026	% of Annual Budget TD
INCOME					
ID1 - Flood Standby	*34,965*	440	-	440	1%
TOTAL FLOOD CONTROL FUND REVENUE	*34,965*	440	-	440	1%
EXPENSES					
ACWA/JPIA Program Insurance	*605*	-		-	0%
Legal Services - General	*5,125*	-	-	-	0%
Salaries & Wages	*9,109*	-	-	-	0%
Benefits - Medical	*1,494*	-	-	-	0%
Benefits - CalPERS	*1,661*	-	-	-	0%
ACWA/JPIA Workers Comp	*127*	-	-	-	0%
Payroll Taxes	*187*	-	-	-	0%
TOTAL FLOOD CONTROL FUND EXPENSES	*18,308*	-	-	-	0%
Net Income Flood Enterprise Fund	***16,657***	***440***	**-**	440	

Borrego Water District
Non-Rate Revenue Budget Analysis
07/01/2025 to 07/31/2025

	Budgeted FY2026	Actual July FY2026	*Projected July FY2026*	Year to Date FY2026
INCOME				
OTHER INCOME				
Penalties & Fees	*50,000*	20,615	*5,000*	20,615
BSUSD Well Agreement	*35,000*	-		-
1% Property Assessments	*70,000*	-	*279*	-
Interest Income	*60,000*	386	*2,917*	386
Sale of Parcels		-		-
WM Meter Reading Income	*6,500*	-	*550*	-
TOTAL OTHER INCOME	***221,500***	**21,001**	***8,745***	**21,001**
EXPENSES				
Air Quality Study	*36,341*	-	*3,028*	-
TOTAL NON-RATE REVENUE EXPENSES	***36,341***	**-**	***3,028***	-
Net Income Non-Rate Revenue	***185,159***	21,001	*5,717*	21,001

Borrego Water District
Consolidated Enterprise Budget Analysis
07/01/2025 to 07/31/2025

	Budgeted FY2026	Actual July FY2026	*Projected July FY2026*	*YTD FY2026*
INCOME				
TOTAL WATER RATE REVENUE	*4,615,007*	*411,744*	*389,819*	*411,744*
TOTAL WASTEWATER RATE REVENUE	*774,965*	*60,092*	*61,667*	*60,092*
TOTAL PEST CONTROL FUND REVENUE	*17,150*	-	-	-
TOTAL FLOOD CONTROL FUND REVENUE	*34,965*	-	-	-
TOTAL OTHER INCOME	*221,500*	*21,001*	*8,745*	*21,001*
GROSS INCOME	*5,663,588*	*492,836*	*460,231*	*492,836*
EXPENSES				
TOTAL WATER ENTERPRISE EXPENSES	*4,449,129*	*386,562*	*438,477*	*386,562*
TOTAL WASTEWATER ENTERPRISE EXPENSES	*711,398*	*54,360*	*73,535*	*54,360*
TOTAL PEST CONTROL ENTERPRISE EXPENSES	*17,150*	-	*300*	-
TOTAL FLOOD CONTROL ENTERPRISE EXPENSES	*18,307*	-	-	-
TOTAL NON-RATE REVENUE EXPENSES	*36,341*	-	*3,028*	-
TOTAL EXPENSES	*5,232,325*	*440,922*	*515,340*	*440,922*
CONSOLIDATED NET INCOME	**431,262**	**51,914**	**(55,109)**	**51,914**

Borrego Water District
BPA Purchase & Capital Improvements Budget
07/01/2025 to 07/31/2025

	Budgeted FY2026	Actual July FY2026	Year to Date FY2026
BPA Purchase Expense			
Land - Installment Agreement Payment	*361,956*	-	425,384
Fallowing Expense	*195,668*	-	65,893
BPA Purchase Expense	*557,624*	-	490,384
			-
CAPITAL IMPROVEMENT PROJECTS (CIP)			-
Water Enterprise CIP			-
Water Projects			-
Tank Repair/Recoating: Country Club Tank	*350,000*	1,124	120,605
New Production Well Evalauation: DB20	*100,000*	-	-
Office Propane Generator	*75,000*	-	86,089
ID1-8 Convert to Monitoring	*11,000*		3,481
Well/Tank Site Security Upgrades	*60,000*	4,531	12,561
Discharge Pond Fencing	*30,000*	-	
Emergency System Repairs	*69,458*	-	-
Total Water Projects	*695,458*	5,655	222,001
Sewer Projects			-
Manhole Refurbishments	*100,000*	6,310	6,310
Sewer Cleaning/Inspection	*125,000*	-	-
Total Sewer Projects	*225,000*	6,310	6,310
			-
CASH FUNDED BPA PURCHASE & CIP TOTAL	***1,478,082***	**11,965**	**718,695**

Borrego Water District
Grant Funded CIP Budget Analysis
07/01/2025 to 07/31/2025

	Budgeted FY2026	Actual July FY2026	Year to Date FY2026
GRANT FUNDED CIP			
2023 Appropriations Bill			
BSR Pipeline	*928,000*	-	48,900
Sungold Pipeline	*2,464,000*	-	48,900
2023 Appropriations Bill Total	*3,392,000*	-	97,800
TOTAL GRANT FUNDED CIP	***3,392,000***	**-**	**700,841**

Borrego Water District
Cash Flow Analysis
07/01/2025 to 07/31/2025

		Actual July FY26	
Cash and Reserves at Beginning of Period			*4,438,712*
Cash Flows from Operating Activities			
Income Provided by Operating Activities		*30,913*	
Decrease in Accounts Receivable		*589,111*	
Incease in Accounts Payable		*7,692*	
Increase in Inventory		*(6,157)*	
Customer Deposits Returned		-	
Net Cash Provided by Operating Activities		**$**	**621,560**
Cash Flows from Non-Operating Activities			
Other Income Received		*21,001*	
Debt Service Disbursement			
Net Cash Provided by Other Income		**$**	**21,001**
Cash Flows from Capital Improvement Activities			
All CIP/BPA Purchase Activities (Cash + Grant)		*(11,965)*	
Grant Monies Received		-	
Net Cash Paid for Capital Improvements		**$**	**(11,965)**
Net Change in Cash		**$**	**630,596**
Cash and Reserves at End of Period			**$ 5,069,308**
Restricted Reserves at End of Period		*$ 1,306,291*	
Unrestricted Reserves at End of Period		*$ 3,763,017*	
Water Reserves Portion	*$4,430,009*		
Sewer Reserves Portion	*$639,285*		
Non-218 Reserves Portion	*$880,105*		
Fiscal Year Reserves Target			**$ 6,853,714**
Fiscal Year Reserves Surplus/Shortfall to Date			**$ (1,784,406)**

July 2025

42015	1109	ABILITY ANSWERING/PAGING SER	07/16/2025	259.50
42021	3035	ACWA / JPIA Finance Dept.	07/30/2025	28,929.42
42127	3035	ACWA / JPIA Finance Dept.	09/30/2025	30,230.27
42022	1266	AFLAC	07/30/2025	1,420.38
42023	9338	AMERICAN BACKFLOW SPECIALTIES	07/30/2025	216.63
42043	1001	AMERICAN LINEN INC.	08/05/2025	660.82
42059	61	AT&T MOBILITY	08/15/2025	916.98
42024	9529	AT&T-CALNET 3	07/30/2025	671.80
42000	2	AUDITOR/CONTROLLER/SAN DIEGO	07/10/2025	2,359.45
42060	9255	BABCOCK LABORATORIES	08/15/2025	4,978.74
42061	10884	BEST BEST & KRIEGER ATTORNEYS AT LAW	08/15/2025	18,580.80
42055	10900	BORREGO AUTO PARTS & SUPPLY CO	08/06/2025	51.89
42073	1201	BORREGO LANDFILL	08/21/2025	128.70
42062	11140	BORREGO SPRINGS HARDWARE	08/15/2025	22.60
100012	11170	BORREGO SPRINGS UNIFIED SCHOOL DISTRICT	08/01/2025	2,980.00
42010	1037	BORREGO SUN	07/15/2025	145.00
42025	1037	BORREGO SUN	07/30/2025	80.00
42044	1037	BORREGO SUN	08/05/2025	80.00
42026	11092	BUSY BEES LOCKS & KEYS, INC	07/30/2025	227.59
42016	1196	CASH	07/16/2025	400.00
42102	39	DAVID TAUSSIG & ASSOCIATES,INC	09/05/2025	422.50
42037	1455	DIANA DEL BONO	07/30/2025	1,200.00
42063	96	DISH	08/15/2025	100.80
42029	11153	EDDIE LOPEZ	07/30/2025	1,120.00
42038	11071	ESMERALDA LOPEZ-GARCIA	07/30/2025	600.00
42064	1136	HOME DEPOT CREDIT SERVICES	08/15/2025	816.03
42103	11137	INTERA INCORPORATED	09/05/2025	5,642.50
42045	11161	ISSAC FREDERICKS	08/05/2025	4,400.00
42027	11021	J & T Tire and Auto	07/30/2025	631.15
42028	9385	JOHNSON CONTROLS SECURITY SOLUTIONS	07/30/2025	424.02
42039	11156	LAURA MANZANO	07/30/2025	600.00
42012	10910	LORETO MOLINA TITO'S AUTO CARE	07/15/2025	245.48
42046	11090	LUPE'S GARDENING MAINTENANCE INC.	08/05/2025	585.00
41999	1000	MEDICAL ACWA-JPIA	07/10/2025	23,575.29
42128	11175	NEW YORK LIFE INSURANCE COMPANY	09/30/2025	290.92
42030	11114	OCEANUS BOTTLED WATER, INC	07/30/2025	76.00
42031	1208	PACIFIC PIPELINE SUPPLY INC	07/30/2025	11,181.00
42047	1208	PACIFIC PIPELINE SUPPLY INC	08/05/2025	3,033.96
42065	11028	POOL & ELECTRICAL PRODUCTS	08/15/2025	339.96
42032	11083	QUADIENT FINANCE USA, INC.	07/30/2025	2,049.00
42048	9633	RAMONA DISPOSAL SERVICE	08/05/2025	5,218.30
42033	1065	SAN DIEGO GAS & ELECTRIC	07/30/2025	47,390.85
42074	1065	SAN DIEGO GAS & ELECTRIC	08/21/2025	11.45
42011	11067	SC FUELS	07/15/2025	1,029.35
42034	11067	SC FUELS	07/30/2025	2,290.31
42049	11086	SPRINGBROOK HOLDING COMPANY LLC	08/05/2025	743.00
42075	11193	THE DATA CENTER LLC	08/21/2025	1,212.68
100013	11174	THE REGENTS OF THE UNIVERSITY OF CALIFORNIA	08/01/2025	156,638.90
42001	9581	TRAVIS PARKER	07/10/2025	1,050.44
42017	9581	TRAVIS PARKER	07/16/2025	5,076.72
42035	9581	TRAVIS PARKER	07/30/2025	3,866.00
42050	9581	TRAVIS PARKER	08/05/2025	1,960.50
42051	3000	U.S.BANK CORPORATE PAYMENT SYS	08/05/2025	5,715.36
42052	1023	UNDERGROUND SERVICE ALERT	08/05/2025	24.00
42066	1100	VERIZON WIRELESS	08/15/2025	124.03
42067	92	XEROX FINANCIAL SERVICES	08/15/2025	365.28
42053	11050	ZITO MEDIA	08/05/2025	289.50
		Report Total (57 checks):		383,680.85

Borrego Water District
Water Enterprise Operating Budget Analysis
08/01/2025 to 08/31/2025

	Budgeted FY2026	Actual Aug FY2026	*Projected Aug FY2026*	% of Months Budget	Year to Date FY2026
INCOME					
RATE REVENUE					
Water Rates Revenues					
Commodity Rates					
Residential T1 & T2 Revenues	*1,015,987*	100,265	*115,619*	*87%*	196,704
Residential T3 Revenues	*676,567*	88,676	*76,993*	*115%*	155,965
Commercial	*643,522*	65,886	*73,233*	*90%*	134,148
Irrigation	*423,161*	42,712	*48,156*	*89%*	77,151
Total Commodity	*2,759,237*	297,539	*314,003*	*95%*	563,967
Non-Commodity Charges					-
Base Meter Charges	*1,689,581*	135,764	*140,798*	*96%*	272,780
Meter Install/Repair	*36,750*	25	*3,063*	*1%*	25
New Water Supply Connection Fee	*26,124*	-	*2,177*	*0%*	-
Backflow Testing/Install	*11,400*	-	*950*	*0%*	7,364
Bulk Water Sales	*6,825*	815	*569*	*143%*	1,751
Total Non-Commodity	*1,770,680*	136,604	*147,557*	*93%*	281,920
					-
Total Water Rate Revenues	*4,529,917*	434,144	*461,560*	*94%*	845,887
Availability Charges Collected thru Tax Roll			*0*		
ID1 - Water	*34,965*	-	*91*	*0%*	-
ID3/ID4 - Water Standby	*117,000*	76	*304*	*25%*	76
Total Availability (Tax Roll)	*151,965*	76	*395*	*19%*	76
TOTAL WATER REVENUE	***4,681,882***	**434,220**	***461,955***	*94.00%*	**845,964**

Borrego Water District
Water Enterprise Operating Budget Analysis
08/01/2025 to 08/31/2025

	Budgeted FY2026	Actual Aug FY2026	*Projected Aug FY2026*	% of Months Budget	Year to Date FY2026
EXPENSES					
OPERATING EXPENSES					
Operations & Maintenance Expense					
R&M Water	*286,926*	13,508	*23,911*	*56.49%*	19,845
Telemetry	*15,000*	-	*1,250*	*0.00%*	-
Trash Removal	*7,500*	616	*625*	*98.64%*	1,234
Vehicle Expense	*30,000*	4,532	*4,000*	*113.31%*	10,492
Fuel & Oil	*45,007*	3,556	*3,751*	*94.82%*	6,478
Lab/Testing	*45,000*	5,660	*3,750*	*150.93%*	9,153
Permit Fees	*29,541*	-	*2,462*	*0.00%*	2,076
Pumping Electricity	*566,528*	51,522	*47,211*	*109.13%*	95,978
Total Operations & Maintenance Expense	*1,025,502*	79,395	86958.50	*91.30%*	145,256
Professional Services					
Accounting (Lockbox/Debt Filings)	*9,680*	135	*800*		507
Payroll Services	*4,400*	273	*367*	*74.51%*	657
Audit Fees	*28,034*	-	*5,500*	*0.00%*	-
IT & Cyber Security	*39,360*	4,355	*2,986*	*145.86%*	9,483
Financial Consulting	-	-	*0*	*0.00%*	-
Engineering Consultant	*10,000*	-	*833*	*0.00%*	-
Legal Services - General	*68,675*	716	*5,723*	*12.52%*	1,544
Legal Services - Reimbursible	-		-		
Federal & State Legislative Advocacy	*64,944*	5,280	*5,412*	*97.56%*	10,560
Total Professional Services	*225,093*	10,760	21620.92	*49.77%*	22,751
Insurance Expense					
ACWA/JPIA Program Insurance	*132,355*	-			52,061
ACWA/JPIA Workers Comp	*17,068*	-			-
Total Insurance Expense	*149,423*	-	-		52,061
Personnel Expense					
Board Meeting Expense	*13,939*	-	*1,162*	*0.00%*	1,016
Salaries & Wages	*1,221,985*	93,573	*101,832*	*91.89%*	192,197
Contra Account - Salaries & Wages	*(62,031)*	(285)	*(5,169)*	*5.51%*	(285)
Contract Labor/Consulting	*10,175*	-	*848*	*0.00%*	-
Payroll Taxes	*25,084*	1,371	*2,090*	*65.58%*	3,311
Benefits - Medical	*200,383*	17,937	*16,699*	*107.42%*	36,282
Benefits - CalPERS	*222,721*	11,368	*9,980*	*113.91%*	117,760
Trainings & Conferences	*18,314*	459	*1,526*	*30.06%*	1,068
Uniforms	*7,123*	614	*594*	*103.52%*	1,196
Safety Compliance & Emergency Prep	*5,087*	221	*424*	*52.24%*	221
Total Personnel Expense	*1,662,780*	125,258	*129,985*	*96.36%*	352,767

Borrego Water District
Water Enterprise Operating Budget Analysis
08/01/2025 to 08/31/2025

	Budgeted FY2026	Actual Aug FY2026	*Projected Aug FY2026*	% of Months Budget	Year to Date FY2026
OPERATING EXPENSES (Con't)					
Office Expense					
Office Supplies	*22,659*	3,726	*1,888*	*197.31%*	5,763
Office Equipment	*49,641*	1,148	*3,765*	*30.50%*	7,207
Postage & Freight	*4,400*	-	*367*	*0.00%*	1,103
Property Tax	*3,052*	-	*254*		-
Telephone Expense	*28,034*	1,403	*2,160*	*64.96%*	5,251
Dues & Subscriptions (ACWA/AWWA)	*17,401*	98	*1,450*	*6.75%*	362
Statement Printing & Mialing	*25,087*	-	*2,091*	*0.00%*	2,036
Office/Shop utilities	*18,897*	1,843	*1,575*	*117.05%*	1,843
Total Office Expense	*169,171*	8,218	*13,550*	*60.65%*	23,565
TOTAL OPERATING EXPENSES	***3,231,969***	**223,632**	**252,114**	*88.70%*	**596,399**
Debt Expense					
BBVA Bank Note 2018A/B - Principal	*220,000*	-			-
BBVA Bank Note 2018A/B - Interest	*26,967*	-			-
2021 Bond Cap One - Principal	*393,063*	-			-
2021 Bond Cap One - Interest	*125,477*	58,013			58,013
Total Debt Expense	*765,507*	58,013	-		58,013
GROUNDWATER MANAGEMENT EXPENSES					
Pumping Fees	*103,000*	-			-
GWM Expense	*81,532*	-	*6,794*	*0.00%*	-
Legal Expense	*103,000*	1,146	*8,583*	*13.35%*	9,298
Engineering/TAC Expense (Intera)	*139,050*	-	*11,588*	*0.00%*	5,643
TOTAL GROUNDWATER MGMT EXPENSES	*426,582*	1,146	*26,965*	*4.25%*	14,940
TOTAL EXPENSES	***4,424,058***	**282,790**	**279,079**	*101.33%*	**669,353**
NET INCOME	***257,824***	**151,429**	***182,876***	*82.80%*	**176,611**

Borrego Water District
Sewer Enterprise Operating Budget Analysis
08/01/2025 TO 08/31/2025

	Budgeted FY2026	Actual Aug FY2026	*Projected AUG FY2026*	*% of Months Budget*	Year to Date FY2026
INCOME					
RATE REVENUE					
Sewer Rates					
TCS Holder Fees (SA2)	*192,073*	16,097	16,006	101%	30,551
TCS User Fees (SA2)	*155,060*	13,038	12,922	101%	25,155
RH Sewer User Fees (ID1)	*182,674*	15,943	15,223	105%	31,883
Sewer Standby/Capacity Fees	-	-			-
Sewer User Fees (ID5)	*210,192*	17,583	17,516	100%	35,163
Total Sewer Rates	*739,999*	62,660	61,667	102%	122,752
Availability Charges Collected thru Tax Roll			*0*		
ID1 - Sewer Standby	*34,965*	-	139	0%	-
Total Availability (Tax Roll)	*34,965*	-	139	0%	-
TOTAL SEWER REVENUE	***774,964***	**62,660**	***61,806***	101%	**122,752**

Borrego Water District
Sewer Enterprise Operating Budget Analysis
08/01/2025 TO 08/31/2025

	Budgeted FY2026	Actual Aug FY2026	*Projected AUG FY2026*	*% of Months Budget*	Year to Date FY2026
EXPENSES					
OPERATING EXPENSES					
Operations & Maintenance Expense					
R&M WWTF	*138,744*	2,895	*11,562*	25%	3,683
Telemetry	*1,000*	-	*83*	0%	-
Trash Removal	*2,400*	104	*200*	52%	208
Vehicle Expense	*3,086*	503	*257*	196%	813
Fuel & Oil	*8,533*	484	*711*	68%	882
Lab/Testing	*20,437*	1,380	*1,703*	81%	2,946
Electricity	*5,723*	410	*477*	86%	410
Permit Fees	*15,000*	-	*1,250*	0%	283
Total Operations & Maintenance Expense	*194,923*	5,776	*16,244*	36%	9,225
Professional Services					
Accounting (Lockbox/Debt Filings)	*1,320*	18	*110*		69
Payroll Services	*600*	37	*50*	75%	90
Audit Fees	*3,823*	-	*319*	0%	-
IT & Cyber Security	*7,688*	594	*641*	93%	1,293
Financial Consulting	-	-	*0*	0%	-
Engineering (Dudek)	*6,371*	-	*531*	0%	-
Legal Services - General	*9,365*	98	*780*	13%	211
Advocacy	*8,325*	720	*694*	104%	720
Total Professional Services	*37,492*	1,467	*3,124*	47%	2,382
Insurance Expense					
ACWA/JPIA Program Insurance	*18,048*	-			7,099
ACWA/JPIA Workers Comp	*3,952*	-			-
Total Insurance Expense	*22,000*	-	-		7,099
Personnel Expense					
Board Meeting Expense	*2,000*	-	*167*	0%	139
Salaries & Wages	*282,486*	22,100	*23,541*	94%	43,030
Contra Account - Salaries & Wages	*(8,459)*	-	*(705)*	0%	-
Contract Labor/Consulting	*10,000*	-	*833*	0%	-
Payroll Taxes	*5,799*	324	*483*	67%	3,688
Benefits - Medical	*47,646*	4,236	*3,971*	107%	6,897
Benefits - CalPERS	*51,486*	2,685	*3,214*	84%	18,821
Trainings & Conferences	*2,497*	-	*208*	0%	79
Uniforms	*971*	84	*81*	104%	163
Safety Compliance & Emergency Prep	*694*	-	*58*	0%	-
Total Personnel Expense	*395,120*	29,430	*31,850*	92%	72,817

Borrego Water District
Sewer Enterprise Operating Budget Analysis
08/01/2025 TO 08/31/2025

	Budgeted FY2026	Actual Aug FY2026	*Projected AUG FY2026*	*% of Months Budget*	Year to Date FY2026
OPERATING EXPENSES (Con't)					
Office Expense					
Office Supplies	*3,100*	458	*258*	177%	653
Office Equipment	*6,769*	443	*528*	84%	1,403
Postage & Freight	*600*	-	*50*	0%	246
Property Tax	*416*	-	-		-
Telephone Expense	*3,823*	191	*300*	64%	716
Dues & Subscriptions (ACWA/AWWA)	*3,191*	13	*266*	5%	49
Printing & Publication	*694*	90	*58*	156%	180
Office/Shop utilities	*2,129*	286	*177*	161%	286
Total Office Expense	*20,722*	1,481	*1,638*	90%	3,533
TOTAL OPERATING EXPENSES	***670,257***	**38,154**	**52,856**	72%	**95,057**
Debt Expense					
2021 Bond Cap One - Principal	*31,994*	-			-
2021 Bond Cap One - Interest	*9,149*	-			-
Total Debt Expense	*41,143*	-	-		-
TOTAL EXPENSES	***711,400***	**38,154**	**52,856**	72%	**95,057**
NET INCOME	***63,564***	**24,507**	***8,950***	274%	**27,695**

Borrego Water District
Pest Control Operating Budget Analysis
08/01/2025 to 08/31/2025

	Budgeted FY2025	Actual Aug FY2026	*Projected Aug FY2026*	Year to Date FY2026
INCOME				
Charges Collected thru Tax Roll				
Pest Control Standby	*17,150*	8	-	8
TOTAL PEST CONTROL FUND REVENUE	***17,150***	8	-	8
EXPENSES				
Pest Control Plan Consultant	*15,600*			
R&M Pest Control	-	-	-	-
ACWA/JPIA Program Insurance	*500*	-	*100*	-
Salaries & Wages	*1,000*	-	*200*	-
Benefits - Medical		-	-	-
Benefits - CalPERS		-	-	-
ACWA/JPIA Workers Comp		-	-	-
Payroll Taxes		-	-	-
TOTAL PEST CONTROL FUND REVENUE	***17,100***	-	*300*	-
Net Income Pest Control Enterprise Fund	*50*	8	*(300)*	

Borrego Water District
Flood Enterprise Operating Budget Analysis
08/01/2025 to 08/31/2025

	Budgeted FY2026	Actual August FY2026	*Projected August FY2026*	Year to Date FY2026
INCOME				
ID1 - Flood Standby	*34,965*	-	-	-
TOTAL FLOOD CONTROL FUND REVENUE	*34,965*	-	-	-
EXPENSES				
ACWA/JPIA Program Insurance	*605*	-		-
Legal Services - General	*5,125*	-	-	-
Salaries & Wages	*9,109*	-	-	-
Benefits - Medical	*1,494*	-	-	-
Benefits - CalPERS	*1,661*	-	-	-
ACWA/JPIA Workers Comp	*127*	-	-	-
Payroll Taxes	*187*	-	-	-
TOTAL FLOOD CONTROL FUND EXPENSES	*18,308*	-	-	-
Net Income Flood Enterprise Fund	***16,657***	-	-	-

Borrego Water District
Non-Rate Revenue Budget Analysis
08/01/2025 to 08/31/2025

	Budgeted FY2026	Actual Aug FY2026	*Projected Aug FY2026*	Year to Date FY2026
INCOME				
OTHER INCOME				
Penalties & Fees	*50,000*	22,173	*5,000*	42,788
BSUSD Well Agreement	*35,000*	-		-
1% Property Assessments	*70,000*	1,213	*279*	1,213
Interest Income	*60,000*	461	*2,917*	847
Sale of Parcels		-		-
WM Meter Reading Income	*6,500*	-	*550*	-
TOTAL OTHER INCOME	***221,500***	**23,847**	***8,745***	**44,848**
EXPENSES				
Air Quality Study	*36,341*	-	*3,028*	-
TOTAL NON-RATE REVENUE EXPENSES	***36,341***	**-**	***3,028***	-
Net Income Non-Rate Revenue	***185,159***	23,847	*5,717*	44,848

Borrego Water District
Consolidated Enterprise Budget Analysis
08/01/2025 to 08/31/2025

	Budgeted FY2026	Actual Aug FY2026	*Projected Aug FY2026*	*YTD FY2026*
INCOME				
TOTAL WATER RATE REVENUE	*4,615,007*	*434,220*	*461,955*	*845,964*
TOTAL WASTEWATER RATE REVENUE	*774,965*	*62,660*	*61,806*	*122,752*
TOTAL PEST CONTROL FUND REVENUE	*17,150*	*8*	*-*	*8*
TOTAL FLOOD CONTROL FUND REVENUE	*34,965*	*-*	*-*	*-*
TOTAL OTHER INCOME	*221,500*	*23,847*	*8,745*	*44,848*
GROSS INCOME	*5,663,588*	*520,736*	*532,506*	*1,013,572*
EXPENSES				
TOTAL WATER ENTERPRISE EXPENSES	*4,449,129*	*282,790*	*279,079*	*669,353*
TOTAL WASTEWATER ENTERPRISE EXPENSES	*711,398*	*38,154*	*52,856*	*95,057*
TOTAL PEST CONTROL ENTERPRISE EXPENSES	*17,150*	*-*	*300*	*-*
TOTAL FLOOD CONTROL ENTERPRISE EXPENSES	*18,307*	*-*	*-*	*-*
TOTAL NON-RATE REVENUE EXPENSES	*36,341*	*-*	*3,028*	*-*
TOTAL EXPENSES	*5,232,325*	*320,944*	*335,263*	*764,409*
CONSOLIDATED NET INCOME	**431,262**	**199,792**	**197,243**	**249,163**

Borrego Water District
BPA Purchase & Capital Improvements Budget
08/01/2025 to 08/31/2025

	Budgeted FY2026	Actual Aug FY2026	Year to Date FY2026
BPA Purchase Expense			
Land - Installment Agreement Payment	*361,956*	1,733	1,733
Fallowing Expense	*195,668*	-	-
BPA Purchase Expense	*557,624*	1,733	1,733
			-
CAPITAL IMPROVEMENT PROJECTS (CIP)			-
Water Enterprise CIP			-
Water Projects			-
Tank Repair/Recoating: Country Club Tank	*350,000*	-	1,124
New Production Well Evalauation: DB20	*100,000*	-	-
Office Propane Generator	*75,000*	-	-
ID1-8 Convert to Monitoring	*11,000*		-
Well/Tank Site Security Upgrades	*60,000*	-	4,531
Discharge Pond Fencing	*30,000*	-	
Emergency System Repairs	*69,458*	-	-
Total Water Projects	*695,458*	-	5,655
Sewer Projects			-
Manhole Refurbishments	*100,000*	-	6,310
Sewer Cleaning/Inspection	*125,000*	-	-
Total Sewer Projects	*225,000*	-	6,310
			-
CASH FUNDED BPA PURCHASE & CIP TOTAL	***1,478,082***	**1,733**	**13,698**

Borrego Water District
Grant Funded CIP Budget Analysis
08/01/2025 to 08/31/2025

	Budgeted FY2026	Actual Aug FY2026	Year to Date FY2026
GRANT FUNDED CIP			
2023 Appropriations Bill			
BSR Pipeline	*928,000*	-	-
Sungold Pipeline	*2,464,000*	-	-
2023 Appropriations Bill Total	*3,392,000*	-	-
TOTAL GRANT FUNDED CIP	***3,392,000***	**-**	**-**

Borrego Water District
Cash Flow Analysis
08/01/2025 to 08/31/2025

		Actual AUG FY26	
Cash and Reserves at Beginning of Period			*5,069,308*
Cash Flows from Operating Activities			
Income Provided by Operating Activities		*175,944*	
Increase in Accounts Receivable		*(125,450)*	
Decease in Accounts Payable		*(99,883)*	
Decrease in Inventory		*585*	
Customer Deposits Returned		-	
Net Cash Provided by Operating Activities		**$**	**(48,804)**
Cash Flows from Non-Operating Activities			
Other Income Received		*23,847*	
Debt Service Disbursement			
Net Cash Provided by Other Income		**$**	**23,847**
Cash Flows from Capital Improvement Activities			
All CIP/BPA Purchase Activities (Cash + Grant)		*(1,733)*	
Grant Monies Received		-	
Net Cash Paid for Capital Improvements		**$**	**(1,733)**
Net Change in Cash		**$**	**(26,689)**
Cash and Reserves at End of Period			**$ 5,042,619**
Restricted Reserves at End of Period		*$ 1,306,291*	
Unrestricted Reserves at End of Period		*$ 3,736,328*	
Water Reserves Portion	*$4,406,523*		
Sewer Reserves Portion	*$636,082*		
Non-218 Reserves Portion	*$880,105*		
Fiscal Year Reserves Target			**$ 6,853,714**
Fiscal Year Reserves Surplus/Shortfall to Date			**$ (1,811,095)**

August 2025

42081	1032	A-1 IRRIGATION, INC.	09/05/2025	42.85
42068	1109	ABILITY ANSWERING/PAGING SER	08/15/2025	259.50
42118	1266	AFLAC	09/18/2025	1,420.38
42082	1001	AMERICAN LINEN INC.	09/05/2025	698.23
42083	9222	ASBURY ENVIRONMENTAL SERVICES	09/05/2025	153.00
42084	61	AT&T MOBILITY	09/05/2025	794.50
42085	9529	AT&T-CALNET 3	09/05/2025	540.59
42104	83	AUTOMATED WATER TREATMENT	09/09/2025	15,507.44
42086	9255	BABCOCK LABORATORIES	09/05/2025	6,999.67
42087	11195	BANK UP CORPORATION	09/05/2025	926.44
42076	9269	BENITO ARTEAGA	08/21/2025	148.35
42105	10884	BEST BEST & KRIEGER ATTORNEYS AT LAW	09/09/2025	13,662.20
42106	9679	BIG J FENCING, INC.	09/09/2025	1,299.00
42088	10900	BORREGO AUTO PARTS & SUPPLY CO	09/05/2025	851.65
42107	11140	BORREGO SPRINGS HARDWARE	09/09/2025	188.36
42077	11122	CAPITAL ONE PUBLIC FUNDING, LLC	08/21/2025	524,904.96
42078	1196	CASH	08/21/2025	400.00
42119	39	DAVID TAUSSIG & ASSOCIATES,INC	09/18/2025	153.80
42070	1222	DEBBIE MORETTI	08/15/2025	140.00
42089	11153	EDDIE LOPEZ	09/05/2025	1,120.00
42108	1136	HOME DEPOT CREDIT SERVICES	09/09/2025	2,635.14
42094	10863	HUGO RODARTE	09/05/2025	221.45
42069	11203	JOSE E. SOLANO	08/15/2025	3,960.00
42090	11090	LUPE'S GARDENING MAINTENANCE INC.	09/05/2025	585.00
42040	1000	MEDICAL ACWA-JPIA	07/31/2025	23,575.29
42091	93	MRC SMART TECHNOLOGY SOLUTIONS	09/05/2025	258.19
42092	11175	NEW YORK LIFE INSURANCE COMPANY	09/05/2025	290.92
42109	11073	NYHART	09/09/2025	1,900.00
42137	11114	OCEANUS BOTTLED WATER, INC	10/09/2025	76.00
42071	1208	PACIFIC PIPELINE SUPPLY INC	08/15/2025	862.00
42110	9633	RAMONA DISPOSAL SERVICE	09/09/2025	5,218.30
42095	1065	SAN DIEGO GAS & ELECTRIC	09/05/2025	54,312.64
42072	11067	SC FUELS	08/15/2025	1,028.13
42096	11067	SC FUELS	09/05/2025	3,013.28
42138	11086	SPRINGBROOK HOLDING COMPANY LLC	10/09/2025	771.00
42097	9046	STATE WATER RESOURCE CONTROL BOARD OPERATOR CERT	09/05/2025	80.00
42098	9581	TRAVIS PARKER	09/05/2025	4,949.18
42099	3000	U.S.BANK CORPORATE PAYMENT SYS	09/05/2025	4,997.67
42100	1023	UNDERGROUND SERVICE ALERT	09/05/2025	14.00
42079	11168	WESTFLEX, INC.	08/21/2025	303.31
42111	92	XEROX FINANCIAL SERVICES	09/09/2025	365.28
42101	11050	ZITO MEDIA	09/05/2025	441.97
		Report Total (42 checks):		680,069.67

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