

Borrego Water District Board of Directors
Special Meeting
October 13, 2020 @ 9:00 a.m.
806 Palm Canyon Drive
Borrego Springs, CA 92004

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I. OPENING PROCEDURES

- A. Call to Order:
- B. Pledge of Allegiance
- C. Roll Call
- D. Approval of Agenda
- E. Approval of Minutes - None
- F. Comments from the Public & Requests for Future Agenda Items (may be limited to 3 min)
- G. Comments from Directors
- H. Correspondence Received from the Public - None

II. ITEMS FOR BOARD CONSIDERATION AND POSSIBLE ACTION

- A. Policy for Water and Sewer Service to New Developments - L Brecht/ G Poole/D Dale (3-11)
- B. Announcement of Schedule for Water and Sewer Rates/Charges Adjustment Previously Postponed for FY 20-21 – L Brecht/G Poole (12)
- C. Policy for Waiver of Unintentionally High Water Bills – G Poole (13-14)
- D. Capital Improvement Plan Update – D Dale (15-19)
- E. Letter to SDCWA Regarding Proposed Regional Conveyance System through Borrego Springs. – K Dice/D Johnson (20-26)
- F. Response from County Regarding Unknown Status of Wells in Subbasin – G Poole (27-29)
- G. General Manager Salary Adjustment – K Dice (30)
- H. November Meeting Schedule – G Poole (31)
- I. Borrego Spring Basin Interim Watermaster (32-68)
 1. Meter Reading Services by BWD Completed - G Poole
 2. Sampling and Analysis Plan prepared under the Groundwater Sustainability Plan (GSP/GMP) implementation progress by Subbasin Watermaster for the Borrego Springs Subbasin – L Brecht

AGENDA: October 13, 2020

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.

The Borrego Springs Water District complies with the Americans with Disabilities Act. Persons with special needs should call Geoff Poole – Board Secretary 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.

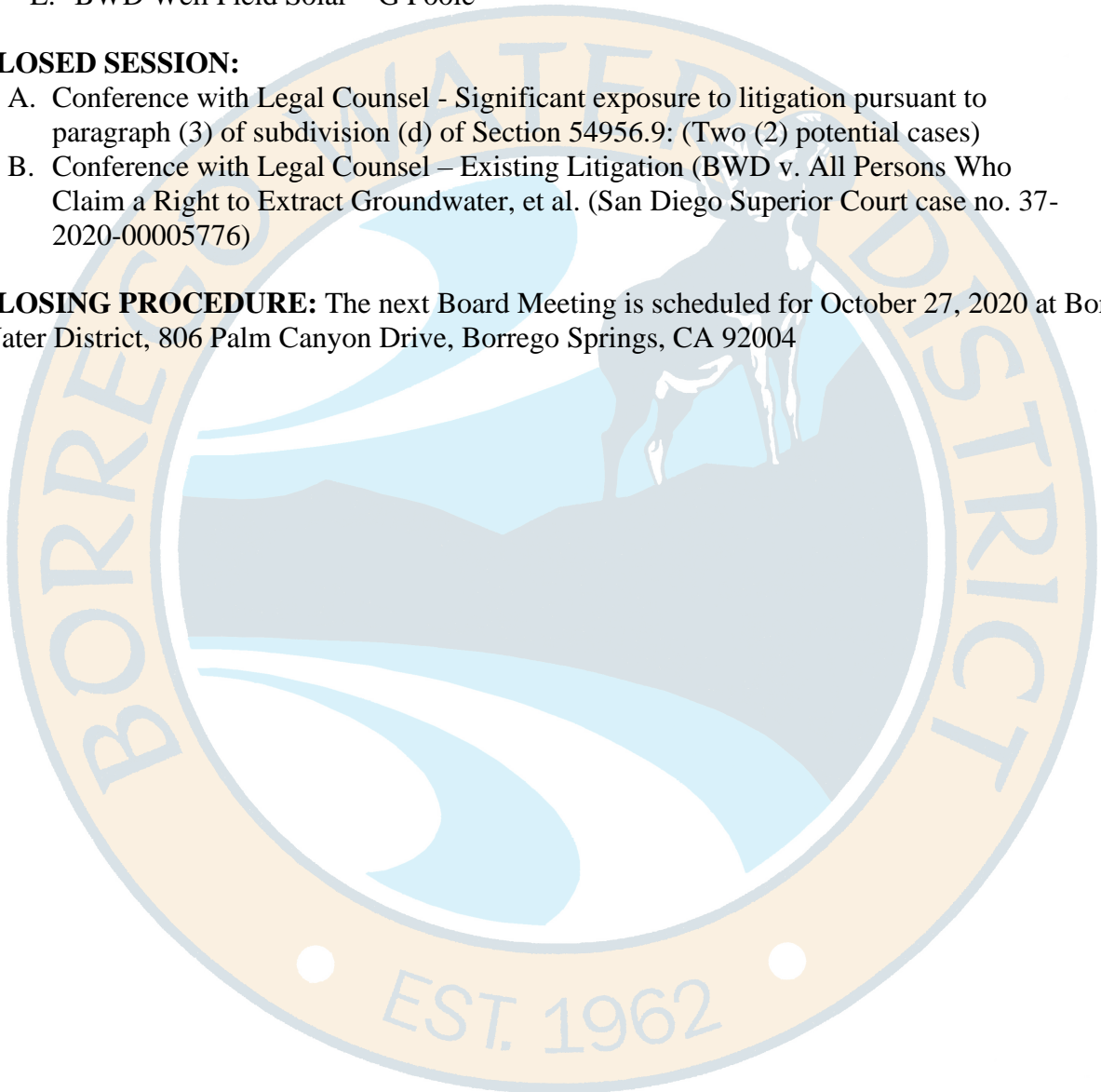
III. STAFF REPORTS (69-70)

- A. Water Sales and Revenues Update: J. Clabaugh - VERBAL
- B. Publication of Documents – G Poole
 - 1. Hemp Growing in Anza – Letter to Riverside Board of Supervisors
- C. Updated Schedule with Fieldman Rolapp Associates (FRA) and Raftelis Financial Consultants concerning CIP financing plan, Cost of Service Study, and Developer's Policy charges. – G Poole
- D. BWD Website Update – G Poole
- E. BWD Well Field Solar – G Poole

IV. CLOSED SESSION:

- A. Conference with Legal Counsel - Significant exposure to litigation pursuant to paragraph (3) of subdivision (d) of Section 54956.9: (Two (2) potential cases)
- B. Conference with Legal Counsel – Existing Litigation (BWD v. All Persons Who Claim a Right to Extract Groundwater, et al. (San Diego Superior Court case no. 37-2020-00005776)

V. CLOSING PROCEDURE: The next Board Meeting is scheduled for October 27, 2020 at Borrego Water District, 806 Palm Canyon Drive, Borrego Springs, CA 92004



AGENDA: October 13, 2020

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BORREGO WATER DISTRICT
BOARD OF DIRECTORS MEETING
OCTOBER 13, 2020
AGENDA ITEM II.A

October 7, 2020

TO: Board of Directors

FROM: Geoffrey Poole, General Manager

SUBJECT: Policy for Water and Sewer Service to New Developments - L Brecht/ G Poole/D Dale

RECOMMENDED ACTION:

Discuss and approve Policy as amended, if needed.

ITEM EXPLANATION:

Attached is a new Draft Water and Sewer Service to New Developments Policy for use within BWD service area.

NEXT STEPS:

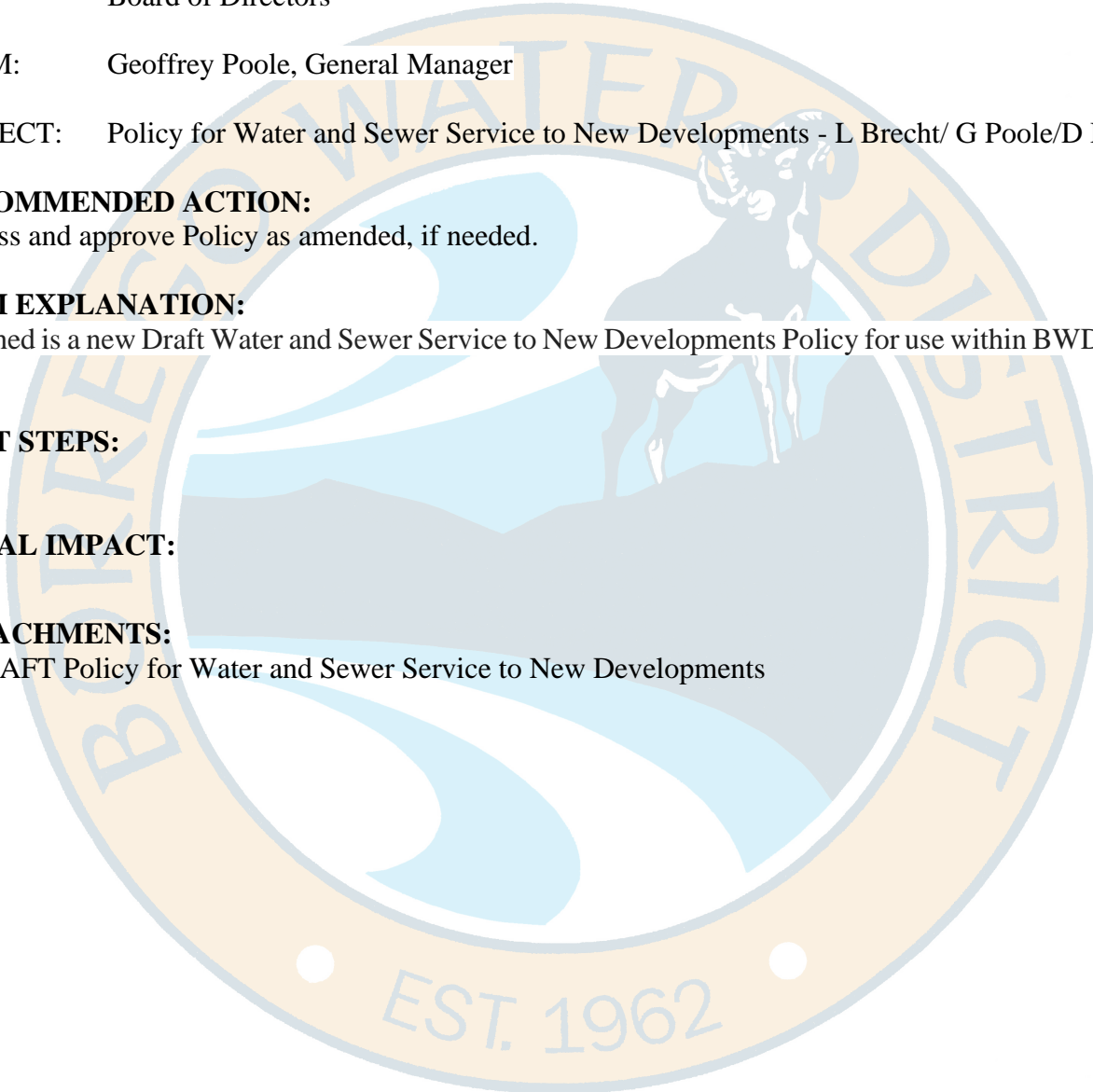
N/A

FISCAL IMPACT:

N/A

ATTACHMENTS:

1. DRAFT Policy for Water and Sewer Service to New Developments



BORREGO WATER DISTRICT

DRAFT POLICY STATEMENT

SUBJECT: Policy on New Development

NO. 2005-6-1

ADOPTED: June 22, 2005

AMENDED: December 27, 2006

AMENDED: February 20, 2013

AMENDED: March 23, 2016

AMENDED: March 14, 2017

AMENDED: October 13, 2020

Background: As a general objective, the Borrego Water District (BWD) requires new development to pay its fair share for new connections to BWD’s existing water, sewer, and wastewater infrastructure capacity, desiring to have past and existing customers subsidize the developer requesting access to existing infrastructure capacity to the smallest extent possible.

Sometimes, however, for economic development, public health or environmental protection, and/or social equity reasons, a public-private partnership with the developer would be advantageous in realizing the community’s vision for the future.¹ For example, BWD desires to extend a water or sewer line at its own cost whenever the result will be an improvement to the overall system resulting in cost containment for both existing and new customers. This developer policy’s objective, most of all, is to provide a tool for establishing equity between past and new investments in community development and to provide BWD with an effective tool for strategic infrastructure planning.

Policy: BWD encourages responsible development by requiring developers to install water and sewer infrastructure at the its expense. In addition, developers shall be charged for each new connection to pay for any required improvements to the existing BWD system and the new development’s proposed use of existing system capacity. Participation in costs by BWD will occur only when BWD is convinced such participation will add further benefit to BWD’s capability to provide services to existing and future customers.

¹ Proposition 218 largely prohibits BWD from using water and/or sewer revenues to fund projects with these community-based broader objectives. Thus, prior to entering into any public-private partnership with a developer to accomplish such objectives, BWD must first identify if any Proposition 218 unrestricted funds are available to contribute to the partnership and/or whether there may be a direct benefit to some existing and/or future BWD customers.

POLICY FOR WATER AND SEWER SERVICE TO NEW DEVELOPMENTS

October 13, 2020

This Policy outlines the procedures and obligations for developers, contractors, and owners (hereinafter “developers”) to obtain water and sewer service from the Borrego Water District (hereinafter “BWD”) to serve a new development and establishes the fees, exactions, and charges for the new development. The Policy also applies to new construction of residential homes on existing platted lots within BWD’s service area. The term “new development” is defined as any residential or commercial development or service requirement that increases the demand on BWD’s water supply and/or distribution system and/or its sewer collection and treatment system whether by increasing the intensity of use or by altering the use of land.

1. Application of Policy

This Policy governs the procedures for BWD to handle requests for a commitment for water and sewer service for new developments and sets forth the obligations of the developer to obtain such written commitment. When a developer requests a commitment for water and sewer service for a larger new development, for example, a “major subdivision,” as defined in the San Diego County Code of Regulatory Ordinances at section 81.102(y) as “a subdivision creating five or more lots or units” that may substantially impact BWD’s existing water supply capacity and/or sewer treatment capacity or that may require major improvements to BWD’s water distribution system and/or to BWD’s sewer treatment plant or collection system, such requests shall be considered on a case-by-case basis. This Policy shall serve as a guideline for the consideration of the request for water and sewer service for a larger new development, but BWD may modify or add to the provisions of this Policy development.

2. Application for Water and Sewer Service

(a) The developer must obtain an Application for Water and Sewer Service from BWD. With the Application the developer shall submit a preliminary plat of the development which shall include the number of lots to be served, the type of units to be built within the development, the size of the lots in the development, the estimated build-out of the new development and any other information that will assist BWD in determining the water and sewer needs of the new development.

(b) The developer must return the completed Application to BWD with the information requested in subsection (a). The developer shall provide any other information requested by BWD that BWD deems necessary to determine the availability of water and sewer service for the development.

(c) When the Application requests water and sewer service for a larger new development, the developer shall pay an Application Fee as set by BWD’s General Manager at the time the Application is submitted. The Application Fee shall cover the anticipated cost to BWD of reviewing the project, obtaining any engineering report on the feasibility of the water and sewer service requested for the project and making a preliminary determination of the on-site and off-site system improvements necessary to provide the water and sewer service requested. The Application Fee is non-refundable. However, the Application Fee shall be credited against the Administrative Fee set forth in Section 6(a) of this Policy.

(d) The developer must timely notify BWD of any changes in the information submitted with the Application.

(e) When the Application is complete and the Application Fee, if applicable, is paid, BWD's District Engineer with assistance from outside experts, as needed, will determine whether the water and sewer service requested is available. In addition, a determination will be made whether any off-site water and sewer system improvements must be made to properly serve the new development and maintain the current level of water and sewer service to BWD's existing customers.

(f) When BWD has completed its review, the developer will be notified of the preliminary conclusions as to the feasibility of the water and sewer service requested. BWD may then issue a Water and Sewer Availability Letter to the developer, or request additional information/time before reaching the final determination. The Water and Sewer Availability Letter may be revoked after three hundred sixty (360) days unless either (a) extended by BWD, or (b) the developer enters into a contract with BWD and pays all fees assessed by BWD within three hundred sixty (360) days of the date of the Water and Sewer Availability Letter.

3. Conditions on Availability of Water and Sewer Service

(a) In determining whether water and sewer service is available, BWD shall require the developer provide an accurate projection of the water demand and sewer treatment needs, by a registered engineer, for the entire development upon the Application for the first section or phase of the development.

(b) BWD may issue its Water and Sewer Availability Letter with limitations on the maximum amount of water that can be provided to the new development and the maximum amount of wastewater that can be collected and treated for the development. Any maximum limits on water and sewer service for the development shall be included in the water service contract with the developer under Section 4.

4. Water and Sewer Service Contract

(a) Before improvements are installed for the new development, BWD, shall then prepare a contract under which water and sewer service will be provided to the development.

(b) BWD may incorporate in the water and sewer service contract the maximum amount of water that can be furnished and the maximum amount of wastewater that can be collected and treated by BWD. In the event the developer's demand for water and sewer service exceeds the developer's projection of demand during the build out of the development, BWD shall have no obligation to furnish water or provide wastewater collection and treatment in excess of the amounts set forth in the water and sewer service contract. Any request for water and sewer service in excess of the amounts projected by the developer and included in the Water and Sewer Service Contract shall be treated as a new request for water and sewer service under this Policy.

(c) A Water and Sewer Service Contract cannot be assigned to any successor in interest of the developer without the express written consent of BWD, which consent will not be unreasonably withheld.

5. Installation of Improvements

(a) **Cost of Installation.** At its own expense and at no cost and expense to BWD, the Developer shall furnish, install, and construct all on-site and off-site water and sewer system improvements, including all labor and material, as required by BWD to be installed to serve the development, to maintain the current level of water and sewer service to existing customers and to meet BWD's plan for the level of service to be made available in the general area of the development. The construction and installation of the water and sewer system improvements shall be in strict accordance with the plans, specifications and requirements approved by BWD and performed by a Licensed Contractor. In addition, the developer shall indemnify BWD from any loss or damage that may directly or indirectly result from the installation of water and sewer system improvements by the developer.

(b) **Notification of Construction.** BWD shall be notified at least forty-eight (48) hours before construction is to begin on installation of improvements. Thereafter, the developer shall notify BWD every day during which construction will be in progress in order for BWD's inspector to be on the job site during construction.

(c) **Inspections.** All water and sewer system improvement projects shall be subject to inspection during construction and upon completion of construction by an authorized representative of BWD. Inspection may consist of full-time resident inspection or part-time inspection at the sole discretion of BWD. The presence or absence of an inspector during construction does not relieve the developer from adherence to approved plans and specifications. Materials and workmanship found not meeting the requirements of approved plans and specifications shall be immediately brought into conformity with said plans and specifications at the developer's expense.

(d) **Final Inspection.** An authorized representative of BWD shall make a final inspection of the water and sewer system improvements for the development after completion to determine acceptability of the work. Before this final inspection can be made, the owner, developer or engineer responsible for the project shall notify BWD's General Manager in writing that the work has been completed in accordance with approved plans and specifications.

(e) **Final Acceptance.** When the water and sewer system improvements pass BWD's final inspection, it will accept ownership of the completed improvements. The developer shall be responsible for seeing that the person paying the cost of constructing such improvements shall furnish "as-built" drawings to BWD at the end of each phase of water and sewer system construction and prior to final acceptance of water and sewer system improvements by BWD. The date of final acceptance shall be that date on which the developer has fulfilled all conditions necessary for final acceptance, including passing a final inspection, submitting "as-built" drawings, payment of all fees due, and the placing of all water and sewer system improvements into service by BWD. BWD will notify the developer in writing of the date of its acceptance of the completed facilities.

(f) **"As-Built" Plans.** The developer shall provide BWD "as-built" plans, by a registered engineer, which shall be drawn at a scale approved by the District Engineer and which shall indicate the location and size of all water and sewer system improvements installed for the development. The location of all water and sewer system improvements must be referenced off of two (2) permanent points such as power poles, right-of-way markers, concrete monuments, iron pins at property corners,

drainage culverts, and building corners. The water and sewer system improvements shall also be shown in relationship to the edge of all paved surfaces and all other utilities located with 15 feet of either side of the improvements. All utility easements shall be shown in relationship to the improvements. In the event the actual construction differs from the recorded plat of the development, the developer will prepare and record in the Register's Office of San Diego County a revised plat showing the actual construction with the design features stated above clearly shown. BWD may delay water and sewer service until this requirement has been met.

(g) **Warranty.** The developer shall guarantee all work on the water and sewer system improvements it installs for a period of one (1) year from the date of final acceptance and shall immediately correct any deficiencies in the work due to material or workmanship that occurs during the one-year period. The warranty shall be insured by a maintenance bond in the amount specified by BWD secured by an irrevocable bank letter of credit or such similar collateral as approved by BWD. When a defect is discovered in any water or sewer system improvement under warranty by the developer, the cost of repairing the defect when performed by BWD and the damages caused by the defect will be billed to the developer.

(h) **Conveyance of Water and Sewer System Improvements.** Upon completion of the construction of the water and sewer improvements, upon final approval by BWD, and upon the water and sewer system improvements being placed into service, the improvements shall immediately become the property of BWD regardless of whether or not a formal written conveyance has been made. The developer and any other persons paying the cost of constructing such improvements shall execute all written instruments requested by BWD necessary to provide evidence of BWD's title to such improvements, including obtaining any lien releases from the material suppliers and subcontractors of the developer and/or its contractor. The water and sewer system improvements shall become the property of BWD free and clear of the claims of any persons, firms, or corporations.

6. Assessments and Collection of Fees and Charges:

(a) New Development Administrative Fee. The developer shall pay BWD an Administrative Fee to cover the administrative, inspection, engineering, legal and other expenses incurred by BWD related to making water and sewer service available to the development. The Administrative Fee shall be paid on or before the execution of the Water Service Agreement and Sewer Service Agreement. For developments which request water and sewer service for a larger new development, the application fee paid under Section 2(c) shall be credited against the Administrative Fee.

(b) New Development Water Supply Charge (Water Supply Charge). A Water Supply Charge shall be submitted to BWD for every new connection to BWD's municipal water supply system and also by customers who change their meter size to a larger meter, which shall be considered a new connection. A Water Supply Charge is a one-time charge paid by the developer to BWD to compensate BWD for the additional groundwater supply from the Borrego Springs Subbasin (Subbasin) of the Borrego Valley Groundwater Basin required to supply the new connection with potable water for the expected life of the new development. This Water Supply Charge may be provided to BWD as described in the Schedule of Fees and Charges to this Policy for Water and Sewer Service to New Developments, as amended. A developer may convey to BWD baseline production allocation, in amounts sufficient to serve the development or cash equivalents as calculated by BWD in its sole discretion

(c) New Development Impact Charge for Water Service (Water Service Capacity Charge).

A Water Service Capacity Charge shall be paid on all new connections to BWD's existing water service system. Water Service Capacity Charges are one-time charges assessed upon new water customers to recover a proportional share of the capital costs required to provide service capacity to new customers. These charges shall be reserved to fund water system infrastructure improvement costs reasonably related to future new development. The Water Service Capacity Charge shall be paid on or before the execution of the Water Service Agreement

(d) New Development Impact Charge for Sewer and Wastewater Treatment Infrastructure (Sewer Capacity Charge). A Sewer Capacity Charge shall be paid on all new connections to BWD's sewer system. Sewer Capacity Charges are one-time charges assessed for new sewer customers to recover a proportional share of the capital costs required to provide service capacity to new customers. These charges shall be reserved to fund sewer system infrastructure improvement costs reasonably related to future new development. The Sewer Capacity Charge shall be paid on or before the execution of the Sewer Service Agreement.

(e) New Development Connection Fee (Connection Fee). The Connection Fee is based on the actual cost required for a new meter service. The Connection Fee shall be paid prior to the time actual water and sewer service is established to each new connection. Residential connections using 3/4" or 1" meters shall pay a standard Connection Fee that includes allocated, per connection, direct labor costs, materials, supplies, and equipment expenses and an allowance for indirect costs. All other connections using larger size meters will pay a custom Connection Fee based on the direct and indirect costs and expenses particular to that connection. If a customer changes to a smaller meter, no credit for any Connection Fee previously paid will be provided for a smaller meter. The Connection Fee for commercial connections shall be based on the Equivalent Dwelling Units (EDUs) as calculated by BWD.

(f) No refunds. The developer shall have no right to recover any fees or charges paid to BWD or any right to recover any part of the costs and expenses incurred in installing water system improvements or sewer system improvements for the development.

(g) Schedule of Fees and Charges. A current published schedule of fees and charges, as amended from time-to-time by BWD, shall be used to determine the fee and charges amounts assessed for each new development.

7. Approval of Final Plat

BWD will not sign a "Final Plat" of the development for submission to the appropriate Planning Commission until the water and sewer system improvements for the development have been constructed, inspected and accepted for use by BWD or until a performance bond secured by an irrevocable bank letter of credit issued by a bank with offices in San Diego County, California, or secured by other security specifically approved by the Board of Directors has been posted equal to the estimated cost of all necessary improvements and in favor of BWD, the Water and Sewer Service Contract has been fully executed, and all applicable fees have been paid. If the development is not a subdivision, the applicable fees must be paid at the time the contract for water and sewer service is signed.

8. Easements

(a) All water and sewer lines that are to become the property of BWD are to be located inside the public right-of-way. All exceptions are to be specifically approved by the Board of Directors or its delegatee. In all such cases where the Board of Directors or its delegatee approves water or sewer line construction within an exclusive easement on private property, the developer shall convey an exclusive easement to BWD a minimum twenty (20) feet wide for water and sewer main maintenance and construction. BWD may require an exclusive easement of greater than twenty (20) feet wide depending on the needs of BWD.

(b) The expenses of obtaining, preparing and recording easements needed for water and sewer system improvements for the new development will be paid by the developer, including but without limitation, the consideration paid to the landowner if the landowner is not the developer. In the event BWD must exercise its power of eminent domain to acquire any such easement, the developer will pay all costs, expenses, appraisal fees, expert fees and damage awards for which BWD becomes liable, on demand, including its reasonable attorney's fees.

(c) The easement grant must be on such terms and in such form and content as approved by BWD.

(d) The developer is responsible for acquiring all such easements for both on-site and off-site water and sewer system improvement construction prior to the commencement of water and sewer system improvement construction.

9. Real Property Acquisition

In the event real property must be acquired for the installation of a water storage tank, a sewer treatment system, a pumping station or other water or sewer system improvement for the development, the expenses of obtaining and preparing and recording the real property documents will be paid by the developer, including, but without limitation, the consideration paid to the land owner. In the event BWD must exercise its power of eminent domain to acquire any such real property, the developer will pay all costs, expenses, appraisal fees, expert fees and damage awards for which BWD becomes liable, on demand, including its reasonable attorney's fees.

10. Meters

(a) The developer shall pay for all water meters in the development. The water meter shall include the lateral, corp stop, water meter, fittings, customer side shut off valve and water meter box. The water meter shall be per the specifications of BWD and preapproved by BWD prior to installation. The developer shall install such water meters, unless an agreement is made for BWD to install the meters at the expense of the developer.

(b) Each family residence or each duplex or other property shall be served with a separate water meter not smaller than three-quarter ($\frac{3}{4}$) inch in size, except where prior arrangements have been made with BWD for apartment complexes, other types of multi-family dwellings, or businesses. In the event an existing water meter serves an apartment complex and/or other business property with units owned and/or occupied by more than one individual, firm, or corporation, the same shall be separated so as to have a meter for each ownership or occupant.

11. Permits

Before beginning construction, the developer or its contractor shall obtain all necessary permits as required by law. Such permits include, but are not limited to, those from State of California and the county highway department in which the development is located.

12. Resolution of Disputes

Any controversy or claim arising out of or relating to this Policy or the Water and Sewer Service Contract, or the breach thereof, shall be submitted to the Board of Directors, which may appoint a subcommittee of the Board to negotiate the controversy or claim. If the Board is unable to resolve the dispute by negotiation, the dispute shall be submitted to a mutually acceptable mediator. Mediation shall be required before either party may proceed to any other method of dispute resolution. Costs for mediation shall be shared equally between the parties. The decision of the mediator shall not be final or binding unless agreed to in writing by the parties. All mediation proceedings, results and documentation, shall be non-binding and inadmissible for any purpose in any legal proceeding (pursuant to California Evidence Code sections 1115 through 1128) unless such admission is otherwise agreed to in writing by both parties.

BORREGO WATER DISTRICT
BOARD OF DIRECTORS MEETING
OCTOBER 13, 2020
AGENDA ITEM II.B

October 7, 2020

TO: Board of Directors

FROM: Geoffrey Poole, General Manager

SUBJECT: Announcement of Schedule for Water and Sewer Rate/Charges Adjustment
Previously Postponed for FY 20-21 – L Brecht/G Poole

RECOMMENDED ACTION:

Receive Report and direct staff as deemed appropriate

ITEM EXPLANATION:

Following is a proposed schedule for enacting the rate increase initially postponed in July 2020.

Approve Rate Resolution: November 10, 2020

Rate Increase Effective: January 1, 2020

NEXT STEPS:

Schedule Resolution Approval for Nov 10, 2020

FISCAL IMPACT:

N/A

ATTACHMENTS:

1. None

- *Yuima: Offers a 3-mo. payment plan*

Based on the relatively high amounts already being written off, staff feels the need to evaluate the Program further. Based on the comparison to other Agencies, Staff has determined our Policy is in line and on the more generous side of the scale.

Taking all factors into consideration, Staff is recommending to retain the Policy at once every 5 years for now. In addition, staff is requesting additional time to evaluate other potential changes to the Policy. Specific components under evaluation include:

Method of Determining Comparative Consumption Timeframe: BWD uses historic consumption in determining average consumption and subtracts that amount from the high bill. Other alternatives are being evaluated.

Rates Used in Calculation: BWD currently provides 100% relief (rate charged is \$0) on the usage over the average (see above) and other Agencies provide partial relief. Revising this component will address the escalating cost issue.

Proof of Corrective Measures to Receive Reduction: Requiring some proof that corrective measures have been taken in some form(s) is/are also under consideration.

NEXT STEPS:

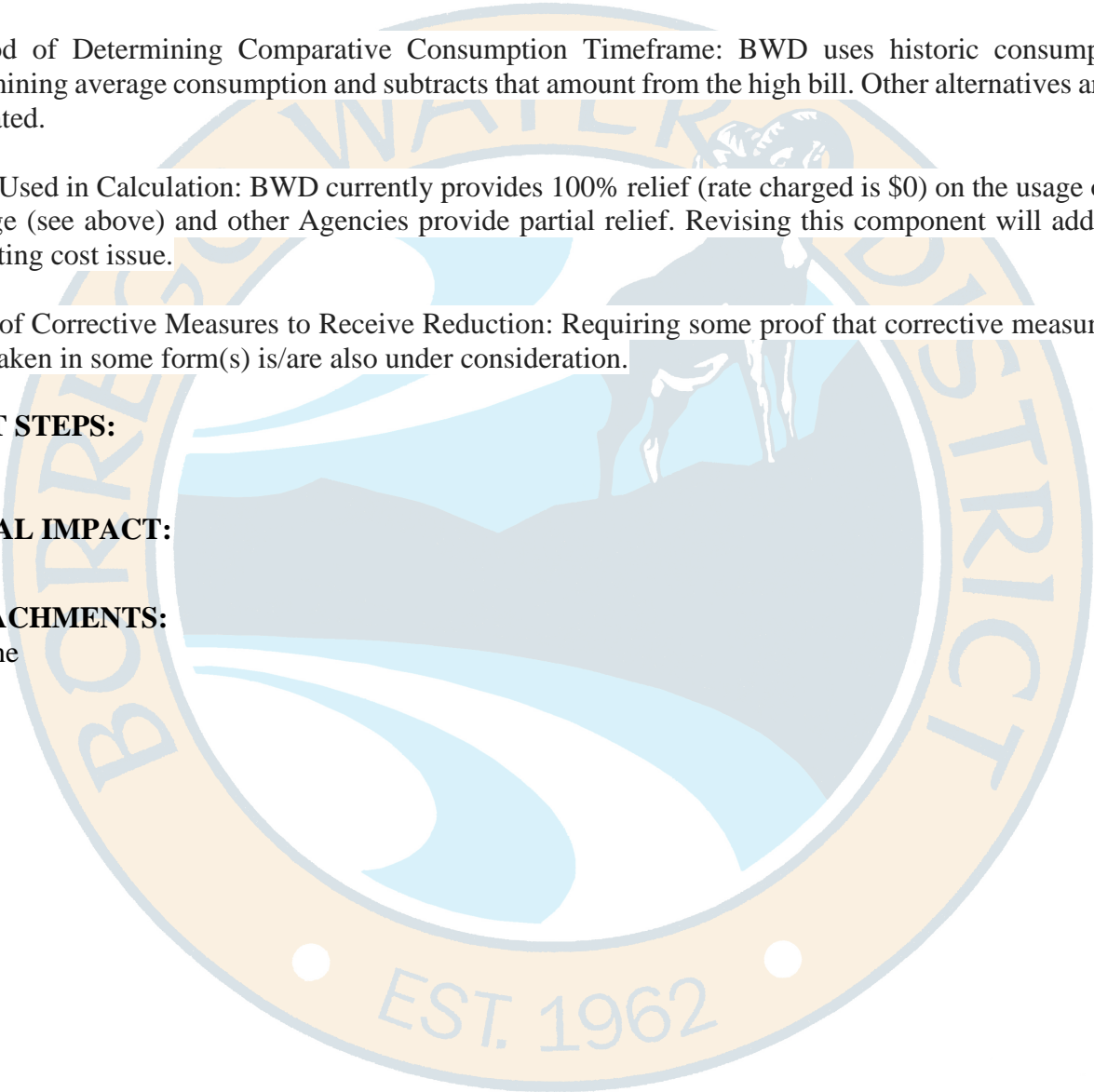
N/A

FISCAL IMPACT:

N/A

ATTACHMENTS:

1. None



BORREGO WATER DISTRICT
BOARD OF DIRECTORS MEETING
OCTOBER 13, 2020
AGENDA ITEM II.D

October 8, 2020

TO: Board of Directors

FROM: David Dale, District Engineer/Geoffrey Poole, General Manager

SUBJECT: Proposed Capital Improvement Program (CIP) Revisions – D. Dale/G. Poole

RECOMMENDED ACTION:

Receive Staff Report and approve recommended CIP revisions.

ITEM EXPLANATION:

The Board of Directors last approved the CIP on June 9, 2020. On August 25, 2020 the Board discussed the CIP and gave direction to add needed projects. The Board was informed about the status of the Twin Tanks and the need to replace them as soon as possible. In addition, Staff informed the Board on discussions with BS Fire District regarding fire flows conditions in our service area. Last but not least, \$373,000 of unspent BWD Bond funds is now going from Miscellaneous Projects to specific projects. Staff is now asking the Board to consider the formal changes to the CIP to address the issues outlined above. The following changes are recommended:

1. The areas with the greatest need for increased fire capacity (less than 500 gpm) is Bending Elbow and Walking H areas. Staff is recommending replacement/upsizing of these two areas as soon as possible. To accomplish this goal, Staff recommends to increase the Bending Elbow project (CIP Project 1) from \$330,000 to \$380,000. The native soils are not conducive for backfilling purposes due to being contaminated with rocks, requiring the Contractor to import clean fill sand at an estimated cost of \$30,000. Additionally, the pipeline was upsized from 6-inch diameter to 8-inch diameter to facilitate fire flow in the area. This Project is recommended to be completed in FY 20-21.
2. Include the Walking H/Double O Road Pipeline Project (CIP Project 3A). Staff have identified this project as necessary because the pipeline in this area is 3-inches in diameter, not large enough to provide the necessary fire flow. Staff's opinion of construction cost is approximately \$200,000. Staff is recommending bidding those two projects together. Design of the Bending Elbow Project is done and an estimated 2-3 months is needed to complete the new Walking H Project design. The design work is being done in house. By the time the design, bidding, selection/award, permitting etc... is done, the major expenses are expected to occur in early FY 21-22.
3. Revise CIP project 22 description from "Miscellaneous Sewer System Improvements" to "18-inch Diameter Gravity Sewer Main along Borrego Springs Road". The proposed project would install a new 18-inch diameter gravity sewer pipeline from Manhole #8, then heading east/southeast along the right of way of Borrego Springs Road a distance of approximately 1,600 linear feet and

an average depth of 7.5 feet to invert. There would be five new sealed manholes. This would use the remaining 2018 Bond funds of \$373,883.30. Staff is currently preparing cost estimates for the project, which could exceed the amount of bond funds remaining. Some sewer cash reserve may be necessary to complete this project. The estimate in the CIP is shown as \$410,000, the same that was in the prior approved CIP. One option is to use the \$43,000 in the Manhole Replacements/Refurbishment (CIP 10), since there are five new manholes in the project.

The intent of these projects is to reduce the hydrogen sulfide gas odors in the La Casa Del Zorro developed area.

4. The Twin Tanks project (CIP Project 13) was moved from Grant Funded Projects to cash reserve funded water projects. Staff is still confident that the project will be grant funded; however due to the need to replace the tanks as soon as possible, if the grant funding is not approved the project will need to be funded by cash reserve funds.
5. The SCADA Replacement Project (CIP Project 6) was moved completely into this fiscal year (FY 2020-21), at \$100,000. The prior version had the SCADA system broken into two components - \$50,000 for FY 2020-21 and \$50,000 for FY 2021-22. The entire project will be completed this fiscal year as approved by the Board in the prior meeting. Contracts have been signed and the work is underway.

NEXT STEPS

Upon approval, the CIP will be used in the cost of service study.

FISCAL IMPACT

TBD

ATTACHMENTS

1. Preliminary drawing for layout of 18-inch diameter gravity sewer main.
2. Revised CIP

PLUG EXISTING
DOWNSTREAM PIPE UPON
COMPLETION

EXISTING 18" PVC GRAVITY
SEWER MAIN

● EXISTING MANHOLE

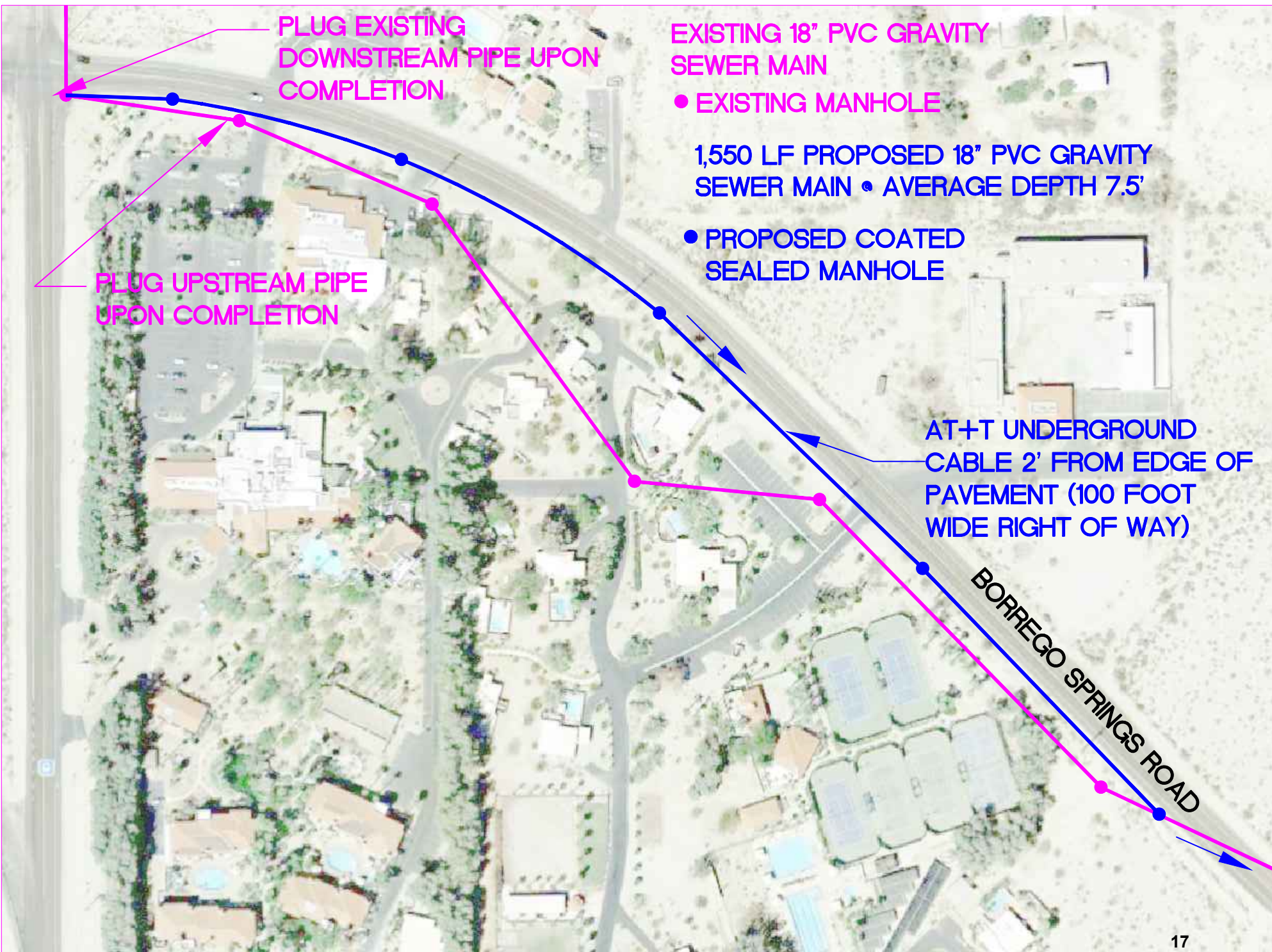
1,550 LF PROPOSED 18" PVC GRAVITY
SEWER MAIN • AVERAGE DEPTH 7.5'

● PROPOSED COATED
SEALED MANHOLE

PLUG UPSTREAM PIPE
UPON COMPLETION

AT+T UNDERGROUND
CABLE 2' FROM EDGE OF
PAVEMENT (100 FOOT
WIDE RIGHT OF WAY)

BORREGO SPRINGS ROAD





CAPITAL IMPROVEMENT PROJECTS	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	TOT 2020-29
CASH RESERVE FUNDED WATER PROJEC										
Water Projects										
1 Bending Elbow Pipeline Project		\$ 380,000								\$ 380,000
2 El Tejon Road Pipeline Project		\$ 140,000								\$ 140,000
3 Flying H Road Pipeline Project			\$ 137,500							\$ 137,500
3A Walking H/Double O Road Pipeline Project		\$ 200,000								
4 ID-5 Well VFD				\$ 150,000						\$ 150,000
5 Replace and upgrade Booster Pump Station 5				\$ 100,000						\$ 100,000
6 SCADA replacement	\$ 100,000									\$ 100,000
7 Facilities Maint - Office	\$ 15,000	\$ 20,000								\$ 35,000
29 Water Treatment Facility (phase 2)									\$ 250,000	\$ 250,000
13 Replace Twin Tanks	\$ 630,000									
8 Program Engineering/Construction Management Consulting	\$ 25,000	\$ 40,000	\$ 41,200	\$ 42,436	\$ 43,709	\$ 45,020	\$ 46,371	\$ 47,762	\$ 49,195	\$ 380,693
9 Emergency System repairs	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 540,000
SUBTOTAL WATER CASH RESERVE PROJECTS	\$ 830,000	\$ 840,000	\$ 238,700	\$ 352,436	\$ 103,709	\$ 105,020	\$ 106,371	\$ 107,762	\$ 359,195	\$ 3,043,193
Sewer Projects										
10 Manhole Replacements/Refurbishment	\$ 43,000	\$ 45,150	\$ 47,408	\$ 49,778	\$ 52,267	\$ 54,880	\$ 57,624	\$ 60,505	\$ 63,531	\$ 474,142
11 Install Oxygen Injection System	\$ 20,000									\$ 20,000
12 Engineering/Construction Management Consulting	\$ 18,000	\$ 18,540	\$ 19,096	\$ 19,669	\$ 20,259	\$ 20,867	\$ 21,493	\$ 22,138	\$ 22,802	\$ 182,864
SUBTOTAL SEWER CASH RESERVE PROJECTS	\$ 81,000	\$ 63,690	\$ 66,504	\$ 69,447	\$ 72,526	\$ 75,747	\$ 79,117	\$ 82,643	\$ 86,332	\$ 677,006
TOTAL CASH WATER/SEWER CIP PROJECTS 2021 THROUGH 2029	\$ 911,000	\$ 903,690	\$ 305,204	\$ 421,883	\$ 176,235	\$ 180,767	\$ 185,488	\$ 190,405	\$ 445,527	\$ 3,720,200
Total 3 Year Water/Sewer Cash Reserve Projects:			\$ 2,119,894							
FACILITIES MAINTENANCE DETAIL										
Stucco Building and Replace Failing Solar Cells		\$ 20,000								
Carpet/Paint Office and Install Energy Efficient Lighting	\$ 15,000									
TOTAL CASH RESERVES CAPITAL IMPROVEMENTS PROGRAM	\$ 911,000	\$ 903,690	\$ 305,204	\$ 421,883	\$ 176,235	\$ 180,767	\$ 185,488	\$ 190,405	\$ 445,527	\$ 3,720,200
TOTAL CASH RESERVES SHORT LIVED ASSETS	\$ 305,000	\$ 570,000	\$ 25,000	\$ 37,000	\$ 10,000	\$ 235,000	\$ 138,000	\$ 110,000	\$ 200,000	\$ 1,630,000
TOTAL CASH RESERVES CIP AND SHORT LIVED ASSETS ANNUAL BUDGET	\$ 1,216,000	\$ 1,473,690	\$ 330,204	\$ 458,883	\$ 186,235	\$ 415,767	\$ 323,488	\$ 300,405	\$ 645,527	\$ 5,350,200
Total 3 Year Cash Reserve and Short Lived Assets:			\$ 3,019,894							



GRANT FUNDED CIP PROJECTS	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	TOT 2020-29
Water Projects										
										\$ -
14 Replace Wilcox Diesel Motor-(Prop 1 grant)	\$ 75,000									\$ 75,000
15 Replace Indianhead Reservoir-(Prop 1 grant)	\$ 435,000									\$ 435,000
16 Rams Hill #2, 1980 galv. 0.44 MG recoating -(Prop 1 grant)	\$ 616,000									\$ 616,000
Sewer Projects										
17 Plant-Grit removal at the headworks-(Prop 1 grant)	\$ 214,000									\$ 214,000
18 Clarifier Upgrade/Rehabilitation -(Prop 1 Grant)	\$ 240,000									\$ 240,000
TOTAL WATER/SEWER GRANT CIP PROJECTS	\$ 1,580,000									\$ 1,580,000
2018 BOND FUNDED CIP PROJECTS										
19 De Anza Pipeline Replacement Project	\$ 430,000									\$ 430,000
20 Replacement Well #2 (\$250,000 DWR Grant Approved for 20-21)	\$ 1,250,000									\$ 1,250,000
21 Fire Hydrant Replacement	\$ 540,000									\$ 540,000
22 18-inch Gravity Sewer Main along Borrego Springs Road	\$ 410,000									\$ 410,000
TOTAL 2018 BOND FUNDED CIP PROJECTS	\$ 2,630,000	\$ -								\$ 2,630,000
POTENTIAL FUTURE BOND FUNDED CIP PROJECTS										
Wells, Booster Stations, Reservoirs & Associated Transmission Mains										
23 Borrego Springs Road Pipeline Replacement					\$ 862,000					\$ 862,000
24 Sun Gold Pipeline Replacement					\$ 1,711,500					\$ 1,711,500
25 Deep Well Pipeline Replacement					\$ 2,225,000					\$ 2,225,000
26 West and East Star Road Pipeline Replacement					\$ 450,000					\$ 450,000
27 Country Club Tank Recoating, 1999 1.0 MG					\$ 250,000					\$ 250,000
28 Water Treatment Facility (phase 1)							\$ 900,000			\$ 900,000
29 Water Treatment Facility (phase 2)								\$ 650,000		\$ 650,000
30 New production well						\$ 2,000,000				\$ 2,000,000
31 Solar *Updated to convert approximately 85% of BWD Wells to Solar						\$ 1,200,000				\$ 1,200,000
32 Well 5 Transmission Main Project						\$ 1,215,000				\$ 1,215,000
33 Club Circle Water and Sewer Pipeline Replacement Project							\$ 2,286,000			\$ 2,286,000
TOTAL FUTURE BOND CIP PROJECTS	\$ -	\$ -	\$ -	\$ -	\$ 5,498,500	\$ 4,415,000	\$ 3,186,000	\$ 650,000	\$ -	\$ 13,749,500
Total 9 Year CIP (Including all proposed projects:										\$ 23,309,700

BORREGO WATER DISTRICT
BOARD OF DIRECTORS MEETING
OCTOBER 13, 2020
AGENDA ITEM ILE

October 7, 2020

TO: Board of Directors

FROM: Geoffrey Poole, General Manager

SUBJECT: Letter to SDCWA Regarding Proposed Regional Conveyance System through Borrego Spring. – K Dice/D Johnson

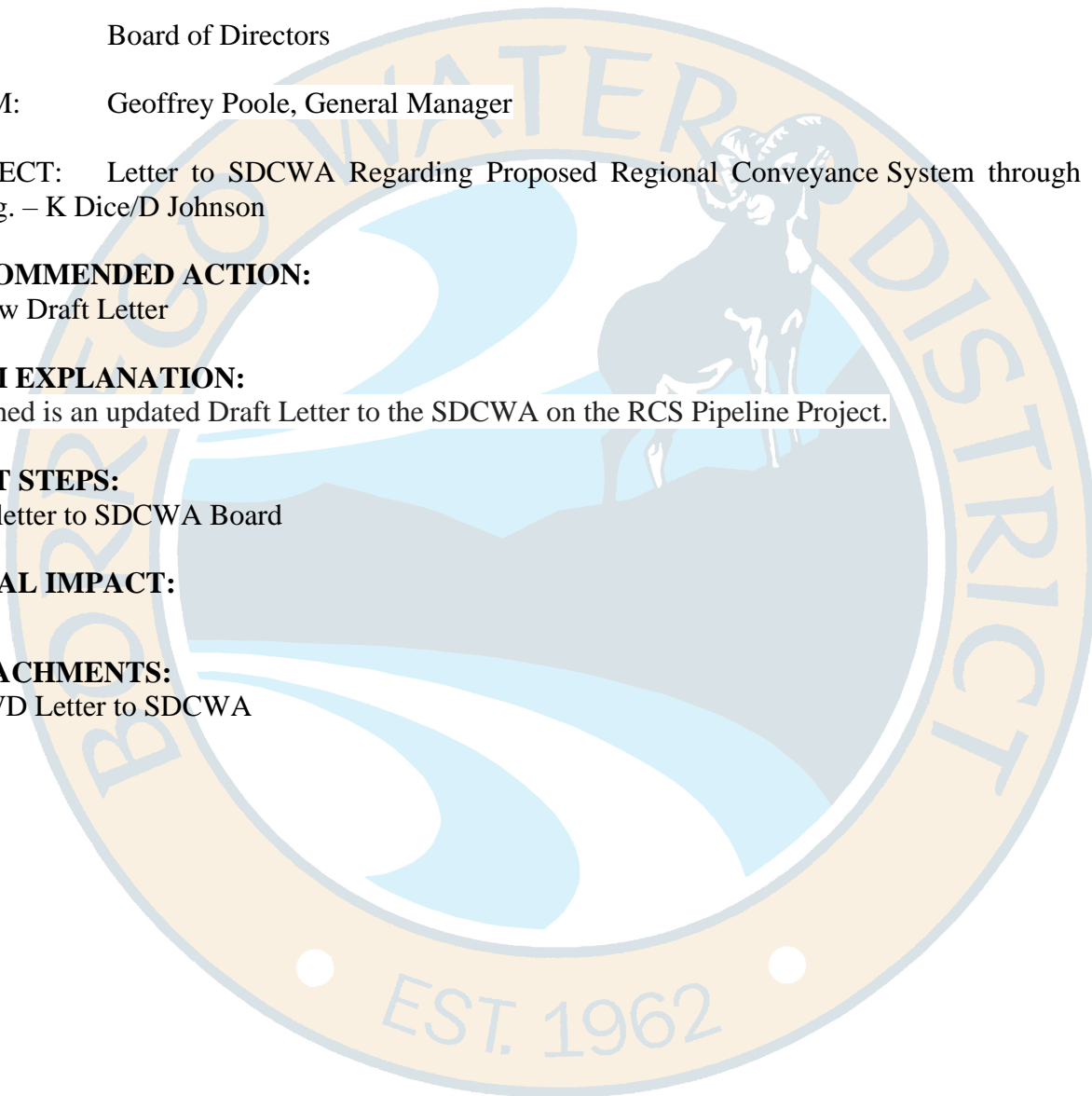
RECOMMENDED ACTION:
Review Draft Letter

ITEM EXPLANATION:
Attached is an updated Draft Letter to the SDCWA on the RCS Pipeline Project.

NEXT STEPS:
Send letter to SDCWA Board

FISCAL IMPACT:
N/A

ATTACHMENTS:
1. BWD Letter to SDCWA



DRAFT 1.7

September 22, 2020

To: San Diego County Water Authority Board of Directors

From: Borrego Water District Board of Directors

Introduction/Background

In June 2019, the San Diego County Water Authority (Water Authority) Board of Directors approved \$3.9 million for a new two-phase study to build on and augment past studies of alternate conveyance systems to deliver the region's independent, low-cost, and reliable Colorado River Quantification Settlement Agreement supplies.

In August 2020, the Water Authority released the Regional Conveyance System Study – Phase A Draft Report, which evaluated three Regional Conveyance System (RCS) alternatives on the basis of their ability to meet project objectives; environmental constraints; design, engineering and construction issues; and cost competitiveness. Alternative 3A was found to be viable from a technical and engineering perspective, scored the highest rank in the alternatives analysis, and has a route that crosses the southern part of the Borrego Springs Groundwater Subbasin (Subbasin) and the Borrego Water District (BWD) service area (Exhibit 1).

The study emphasizes the importance of potential partnership's role in enhancing the value of the RCS alternatives and identifies the potential for a turnout sized for 20,000 acre-feet per year in Borrego Springs (Exhibit 1). On August 12, 2020, we sent a letter (attached hereto) to the Water Authority Board expressing our concern that the Water Authority is moving forward under the false belief that the Borrego Water District (BWD) Board of Directors are entirely behind the RCS, and we would like to take this opportunity to further expand upon our concerns and information needs as the Water Authority prepares to decide on moving forward with a "Phase B" study.

BWD Concerns

We want to make clear to the Water Authority Board that our support as a partner agency for Alternative 3A should not be assumed, as we do not have enough information, at present, to support or oppose the RCS project. This is especially true in light of the potential for externalities that could be incurred on our district; In our August 12, 2020 letter to the Water Authority Board, we indicated that community support for the RCS route through Borrego Springs is not known at this time. No discussions of the community's support have yet occurred and have been told by SDCWA Staff outreach to stakeholders including Borrego Springs and BWD would be part of Phase B.

Based on the RCS study, it is our understanding that the Water Authority believes a partnership with BWD could be beneficial and provide a cost-effective source of supply through one or more of the following:

- to store groundwater in the Borrego Springs basin,
- to use the water directly for either non-potable uses, or to send to new BWD treatment facilities.

One of our concerns is that the Water Authority lacks a full understanding of what is presently economically viable for BWD to consider. Our understanding is that the RCS pump stations are planned for 396 to 423.5 cubic feet per second (177,738 to 190,081 gallons per minute [GPM]) and the RCS treatment plant is sized to 134 million gallons per day (MGD) or about 93,000 GPM.

For instance, a 50 MGD system (current size of the Carlsbad Desalination Plant) would require about a 60-inch diameter pipeline and associated recharge and pumping facilities to handle approximately 35,000 GPM and a well field of 25 to 40 wells to provide reliable storage not including forebay storage.

BWD estimates the construction cost for conjunctive use could approach many tens of millions of dollars and beyond the capacity of BWD to finance. The Subbasin may accommodate as much as 500,000 acre-feet of reserve storage capacity. However, it is presently unclear whether any net positive economic benefit would accrue to BWD for an investment in conjunctive use,

BWD remains concerned about water quality impacts on Subbasin groundwater and/or our distribution infrastructure. BWD's August 12, 2020 letter mentions some concerns related to water chemistry of Colorado River water and protection of the integrity of the Subbasin. It appears, based on the information in the RCS study, that the goal is to treat to a finished water salinity concentration not exceeding 500 milligrams per liter, but the report does not address other potential contaminants in the river. This may adversely affect the beneficial uses of Subbasin groundwater and have infrastructure impacts for BWD's resources, given that water quality in the Subbasin is generally better than this proposed target.

Data is presently needed to allay BWD's risk concerns regarding the RCS project as it is presently articulated. The three studies done to date (DLM Engineering, Black & Veatch, Hunter Pacific Group) primarily focus on the uncertainties of estimated pipeline construction costs. Such concerns are prompted by the BWD Board's fiduciary obligations to protect BWD's raw water source of untreated groundwater from the Subbasin.¹

Information Needs

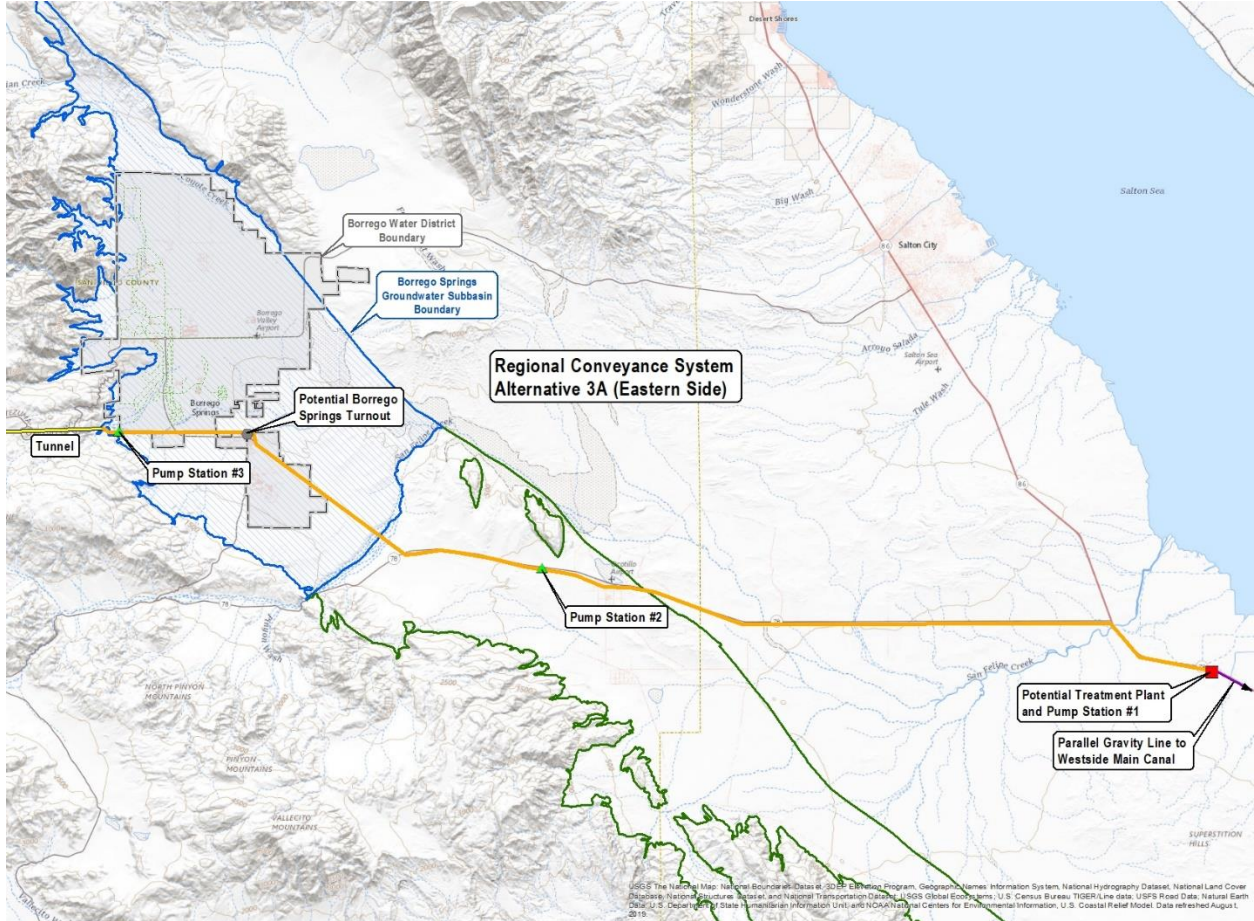
If Alternative Route 3A is to be given serious consideration, the types of data that would assist BWD Board to be supportive of the RCS route through Borrego Springs include:

- Possible conjunctive uses if RCS came through Borrego Springs:

¹ The estimated cost of Subbasin-wide water quality degradation requiring BWD to implement advanced treatment for its municipal water system is approximately \$40 million (capital & operating costs during the 30-year economically useful life of the advanced treatment system). See Dudek, "Water Replacement and Treatment Cost Analysis for the Borrego Valley Groundwater Basin" (November 24, 2015).

- Partner with the Water Authority to supply raw water for future potable use. . (e.g., 2,000 acre-feet, assuming Borrego Springs growth and buildout, in-lieu of 100% reliance on groundwater use)
- Potential for use of the Borrego Springs Subbasin for Water Authority storage of Colorado River water
- Water Quality Study. What level of treatment would Colorado River water receive and would it be suitable for recharge of the Borrego Springs Subbasin?
- Potential for a required Subbasin anti-degradation analysis, i.e., possible adverse effects on the physical structure of the aquifer; damage to the structure would be irreparable.
- Economic Study (Cost/Benefit Analysis)
- Address concerns of pipeline route crossing at least three major earthquake faults between Borrego Springs and San Marcos.
- Address proposed access to pipeline if it is under State Park Wilderness and Cultural Preserves.
- Potential impacts to Anza-Borrego Desert State Park and Borrego Springs as a tourist destination.

EXHIBIT 1 – REGIONAL CONVEYANCE SYSTEM ALTERNATIVE 3A



Sincerely,

For the BWD Board

Kathy Dice, President



August 12, 2020

To: SDCWA Board of Directors:

It has come to the attention of the Board of Directors of the Borrego Water District (BWD) that there is belief "Borrego is entirely behind the proposed SDCWA's Regional Conveyance System to transfer water from the Imperial Irrigation District (IID) to San Diego." The BWD Board understands further that the purported rationale for Borrego's support for this project is the potential for storage of IID water in the Borrego Springs Subbasin, which is currently designated as *critically* overdrafted by the California Department of Water Resources (DWR). This is a topic that has not yet been discussed in the community as a whole and no such support has been registered.

The BWD Board would like to make it perfectly clear to the SDCWA Board that it has neither the inclination nor information, at present, to support or to oppose SDCWA's proposed Regional Conveyance System.

The proposed Regional Conveyance System as a solution to the Borrego Springs Subbasin's *critical* overdraft situation and impact on municipal water rates is tenuous at best, as no economic study has been developed nor presented to the BWD for review.

Furthermore, storage and later withdrawals of IID water for SDCWA use (conjunctive use) in the Borrego Springs Subbasin is neither a given nor externalities-free. Much additional hydrological and economic study would necessarily be required before the BWD Board could support such a proposition.

One example of a major concern is that there are numerous toxins in Colorado River water, which are presently not found in Subbasin water deposits, and which are hard if not impossible to remove with common advanced treatment technologies. Some of these are known MCL contaminants, some are already being regulated in other US states and in countries other than the US, and some are presently being considered for future regulation here in California. Would BWD be willing to assume the additional financial risk of adding new contaminants to the Subbasin? This is a question for a future BWD Board to answer; hopefully with data, not opinion.

Another example is consideration for the structural integrity of the Subbasin; certain time and quantity conditions for storage and withdrawals of IID water could result in compaction and subsidence in Borrego. No amount of hydrological study can with 100% confidence render such an outcome

exceptionally unlikely (<1% probability). Such a claim would not be reliable science, but merely wishful thinking.

Instead, any decision to use the Subbasin must be made based on a thorough understanding of the financial risk and rewards for municipal water service, and for the potential externalities that, if they occur, would potentially be borne by the Borrego community's public sector. Since Borrego is designated as a Severely Disadvantaged Community, the economic risks are a major concern.

In closing, while the BWD Board does not have the necessary information at this time to formally support or oppose the proposed pipeline alignment at this time, we would welcome gaining more scientific and economic data, including risks and benefits for further discussion with SDCW A in the future.

Sincerely,

For the BWD Board

A handwritten signature in blue ink that reads "Kathy Dice". The signature is written in a cursive style with a large, stylized "D" and "C".

Kathy Dice, President

BORREGO WATER DISTRICT
BOARD OF DIRECTORS MEETING
OCTOBER 13, 2020
AGENDA ITEM II.F

October 7, 2020

TO: Board of Directors

FROM: Geoffrey Poole, General Manager

SUBJECT: Response from County Regarding Unknown Status of Wells in Subbasin – G Poole

RECOMMENDED ACTION:

Review County Response and Discuss Next Steps

ITEM EXPLANATION:

County of San Diego Staff has responded to BWD on County responsibility/jurisdiction/process regarding improperly abandoned wells

NEXT STEPS:

TBD

FISCAL IMPACT:

N/A

ATTACHMENTS:

1. Recent County Response and Previous Correspondence

Hello Geoff,

Our actions are limited to the authority granted in the County [Well Ordinance](#). Per this ordinance, an abandoned well is defined as “a well that has not been used for a period of one year, unless the owner declares in writing, to the Director his intention to use the well again for supplying water or other associated purpose” (Section 67.402). The Well Ordinance defines a nuisance well as “any well which threatens to impair the quality of ground water or otherwise jeopardize the health or safety of the public” (Section 67.402), and gives us investigation authority of nuisance wells “upon reasonable cause to believe that an abandoned well or other well is causing a nuisance by polluting or contaminating ground water, or constitutes a safety hazard” (Section 67.430). As such, we respond to reports of nuisance wells, including those observed by County staff in the course of their field work. You can report nuisance wells to the [Well Program Duty Desk](#). We require the property address and a description of the issue. If you have the APN and photographs, please include those. We will report our investigation findings to you.

Upon verification that the well is a nuisance, we issue a written order directing the well owner to abate the nuisance (Section 67.431). The order includes timelines for covering an open well (immediately) and completion of work (typically 60 days). Timelines can be extended if necessary and reasonable. We can copy you on abatement orders issued for wells you have reported as nuisances.

The County is responsible for ensuring proper well construction, repair, reconstruction, and destruction through the permitting process. The Well Ordinance places the responsibility for well maintenance on the property owner or responsible party (Section 67.424), as well as the responsibility to abate a nuisance well (Section 67.430.1). There are no provisions in the Well Ordinance for maintenance inspections, only inspections prior to issuance of a well permit, while the work is in process, and after work is completed (Section 67.443).

I am available for further discussion and/or questions.

Regards,

Colleen Hines

Supervising Environmental Health Specialist
Site Assessment and Mitigation Program
Land and Water Quality Division
Department of Environmental Health
Phone: (858) 505-6874

PREVIOUS CORRESPONDENCE ON THIS ISSUE

COUNTY RESPONSE TO BWD

As discussed during our call, if the Department of Environmental Health is provided reasonable cause that a well in your district is a nuisance, as defined in County Ordinance, then we will proceed with actions to investigate and remedy the situation if warranted. The DEH does not have the regulatory oversight to survey property owners to identify current uses and conditions of water wells.

I have also discussed this with David Garmon, of the Borrego Revitalization Committee. The DEH does have the necessary enforcement tools to take action and we will certainly assist in your efforts to keep groundwater in the Borrego Valley safe.

Please let me know if you have any questions or need to speak further.

Jamelle McCullough, MPH, REHS

Supervising Environmental Health Specialist

County of San Diego | Department of Environmental Health

BWD RESPONSE

Unfortunately, your email does not address issues regarding improperly abandoned wells in the Borrego Springs Subbasin of concern to the Borrego Water District (BWD) Board. Some questions:

1. Based on the science and California Department of Water Resources (DWR) experience, an improperly abandoned well itself should be considered a potential “nuisance” by the County. Is that the case? If not, why not?
2. When does an improperly abandoned well become a “nuisance” well in the County’s estimation? Only after pollution of groundwater has occurred? If, so that creates an expensive liability problem, as once pollution of groundwater occurs, if this affects a BWD production well, this could result in a \$1.5 million - \$2 million capital cost, far in excess of any property owner’s ability to pay;
3. You indicate in your email that a nuisance well must be reported for the County to take enforcement actions. BWD wishes to formally report two nuisance wells that we believe have been abandoned and have not been properly abandoned, thus are a potential public health nuisance. How shall we report them to you? What information do you require of us?
4. Please provide us with a schedule of your enforcement actions for these reported wells and let us know how we are to track progress on their proper abandonment to prevent groundwater contamination before it occurs;
5. The County approves wells in the Subbasin through a ministerial permitting process but takes no responsibility for these permitted wells once permitted until the well becomes a “nuisance.” But, when a well becomes a “nuisance” appears to assume after-the-fact enforcement. That is, it is unclear how to proactively identify improperly abandoned wells before they have damaged the aquifer or a small child dies by falling into an improperly capped abandoned well. Saying the County has no budget to track the _____ unknown status of wells in the Subbasin (BWD analysis attached), offers no solution to the underlying problem. Such a statement only pushes the problem to someone else and does not address the underlying liability issue if pollution of the aquifer occurs, and people get sick or die from drinking polluted groundwater or crops are damaged.

BORREGO WATER DISTRICT
BOARD OF DIRECTORS MEETING
OCTOBER 13, 2020
AGENDA ITEM II.G

October 7, 2020

TO: Board of Directors
FROM: Geoffrey Poole, General Manager
SUBJECT: General Manager Salary Adjustment – K Dice

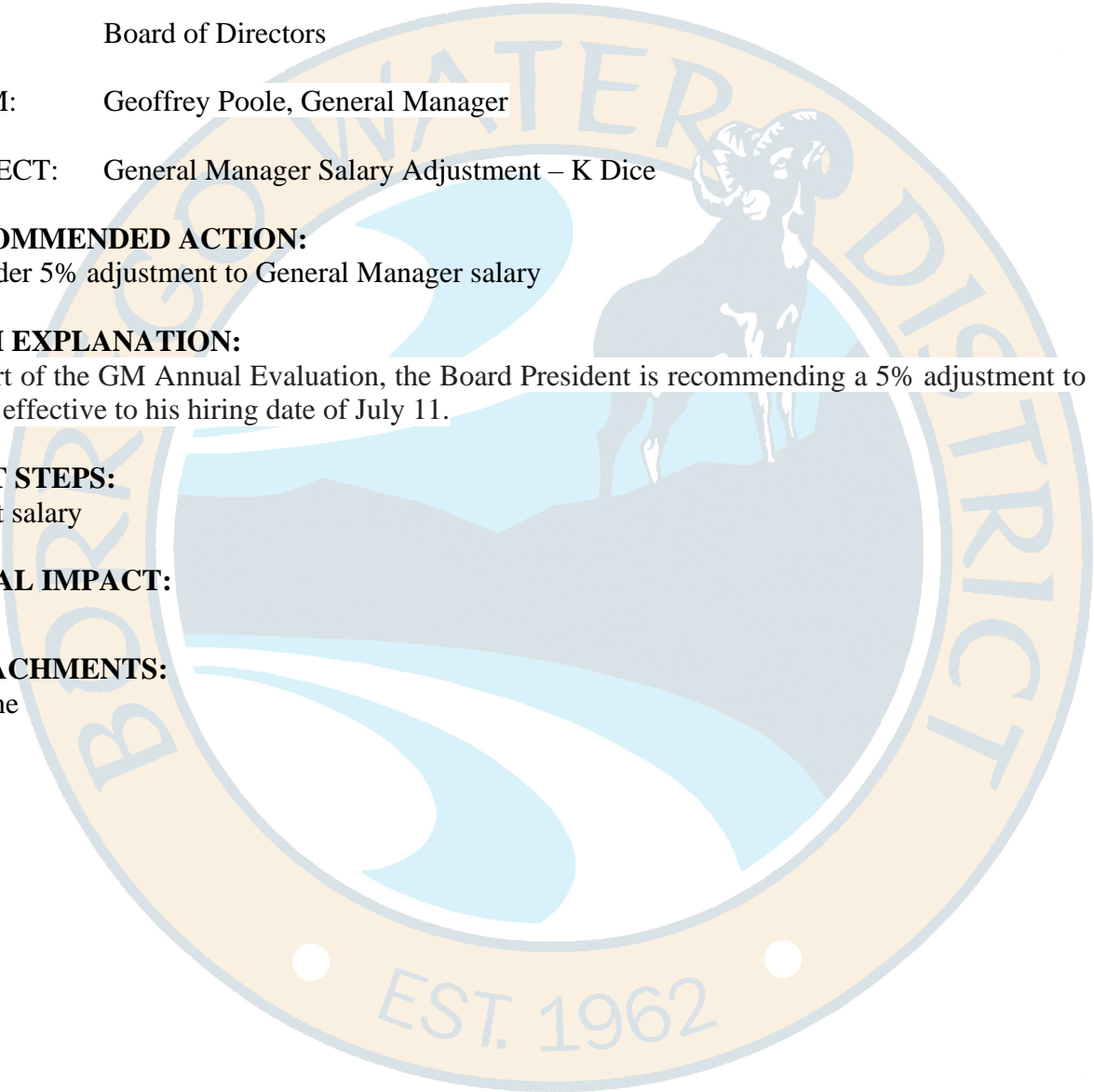
RECOMMENDED ACTION:
Consider 5% adjustment to General Manager salary

ITEM EXPLANATION:
As part of the GM Annual Evaluation, the Board President is recommending a 5% adjustment to the GM salary effective to his hiring date of July 11.

NEXT STEPS:
Adjust salary

FISCAL IMPACT:
N/A

ATTACHMENTS:
1. None



BORREGO WATER DISTRICT
BOARD OF DIRECTORS MEETING
OCTOBER 13, 2020
AGENDA ITEM II.H

October 7, 2020

TO: Board of Directors
FROM: Geoffrey Poole, General Manager
SUBJECT: November Meeting Schedule – G Poole

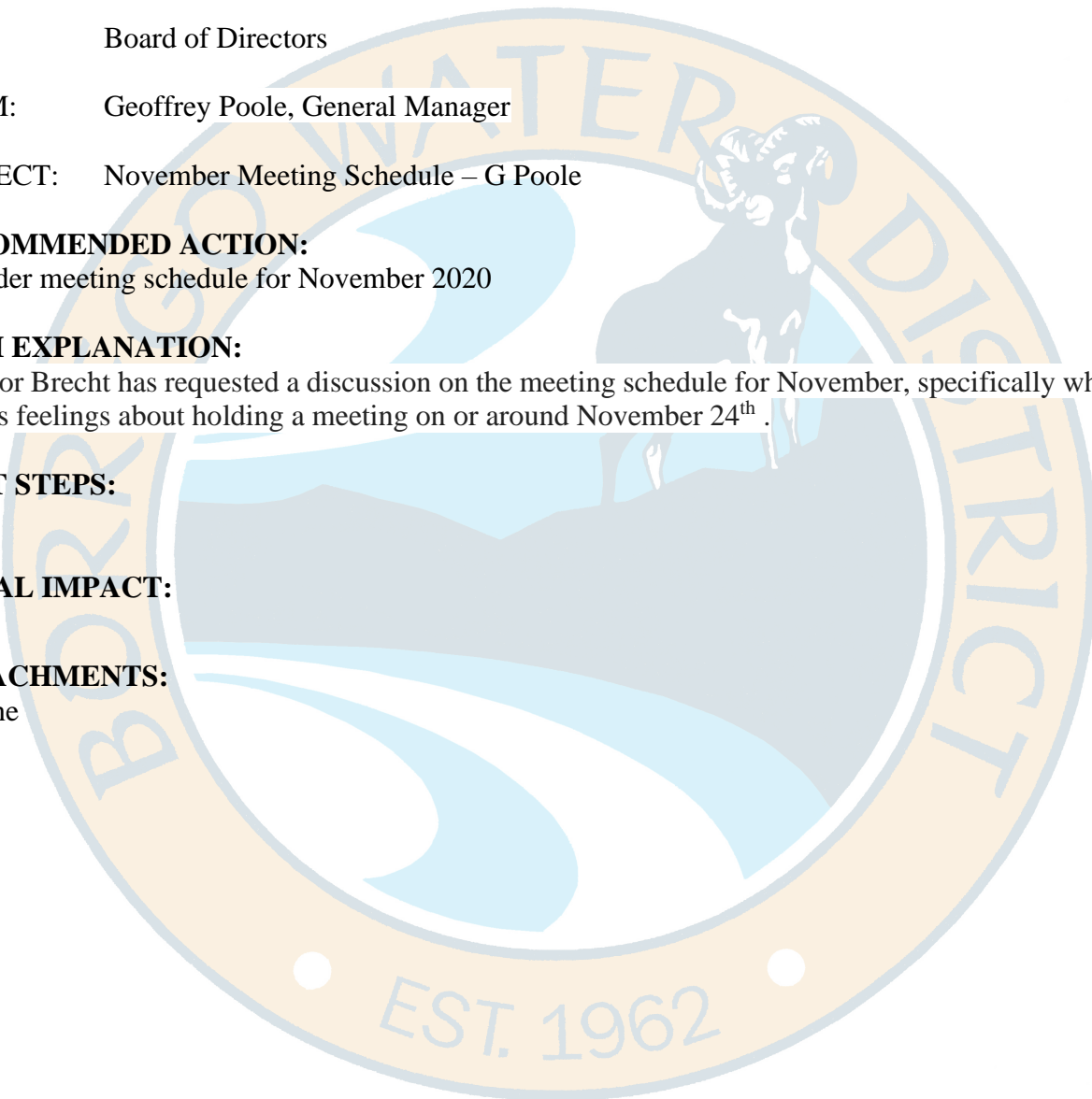
RECOMMENDED ACTION:
Consider meeting schedule for November 2020

ITEM EXPLANATION:
Director Brecht has requested a discussion on the meeting schedule for November, specifically what is the Board's feelings about holding a meeting on or around November 24th.

NEXT STEPS:
TBE

FISCAL IMPACT:
N/A

ATTACHMENTS:
1. None



BORREGO WATER DISTRICT
BOARD OF DIRECTORS MEETING
OCTOBER 13, 2020
AGENDA ITEM II.I

October 7, 2020

TO: Board of Directors

FROM: Geoffrey Poole, General Manager

SUBJECT: 1. Well Meter Reading Services by BWD Completed
2. Sampling and Analysis Plan prepared under the Groundwater Sustainability Plan (GSP/GMP) implementation progress by Subbasin Watermaster for the Borrego Springs Subbasin – L Brecht

RECOMMENDED ACTION:

Discuss and direct staff as deemed appropriate

ITEM EXPLANATION:

1. BWD Staff completed the meter reads for the Watermaster before October 1st as required. All parties were satisfied with the process and results.
2. Director Brecht requested a discussion of this document be placed on the Agenda.

NEXT STEPS:

N/A

FISCAL IMPACT:

N/A

ATTACHMENTS:

1. S.A.P.

APPENDIX E

Monitoring Protocols and Metering Plan

- E1:** Borrego Sampling and Analysis Plan and Quality Assurance Plan
- E2:** Borrego Metering Plan

APPENDIX E1

Borrego Sampling and Analysis Plan and Quality Assurance Plan

The Sampling and Analysis Plan and Quality Assurance Plan has been modified and superseded by Section 4.3 of the Settlement Agreement and Section VI.B. of the Judgment, whereby the interim Watermaster will continue the County-initiated program of water quality monitoring in the Basin that was conducted through March 2019 as part of GSP development on an interim basis until the Court approves the permanent Watermaster and the Watermaster adopts its own Plan.

**SAMPLING AND ANALYSIS PLAN AND QUALITY
ASSURANCE PROJECT PLAN
Borrego Springs Subbasin**

Prepared for

Borrego Valley Groundwater Sustainability Agency

Prepared by

Geosyntec 
consultants

engineers | scientists | innovators

2355 Northside Drive, Suite 250
San Diego, California 92108

OCTOBER 2017

Sampling and Analysis Plan and Quality Assurance Project Plan

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Sampling and Analysis Plan and Quality Assurance Project Plan

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APPENDICES

- A Example Groundwater Elevation Monitoring Field Form
- B Example Groundwater Quality Monitoring Field Form

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Sampling and Analysis Plan and Quality Assurance Project Plan

ACRONYMS AND ABBREVIATIONS

COPC	constituent of potential concern
DMS	data management system
DQO	data quality objective
DWR	California Department of Water Resources
EPA	United States Environmental Protection Agency
GSP	Groundwater Sustainability Plan
HDPE	high-density polyethylene
LCS	laboratory control sample
LIMS	laboratory information management system
mL	milliliter
MDL	method detection limit
MS	matrix spike
MSD	matrix spike duplicate
QAPP	Quality Assurance Project Plan
QA	quality assurance
QC	quality control
SAP	Sampling and Analysis Plan
SOP	standard operating procedure
Subbasin	Borrego Springs Subbasin

Sampling and Analysis Plan and Quality Assurance Project Plan

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Sampling and Analysis Plan and Quality Assurance Project Plan

1 INTRODUCTION

The Borrego Springs Subbasin (Subbasin) of the Borrego Valley Groundwater Basin has been identified by the California Department of Water Resources (DWR) as subject to critical conditions of overdraft (DWR 2016a). As such, in accordance with California's Sustainable Groundwater Management Act, a Groundwater Sustainability Agency has been formed to develop and implement a basin-specific Groundwater Sustainability Plan (GSP). The general purpose of the GSP is to facilitate a long-term groundwater withdrawal rate less than or equal to the sustainable yield of the Subbasin within the 20-year implementation period mandated by the Sustainable Groundwater Management Act.

The objective of this Sampling and Analysis Plan (SAP) is to establish consistent field data collection and laboratory analytical procedures, including protocols for measuring groundwater levels and protocols for sampling groundwater quality. The SAP incorporates pertinent protocols presented in DWR's Best Management Practices for the Sustainable Groundwater Management of Groundwater Monitoring Protocols, Standards, and Sites (DWR 2016b).

1.1 Project Overview and Applicability of the SAP/QAPP

The GSP is currently being developed for the Subbasin. An interim Monitoring Plan was prepared in support of the GSP that outlines the types of monitoring necessary to address the six DWR-designated sustainability indicators in the Subbasin (Dudek 2017). This SAP serves to supplement the Monitoring Plan by establishing consistent monitoring procedures associated with the two primary sustainability indicators for the Subbasin: (1) chronic lowering of groundwater levels and (2) degraded water quality. The Monitoring Plan identifies these two sustainability indicators as the primary drivers of the anticipated undesirable effects from overdraft in the Subbasin. Although the data collected to address the above-referenced sustainability indicators will also be used to evaluate reduction in groundwater storage, other DWR-designated sustainability indicators (i.e., seawater intrusion, depletion of interconnected surface water, and land subsidence) are not considered significant in the Subbasin at this time (Dudek 2017). Therefore, this SAP does not provide protocols for monitoring seawater intrusion, measuring streamflow, or measuring subsidence.

Included within this SAP is a Quality Assurance Project Plan (QAPP). The QAPP provides a framework for implementing procedures for field sampling, chain-of-custody, sample transportation, laboratory analysis, and reporting that will yield defensible data of known quality. Together, the SAP and QAPP are designed to facilitate data collection such that data are of acceptable quality to meet project requirements.

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2 SAMPLING AND ANALYSIS PLAN

The following section describes the sampling methodology, analytical parameters, and sample handling procedures to be followed for routine groundwater monitoring activities in the Subbasin. Specific sampling locations and pertinent well specifications are identified in the Monitoring Plan (Dudek 2017).

2.1 Health and Safety

A project-specific Health and Safety Plan will be prepared and implemented to address potential hazards that may be encountered in the field. Safety meetings will be held at the commencement of the project and each day before work begins to discuss safe work practices during field activities.

2.2 Sampling Objectives

The objectives of monitoring activities are to collect accurate and defensible groundwater elevation data, and to collect representative groundwater samples to evaluate concentrations of constituents of potential concern (COPCs) in groundwater. The purpose of monitoring activities is to track groundwater conditions in the Subbasin throughout implementation of the GSP to evaluate progress toward achieving measurable objectives and sustainable management of the Subbasin, as defined in the Monitoring Plan (Dudek 2017).

2.3 Constituents of Potential Concern

Groundwater samples collected from the site will be analyzed for the site-specific COPCs defined in the Monitoring Plan, including the following:

Routine Constituents

- Arsenic
- Fluoride
- Nitrate
- Sulfate
- Radionuclides (gross alpha particle activity)
- Total dissolved solids

Baseline Constituents

- Anions (bicarbonate, carbonate, chloride, fluoride, hydroxide, nitrate, sulfate, total alkalinity)

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- Cations (calcium, magnesium, potassium, sodium, and total hardness)

Additional detail regarding COPCs is presented in Section 3.5, Analytical Methods, of this SAP.

2.4 Groundwater Monitoring Frequency

Groundwater elevation measurements and water quality sampling will be performed on a semi-annual schedule. The initial water quality sampling event will include sampling and analysis for cations and anions to establish baseline chemistry; analysis for cations and anions in subsequent sampling events is not currently planned.

2.5 Groundwater Monitoring Methods

Groundwater monitoring procedures described herein were compiled in consideration of the DWR's best management practices (DWR 2016b), the County of San Diego's Site Assessment and Mitigation Manual (County of San Diego 2012), and professional judgment. See Appendix A for an example groundwater elevation monitoring field form.

2.5.1 Groundwater Elevation Monitoring

Groundwater elevation monitoring will be conducted using the following procedures:

- Groundwater elevation data should approximate conditions at a discrete period in time; therefore, groundwater levels will be collected within as short a time interval as possible, preferably within a 1- to 2-week period.
- The sampler will have the previous depth to water measurements available in the field.
- The water level indicator will be decontaminated after each well.
- An electronic water level that employs a battery-powered probe assembly attached to a cable marked in 0.01-foot increments will be used. When the probe makes contact with the water surface, an electrical impulse is transmitted in the cable to activate an audible alarm. The equipment will be equipped with a sensitivity adjustment switch that enables the operator to distinguish between actual and false readings caused by the presence of conductive, immiscible components on top of groundwater. The manufacturer's operating manual should be consulted for instructions on use of the sensitivity adjustment.
- The well cap or cap covering the access port will be unlocked and removed.
- The sampler will listen for pressure release while removing the lid. If a release is observed, the measurement will wait to allow the water level to equilibrate. Additionally, multiple measurements will be collected to ensure that the well has reached equilibrium such that no significant changes in water level are observed.

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- All parts of the water level indicator that may come into contact with liquids in the well will be thoroughly rinsed or sprayed with deionized water immediately prior to lowering the probe into the well.
- The probe will be lowered through the access port or well casing to the anticipated depth of water.
- When the water level probe signals contact with water, the depth will be read on the tape from a datum point permanently marked on the well casing. Continue until two consecutive readings are within 0.01 foot of each other. The depth will be recorded on the Water Level Measurement Log.
- Measurements will be taken at an established reference point, generally at the top of the casing at the surveyor's mark. The mark should be permanent (e.g., a notch or mark at the top of casing). If the surveyor's point is not marked at the time of the water level, the north side of the casing will be used and marked.
- If water is not encountered in the well, the depth to water will be recorded as "dry" on the Water Level Measurement Log.
- If the water level in the well has dropped below the top of the dedicated pump, the probe will not be lowered past the pump. If feasible, remove the dedicated pump. Once the pump has been removed, allow the water level to equilibrate and measure the water level according to the method described above.
- Rewind the probe, replace the well cap, and relock the well.
- The sampler will calculate the groundwater elevation by subtracting the depth to water from the reference point elevation. The sampler must ensure that all measurements are consistent units of feet, tenths of feet, and hundredths of feet. Measurements at reference point elevations should not be recorded in feet and inches.
- The sampler will record the well identifier, date, time (24-hour format), reference point elevation, height of reference point above the ground surface (stick-up), depth to water, groundwater elevation, and comments regarding any factors that may affect the depth to water readings such as weather, recent well pumping or nearby irrigation cascading water, or well condition. If there is a questionable measurement or the measurement cannot be obtained, it will be noted.
- All relevant data will be entered into the Groundwater Sustainability Agency's data management system (DMS) as soon as possible. Care will be taken to avoid data entry mistakes, and the entries will be checked by a second person for compliance with data quality objectives (DQOs).

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Pressure Transducers

Groundwater levels and/or calculated groundwater elevations may be recorded using pressure transducers equipped with data loggers installed in monitoring wells. When installing pressure transducers, care must be exercised to ensure that the data recorded by the transducers is confirmed with hand measurements.

The following general protocols will be followed when installing a pressure transducer in a monitoring well:

- The sampler will use an electronic sounder and follow the protocols listed above to measure the groundwater level and calculate the groundwater elevation in each well to properly program and reference the installation. It is recommended that samplers use transducers to record measured groundwater levels to conserve data capacity; groundwater elevations can be calculated at a later time after downloading.
- The sampler will note the well identifier, the associated transducer serial number, transducer range, transducer accuracy, and cable serial number.
- Transducers must be able to record groundwater levels with an accuracy of at least 0.1 foot. The installer of the transducer will consider battery life, data storage capacity, range of groundwater level fluctuations, and natural pressure drift of the transducers at the time of installation.
- The sampler will note whether the pressure transducer uses a vented or non-vented cable for barometric pressure compensation; appropriate corrections for natural barometric pressure changes will be implemented.
- Manufacturer specifications will be followed for installation, calibration, data logging intervals, battery life, correction procedure (if non-vented cables used), and anticipated life expectancy to assure that DQOs are being met for the GSP.
- The cable will be secured to the well head with a well dock or another reliable method. The cable will be marked at the elevation of the reference point with tape or an indelible marker to allow for estimate of potential future cable slippage.
- The transducer data will be regularly checked against hand-measured groundwater levels to monitor electronic drift or cable movement. This will happen during routine site visits, at least semi-annually, or as necessary to maintain data integrity.
- Data will be downloaded as necessary to ensure no data is lost and will be entered into the Groundwater Sustainability Agency's DMS following the established quality assurance/quality control (QA/QC) program. Data collected with non-vented data logger cables will be corrected for atmospheric barometric pressure changes, as appropriate. After

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the sampler is confident that the data have been safely downloaded and stored, the data will be deleted from the data logger to ensure that adequate data logger memory remains.

2.5.2 Groundwater Quality Monitoring

Groundwater quality monitoring and sampling will be conducted using the following procedures. See Appendix B for an example groundwater quality monitoring field form.

- Prior to sampling, the sampler must contact the selected California-certified environmental laboratory to schedule laboratory time, obtain appropriate sample containers, and clarify any sample holding times or sample preservation requirements.
- Each well used for groundwater quality monitoring must have a unique identifier. This identifier must appear on the well housing or the well casing to avoid confusion.
- Groundwater elevation will be measured in the well following appropriate protocols, as described above.
- General well specifications for the wells to be sampled should be available in the field, most notably the screened interval and total well depth.
- Sample containers will be labeled prior to sample collection. The sample label must include sample ID, sample date and time, sample personnel, sample location, preservative used, and analyses and analytical method.
- Samples will be collected under laminar flow conditions. Laminar flow occurs when fluid flows in parallel layers, with limited lateral disruption or mixing of the layers. This may require reducing pumping rates prior to sample collection to minimize turbulent flow of groundwater entering the well screen.
- All field instruments will be calibrated daily and evaluated for drift throughout the day. Calibration will be documented in field logs.
- All samples requiring preservation must be preserved as soon as practically possible, ideally at the time of sample collection. Samples will be appropriately filtered, as recommended for the specific analyte. Samples to be analyzed for metals (i.e., arsenic) will be field-filtered prior to preservation; unfiltered samples will not be collected in a preserved container.
- If pumping during sampling or purging causes a well to go dry, the condition will be documented and the well will be allowed to recovery to within 90% of the original level measured prior to pumping. Professional judgement should be used about to whether the sample will meet the DQOs, and will be adjusted as necessary.

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- The following will occur for groundwater wells equipped with a functioning dedicated pump:
 1. Samples will be collected at or near the wellhead. Samples will not be collected from storage tanks, at the end of long pipe runs, or after any water treatment.
 2. After cleaning the sampling port, a new, clean length of flexible clear plastic tubing will be connected to the sample access port. The tubing will be inserted into the sample bottle. The sample access port will be opened slowly. It will be verified that the liquid stream is not flowing greater than 100 milliliters (mL) per minute.
 3. The sample bottle will be filled so that no air space remains. The bottle will be capped and then wiped clean after capping. The completed label will then be adhered to the sample bottle.
 4. Field measurements for depth to water, pH, specific conductance, temperature, turbidity, dissolved oxygen, oxygen-reduction potential, and color will be collected and documented after the samples are collected.
- The following will occur for groundwater wells requiring sample collection using a temporary pump:
 1. The pump will be lowered slowly down the well, positioning the well intake at the middle of the well screen or at the predetermined selected sampling depth.
 2. Disturbance of the water column in the well will be minimized by initiating pumping at a low rate (see below). Dedicated tubing (left in place between sampling events) is recommended to minimize disturbance to the water column before and during sampling.
 3. Pumping will begin at a steady rate of 100 mL per minute and the depth to water will be measured frequently (e.g., every 1 minute for the first few minutes) to ensure that less than 0.1 feet of drawdown occurs. The pumping rate may be increased if drawdown is less than 0.1 feet, but the pumping rate will not exceed 500 mL per minute.
 4. Field parameters and depth to water will be recorded on field data sheets a minimum of every 5 minutes while purging. Purging will continue until pH, temperature, specific conductance, oxidation reduction potential, dissolved oxygen, and turbidity stabilize (three consecutive readings), which is defined as follows:
 - a. ± 0.2 units for pH
 - b. $\pm 3\%$ – 5% for specific conductance
 - c. ± 20 millivolts (mV) for oxidation reduction potential
 - d. $\pm 10\%$ for temperature
 - e. $\pm 10\%$ for turbidity

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- f. ± 0.2 milligrams per liter for dissolved oxygen
 5. Dissolved oxygen and turbidity tend to stabilize last and are better measures of sufficient purging. Drawdown will be minimized during purging and/or sampling, not exceeding 0.1 feet, if possible.
 6. In the case that the above criteria for stabilization are not met before three well volumes have been pumped, then a maximum of five well volumes will be pumped before samples are taken. Also, if stabilization has not occurred after 2 hours of purging regardless of well volume status, samples will be collected at this point. In the spirit of water conservation, this method will be avoided if possible.
 7. For protocol regarding variances, consult the Site Assessment and Mitigation Manual (County of San Diego 2012).
- If pumping during sampling or purging causes a well to go dry, the condition will be documented and the well will be allowed to recovery to within 90% of the original level measured prior to pumping. Professional judgement will be used as to whether the sample will meet the DQOs and adjusted as necessary.
 - After sample collection, the sealed sample bottle will be placed in a “zip-lock” style bag and placed inside an ice chest filled with ice to maintain a sample temperature of 4°C to prevent degradation of the sample. At the completion of sampling, the completed chain-of-custody will be placed in the ice chest, which will be sealed and labeled. The samples will be transported from the site to the laboratory by courier service or other means. The samples will be delivered to the laboratory within 24 hours after the sample has been collected.

2.6 Sample Handling

The following section details methods that are to be used for sample labeling, identification, containerizing, preservation, transportation, and maintaining proper chain-of-custody. Samples will be handled in accordance with San Diego County’s Site Assessment and Mitigation Manual (County of San Diego 2012) and the United States Geological Survey’s National Field Manual for the Collection Water Quality Data sampling protocols (USGS 2014).

2.6.1 Sample Handling and Identification

Each groundwater sample collected for analysis will be designated with a unique identification (ID) number. The sample identification number will include information to identify the sample location, date, and field QC classification, if applicable.

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The following identifying factors will be used:

- Local well ID (e.g., ID4-18)
- Date (i.e., year, month, day)
- Field QC classification, if applicable (e.g., “D” for field duplicate)

For example:

- Sample identification number “ID4-18-20170704” would represent a groundwater sample collected from well ID4-18 on July 4, 2017.

2.6.2 Sample Containers and Transportation

Groundwater samples will be collected in the following containers:

- Arsenic by United States Environmental Protection Agency (EPA) Method 6010B: 250 mL high-density polyethylene (HDPE) bottle preserved with hydrochloric acid
- Cations and anions: 1 liter unpreserved HDPE
- Fluoride by SM 4500-F C: 250 mL unpreserved HDPE
- Nitrate by EPA 300.0: 250 mL unpreserved HDPE
- Radionuclides (gross alpha particle activity) by EPA 900.0: 1 liter unpreserved HDPE
- Sulfate by EPA 300.0: 250 mL unpreserved HDPE
- Total dissolved solids by SM 2540 C: 1 liter unpreserved HDPE

Analyte-specific laboratory holding times as described in Section 3.5.3 will be reviewed to plan for samples to be received by the laboratory within the appropriate timeframe.

2.6.3 Chain-of-Custody Procedures

A chain-of-custody form will be used to record possession of the samples from the time of collection to the time of arrival at the laboratory. The individual who collects the samples will prepare them for shipment, complete the chain-of-custody form, and sign the form when transferring the samples to the laboratory courier. The samples will be released to the laboratory by the courier signature on the chain-of-custody form and signed as received by laboratory receiving personnel. The laboratory receiving personnel will verify that all samples listed on the chain-of-custody form are present, sample integrity, and that proper sample preservation procedures were used.

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2.6.4 Equipment Decontamination

Prior to sampling, re-usable sampling equipment (e.g., submersible pumps) will be decontaminated using an Alconox wash, a potable water rinse, then a distilled water final rinse (i.e., the three-bucket wash method).

2.6.5 Investigative-Derived Waste

Evidence of hazardous concentrations of COPCs has not been identified in Subbasin wells. If purge water is generated from a groundwater well it will be discharged to the ground away from the wellhead. Additionally, investigative-derived wastes (e.g., sampling gloves, disposable sampling devices, tubing) will be disposed of off site as municipal solid waste.

2.6.6 Field Documentation

Field logbooks will be maintained during confirmation sampling field activities. The field logbooks will serve to document observations, personnel on site, equipment activity, field procedures, and other vital information. Logbook entries will be complete and accurate enough to permit reconstruction of field activities. The following information for each sampling area will be documented on field forms:

- Field crew names
- Date of sampling
- Wells names
- Names and times of samples collected
- Chain-of-custody number
- General observations

2.6.7 Photographs

Photographs will be taken at sample locations and other relevant areas on site. The photographs will serve to verify information entered in the field logbooks.

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3 QUALITY ASSURANCE PROJECT PLAN

3.1 Roles and Responsibilities

Brief descriptions of key personnel responsibilities are provided below.

The sampling project manager is a member of the project team who will provide oversight and serve as the point of contact for the responsible parties. The sampling project manager will have responsibility for the overall project performance.

The QA manager will be responsible for ensuring the integrity of the SAP/QAPP and will coordinate all QA-specific activities. The QA manager will do the following:

- Ensure that the appropriate analytical methods and sampling equipment are selected.
- Be responsible for data validation and advise the sampling project manager with respect to data management and statistical evaluation of the data.
- Be responsible for performance and/or systems audits of the laboratory, should they be required.

The field manager or designated representative will be located at the site during field activities and will coordinate the technical field activities in accordance with approved plans, including the Monitoring Plan (Dudek 2017), QAPP, and Health and Safety Plan. The field manager will be responsible for verifying that the field work (to include sampling operations and sampling QC) is performed within the approved guidelines. The field manager will be responsible for implementing and maintaining overall operating standards and field QA responsibilities. Such responsibilities will include the following:

- Appropriate calibration and maintenance of field instruments
- Appropriate equipment decontamination
- Compliance with QA/QC sampling requirements (e.g., field duplicate collection)

In addition, the field manager will coordinate safety and technical activities occurring at the site, and conduct daily briefing sessions prior to work on the site. Although various field functions will be performed by individuals, the field manager will bear field responsibilities.

The laboratory project manager will be responsible for the day-to-day management of the laboratory work, to include data processing and data processing QA, verification that laboratory QA/QC procedures are being maintained, and verification that technical review of reports has been performed. Although various laboratory functions will be performed by different

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individuals, the laboratory project manager will provide signature approvals to laboratory-generated information and bear laboratory responsibilities.

3.2 Quality Objectives and Criteria

The DQO process is used to derive qualitative and quantitative statements in relation to a particular data collection event (or group of events). Performing the DQO process is generally one of the prerequisite steps to data collection. The DQO process is described in EPA Guidance (EPA 2006). The steps of the DQO process are as follows:

- State the problem
- Identify the goals of the study
- Identify information inputs
- Define the boundaries of the study
- Develop the analytic approach
- Specify performance or acceptance criteria
- Develop the plan for obtaining data

The steps of the DQO process for the project are summarized below:

- The problem: Groundwater quality in the Subbasin, as observed through groundwater samples collected from monitoring and production wells, is potentially degrading. Overdraft conditions are potentially exacerbating impacts from naturally occurring COPCs, which may result in undesirable effects such as degraded water quality that is unsuitable for irrigation and/or drinking.
- The goals: Evaluate baseline and long-term trends in COPC concentrations for comparison to measurable objectives to be established in the GSP.
- Information inputs: Obtain analytical data for groundwater samples using the tests outlined in Section 3.5.1 of this SAP.
- The boundaries of the study: Samples will be collected from groundwater wells within the Subbasin, as designated in the Monitoring Plan (Dudek 2017).
- The analytic approach: Concentrations of COPCs will be tracked and studied throughout implementation of the GSP, as described in the Monitoring Plan.
- Performance or acceptance criteria: The usability of the data collected for this phase of work will be based on measurement activities, consistent with accepted guidance

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documents such as SW846 Test Methods. Testing results will be evaluated against performance-based acceptance criteria.

- The plan for obtaining data: The overall plan is outlined within the Monitoring Plan (Dudek 2017), and sampling details are presented in Section 2 of this SAP.

3.3 Special Training/Certification

No specialized training is required. Standard training specifications will be outlined in the project-specific Health and Safety Plan.

3.4 Documentation and Records

Documentation will involve generating, maintaining, and controlling field data, laboratory analytical data, field logs, reports, and any other data relevant to the project. Bound field log books, loose-leaf drilling logs, or automated field data entry records generated with personal data assistants are examples of documents. This project will have dedicated field log books, forms, and a DMS that will not be used for other projects. Entries will be dated and the time of entry will be recorded. Sample collection data and visual observations will be documented on forms or personal data assistants, or, when forms are not available or applicable, in the field log book. Any sample collection equipment, field analytical equipment, and equipment used to make physical measurements will be identified in the field documentation. Calculations, results, equipment usage, maintenance, and repair and calibration data for field sampling, and analytical and physical measurement equipment will also be recorded in field documentation. Once completed, the field forms, field databases, and field log book will become part of the project file.

Office data management will involve establishing and maintaining a project file. The project file will include the following:

- Planning documents, such as the QAPP
- Plans and schedules
- Standard operating procedures (SOPs) (for both the field and laboratory)
- Field sampling logs
- Field screening data
- QA auditing and inspection reports
- Laboratory analytical data
- Calculations
- Drawings and figures

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- Reports
- External and internal correspondence
- Notes/minutes of meetings and phone conversations
- Contract/purchase orders
- Change orders
- Bid evaluations

All project-related information will be routed to the sampling project manager who will be responsible for distributing the information to appropriate personnel. Project documentation will be archived for a minimum of 15 years. Pertinent documentation will be uploaded to the project's online DMS.

3.5 Analytical Methods

3.5.1 Laboratory Methods

The following laboratory methods will be used during groundwater sample analysis activities:

- Arsenic by EPA Method 6010B
- Cations and anions by Methods 300.0, SM 2340C, and SM 2320B
- Fluoride by SM 4500 F C
- Nitrate by EPA 300.0
- Radionuclides by EPA 900.0
- Sulfate by EPA 300.0
- Total dissolved solids by SM 2540 C

3.5.2 Required Reporting Limits and Method Detection Limits

Reporting limits represent the lowest normally obtainable measurement level achieved and reported by the laboratory under practical and routine laboratory conditions for a variety of sample matrices. The method detection limit (MDL) is the minimum concentration that can be measured with 99% confidence that the analyte concentration is greater than zero by an analytical procedure in a given matrix containing the analyte. Sample-specific reporting limits may vary as a result of sample matrix and compound concentration. Samples with no positive results (down to the MDL) are typically reported as "ND" (indicating "not detected") by the laboratory. Positive results below the reporting limit but above the MDL are reported as

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estimated values by the laboratory. Reporting limits and MDLs are adjusted for dilutions, as necessary, by the laboratory. A summary of the MDLs and reporting limits for the COPCs is presented in Table 1.

Table 1
Summary of Method Detection Limits and Reporting Limits

COPC	Method	Reporting Limit (mg/kg)
Fluoride	SM 4500-F C	0.10
Arsenic	6010B	0.0100
Calcium	6010B	0.100
Magnesium	6010B	0.100
Potassium	6010B	0.500
Sodium	6010B	0.500
Total Dissolved Solids	SM 2540 C	1.0
Chloride	300.0	1.0
Nitrate (as N)	300.0	0.10
Sulfate	300.0	1.0
Hardness (as CaCO ₃)	SM 2340 C	2.0
Alkalinity	SM 2320B	1.0
Bicarbonate	SM 2320B	1.0
Carbonate	SM 2320B	1.0
Hydroxide	SM 2320B	1.0
Radionuclides (Gross Alpha Particle Activity)	900.0	Variable

COPC = constituent of potential concern; mg/kg = milligrams per kilogram

Laboratory analytical methods specified in Section 3.5.1 are generally consistent with those used during previous sampling performed in the Subbasin.

3.5.3 Holding Times

Knowledge of required holding times will have a direct impact on scheduling of sample collecting, packing, and shipping activities. To ensure proper sample handling, the sample container, volume, preservation, and holding times applicable to each analytical method are shown in Table 2.

Table 2
Borrego Springs Subbasin – Groundwater Sample Analytical Suite

Constituent	Method	Sample Container	Preservative	Holding Time (days)
Fluoride	SM 4500-F C	250 mL HDPE	Ice 4°C	28
Arsenic	6010B	250 mL HDPE	Ice 4°C	28
Calcium	6010B	250 mL HDPE	Ice 4°C	28

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Table 2
Borrego Springs Subbasin – Groundwater Sample Analytical Suite

Constituent	Method	Sample Container	Preservative	Holding Time (days)
Magnesium	6010B	250 mL HDPE	Ice 4°C	28
Potassium	6010B	250 mL HDPE	Ice 4°C	28
Sodium	6010B	250 mL HDPE	Ice 4°C	28
Total Dissolved Solids	SM 2540 C	1 L HDPE	Ice 4°C	7
Chloride	300.0	125 mL HDPE	Ice 4°C	28
Nitrate (as N)	300.0	125 mL HDPE	Ice 4°C	2
Sulfate	300.0	125 mL HDPE	Ice 4°C	28
Hardness (as CaCO ₃)	SM 2340 C	250 mL HDPE	Ice 4°C	180
Alkalinity	SM 2320B	250 mL HDPE	Ice 4°C	14
Bicarbonate	SM 2320B	250 mL HDPE	Ice 4°C	14
Carbonate	SM 2320B	250 mL HDPE	Ice 4°C	14
Hydroxide	SM 2320B	250 mL HDPE	Ice 4°C	14
Radionuclides	900.0	1 L HDPE	Ice 4°C	5

mL = milliliters; L = liters; HDPE = high-density polyethylene bottle

3.5.4 Field Methods

Procedures for using field measurement devices are presented in Section 3.6.4.

3.6 Quality Control

3.6.1 Introduction

This section addresses QC procedures associated with field sampling and analytical efforts. Included are general QC considerations, as well as specific QC checks that provide ongoing control and assessment of data quality in terms of precision and accuracy.

3.6.2 Field Quality Assurance/Quality Control

QA/QC for fieldwork refers to methods of measuring the quality of the field sampling techniques. Drilling, sampling, and field record keeping will be conducted in accordance with current sampling protocols for groundwater sampling, as applicable. Field instrumentation will be calibrated in accordance with the manufacturer's instructions at the beginning of each field day.

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In addition to the primary samples, the following QA/QC samples will be collected:

- **Field Duplicate.** One field duplicate sample will be collected for every 20 samples collected. The field duplicates will be analyzed for the same COPCs as the primary samples, and will be used to evaluate field sample collection reproducibility. The location where the field duplicate is collected will be noted on the sampling logs. The duplicate sample name will be different than the original sample name.
- **Matrix Spike/Matrix Spike Duplicate (MS/MSD).** One MS/MSD sample will be selected as applicable, and noted on the chain-of-custody. The MS/MSD samples will be analyzed for the same COPCs as the primary samples, and will be used by the laboratory to check for the ability to accurately and precisely recover compounds of interest from the site-specific matrix.

Field blanks will not be collected for this scope of work because easily transferable constituents such as volatile organic compounds are not anticipated to be encountered. The results of the analyses of these QC sample types are used as independent, external checks on field sample collection techniques.

3.6.3 Laboratory Quality Control

To obtain data on precision and accuracy, the analytical laboratory will analyze the QC samples described below. The control limits and corrective actions for each parameter are specified in the pertinent laboratory analytical method SOPs. The analytical methods require analyses of the following QC samples:

- Calibration verification following instrument calibration and continuing calibration verification.
- Laboratory blank verification at instrument calibration and at the method required frequency thereafter for continuing blank verification.
- Method blank analysis at a rate of once per batch of samples or one per 20 samples of a single matrix, whichever is more frequent, to determine contamination levels during sample preparation.
- Laboratory control sample (LCS) analyses at a rate of one per batch. The LCS is used to verify that the analytical system is in control based on the percent recovery of the analyte(s).
- MS/MSD or MS/Laboratory Duplicate analyses will be conducted as applicable. The MS/MSDs and/or MS/Laboratory Duplicate are used to check for the ability to accurately and precisely recover compounds of interest from the matrix.

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3.6.4 Field Procedures

Field monitoring and analytical equipment will be maintained in accordance with the manufacturers' recommended schedules and procedures. Maintenance activities will be documented by either field or laboratory personnel. Calibration will be performed on a routine basis and as otherwise required. Calibrating equipment or calibration standards will also be routinely recalibrated or replaced and documented. Routine inspection of equipment is intended to identify problems requiring maintenance before they cause a major disruption in field monitoring or analytical activities, or adversely affect the validity and precision of the data being measured.

3.6.5 Laboratory Procedures

The laboratory is responsible for maintaining laboratory equipment in accordance with manufacturers' recommended maintenance and procedures in order to minimize downtime of the analytical systems. Each analyst is responsible for conducting a daily inspection of critical systems on instruments under their charge. Inspections will include vacuum lines and pumps for the gas chromatograph/mass spectrometer, automatic injection systems, controlled reagent-feed motors, temperature-controlled ovens in gas chromatographs, capillary columns, detectors and support systems, gas control system for atomic adsorptions, and many others. Wear-dependent items, such as septa on gas chromatograph injection systems, will be replaced as needed. The performance of instruments will be checked against known standards at the beginning of each working day or shift. Failure to achieve proper performance indicates a system problem, which will be addressed by laboratory personnel or by the manufacturer's service representative.

In addition, laboratory personnel or the manufacturer's service representative will service working systems according to a fixed schedule. A record of service and repairs, whether accomplished by laboratory personnel or by the manufacturer's service representative, will be maintained in a log book kept with each instrument.

3.7 Inspection/Acceptance of Supplies and Consumables

Critical field supplies and consumables include the following:

Sample bottleware

- Decontamination fluids
- Personal protective equipment
- General sampling consumables (e.g., ice, plastic bags, paper towels, aluminum foil)

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For bottleware, the acceptance criteria will entail an inspection upon receipt of analytical testing to confirm the absence of cross-contamination and the presence of appropriate preservatives. For decontamination fluids, field staff will ensure that the fluids meet the necessary requirements for concentration and quality grade (e.g., reagent-grade methanol). Personal protective equipment will be inspected to confirm integrity and ensure that the appropriate sizes are available as required by sampling team members.

3.7.1 Laboratory Supplies

The inspection and acceptance criteria for analytical reagents will be performed in accordance with the selected California-certified laboratory's SOPs.

3.8 Assessments and Response Actions

The project team may conduct performance and systems audits of field and laboratory activities, as necessary. Following is a discussion of audits, corrective action, and reporting procedures.

3.8.1 Systems Audit

A systems audit consists of the evaluation of key components of the measurement systems to determine their proper selection and use. When required by the EPA or alternative regulatory authority, systems audits are performed prior to or shortly after systems are operational. This audit includes a careful evaluation of field and laboratory QC procedures, which are explained below.

Field Systems Audits

Field systems audits are on-site audits that focus on data collection systems, using the appropriate SAP/QAPP as a reference. Specific activities vary with the scope of the audit, but can include a review of sample collection activities, decontamination practices, equipment calibration techniques and records, decontamination and equipment cleaning, background and training of personnel, sample containers and preservation techniques, and chain-of-custody procedures.

Laboratory Systems Audit

The laboratory systems audit is a review of laboratory operations to verify that the laboratory has the necessary facilities, equipment, staff, and procedures to generate acceptable data.

Specific activities vary with the scope of the audit, but can include a review of equipment suitability and maintenance/repair; SOPs; background and training of personnel; laboratory control charts and support systems; and QA samples, including performance evaluation samples, chain-of-custody procedures, data logs, data transfer, data reduction, and validation.

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3.8.2 Performance Audits

After systems are operational and generating data, a performance audit may be requested to determine the accuracy of the total measurement system(s) or component parts thereof. Similar to the systems audit, there are two types of performance audits, as explained below.

Field Performance Audit

Performance audits of sampling activities will be conducted using review of laboratory sample receipt forms.

An inspection for suitability of the samples for proper laboratory analysis will serve as the performance audit of the sample collection procedures. Insufficient sample volume for analysis, or improper preservation of samples, will be noted by the analytical laboratory. A preponderance of such reports of unsuitable samples will indicate that the sampling procedures are poor or unacceptable. Analytical results will be reviewed by the sampling project manager and the QA manager to assess the performance and adequacy of sample collection procedures.

Proper execution of sampling procedures will be audited by the sampling project manager and the QA manager. The sampling project manager and QA manager will audit these project operations on a regular basis over the life of the project through review of the field log book and audit forms, and through discussion with the field manager.

Laboratory Performance Audits

The project laboratories participate in a variety of federal and state programs that subject laboratories to stringent performance audits on a regular basis. QA policies and procedures currently in place at the laboratories, and actions that will be included in sampling activities to ensure QA, include the following:

- Inter-laboratory check samples
- Periodic audits
- Laboratory control samples analyzed at applicable analytical method frequencies
- Performance evaluation samples to be submitted to laboratories by the project team to each laboratory during major sampling events that use the particular laboratory

Laboratory performance in these areas will be monitored by the project team QA manager. If necessary, the project team QA manager will conduct an on-site audit of field operations or the analytical laboratory.

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3.8.3 Corrective Action for Measurement Systems

When a problem situation arises regarding any significant impediment to the progress of the SAP during site characterization, corrective action will be implemented to identify the problem and its source. Appropriate documentation of this action will be recorded in the project file.

Personnel responsible for the initiation and approval of corrective action will be the laboratory QA manager (for corrective action at the laboratory) and the project team project manager (for corrective actions identified during field activities and/or during the data validation effort).

3.8.4 Quality Assurance Reporting Procedures

Below are the QA reporting procedures that will be implemented for this project.

Reporting Responsibility and Recordkeeping

Comprehensive records will be maintained by the project team to provide evidence of QA activities. These records will include the following:

- Results of performance and systems audits
- Data validation summary
- QA problems and proposed corrective action
- Changes to the project documents

The proper maintenance of QA records is essential to provide support in any evidentiary proceedings. The original QA records will be kept in the QC manager's records.

Access to working files will be restricted to project personnel.

Audit Reports

Should audits be requested, the corresponding audit reports will be distributed to the following project personnel, as appropriate:

- Project Manager/Project Director
- Field Manager
- Laboratory QA/QC Manager

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3.9 Data Reduction, Review, Verification, and Validation

This section addresses the stages of data quality assessment after data have been received. It addresses data review, verification, and validation. It also sets procedures for evaluating the usability of data with respect to the DQOs set forth in Section 3.2.

3.9.1 Data Reduction

Raw analytical data generated in the laboratory are collected on printouts from the instruments and associated data system, generated electronically and stored in a laboratory information management system (LIMS), or manually recorded into bound notebooks. Analysts review data as they are generated to determine that the instruments are performing within specifications. This review includes calibration checks, surrogate recoveries, blank checks, retention time reproducibility, and other QC checks as specified in the laboratory's SOPs. If problems are noted during the analytical run, corrective action will be taken and documented.

Each analytical run is reviewed for completeness prior to interpretation and data reduction.

3.9.2 Data Review

Data review is an initial and relatively non-technical step of data assessment that primarily addresses issues of completeness and data handling integrity. In data review, the reviewer will ensure that all necessary reporting components have been included in laboratory reports, such as necessary fields (e.g., collection/analysis dates, units) and the presence of (but not implications of) QA/QC data components (e.g., LCS records, surrogate results).

3.9.3 Data Verification and Validation

Data verification is a more technical process than data review in that the core technical aspects of data quality (e.g., precision, accuracy) are evaluated through a review of the results of QA/QC measures, such as LCSs and surrogates.

Following interpretation and data reduction by an analyst, data are transferred to the LIMS either by direct data upload from the analytical data system or manually. The data are reviewed by the group leader or another analyst and recorded in the LIMS as being verified. The person performing the verification reviews all data, including QC information, prior to verifying the data. The laboratory will complete the appropriate forms summarizing the QC information and transfer copies of all raw data (e.g., instrument printouts, spectra, chromatograms) to the project management group for the final laboratory deliverable. This laboratory project manager will combine the information from the various analytical groups and the analytical reports from the LIMS into one package. This package will be reviewed by the laboratory project manager for

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conformance with SOPs and to ensure that all project QC goals have been met. Any analytical problems are discussed in the case narrative, which is also included with the data package deliverables. A Level 2 data deliverable will be required for this project.

Following data verification by the laboratory, data validation will be conducted on 100% of the laboratory data by an entity independent of the laboratory. The following level of validation will be performed:

- Stage 1: 100% of samples collected

If systematic errors with the laboratory data are identified, further validation may be necessary. Data validation may be performed on hard-copy data or electronically, as applicable. General compliance to the August 2014 National Functional Guidelines for Inorganic Data Review and the National Functional Guidelines for Superfund Method Organic Data Review (EPA 2014), and EPA Region 9 validation guidance will be used as the basis for the validation. The guidance documents provide structured approaches for the assignment of data qualifiers based on observations made in the data verification process, and will be used in conjunction with the specific EPA method criteria and the QA criteria set forth in the project-specific SAP.

3.9.4 Data Validation and Usability Determination

Data verification is a technical process to evaluate data, but it does not answer the final question of the usability of the data and the implications of any departures from data expectations. The data validation process is designed to assign data qualifiers based on the data verification results, and provide a case-by-case review of data quality issues with respect to QAPP objectives to render a final assessment of data usability.

3.10 Data Evaluation Roles and Responsibilities

The following components of data evaluation will be performed:

- Data reduction will be performed by the analytical laboratory
- Data review will be performed by both the laboratory and by the project team
- Data verification will be performed by the laboratory
- Data validation and usability determination will be performed by the project team

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3.11 Data Reporting

Laboratory reports will contain the following:

- **Case Narrative:** Description of sample types, tests performed, any problems encountered, corrective actions taken, and general comments.
- **Analytical Data:** Data are reported by sample or by test. Pertinent information, such as dates sampled, received, prepared, and extracted, will be included on each results page. The reporting limit and method detection limit for each analyte will also be recorded. In addition to a report saved as a pdf, the laboratory will provide an electronic data deliverable in a text format corresponding to each analytical report.
- **Laboratory Performance QC Information:** The results for all of the associated laboratory QC samples and practices will be reported (e.g., LCS, method blanks, surrogate recoveries).
- **Matrix-Specific QC Information:** Results of any sample duplicates, MSs, MSDs, or other project-specific QC measures that are requested will be reported.
- **Methodology:** The reference for the applied analytical methodology will be cited.

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4 REFERENCES

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BORREGO WATER DISTRICT
BOARD OF DIRECTORS MEETING
OCTOBER 13, 2020
STAFF REPORTS

October 8, 2020

TO: Board of Directors

FROM: Geoffrey Poole, General Manager

SUBJECT: Staff Reports

A. Water Sales and Revenues Verbal Update - J. Clabaugh : Revenue and collection information

A. Publication of Documents – G Poole

1. Hemp Growing in Anza – Letter to Riverside Board of Supervisors

Attached is the Letter sent to Riverside B of S as well as SD Supervisor Jim Desmond’s office. The BS Watermaster will be discussing the issue and considering a similar letter at an upcoming Special Meeting.

B. Updated Schedule for Cost of Service Study – G Poole

Raftelis: Cost of Service Study Schedule

October/November: Rate Design

November/December: Capacity Fee Design

December/January: Board Rate Workshop/Presentation

January/February: Draft Report

February/March: 218 Notice to Customers Before

April 1, 2021: Public Hearing

April 15, 2021: Rate Implementation

July 1, 2021: Adjustment to Rates

C. Website Update – E Garcia – VERBAL

D. BWD Well Field Solar – G Poole - VERBAL



October 3, 2020
David Washington, Supervisor District 3
Riverside County
4080 Lemon St., 5th Floor
Riverside, CA. 92501

Dear Mr Washington and fellow Supervisors

The Borrego Water District (BWD) has recently been made aware of potential actions in Riverside County pertaining to the future of increased industrial hemp farming in the Anza/Terwilliger area. A portion of this area is within the Coyote Creek tributary/watershed, which provides an estimated 80% of inflows into our aquifer -- which is the sole source of water for the community of Borrego Springs and the surrounding Anza-Borrego Desert State Park. We have been designated as a Critically Overdrafted Basin (overdraft currently estimated at 74.6%), by the Sustainable Groundwater Management Act (SGMA).

We understand that the Anza/Terwilliger area is outside the Santa Margarita River Watershed (SMRW) but does fall within the Anza Terwilliger Water Basin (ATWB) an area defined by the US Geological Survey. Both of these areas are unquantified for water content. Along with your consideration of proscribing industrial hemp cultivation within the SMRW, we would respectfully ask you to give the same consideration to the Coyote Creek area within the ATWB as you move forward with your ordinance.

BWD also supports any proactive efforts to study/quantify the potential impacts to groundwater resources created by planned increased pumping for relatively high-water demand crops. To wait until the impacts have already been felt is too risky and could have extremely detrimental and possibly irreversible effects because any loss of water from the Coyote Canyon/Coyote Creek interface could exacerbate the existing problem of limited and infrequent aquifer recharge in the Borrego Valley Basin.

As a footnote, the complicated issue of dealing with the critical overdraft in the BS Basin has been the subject of over a decade of work by BWD and other Basin pumpers. In early 2020, over 92% of basin pumpers (by volume) signed legally binding Agreements to implement a SGMA-mandated Groundwater Management Plan that includes Project and Management actions, with the goal of reducing pumping by 74.6% over the next 20 years. One component of the Agreement includes the creation of a Watermaster (WM) for Borrego Springs (BS). The BSWM began to meet in March 2020 and, once it receives interim legal authority in the coming months, will be given the responsibility of managing withdrawals from the Basin, with Court oversight. BWD is a member of the BS Watermaster Board and our Representative is planning to bring up this issue in the near future.

Sincerely

Geoffrey Poole, General Manager on behalf of BWD Board of Directors