

Borrego Water District Board of Directors
Special Meeting
February 13, 2024 @ 9:00 a.m.
806 Palm Canyon Drive
Borrego Springs, CA 92004

The Borrego Water District Board of Directors meeting as scheduled will be conducted in person and in an electronic format please note BWD is providing remote attendance options solely as a matter of convenience to the public. BWD will not stop or suspend its in-person public meeting should a technological interruption occur with respect to the GoTo meeting or call-in line listed on the agenda. We encourage members of the public to attend BWD meetings in-person at the address printed on page 1 of this agenda. Anyone who wants to listen to or participate in the meeting remotely is encouraged to observe the GO TO MEETING at:

Please join my meeting from your computer, tablet or smartphone.
<https://meet.goto.com/341528357>

You can also dial in using your phone.
United States: +1 (571) 317-3122
Access Code: 341-528-357

Get the app now and be ready when your first meeting starts:
<https://meet.goto.com/install>

I. OPENING PROCEDURES –

- A. Call to Order
- B. Pledge of Allegiance
- C. Directors' Roll Call: President Dice, Vice President Baker, Sec/Treas Johnson and Directors Duncan & Moran. Director Baker Remote Address: 650 California St 5th Floor, San Francisco, CA
- D. Approval of Agenda
- E. Comments from the Public & Requests for Future Agenda Items (may be limited to 3 min)
- F. Comments from Directors
- G. Correspondence Received from the Public – None

II. ITEMS FOR BOARD CONSIDERATION AND POSSIBLE ACTION –

- A. Automated Metering Infrastructure Project Contract – S Anderson
- B. Town Hall 2024 Schedule and Agenda – K Dice/D Johnson
- C. Distributed Energy System Demonstration with SDG&E – D Young, SDG&E
- D. Borrego Springs Subbasin Watermaster Board – VERBAL D Duncan/K Dice/T Driscoll
 - 1. Update on Board Activities Including 2-8-24 Agenda Items
 - 2. Update on Technical Advisory Committee Activities
 - 3. 2023 Draft Annual Report Comments – T Driscoll, Intera

AGENDA: February 13, 2023: The Borrego Springs Water District complies with the Americans with Disabilities Act. Persons with special needs should call Geoff Poole, General Manager – at (760) 767 – 5806 at least 48 hours in advance of the start of this meeting, in order to enable the District to make reasonable arrangements to ensure accessibility. If you challenge any action of the Board of Directors in court, you may be limited to raising only those issues you or someone else raised at the public hearing, or in written correspondence delivered to the Board of Directors (c/o the Board Secretary) at, or prior to, the public hearing.

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

III. BOARD COMMITTEE REPORTS, IF NEEDED

A. STANDING:

1. Operations and Infrastructure: Duncan/Baker
2. Budget and Audit: Dice/Moran
3. ACWA/JPIA Insurance: Dice/Johnson: **2024 SPRING CONF. – Sac. May 7-9**

B. AD HOC:

1. Prop 68 Implementation: Baker/Johnson
2. Public Outreach: Dice/Johnson:
3. Grants: Dice/Johnson
4. Cyber Security/Risk Management: Baker
5. Developer's Agreement: Baker/Duncan
6. Finance: Baker/Moran
7. Borrego Springs Basin Water Quality: Moran/Johnson
8. Automated Metering Infrastructure Implementation: Baker/Moran

IV. STAFF REPORTS – VERBAL

A. General Manager

1. EPA 20% Matching Funds Waiver Request
2. Gallons per Day per Sewer Equivalent Dwelling Unit

V. CLOSED SESSION:

- A. Conference with Legal Counsel - Potential Initiation of litigation pursuant to paragraph (4) of subdivision (d) of Section 54956.9: (Two (2) potential cases)
- B. Conference with Legal Counsel – Existing Litigation (Borrego Water District v. All Persons (Groundwater), Orange County Superior Court Case No. 37-2020-00005776
- C. Conference with Real Property Negotiators (Gov. Code §Section 54956.8) APN: 140-303- 0900 & 140-303-1100 Agency Negotiator: Geoff Poole, BWD General Manager, Negotiating Parties: BWD and US Gypsum Corp as potential buyer Price and Terms of Payment

VI. CLOSING PROCEDURE:

The next Board Meeting is scheduled for 9:00 AM on February 27, 2024, to be available online and in person at 806 Palm Canyon Drive. See Board Agenda at BorregoWD.org for details, Agenda information available at least 72 hours before the meeting.

AGENDA: February 13, 2023: The Borrego Springs Water District complies with the Americans with Disabilities Act. Persons with special needs should call Geoff Poole, General Manager – at (760) 767 – 5806 at least 48 hours in advance of the start of this meeting, in order to enable the District to make reasonable arrangements to ensure accessibility. If you challenge any action of the Board of Directors in court, you may be limited to raising only those issues you or someone else raised at the public hearing, or in written correspondence delivered to the Board of Directors (c/o the Board Secretary) at, or prior to, the public hearing.

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

BORREGO WATER DISTRICT
BOARD OF DIRECTORS MEETING
FEBRUARY 13, 2024
AGENDA ITEM II.A

February 6, 2024

TO: Board of Directors

FROM: Geoffrey Poole, General Manager

SUBJECT: Automated Metering Infrastructure Project Contract – S Anderson

RECOMMENDED ACTION:

Receive overview from Legal Counsel and approve

ITEM EXPLANATION:

Legal Counsel has developed the attached Contract for use on the Proposition 68 Grant funded AMI Project with Metron Ferier. Staff is requesting approval pending final negotiations on non-substantive language.

NEXT STEPS

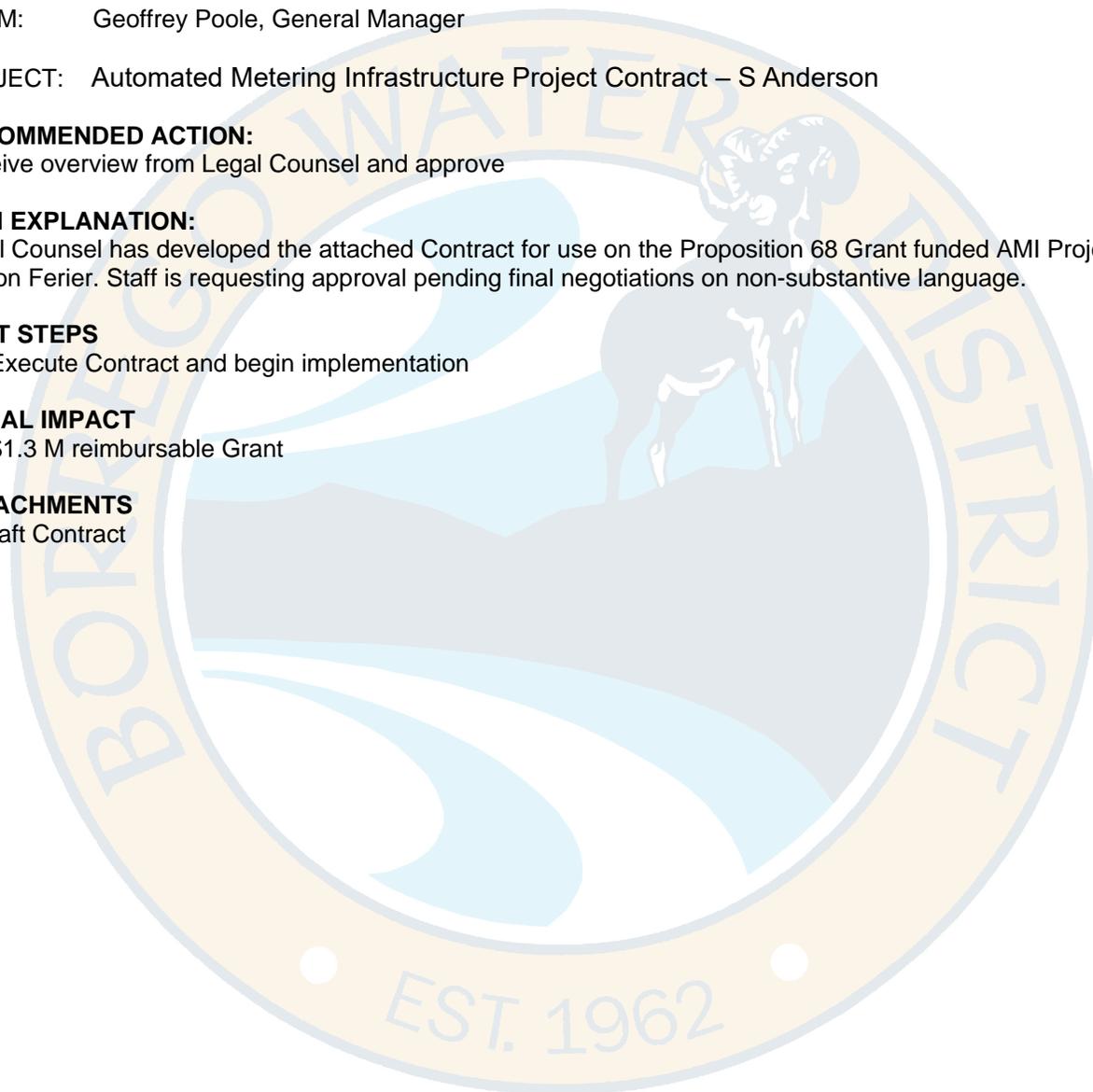
1. Execute Contract and begin implementation

FISCAL IMPACT

1. \$1.3 M reimbursable Grant

ATTACHMENTS

1. Draft Contract



**BORREGO WATER DISTRICT
SHORT FORM CONSTRUCTION CONTRACT
ADVANCED METER INFRASTRUCTURE**

1. PARTIES AND DATE.

This Contract is made and entered into this ___ day of February, 2024 by and between the Borrego Water District, a public agency organized under the laws of the State of California with its principal place of business at 806 Palm Canyon Drive, Borrego Springs, CA 92004 (“District”) and Metron Farnier, LLC with its principal place of business at 5665 Airport Blvd., Boulder, CO 80310 (“Contractor”). District and Contractor are sometimes individually referred to as “Party” and collectively as “Parties” in this Contract.

2. RECITALS.

2.1 District. District is a public agency organized under the laws of the State of California, with power to contract for services necessary to achieve its purpose.

2.2 Prop 68 Grant Funding Agreement. On December 13, 2022, the District entered into a grant agreement with the California Department of Water Resources for Proposition 68 funding awarded to the District (“Grant Agreement”) incorporated by reference and attached as **Exhibit “A.”** A component of this Grant Agreement tasks the District with replacing manual water meters.

2.3 Contractor. Contractor desires to perform and assume responsibility for the provision of certain construction services required by the District on the terms and conditions set forth in this Contract. Contractor represents that it is duly licensed and experienced in providing water meter installation related construction services to public clients, that it and its employees or subcontractors have all necessary licenses and permits to perform the services in the State of California, and that it is familiar with the plans of District.

2.4 Project. District desires to engage Contractor to render such services for the Grant Agreement Component No. 2: Advanced Meter Infrastructure Project (“Project”) as set forth in this Contract.

2.5 Project Documents & Certifications. Contractor has obtained, and delivers concurrently herewith, performance bond, payment bond, insurance documents and other certifications as required by the Contract.

3. TERMS

3.1 Prop 68 Agreement. Contractor warrants that it has reviewed and understands all provisions and requirements of the Grant Agreement. Contractor shall, at all times, comply with all applicable provisions of the Grant Agreement including, without limitation, all applicable state laws and all provisions of the Proposition 68 Funding Requirements, incorporated herein by reference and attached as Exhibit “H” (“Funding Provisions”). If Contractor does not strictly adhere to this obligation, the District, at its sole discretion, may immediately terminate this Contract.

3.2 Compensation and Payment.

3.2.1 Amount of Compensation. As consideration for performance of the Work required herein, District agrees to pay Contractor the Total Contract Price one million three hundred ninety-nine thousand four hundred ninety-nine dollars and sixty-three cents (\$1,399,499.63) ("Total Contract Price") provided that such amount shall be subject to adjustment pursuant to the applicable terms of this Contract or written change orders approved and signed in advance by the District.

3.2.2 Payment of Compensation. If the Work is scheduled for completion in thirty (30) or less calendar days, District will arrange for payment of the Total Contract Price upon completion and approval by District of the Work. If the Work is scheduled for completion in more than thirty (30) calendar days, District will pay Contractor on a monthly basis as provided for herein. On or before the fifth (5th) day of each month, Contractor shall submit to the District an itemized application for payment in the format supplied by the District indicating the amount of Work completed since commencement of the Work or since the last progress payment. These applications shall be supported by evidence which is required by this Contract and such other documentation as the District may require. The Contractor shall certify that the Work for which payment is requested has been done and that the materials listed are stored where indicated. Contractor may be required to furnish a detailed schedule of values upon request of the District and in such detail and form as the District shall request, showing the quantities, unit prices, overhead, profit, and all other expenses involved in order to provide a basis for determining the amount of progress payments.

3.2.3 Prompt Payment. District shall review and pay all progress payment requests in accordance with the provisions set forth in Section 20104.50 of the California Public Contract Code. However, no progress payments will be made for Work not completed in accordance with this Contract. Contractor shall comply with all applicable laws, rules and regulations relating to the proper payment of its employees, subcontractors, suppliers or others.

3.2.4 Contract Retentions. If this Contract is greater than Five Thousand dollars (\$5,000), from each approved progress estimate, five percent (5%) will be deducted and retained by the District, and the remainder will be paid to Contractor. All Contract retention shall be released and paid to Contractor and subcontractors pursuant to California Public Contract Code Section 7107.

3.2.5 Other Retentions. In addition to Contract retentions, the District may deduct from each progress payment an amount necessary to protect District from loss because of: (1) liquidated damages which have accrued as of the date of the application for payment; (2) any sums expended by the District in performing any of Contractor's obligations under the Contract which Contractor has failed to perform or has performed inadequately; (3) defective Work not remedied; (4) stop notices as allowed by state law; (5) reasonable doubt that the Work can be completed for the unpaid balance of the Total Contract Price or within the scheduled completion date; (6) unsatisfactory prosecution of the Work by Contractor; (7) unauthorized deviations from the Contract; (8) failure of Contractor to maintain or submit on a timely basis proper and sufficient documentation as required by the Contract or by District during the prosecution of the Work; (9) erroneous or false estimates by Contractor of the value of the Work performed; (10) any sums representing expenses, losses, or damages as determined by the District, incurred by the District for which Contractor is liable under the Contract; and (11) any other sums which the District is entitled to recover from Contractor under the terms of the Contract or pursuant to state law, including Section 1727 of the California Labor Code. The failure by the District to deduct any of these sums from a progress payment shall not constitute a waiver of the District's right to such sums.

3.2.6 Substitutions for Contract Retentions. Pursuant to California Public Contract Code section 22300, Contractor may substitute securities for any money withheld by the District to ensure the performance under the Contract. At the request and expense of Contractor, securities equivalent to the amount withheld shall be deposited with the District, with the State or a federally chartered bank as the escrow agent, who shall return such securities to Contractor upon satisfactory completion of the Contract. Deposit of securities with an escrow agent shall be subject to a written agreement between the escrow agent and the District, which provides that no portion of the securities shall be paid to Contractor until the District has certified to the escrow agent, in writing, that the Contract has been satisfactorily completed. The District shall certify that the Contract has been satisfactorily completed within sixty (60) days of work "completion" as defined in Section 7107(c) of the California Public Contract Code. Securities eligible for investment under this section shall be limited to those listed in Section 16430 of the Government Code, bank or savings & loan certificates of deposit, interest-bearing demand deposit accounts, stand-by letters of credit, or any other security mutually agreed to by Contractor.

3.2.7 Payment to Subcontractors. Contractor shall pay all subcontractors for and on account of work performed by such subcontractors in accordance with the terms of their respective subcontracts and as provided for in Section 7108.5 of the California Business and Professions Code. Such payments to subcontractors shall be based on the measurements and estimates made and progress payments provided to Contractor pursuant to this Contract.

3.2.8 Title to Work. As security for partial, progress, or other payments, title to Work for which such payments are made shall pass to the District at the time of payment. To the extent that title has not previously been vested in the District by reason of payments, full title shall pass to the District at delivery of the Work at the destination and time specified in this Contract. Such transferred title shall in each case be good, free and clear from any and all security interests, liens, or other encumbrances. Contractor promises and agrees that it will not pledge, hypothecate, or otherwise encumber the items in any manner that would result in any lien, security interest, charge, or claim upon or against said items. Such transfer of title shall not imply acceptance by the District, nor relieve Contractor from the responsibility to strictly comply with the Contract, and shall not relieve Contractor of responsibility for any loss of or damage to items.

3.2.9 Labor and Material Releases. Contractor shall furnish District with labor and material releases from all subcontractors performing work on, or furnishing materials for, the Work governed by this Contract prior to final payment by District.

3.3 Incorporation of Documents. This Contract includes and hereby incorporates in full by reference the following documents, including all exhibits, drawings, specifications and documents therein, and attachments and addenda thereto:

- Services/Schedule (Exhibit "B")
- Plans and Specifications (Exhibit "C")
- Special Conditions (Exhibit "D")
- Contractor's Certificate Regarding Workers' Compensation (Exhibit "E")
- Public Works Contractor Registration Certification (Exhibit "F")
- Payment and Performance Bonds (Exhibit "G")
- Funding Provisions (Exhibit "H")
- Addenda
- Change Orders executed by the District

- Standard Specifications for Public Works Construction (The Greenbook), Excluding Sections 1-9
- Notice Inviting Bids, if any
- Instructions to Bidders, if any
- Contractor's Bid

To the extent there is a conflict between Exhibit B and any portions of this Contract, the terms of this Contract shall control. To the extent there is a conflict between any portions of this Contract, the order of precedence shall be as follows: change orders, special conditions, technical specifications, plans/construction drawings, general contract terms, scope of work, standard plans, advertisements for bid/proposals, bids/proposals or other documents submitted by Contractor. Notwithstanding the precedence of documents listed herein, for any conflict between the Contract Documents and the Funding Provisions or Grant Agreement, the most stringent will control.

3.4 Contractor's Basic Obligation; Scope of Work.

3.4.1 Scope of Work. Contractor promises and agrees, at its own cost and expense, to furnish to the District all labor, materials, tools, equipment, services, and incidental and customary work necessary to fully and adequately complete the Project, including all structures and facilities necessary for the Project or described in the Contract (hereinafter sometimes referred to as the "Work"), for a Total Contract Price as specified pursuant to this Contract. All Work shall be subject to, and performed in accordance with the above referenced documents, as well as the exhibits attached hereto and incorporated herein by reference. The plans and specifications for the Work are further described in Exhibit "C" attached hereto and incorporated herein by this reference. Special Conditions, if any, relating to the Work are described in Exhibit "D" attached hereto and incorporated herein by this reference.

3.4.2 Change in Scope of Work. Any change in the scope of the Work, method of performance, nature of materials or price thereof, or any other matter materially affecting the performance or nature of the Work shall not be paid for or accepted unless such change, addition or deletion is approved in advance and in writing by a valid change order executed by the District.

3.4.3 Change Orders. Changes to the Contract Time (as defined in Section 3.3) or Total Contract Price shall be in the form of a written Change Order, either signed by both parties or issued unilaterally by the District. No adjustment shall be made to the Contract Time unless the delay impacts the critical path to completion and the delay was not caused in whole or in part by the Contractor. The District's liability to Contractor for delays for which the District is responsible shall be limited to only an extension of time unless such delays were unreasonable under the circumstances. Failure to timely request a Change Order shall constitute a waiver of any right to adjust the Contract Time or the Total Contract Price. All requests for Change Orders shall be accompanied by detailed supporting documentation, including but not limited to payroll records, invoices, schedules, and any other documentation requested by the District for the purpose of determining the additional costs or the impact of any delay. If the change involves Work bid at a unit price, then the Total Contract Price shall be increased at the unit price. If there is no unit price, then the Total Contract Price shall be adjusted to account for costs actually incurred plus an allowed mark-up of fifteen percent (15%), which shall constitute the entire amount of profit, mark-ups, field or home office overhead costs, including personnel, equipment or office space, any materials, or any costs of equipment idle time for such work. Regardless of ownership, equipment rates shall not exceed the listed prevailing rates at local equipment rental agencies, or

distributors, at the time the work is performed. Nothing herein shall prevent the Parties from agreeing to a lump sum cost.

3.4.4 Changes Ordered By District. District may at any time issue a written directive ordering additions, deletions, or changes to the Work. Contractor shall proceed with the work in accordance with the directive. To the extent the directive results in extra work or requires additional Contract Time, Contractor shall request a Change Order within seven (7) days of receiving the Work Directive. If any costs are not capable of being determined within seven (7) days, then Contractor shall request a Change Order within seven (7) days of when the costs are capable of being determined.

3.4.5 Changes Requested By Contractor. With respect to any matter that may involve or require an adjustment to the Contract Time or the Contract Price, Contractor shall provide written notice of the underlying facts and circumstances that gave rise to the potential change within seven (7) days or prior to the alteration of conditions, whichever is earlier. Failure to give notice shall constitute a waiver of Contractor's right to a change order. If any costs are not capable of being determined within seven (7) days, then Contractor shall request a Change Order within seven (7) days of when the costs are capable of being determined.

3.5 Substitutions/"Or Equal". Pursuant to Public Contract Code Section 3400(b), the District may make a finding that designates certain products, things, or services by specific brand or trade name. Unless specifically designated in this Contract, whenever any material, process, or article is indicated or specified by grade, patent, or proprietary name or by name of manufacturer, such Specifications shall be deemed to be used for the purpose of facilitating the description of the material, process or article desired and shall be deemed to be followed by the words "or equal."

Contractor may, unless otherwise stated, offer for substitution any material, process or article which shall be substantially equal or better in every respect to that so indicated or specified in this Contract. However, the District may have adopted certain uniform standards for certain materials, processes and articles. Contractor shall submit requests, together with substantiating data, for substitution of any "or equal" material, process or article no later than thirty-five (35) days after award of the Contract. To facilitate the construction schedule and sequencing, some requests may need to be submitted before thirty-five (35) days after award of Contract. Provisions regarding submission of "or equal" requests shall not in any way authorize an extension of time for performance of this Contract. If a proposed "or equal" substitution request is rejected, Contractor shall be responsible for providing the specified material, process or article. The burden of proof as to the equality of any material, process or article shall rest with Contractor.

The District has the complete and sole discretion to determine if a material, process or article is an "or equal" material, process or article that may be substituted. Data required to substantiate requests for substitutions of an "or equal" material, process or article data shall include a signed affidavit from Contractor stating that, and describing how, the substituted "or equal" material, process or article is equivalent to that specified in every way except as listed on the affidavit. Substantiating data shall include any and all illustrations, specifications, and other relevant data including catalog information which describes the requested substituted "or equal" material, process or article, and substantiates that it is an "or equal" to the material, process or article. The substantiating data must also include information regarding the durability and lifecycle cost of the requested substituted "or equal" material, process or article. Failure to submit all the required substantiating data, including the signed affidavit, to the District in a timely fashion will result in the rejection of the proposed substitution.

Contractor shall bear all of the District's costs associated with the review of substitution requests. Contractor shall be responsible for all costs related to a substituted "or equal" material, process or article. Contractor is directed to the Special Conditions (if any) to review any findings made pursuant to Public Contract Code section 3400.

3.6 Period of Performance and Liquidated Damages.

3.6.1 Contractor shall perform and complete all Work under this Contract within 365 days, beginning the effective date of the Notice to Proceed ("Contract Time"). Contractor shall perform its Work in strict accordance with any completion schedule, construction schedule or project milestones developed by the District. Such schedules or milestones may be included as part of Exhibits "B" or "C" attached hereto, or may be provided separately in writing to Contractor. Contractor agrees that if such Work is not completed within the aforementioned Contract Time and/or pursuant to any such completion schedule, construction schedule or project milestones developed pursuant to provisions of the Contract, it is understood, acknowledged and agreed that the District will suffer damage. Pursuant to Government Code Section 53069.85, Contractor shall pay to the District as fixed and liquidated damages the sum of *****INSERT WRITTEN DOLLAR AMOUNT*****] (**\$(INSERT NUMERICAL DOLLAR AMOUNT)_**) per day for each and every calendar day of delay beyond the Contract Time or beyond any completion schedule, construction schedule or Project milestones established pursuant to the Contract.

3.6.2 If Contractor is delayed in the performance or progress of the Work by a Force Majeure Event (as defined herein), then the Contractor shall be entitled to a time extension, as provided herein, when the Work stopped is on the critical path and shall not be charged liquidated damages. Such a non-compensable adjustment shall be Contractor's sole and exclusive remedy for such delays and the Contractor will not receive an adjustment to the Total Contract Price or any other compensation. Contractor must submit a timely request in accordance with the requirements of the Contract.

3.6.3 A Force Majeure Event shall mean an event that materially affects a party's performance and is one or more of the following: (1) Acts of God or other natural disasters occurring at the project site; (2) terrorism or other acts of a public enemy; (3) orders of governmental authorities (including, without limitation, unreasonable and unforeseeable delay in the issuance of permits or approvals by governmental authorities that are required for the work); (4) pandemics, epidemics or quarantine restrictions; and (5) strikes and other organized labor action occurring at the project site and the effects thereof on the work, only to the extent such strikes and other organized labor action are beyond the control of Contractor and its subcontractors, of every tier, and to the extent the effects thereof cannot be avoided by use of replacement workers. For purposes of this section, "orders of governmental authorities," includes ordinances, emergency proclamations and orders, rules to protect the public health, welfare and safety, and other actions of the District in its capacity as a municipal authority.

3.7 Standard of Performance; Performance of Employees. Contractor shall perform all Work under this Contract in a skillful and workmanlike manner, and consistent with the standards generally recognized as being employed by professionals in the same discipline in the State of California. Contractor represents and maintains that it is skilled in the professional calling necessary to perform the Work. Contractor warrants that all employees and subcontractors shall have sufficient skill and experience to perform the Work assigned to them. Finally, Contractor represents that it, its employees and subcontractors have all licenses, permits, qualifications and approvals of whatever nature that are legally required to perform the Work, including a Business License, and that such licenses and approvals shall be maintained

throughout the term of this Contract. As provided for in the indemnification provisions of this Contract, Contractor shall perform, at its own cost and expense and without reimbursement from the District, any work necessary to correct errors or omissions which are caused by Contractor's failure to comply with the standard of care provided for herein. Any employee who is determined by the District to be uncooperative, incompetent, a threat to the safety of persons or the Work, or any employee who fails or refuses to perform the Work in a manner acceptable to the District, shall be promptly removed from the Project by Contractor and shall not be re-employed on the Work.

3.8 Control and Payment of Subordinates; Contractual Relationship. District retains Contractor on an independent contractor basis and Contractor is not an employee of District. Any additional personnel performing the work governed by this Contract on behalf of Contractor shall at all times be under Contractor's exclusive direction and control. Contractor shall pay all wages, salaries, and other amounts due such personnel in connection with their performance under this Contract and as required by law. Contractor shall be responsible for all reports and obligations respecting such additional personnel, including, but not limited to: social security taxes, income tax withholding, unemployment insurance, and workers' compensation insurance.

3.9 District's Basic Obligation. District agrees to engage and does hereby engage Contractor as an independent contractor to furnish all materials and to perform all Work according to the terms and conditions herein contained for the sum set forth above. Except as otherwise provided in the Contract, the District shall pay to Contractor, as full consideration for the satisfactory performance by Contractor of the services and obligations required by this Contract, the below-referenced compensation in accordance with compensation provisions set forth in the Contract.

3.10 Labor.

3.10.1 Prevailing Wages. Contractor is aware of the requirements of California Labor Code Section 1720 et seq., and 1770 et seq., as well as California Code of Regulations, Title 8, Section 16000 et seq., ("Prevailing Wage Laws"), which require the payment of prevailing wage rates and the performance of other requirements on "public works" and "maintenance" projects. Since the Work is being performed as part of an applicable "public works" or "maintenance" project, as defined by the Prevailing Wage Laws, and if the total compensation is \$1,000 or more, Contractor agrees to fully comply with such Prevailing Wage Laws. District shall provide Contractor with a copy of the prevailing rates of per diem wages in effect at the commencement of this Contract. Contractor shall make copies of the prevailing rates of per diem wages for each craft, classification or type of worker needed to execute the Services available to interested parties upon request, and shall post copies at Contractor's principal place of business and at the project site. Contractor shall defend, indemnify and hold the District, its officials, officers, employees and agents free and harmless from any claim or liability arising out of any failure or alleged failure to comply with the Prevailing Wage Laws. Contractor and any subcontractor shall forfeit a penalty of up to \$200 per calendar day or portion thereof for each worker paid less than the prevailing wage rates.

3.10.2 Apprenticeable Crafts. When Contractor employs workmen in an apprenticeable craft or trade, Contractor shall comply with the provisions of Section 1777.5 of the California Labor Code with respect to the employment of properly registered apprentices upon public works. The primary responsibility for compliance with said section for all apprenticeable occupations shall be with Contractor. The Contractor or any subcontractor that is determined by

the Labor Commissioner to have knowingly violated Section 1777.5 shall forfeit as a civil penalty an amount not exceeding \$100 for each full calendar day of noncompliance, or such greater amount as provided by law.

3.10.3 Hours of Work. Contractor is advised that eight (8) hours labor constitutes a legal day's work. Pursuant to Section 1813 of the California Labor Code, Contractor shall forfeit a penalty of \$25.00 per worker for each day that each worker is permitted to work more than eight (8) hours in any one calendar day and forty (40) hours in any one calendar week, except when payment for overtime is made at not less than one and one-half (1-1/2) times the basic rate for that worker.

3.10.4 Payroll Records. Contractor and each subcontractor shall keep an accurate payroll record, showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee employed by him or her in connection with the public work. The payroll records shall be certified and shall be available for inspection at all reasonable hours at the principal office of Contractor in the manner provided in Labor Code section 1776. In the event of noncompliance with the requirements of this section, Contractor shall have 10 days in which to comply subsequent to receipt of written notice specifying in what respects such Contractor must comply with this section. Should noncompliance still be evident after such 10-day period, Contractor shall, as a penalty to District, forfeit not more than \$100.00 for each calendar day or portion thereof, for each worker, until strict compliance is effectuated. The amount of the forfeiture is to be determined by the Labor Commissioner. A contractor who is found to have violated the provisions of law regarding wages on Public Works with the intent to defraud shall be ineligible to bid on Public Works contracts for a period of one to three years as determined by the Labor Commissioner. Upon the request of the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement, such penalties shall be withheld from progress payments then due. The responsibility for compliance with this section is on Contractor. In accordance with Labor Code section 1771.4, the Contractor and each subcontractor shall furnish the certified payroll records directly to the Department of Industrial Relations ("DIR") on a weekly basis and in the format prescribed by the DIR, which may include electronic submission. The requirement to submit certified payroll records directly to the Labor Commissioner under Labor Code section 1771.4 shall not apply to work performed on a public works project that is exempt pursuant to the small project exemption specified in Labor Code Section 1771.4.

3.10.5 Contractor and Subcontractor Registration. Pursuant to Labor Code sections 1725.5 and 1771.1, all contractors and subcontractors that wish to bid on, be listed in a bid proposal, or enter into a contract to perform public work must be registered with the DIR. No bid will be accepted nor any contract entered into without proof of the contractor's and subcontractors' current registration with the DIR to perform public work. Contractor is directed to review, fill out and execute the Public Works Contractor Registration Certification attached hereto as Exhibit "E" prior to contract execution. Notwithstanding the foregoing, the contractor registration requirements mandated by Labor Code Sections 1725.5 and 1771.1 shall not apply to work performed on a public works project that is exempt pursuant to the small project exemption specified in Labor Code Sections 1725.5 and 1771.1.

3.10.6 Labor Compliance; Stop Orders. This Project is subject to compliance monitoring and enforcement by the DIR. It shall be the Contractor's sole responsibility to evaluate and pay the cost of complying with all labor compliance requirements under this Contract and applicable law. Any stop orders issued by the DIR against Contractor or any subcontractor that affect Contractor's performance of Work, including any delay, shall be Contractor's sole

responsibility. Any delay arising out of or resulting from such stop orders shall be considered Contractor caused delay subject to any applicable liquidated damages and shall not be compensable by the District. Contractor shall defend, indemnify and hold the District, its officials, officers, employees and agents free and harmless from any claim or liability arising out of stop orders issued by the DIR against Contractor or any subcontractor.

3.11 Performance of Work; Jobsite Obligations.

3.11.1 Water Quality Management and Compliance.

3.11.1.1 Water Quality Management and Compliance. Contractor shall keep itself and all subcontractors, staff, and employees fully informed of and in compliance with all local, state and federal laws, rules and regulations that may impact, or be implicated by the performance of the Work including, without limitation, all applicable provisions of the Federal Water Pollution Control Act (33 U.S.C. §§ 1300); the California Porter-Cologne Water Quality Control Act (Cal Water Code §§ 13000-14950); local ordinances regulating discharges of storm water; and any and all regulations, policies, or permits issued pursuant to any such authority regulating the discharge of pollutants, as that term is used in the Porter-Cologne Water Quality Control Act, to any ground or surface water in the State.

3.11.1.2 Compliance with the Statewide Construction General Permit. Contractor shall comply with all conditions of the most recent iteration of the National Pollutant Discharge Elimination System General Permit for Storm Water Discharges Associated with Construction Activity, issued by the California State Water Resources Control Board ("Permit"). It shall be Contractor's sole responsibility to file a Notice of Intent and procure coverage under the Permit for all construction activity which results in the disturbance of more than one acre of total land area or which is part of a larger common area of development or sale. Prior to initiating work, Contractor shall be solely responsible for preparing and implementing a Storm Water Pollution Prevention Plan (SWPPP) as required by the Permit. Contractor shall be responsible for procuring, implementing and complying with the provisions of the Permit and the SWPPP, including the standard provisions, and monitoring and reporting requirements as required by the Permit. The Permit requires the SWPPP to be a "living document" that changes as necessary to meet the conditions and requirements of the job site as it progresses through different phases of construction and is subject to different weather conditions. It shall be Contractor's sole responsibility to update the SWPPP as necessary to address conditions at the project site.

3.11.1.3 Other Water Quality Rules Regulations and Policies. Contractor shall comply with the lawful requirements of any applicable municipality, drainage District, or local agency regarding discharges of storm water to separate storm drain systems or other watercourses under their jurisdiction, including applicable requirements in municipal storm water management programs.

3.11.1.4 Cost of Compliance. Storm, surface, nuisance, or other waters may be encountered at various times during construction of the Work. Therefore, the Contractor, hereby acknowledges that it has investigated the risk arising from such waters and assumes any and all risks and liabilities arising therefrom.

3.11.1.5 Liability for Non-Compliance. Failure to comply with laws, regulations, standards, ordinances, and permits listed in Sections 3.10.1.1, 3.10.1.2, 3.10.1.3, and 3.10.1.4 of the Contract is a violation of federal and state law. Pursuant to the indemnification provisions of this Contract, Contractor hereby agrees to defend, indemnify and hold harmless the

District and its directors, officials, officers, employees, volunteers and agents for any alleged violations. In addition, District may seek damages from Contractor for any delay in completing the Work in accordance with the Contract, if such delay is caused by or related to Contractor's failure to comply with the Permit.

3.11.1.6 Reservation of Right to Defend. District reserves the right to defend any enforcement action brought against the District for Contractor's failure to comply with the Permit or any other relevant water quality law, regulation, or policy. Pursuant to the indemnification provisions of this Contract, Contractor hereby agrees to be bound by, and to reimburse the District for the costs (including the District's attorney's fees) associated with, any settlement reached between the District and the relevant enforcement entity.

3.11.1.7 Training. In addition to the standard of performance requirements set forth in this Contract, Contractor warrants that all employees and subcontractors shall have sufficient skill and experience to perform the work assigned to them without impacting water quality in violation of the laws, regulations and policies described in paragraph 3.10.1. Contractor further warrants that it, its employees and subcontractors will receive adequate training, as determined by District, regarding the requirements of the laws, regulations and policies described in paragraph 3.10.1 as they may relate to the Work provided under this Contract. Upon request, District will provide the Contractor with a list of training programs that meet the requirements of this paragraph.

3.11.2 Safety. Contractor shall execute and maintain its work so as to avoid injury or damage to any person or property. Contractor shall comply with the requirements of the specifications relating to safety measures applicable in particular operations or kinds of work. In carrying out its Work, Contractor shall at all times be in compliance with all applicable local, state and federal laws, rules and regulations, and shall exercise all necessary precautions for the safety of employees appropriate to the nature of the Work and the conditions under which the Work is to be performed. Safety precautions as applicable shall include, but shall not be limited to, adequate life protection and lifesaving equipment; adequate illumination for underground and night operations; instructions in accident prevention for all employees, such as machinery guards, safe walkways, scaffolds, ladders, bridges, gang planks, confined space procedures, trenching and shoring, fall protection and other safety devices, equipment and wearing apparel as are necessary or lawfully required to prevent accidents or injuries; and adequate facilities for the proper inspection and maintenance of all safety measures. Furthermore, Contractor shall prominently display the names and telephone numbers of at least two medical doctors practicing in the vicinity of the Project, as well as the telephone number of the local ambulance service, adjacent to all telephones at the Project site.

3.11.3 Laws and Regulations. Contractor shall keep itself fully informed of and in compliance with all local, state and federal laws, rules and regulations in any manner affecting the performance of the Contract or the Work, including all Cal/OSHA requirements, and shall give all notices required by law. Contractor shall be liable for all violations of such laws and regulations in connection with the Work. If Contractor observes that the drawings or specifications are at variance with any law, rule or regulation, it shall promptly notify the District in writing. Any necessary changes shall be made by written change order. If Contractor performs any work knowing it to be contrary to such laws, rules and regulations and without giving written notice to the District, Contractor shall be solely responsible for all costs arising therefrom. District is a public entity of the State of California subject to certain provisions of the Health & Safety Code, Government Code, Public Contract Code, and Labor Code of the State. It is stipulated and agreed that all provisions of the law applicable to the public contracts of a municipality are a part of this

Contract to the same extent as though set forth herein and will be complied with. Contractor shall defend, indemnify and hold District, its officials, directors, officers, employees and agents free and harmless, pursuant to the indemnification provisions of this Contract, from any claim or liability arising out of any failure or alleged failure to comply with such laws, rules or regulations.

3.11.4 Permits and Licenses. Contractor shall be responsible for securing District permits and licenses necessary to perform the Work described herein. While Contractor will not be charged a fee for any District permits, Contractor shall pay the District's applicable business license fee. Any ineligible contractor or subcontractor pursuant to Labor Code Sections 1777.1 and 1777.7 may not perform work on this Project.

3.11.5 Trenching Work. If the Total Contract Price exceeds \$25,000 and if the Work governed by this Contract entails excavation of any trench or trenches five (5) feet or more in depth, Contractor shall comply with all applicable provisions of the California Labor Code, including Section 6705. To this end, Contractor shall submit for District's review and approval a detailed plan showing the design of shoring, bracing, sloping, or other provisions to be made for worker protection from the hazard of caving ground during the excavation of such trench or trenches. If such plan varies from the shoring system standards, the plan shall be prepared by a registered civil or structural engineer.

3.11.6 Hazardous Materials and Differing Conditions. As required by California Public Contract Code Section 7104, if this Contract involves digging trenches or other excavations that extend deeper than four (4) feet below the surface, Contractor shall promptly, and prior to disturbance of any conditions, notify District of: (1) any material discovered in excavation that Contractor believes to be a hazardous waste that is required to be removed to a Class I, Class II or Class III disposal site; (2) subsurface or latent physical conditions at the site differing from those indicated by District; and (3) unknown physical conditions of an unusual nature at the site, significantly different from those ordinarily encountered in such contract work. Upon notification, District shall promptly investigate the conditions to determine whether a change order is appropriate. In the event of a dispute, Contractor shall not be excused from any scheduled completion date and shall proceed with all Work to be performed under the Contract, but shall retain all rights provided by the Contract or by law for making protests and resolving the dispute.

3.11.7 Underground Utility Facilities. To the extent required by Section 4215 of the California Government Code, District shall compensate Contractor for the costs of: (1) locating and repairing damage to underground utility facilities not caused by the failure of Contractor to exercise reasonable care; (2) removing or relocating underground utility facilities not indicated in the construction drawings; and (3) equipment necessarily idled during such work. Contractor shall not be assessed liquidated damages for delay caused by failure of District to provide for removal or relocation of such utility facilities.

3.11.8 Air Quality. Contractor must fully comply with all applicable laws, rules and regulations in furnishing or using equipment and/or providing services, including, but not limited to, emissions limits and permitting requirements imposed by the California Air Resources Board (CARB) and all applicable terms of Title 13, California Code of Regulations Division 3, Chapter 9 ("Regulation"). Although CARB limits and requirements are more broad, Contractor shall specifically be aware of their application to "portable equipment", which definition is considered by CARB to include any item of equipment with a fuel-powered engine. Contractor shall indemnify District against any fines or penalties imposed by CARB, or any other governmental or regulatory agency for violations of applicable laws, rules and/or regulations by

Contractor, its subcontractors, or others for whom Contractor is responsible under its indemnity obligations provided for in this Contract.

Throughout the Project, and for three (3) years thereafter, Contractor shall make available for inspection and copying any and all documents or information associated with Contractor's and its subcontractors' fleets including, without limitation, the Certificates of Reported Compliance ("CRCs"), fuel/refueling records, maintenance records, emissions records, and any other information the Contractor is required to produce, keep or maintain pursuant to the Regulation upon two (2) calendar days' notice from the District.

3.11.9 Contractor shall be solely liable for any and all costs associated with compliance with the Regulation as well as for any and all penalties, fines, damages, or costs associated with any and all violations, or failures to comply with the Regulation. Contractor shall defend, indemnify and hold harmless the District, its officials, officers, employees and authorized volunteers free and harmless from any claims, liabilities, costs, penalties or interest arising out of any failure or alleged failure to comply with the Regulation. State Recycling Mandates.

Contractor shall comply with State Recycling Mandates. Any recyclable materials/debris collected by the contractor that can be feasibly diverted via reuse or recycling must be hauled by the appropriate handler for reuse or recycling.

3.11.10 Inspection Of Site. Contractor has visited sites where Work is to be performed and has become acquainted with all conditions affecting the Work. Contractor warrants that it has made such examinations as it deems necessary to determine the condition of the Work sites, its accessibility to materials, workmen and equipment, and to determine the Contractor's ability to protect existing surface and subsurface improvements. No claim for allowances—time or money—will be allowed as to such matters.

3.11.11 Field Measurements. Contractor shall make field measurements, verify field conditions and shall carefully compare such field measurements and conditions and other information known to Contractor with the Contract Documents before commencing activities. Errors, inconsistencies or omissions discovered shall be reported to the District immediately and prior to performing any work or altering the condition.

3.12 Completion of Work. When Contractor determines that it has completed the Work required herein, Contractor shall so notify District in writing and shall furnish all labor and material releases required by this Contract. District shall thereupon inspect the Work. If the Work is not acceptable to the District, the District shall indicate to Contractor in writing the specific portions or items of Work which are unsatisfactory or incomplete. Once Contractor determines that it has completed the incomplete or unsatisfactory Work, Contractor may request a re-inspection by the District. Once the Work is acceptable to District, District shall pay to Contractor the Total Contract Price remaining to be paid, less any amount which District may be authorized or directed by law to retain. Payment of retention proceeds due to Contractor shall be made in accordance with Section 7107 of the California Public Contract Code.

3.13 Claims; Government Code Claim Compliance.

3.13.1 Intent. Effective January 1, 1991, Section 20104 et seq., of the California Public Contract Code prescribes a process utilizing informal conferences, non-binding judicial supervised mediation, and judicial arbitration to resolve disputes on construction claims of \$375,000 or less. Effective January 1, 2017, Section 9204 of the Public Contract Code prescribes a process for negotiation and mediation to resolve disputes on construction claims.

The intent of this Section is to implement Sections 20104 et seq. and Section 9204 of the California Public Contract Code. This Section shall be construed to be consistent with said statutes.

3.13.2 Claims. For purposes of this Section, "Claim" means a separate demand by the Contractor, after a change order duly requested in accordance with the terms of this Contract has been denied by the District, for (A) a time extension, (B) payment of money or damages arising from Work done by or on behalf of the Contractor pursuant to the Contract, or (C) an amount the payment of which is disputed by the District. A "Claim" does not include any demand for payment for which the Contractor has failed to provide notice, request a change order, or otherwise failed to follow any procedures contained in the Contract Documents.

3.13.3 Filing Claims. Claims governed by this Section may not be filed unless and until the Contractor completes all procedures for giving notice of delay or change and for the requesting of a time extension or change order, including but not necessarily limited to the change order procedures contained herein, and Contractor's request for a change has been denied in whole or in part. Claims governed by this Section must be filed no later than fourteen (14) days after a request for change has been denied in whole or in part or after any other event giving rise to the Claim. The Claim shall be submitted in writing to the District and shall include on its first page the following in 16 point capital font: "THIS IS A CLAIM." Furthermore, the claim shall include the documents necessary to substantiate the claim. Nothing in this Section is intended to extend the time limit or supersede notice requirements otherwise provided by contract for the filing of claims, including all requirements pertaining to compensation or payment for extra Work, disputed Work, and/or changed conditions. Failure to follow such contractual requirements shall bar any claims or subsequent lawsuits for compensation or payment thereon.

3.13.4 Supporting Documentation. The Contractor shall submit all claims in the following format:

3.13.4.1 Summary of claim merit and price, reference Contract Document provisions pursuant to which the claim is made

3.13.4.2 List of documents relating to claim:

- (A) Specifications
- (B) Drawings
- (C) Clarifications (Requests for Information)
- (D) Schedules
- (E) Other

3.13.4.3 Chronology of events and correspondence

3.13.4.4 Analysis of claim merit

3.13.4.5 Analysis of claim cost, including calculations and supporting documents

3.13.4.6 Time impact analysis in CPM format

3.13.5 District's Response. Upon receipt of a Claim pursuant to this Section, District shall conduct a reasonable review of the Claim and, within a period not to exceed 45 days of receipt of the Claim, or as extended by mutual agreement, shall provide the Contractor a written statement identifying what portion of the Claim is disputed and what portion is undisputed. Any payment due on an undisputed portion of the Claim will be processed and made within 60 days after the District issues its written statement.

3.13.5.1 If District needs approval from its governing body to provide the Contractor a written statement identifying the disputed portion and the undisputed portion of the Claim, and the governing body does not meet within the 45 days or within the mutually agreed to extension of time following receipt of a Claim sent by registered mail or certified mail, return receipt requested, District shall have up to three (3) days following the next duly publicly noticed meeting of the governing body after the 45-day period, or extension, expires to provide the Contractor a written statement identifying the disputed portion and the undisputed portion.

3.13.5.2 Within 30 days of receipt of a Claim, District may request in writing additional documentation supporting the Claim or relating to defenses or claims District may have against the Contractor. If additional information is thereafter required, it shall be requested and provided pursuant to this subdivision, upon mutual agreement of District and the Contractor. District's written response to the Claim, shall be submitted to the Contractor within 30 Days (if the Claim is less than \$50,000, within 15 Days) after receipt of the additional documentation, or within a period of time no greater than that taken by the Contractor in producing the additional information or requested documentation, whichever is greater.

3.13.6 Meet and Confer. If the Contractor disputes District's written response, or District fails to respond within the time prescribed, the Contractor may so notify District, in writing, within 15 Days of receipt of District's response or the District's failure to respond, and demand an informal conference to meet and confer for settlement of the issues in dispute. Upon receipt of a demand, District shall schedule a meet and confer conference within 30 Days for settlement of the dispute.

3.13.7 Mediation. Within 10 business days following the conclusion of the meet and confer conference, if the Claim or any portion of the Claim remains in dispute, District shall provide the Contractor a written statement identifying the portion of the Claim that remains in dispute and the portion that is undisputed. Any payment due on an undisputed portion of the Claim shall be processed and made within 60 Days after District issues its written statement. Any disputed portion of the Claim, as identified by the Contractor in writing, shall be submitted to nonbinding mediation, with District and the Contractor sharing the associated costs equally. District and Contractor shall mutually agree to a mediator within 10 business days after the disputed portion of the Claim has been identified in writing, unless the Parties agree to select a mediator at a later time.

3.13.7.1 If the Parties cannot agree upon a mediator, each Party shall select a mediator and those mediators shall select a qualified neutral third party to mediate with regard to the disputed portion of the claim. Each Party shall bear the fees and costs charged by its respective mediator in connection with the selection of the neutral mediator.

3.13.7.2 For purposes of this section, mediation includes any nonbinding process, including, but not limited to, neutral evaluation or a dispute review board, in which an

independent third party or board assists the Parties in dispute resolution through negotiation or by issuance of an evaluation. Any mediation utilized shall conform to the timeframes in this section.

3.13.7.3 Unless otherwise agreed to by District and the Contractor in writing, the mediation conducted pursuant to this section shall excuse any further obligation under Section 20104.4 to mediate after litigation has been commenced.

3.13.7.4 The mediation shall be held no earlier than the date the Contractor completes the Work or the date that the Contractor last performs Work, whichever is earlier. All unresolved Claims shall be considered jointly in a single mediation, unless a new unrelated Claim arises after mediation is completed.

3.13.8 Procedures After Mediation. If following the mediation, the Claim or any portion remains in dispute, the Contractor must file a claim pursuant to Chapter 1 (commencing with Section 900) and Chapter 2 (commencing with Section 910) of Part 3 of Division 3.6 of Title 1 of the Government Code. For purposes of those provisions, the running of the period of time within which a claim must be filed shall be tolled from the time the Contractor submits his or her written Claim pursuant to subdivision (a) until the time the Claim is denied, including any period of time utilized by the meet and confer conference or mediation.

3.13.9 Civil Actions. The following procedures are established for all civil actions filed to resolve Claims of \$375,000 or less:

3.13.9.1 Within 60 Days, but no earlier than 30 Days, following the filing or responsive pleadings, the court shall submit the matter to non-binding mediation unless waived by mutual stipulation of both Parties or unless mediation was held prior to commencement of the action in accordance with Public Contract Code section 9204 and the terms of these procedures. The mediation process shall provide for the selection within 15 Days by both Parties of a disinterested third person as mediator, shall be commenced within 30 Days of the submittal, and shall be concluded within 15 Days from the commencement of the mediation unless a time requirement is extended upon a good cause showing to the court.

3.13.9.2 If the matter remains in dispute, the case shall be submitted to judicial arbitration pursuant to Chapter 2.5 (commencing with Section 1141.10) of Title 3 of Part 3 of the Code of Civil Procedure, notwithstanding Section 1114.11 of that code. The Civil Discovery Act of 1986 (Article 3 (commencing with Section 2016) of Chapter 3 of Title 3 of Part 4 of the Code of Civil Procedure) shall apply to any proceeding brought under this subdivision consistent with the rules pertaining to judicial arbitration.

3.13.9.3 In addition to Chapter 2.5 (commencing with Section 1141.10) of Title 3 of Part 3 of the Code of Civil Procedure, (A) arbitrators shall, when possible, be experienced in construction law, and (B) any party appealing an arbitration award who does not obtain a more favorable judgment shall, in addition to payment of costs and fees under that chapter, also pay the attorney's fees on appeal of the other party.

3.13.10 Government Code Claim Procedures.

3.13.10.1 This section does not apply to tort claims and nothing in this section is intended nor shall be construed to change the time periods for filing tort claims or actions

specified by Chapter 1 (commencing with Section 900) and Chapter 2 (commencing with Section 910) of Part 3 of Division 3.5 of Title 1 of the Government Code.

3.13.10.2 In addition to any and all Contract requirements pertaining to notices of and requests for adjustments to the Contract Time, Contract Price, or compensation or payment for extra work, disputed work, claims and/or changed conditions, Contractor must comply with the claim procedures set forth in Government Code sections 900 et seq. prior to filing any lawsuit against the District.

3.13.10.3 Such Government Code claims and any subsequent lawsuit based upon the Government Code claims shall be limited to those matters that remain unresolved after all procedures pertaining to adjustment of the Contract Time, Contract Price, or compensation or payment for extra work, disputed work, claims, and/or changed conditions have been followed by Contractor. If no such Government Code claim is submitted, or if any prerequisite contractual requirements are not otherwise satisfied as specified herein, Contractor may not file any action against the District.

3.13.10.4 A Government Code claim must be filed no earlier than the date the work is completed or the date the Contractor last performs work on the Project, whichever occurs first. A Government Code claim shall be inclusive of all unresolved Claims known to the Contractor excepting only new unrelated Claims that arise after the Government Code claim is submitted.

3.13.11 Non-Waiver. District's failure to respond to a Claim from the Contractor within the time periods described in this section or to otherwise meet the time requirements of this section shall result in the Claim being deemed rejected in its entirety and shall not constitute a waiver of any rights under this section.

3.14 Loss and Damage. Except as may otherwise be limited by law, Contractor shall be responsible for all loss and damage which may arise out of the nature of the Work agreed to herein, or from the action of the elements, or from any unforeseen difficulties which may arise or be encountered in the prosecution of the Work until the same is fully completed and accepted by District. In the event of damage proximately caused by an Act of God, as defined by Section 7105 of the Public Contract Code, the District may terminate this Contract pursuant to the termination provisions in this Contract; provided, however, that the District needs to provide Contractor with only one (1) day advanced written notice.

3.15 Indemnification.

3.15.1 Scope of Indemnity. To the fullest extent permitted by law, Contractor shall defend, indemnify and hold the District, its officials, employees, agents and volunteers free and harmless from any and all claims, demands, causes of action, suits, actions, proceedings, costs, expenses, liability, judgments, awards, decrees, settlements, loss, damage or injury of any kind, in law or equity, regardless of whether the allegations are false, fraudulent, or groundless, to property or persons, including wrongful death, (collectively, "Claims") in any manner arising out of, pertaining to, or incident to any acts, errors or omissions, or willful misconduct of Contractor, its officials, officers, employees, subcontractors, consultants or agents in connection with the performance of the Contractor's services, the Project or this Contract, including without limitation the payment of all expert witness fees, attorneys' fees and other related costs and expenses. Notwithstanding the foregoing, to the extent required by Civil Code section 2782, Contractor's

indemnity obligation shall not apply to such loss or damage which is caused by the sole or active negligence or willful misconduct of the District.

3.15.2 Additional Indemnity Obligations. Contractor shall defend, with counsel of District's choosing and at Contractor's own cost, expense and risk, any and all Claims covered by this section that may be brought or instituted against District or its officials, employees, agents and authorized volunteers. In addition, Contractor shall pay and satisfy any judgment, award or decree that may be rendered against District or its officials, employees, agents and authorized volunteers as part of any such claim, suit, action or other proceeding. Contractor shall also reimburse District for the cost of any settlement paid by District or its officials, employees, agents and authorized volunteers as part of any such claim, suit, action or other proceeding. Such reimbursement shall include payment for District's attorney's fees and costs, including expert witness fees. Contractor shall reimburse District and its officials, employees, agents and authorized volunteers, for any and all legal expenses and costs incurred by each of them in connection therewith or in enforcing the indemnity herein provided. Contractor's obligation to indemnify shall survive expiration or termination of this Contract, and shall not be restricted to insurance proceeds, if any, received by the District, its officials, employees, agents and authorized volunteers.

3.16 Insurance. [*DISTRICT RISK MANAGER TO REVIEW TO DETERMINE WHETHER REQUIREMENTS AND LIMITS ARE ACCEPTABLE***]**

3.16.1 Time for Compliance. Contractor shall not commence Work under this Contract until it has provided evidence satisfactory to the District that it has secured all insurance required under this section. In addition, Contractor shall not allow any subcontractor to commence work on any subcontract until it has provided evidence satisfactory to the District that the subcontractor has secured all insurance required under this section. Failure to provide and maintain all required insurance shall be grounds for the District to terminate this Contract for cause.

3.16.2 Minimum Requirements. Contractor shall, at its expense, procure and maintain for the duration of the Contract insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the Work hereunder by Contractor, its agents, representatives, employees or subcontractors. Contractor shall also require all of its subcontractors to procure and maintain the same insurance for the duration of the Contract. Such insurance shall meet at least the following minimum levels of coverage:

3.16.2.1 Minimum Scope of Insurance. Coverage shall be at least as broad as the latest version of the following: (1) *General Liability*: Insurance Services Office Commercial General Liability coverage (occurrence form CG 00 01) OR Insurance Services Office Owners and Contractors Protective Liability Coverage Form (CG 00 09 11 88) (coverage for operations of designated contractor); (2) *Automobile Liability*: Insurance Services Office Business Auto Coverage form number CA 00 01, code 1 (any auto); (3) *Workers' Compensation and Employer's Liability*: Workers' Compensation insurance as required by the State of California and Employer's Liability Insurance; and (4) *Builders'/All Risk*: Builders'/All Risk insurance covering for all risks of loss, including explosion, collapse, underground excavation and removal of lateral support (and including earthquakes and floods if requested by the District). Policies shall not contain exclusions contrary to this Contract.

3.16.2.2 Minimum Limits of Insurance. Contractor shall maintain limits no less than: (1) *General Liability*: \$2,000,000 per occurrence and \$4,000,000 general aggregate for bodily injury, personal injury and property damage; (2) *Automobile Liability*: \$1,000,000 per accident for bodily injury and property damage; (3) *Workers' Compensation and Employer's Liability*: Workers' compensation limits as required by the Labor Code of the State of California. Employer's Liability limits of \$1,000,000 each accident, policy limit bodily injury or disease, and each employee bodily injury or disease; and (4) *Builders'/All Risk*: Completed value of the project. Defense costs shall be available in addition to the limits. Notwithstanding the minimum limits specified herein, any available coverage shall be provided to the parties required to be named as additional insureds pursuant to this Contract.

3.16.2.3 Notices; Cancellation or Reduction of Coverage. At least fifteen (15) days prior to the expiration of any such policy, evidence showing that such insurance coverage has been renewed or extended shall be filed with the District. If such coverage is cancelled or materially reduced, Contractor shall, within ten (10) days after receipt of written notice of such cancellation or reduction of coverage, file with the District evidence of insurance showing that the required insurance has been reinstated or has been provided through another insurance company or companies. In the event any policy of insurance required under this Contract does not comply with these specifications or is canceled and not replaced, the District has the right but not the duty to obtain the insurance it deems necessary and any premium paid by the District will be promptly reimbursed by Contractor or the District may withhold amounts sufficient to pay premium from Contractor payments. In the alternative, the District may suspend or terminate this Contract.

3.16.3 Insurance Endorsements. The insurance policies shall contain the following provisions, or Contractor shall provide endorsements (amendments) on forms supplied or approved by the District to add the following provisions to the insurance policies:

3.16.3.1 General Liability. (1) Such policy shall give the District, its officials, employees, agents and volunteers additional insured status using ISO endorsements CG20 10 10 01 plus CG20 37 10 01, or endorsements providing the exact same coverage, with respect to the Work or operations performed by or on behalf of Contractor, including materials, parts or equipment furnished in connection with such work; (2) all policies shall waive or shall permit Contractor to waive all rights of subrogation which may be obtained by the Contractor or any insurer by virtue of payment of any loss or any coverage provided to any person named as an additional insured pursuant to this Contract, and Contractor agrees to waive all such rights of subrogation; and (3) the insurance coverage shall be primary insurance as respects the District, its officials, employees, agents and volunteers, or if excess, shall stand in an unbroken chain of coverage excess of Contractor's scheduled underlying coverage. Any insurance or self-insurance maintained by the District, its officials, employees, agents and volunteers shall be excess of Contractor's insurance and shall not be called upon to contribute with it.

3.16.3.2 Automobile Liability. (1) Such policy shall give the District, its officials, employees, agents and volunteers additional insured status with respect to the ownership, operation, maintenance, use, loading or unloading of any auto owned, leased, hired or borrowed by Contractor or for which Contractor is responsible; (2) all policies shall waive or shall permit Contractor to waive all rights of subrogation which may be obtained by the Contractor or any insurer by virtue of payment of any loss or any coverage provided to any person named as an additional insured pursuant to this Contract, and Contractor agrees to waive all such rights of subrogation; and (3) the insurance coverage shall be primary insurance as respects the District, its officials, employees, agents and volunteers, or if excess, shall stand in an unbroken chain of

coverage excess of Contractor's scheduled underlying coverage. Any insurance or self-insurance maintained by the District, its officials, employees, agents and volunteers shall be excess of Contractor's insurance and shall not be called upon to contribute with it in any way.

3.16.3.3 Workers' Compensation and Employer's Liability Coverage. The insurer shall agree to waive all rights of subrogation against the District, its officials, employees, agents and volunteers for losses paid under the terms of the insurance policy which arise from work performed by Contractor.

3.16.3.4 All Coverages. Each insurance policy required by this Contract shall be endorsed to state that: (1) coverage shall not be suspended, voided, reduced or canceled except after thirty (30) days prior written notice by certified mail, return receipt requested, has been given to the District; and (2) any failure to comply with reporting or other provisions of the policies, including breaches of warranties, shall not affect coverage provided to the District, its officials, employees, agents and volunteers.

3.16.4 Builders'/All Risk Policy Requirements. The builders'/all risk insurance shall provide that the District be named as loss payee. In addition, the insurer shall waive all rights of subrogation against the District.

3.16.5 Separation of Insureds; No Special Limitations. All insurance required by this Section shall contain standard separation of insureds provisions. In addition, such insurance shall not contain any special limitations on the scope of protection afforded to the District, its officials, employees, agents and volunteers.

3.16.6 Professional Liability Insurance. All architects, engineers, consultants or design professionals retained by Contractor shall also procure and maintain, for a period of five (5) years following completion of the Contract, errors and omissions liability insurance with a limit of not less than \$1,000,000 per occurrence. This insurance shall name the District, its directors, officials, officers, employees, agents and volunteers as additional and insureds with respect to Work performed, and shall otherwise comply with all requirements of this Section. Defense costs shall be paid in addition to the limits.

3.16.7 Deductibles and Self-Insurance Retentions. Any deductibles or self-insured retentions must be declared to and approved by the District. Contractor shall guarantee that, at the option of the District, either: (1) the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the District, its officials, employees, agents and authorized volunteers; or (2) the Contractor shall procure a bond or other financial guarantee acceptable to the District guaranteeing payment of losses and related investigation costs, claims and administrative and defense expenses.

3.16.8 Acceptability of Insurers. Insurance is to be placed with insurers with a current A.M. Best's rating no less than A:VII, licensed to do business in California, and satisfactory to the District. Exception may be made for the State Compensation Insurance Fund when not specifically rated.

3.16.9 Verification of Coverage. Contractor shall furnish District with original certificates of insurance and endorsements effecting coverage required by this Contract on forms satisfactory to the District. The certificates and endorsements for each insurance policy shall be signed by a person authorized by that insurer to bind coverage on its behalf, and shall be on forms supplied or approved by the District. All certificates and endorsements must be received and

approved by the District before work commences. The District reserves the right to require complete, certified copies of all required insurance policies, at any time.

3.16.10 Subcontractors. All subcontractors shall meet the requirements of this Section before commencing Work. Contractor shall furnish separate certificates and endorsements for each subcontractor. Subcontractor policies of General Liability insurance shall name the District, its officials, employees, agents and authorized volunteers as additional insureds using form ISO 20 38 04 13 or endorsements providing the exact same coverage. All coverages for subcontractors shall be subject to all of the requirements stated herein except as otherwise agreed to by the District in writing.

3.16.11 Reporting of Claims. Contractor shall report to the District, in addition to Contractor's insurer, any and all insurance claims submitted by Contractor in connection with the Work under this Contract.

3.17 Bond Requirements.

3.17.1 Payment Bond. If required by law or otherwise specifically requested by District in Exhibit "C" attached hereto and incorporated herein by reference, Contractor shall execute and provide to District concurrently with this Contract a Payment Bond in an amount required by the District and in a form provided or approved by the District. If such bond is required, no payment will be made to Contractor until the bond has been received and approved by the District.

3.17.2 Performance Bond. If specifically requested by District in Exhibit "C" attached hereto and incorporated herein by reference, Contractor shall execute and provide to District concurrently with this Contract a Performance Bond in an amount required by the District and in a form provided or approved by the District. If such bond is required, no payment will be made to Contractor until the bond has been received and approved by the District.

3.17.3 Bond Provisions. Should, in District's sole opinion, any bond become insufficient or any surety be found to be unsatisfactory, Contractor shall renew or replace the effected bond within (ten) 10 days of receiving notice from District. In the event the surety or Contractor intends to reduce or cancel any required bond, at least thirty (30) days prior written notice shall be given to the District, and Contractor shall post acceptable replacement bonds at least ten (10) days prior to expiration of the original bonds. No further payments shall be deemed due or will be made under this Contract until any replacement bonds required by this Section are accepted by the District. To the extent, if any, that the Total Contract Price is increased in accordance with the Contract, Contractor shall, upon request of the District, cause the amount of the bond to be increased accordingly and shall promptly deliver satisfactory evidence of such increase to the District. If Contractor fails to furnish any required bond, the District may terminate the Contract for cause.

3.17.4 Surety Qualifications. Only bonds executed by an admitted surety insurer, as defined in California Code of Civil Procedure Section 995.120, shall be accepted. If a California-admitted surety insurer issuing bonds does not meet these requirements, the insurer will be considered qualified if it is in conformance with Section 995.660 of the California Code of Civil Procedure, and proof of such is provided to the District.

3.18 Warranty. Contractor warrants all Work under the Contract (which for purposes of this Section shall be deemed to include unauthorized work which has not been removed and

any non-conforming materials incorporated into the Work) to be of good quality and free from any defective or faulty material and workmanship. Contractor agrees that for a period of one year (or the period of time specified elsewhere in the Contract or in any guarantee or warranty provided by any manufacturer or supplier of equipment or materials incorporated into the Work, whichever is later) after the date of final acceptance, Contractor shall within ten (10) days after being notified in writing by the District of any defect in the Work or non-conformance of the Work to the Contract, commence and prosecute with due diligence all Work necessary to fulfill the terms of the warranty at its sole cost and expense. Contractor shall act sooner as requested by the District in response to an emergency. In addition, Contractor shall, at its sole cost and expense, repair and replace any portions of the Work (or work of other contractors) damaged by its defective Work or which becomes damaged in the course of repairing or replacing defective Work. For any Work so corrected, Contractor's obligation hereunder to correct defective Work shall be reinstated for an additional one year period, commencing with the date of acceptance of such corrected Work. Contractor shall perform such tests as the District may require to verify that any corrective actions, including, without limitation, redesign, repairs, and replacements comply with the requirements of the Contract. All costs associated with such corrective actions and testing, including the removal, replacement, and reinstatement of equipment and materials necessary to gain access, shall be the sole responsibility of Contractor. All warranties and guarantees of subcontractors, suppliers and manufacturers with respect to any portion of the Work, whether express or implied, are deemed to be obtained by Contractor for the benefit of the District, regardless of whether or not such warranties and guarantees have been transferred or assigned to the District by separate agreement and Contractor agrees to enforce such warranties and guarantees, if necessary, on behalf of the District. In the event that Contractor fails to perform its obligations under this Section, or under any other warranty or guaranty under this Contract, to the reasonable satisfaction of the District, the District shall have the right to correct and replace any defective or non-conforming Work and any work damaged by such work or the replacement or correction thereof at Contractor's sole expense. Contractor shall be obligated to fully reimburse the District for any expenses incurred hereunder upon demand.

3.19 Employee/Labor Certifications.

3.19.1 Contractor's Labor Certification. By its signature hereunder, Contractor certifies that he is aware of the provisions of Section 3700 of the California Labor Code which require every employer to be insured against liability for Worker's Compensation or to undertake self-insurance in accordance with the provisions of that Code, and agrees to comply with such provisions before commencing the performance of the Work. A certification form for this purpose, which is attached to this Contract as Exhibit "D" and incorporated herein by reference, shall be executed simultaneously with this Contract.

3.19.2 Equal Opportunity Employment. Contractor represents that it is an equal opportunity employer and that it shall not discriminate against any employee or applicant for employment because of race, religion, color, national origin, ancestry, sex, age or other interests protected by the State or Federal Constitutions. Such non-discrimination shall include, but not be limited to, all activities related to initial employment, upgrading, demotion, transfer, recruitment or recruitment advertising, layoff or termination.

3.19.3 Verification of Employment Eligibility. By executing this Contract, Contractor verifies that it fully complies with all requirements and restrictions of state and federal law respecting the employment of undocumented aliens, including, but not limited to, the Immigration Reform and Control Act of 1986, as may be amended from time to time, and shall require all subcontractors and sub-subcontractors to comply with the same.

3.20 Termination. This Contract may be terminated by District at any time, either with or without cause, by giving Contractor three (3) days advance written notice. In the event of termination by District for any reason other than the fault of Contractor, District shall pay Contractor for all Work performed up to that time as provided herein. In the event of breach of the Contract by Contractor, District may terminate the Contract immediately without notice, may reduce payment to Contractor in the amount necessary to offset District's resulting damages, and may pursue any other available recourse against Contractor. Contractor may not terminate this Contract except for cause. In the event this Contract is terminated in whole or in part as provided, District may procure, upon such terms and in such manner as it may determine appropriate, services similar to those terminated. Further, if this Contract is terminated as provided, District may require Contractor to provide all finished or unfinished documents, data, diagrams, drawings, materials or other matter prepared or built by Contractor in connection with its performance of this Contract. Contractor shall be required to provide such document and other information within fifteen (15) days of the request.

3.21 General Provisions.

3.21.1 District's Representative. The District hereby designates the Geoff Poole, or his or her designee, to act as its representative for the performance of this Contract ("District's Representative"). District's Representative shall have the power to act on behalf of the District for all purposes under this Contract. Contractor shall not accept direction or orders from any person other than the District's Representative or his or her designee.

3.21.2 Contractor's Representative. Before starting the Work, Contractor shall submit in writing the name, qualifications and experience of its proposed representative who shall be subject to the review and approval of the District ("Contractor's Representative"). Following approval by the District, Contractor's Representative shall have full authority to represent and act on behalf of Contractor for all purposes under this Contract. Contractor's Representative shall supervise and direct the Work, using his best skill and attention, and shall be responsible for all construction means, methods, techniques, sequences and procedures and for the satisfactory coordination of all portions of the Work under this Contract. Contractor's Representative shall devote full time to the Project and either he or his designee, who shall be acceptable to the District, shall be present at the Work site at all times that any Work is in progress and at any time that any employee or subcontractor of Contractor is present at the Work site. Arrangements for responsible supervision, acceptable to the District, shall be made for emergency Work which may be required. Should Contractor desire to change its Contractor's Representative, Contractor shall provide the information specified above and obtain the District's written approval.

3.21.3 Contract Interpretation. Should any question arise regarding the meaning or import of any of the provisions of this Contract or written or oral instructions from District, the matter shall be referred to District's Representative, whose decision shall be binding upon Contractor.

3.21.4 Anti-Trust Claims. This provision shall be operative if this Contract is applicable to California Public Contract Code Section 7103.5. In entering into this Contract to supply goods, services or materials, Contractor hereby offers and agrees to assign to the District all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Section 15) or under the Cartwright Act (Chapter 2, commencing with Section 16700, of Part 2 of Division 7 of the Business and Professions Code) arising from purchases of goods, services, or materials pursuant to the Contract. This assignment shall be made and

become effective at the time the District tender final payment to Contractor, without further acknowledgment by the Parties.

3.21.5 Notices. All notices hereunder and communications regarding interpretation of the terms of the Contract or changes thereto shall be provided by the mailing thereof by registered or certified mail, return receipt requested, postage prepaid and addressed as follows:

CONTRACTOR:

METRON FARNIER, LLC
5665 AIRPORT BLVD.
BOULDER, CO 80301
ATTN: *****INSERT CONTRACTOR REP. NAME AND TITLE*****

DISTRICT:

BORREGO WATER DISTRICT
806 PALM CANYON DRIVE
BORREGO SPRINGS, CA 92004
ATTN: GEOFF POOLE

Any notice so given shall be considered received by the other Party three (3) days after deposit in the U.S. Mail as stated above and addressed to the Party at the above address. Actual notice shall be deemed adequate notice on the date actual notice occurred, regardless of the method of service.

3.21.6 Time of Essence. Time is of the essence in the performance of this Contract.

3.21.7 Assignment Forbidden. Contractor shall not, either voluntarily or by action of law, assign or transfer this Contract or any obligation, right, title or interest assumed by Contractor herein without the prior written consent of District. If Contractor attempts an assignment or transfer of this Contract or any obligation, right, title or interest herein, District may, at its option, terminate and revoke the Contract and shall thereupon be relieved from any and all obligations to Contractor or its assignee or transferee.

3.21.8 No Third Party Beneficiaries. There are no intended third party beneficiaries of any right or obligation assumed by the Parties.

3.21.9 Laws; Venue. This Contract shall be interpreted in accordance with the laws of the State of California. If any action is brought to interpret or enforce any term of this Contract, the action shall be brought in a state or federal court situated in the County of San Diego, State of California.

3.21.10 Attorneys' Fees. If either Party commences an action against the other party, either legal, administrative or otherwise, arising out of or in connection with this Contract, the prevailing party in such litigation shall be entitled to have and recover from the losing party reasonable attorneys' fees and all other costs of such action.

3.21.11 Counterparts. This Contract may be executed in counterparts, each of which shall constitute an original.

3.21.12 Successors. The Parties do for themselves, their heirs, executors, administrators, successors, and assigns agree to the full performance of all of the provisions contained in this Contract.

3.21.13 Solicitation. Contractor maintains and warrants that it has not employed nor retained any company or person, other than a bona fide employee working solely for Contractor, to solicit or secure this Contract. Further, Contractor warrants that it has not paid nor has it agreed to pay any company or person, other than a bona fide employee working solely for Contractor, any fee, commission, percentage, brokerage fee, gift or other consideration contingent upon or resulting from the award or making of this Contract. For breach or violation of this warranty, District shall have the right to terminate this Contract without liability.

3.21.14 Conflict of Interest. Contractor maintains and warrants that it has not employed nor retained any company or person, other than a bona fide employee working solely for Contractor, to solicit or secure this Contract. Further, Contractor warrants that it has not paid nor has it agreed to pay any company or person, other than a bona fide employee working solely for Contractor, any fee, commission, percentage, brokerage fee, gift or other consideration contingent upon or resulting from the award or making of this Contract. For breach or violation of this warranty, District shall have the right to rescind this Contract without liability. For the term of this Contract, no director, official, officer or employee of District, during the term of his or her service with District, shall have any direct interest in this Contract, or obtain any present or anticipated material benefit arising therefrom. In addition, Contractor agrees to file, or to cause its employees or subcontractors to file, a Statement of Economic Interest with the District's Filing Officer as required under state law in the performance of the Work.

3.21.15 Certification of License.

3.21.15.1 Contractor certifies that as of the date of execution of this Contract, Contractor has a current contractor's license of the classification indicated below under Contractor's signature.

3.21.15.2 Contractors are required by law to be licensed and regulated by the Contractors' State License Board which has jurisdiction to investigate complaints against contractors if a complaint regarding a patent act or omission is filed within four (4) years of the date of the alleged violation. A complaint regarding a latent act or omission pertaining to structural defects must be filed within ten (10) years of the date of the alleged violation. Any questions concerning a contractor may be referred to the Registrar, Contractors' State License Board, P.O. Box 26000, Sacramento, California 95826.

3.21.16 Authority to Enter Contract. Each Party warrants that the individuals who have signed this Contract have the legal power, right and authority to make this Contract and bind each respective Party.

3.21.17 Entire Contract; Modification. This Contract contains the entire agreement of the Parties with respect to the subject matter hereof, and supersedes all prior negotiations, understandings or agreements. This Contract may only be modified by a writing signed by both Parties.

3.21.18 Non-Waiver. None of the provisions of this Contract shall be considered waived by either party, unless such waiver is specifically specified in writing.

3.21.19 District's Right to Employ Other Contractors. District reserves right to employ other contractors in connection with this Project or other projects.

[Signatures on Next Page]

**SIGNATURE PAGE FOR CONSTRUCTION CONTRACT
BETWEEN BORREGO WATER DISTRICT
AND METRON FARNIER, LLC**

IN WITNESS WHEREOF, the Parties hereto have executed this Contract as of the date first written above.

BORREGO WATER DISTRICT

METRON FARNIER, LLC

Approved:

By: _____
GEOFF POOLE
General Manager

By: _____
Its: _____
Printed Name: _____

ATTESTED:

By: _____
Board Clerk

By: _____
Its: _____
Printed Name: _____

APPROVED AS TO FORM:

Best Best & Krieger LLP
General Counsel

Contractor's License Number and
Classification

DIR Registration Number

EXHIBIT "A"
GRANT AGREEMENT

EXHIBIT "B"

SERVICES / SCHEDULE

A. Installation Services Scope.

- i. **Preliminary Documentation.** District will provide comprehensive information on the targeted replacement sites and any special project management requests at the time of notice-to-proceed sent by District. The site information list should include detailed meter information, meter sizes, sample pictures, line service information, service customer information, addresses, meter location and any known site problems. Project management requests include specific documentation, documentation formats, service customer interaction directions, site conduct, etc. Non-disclosed information or late project management requests may cause delays in the completion schedule. Such delays will be the responsibility of District.
- ii. **Installation.** Contractor promises and agrees to furnish to District all labor, and equipment to perform the water meter replacement services. The Contractor Field Services Department will perform the work. District shall provide Contractor with such resources, information, cooperation, and assistance as Contractor may reasonably request in connection with the performance of the Services.
- iii. **Standard vs. Non-Standard Installation.** The installation fee schedules below are for standard meter replacements, where an AWWA compliant water meter is currently installed. Standard installations are services where the meter is accessible without dirt removal or excavation, and the shutoff valves are operating correctly. Contractor will perform the meter exchanges on the Standard Installations and provide a list of the Non-Standard Installations for the District to address. Should the District need Contractor crews to address Non-standard installations, the additional manhours beyond the standard meter installation will be billed at \$125 per hour. District will authorize any non-standard work via changeorder before it is performed.
- iv. **Locating Services.** If any meter site is unable to be located, District will assist Contractor crew to locate. If Contractor is unable to locate a significant percentage of the candidate services (more than 5%), District will provide personnel to accompany Contractor crews as needed.
- v. **Safety.** Contractor will take all necessary precautions for the safety of workers and will comply with all applicable provisions of Federal, State, and Municipal safety laws and building codes to prevent accidents or injury to persons on, about, or adjacent to the work site. Contractor's employees and subcontractors will have visible signs on all vehicles and employees will have identification badges. Appropriate tools will always be used to perform the work.
- vi. **Workmanship.** Contractor employees will be dressed professionally and be courteous at all times. Work areas will be cleaned up and left in the same condition as when the work started.

- vii. **Documentation.** Contractor will maintain an online master worksheet for the installations. The information provided will include all the information listed below:
1. Master list
 2. Installation schedule (if required)
 3. Meter installation list
 4. Date of replacement/installation
 5. Technician name
 6. Old (replaced) meter serial number
 7. Final read of old (replaced) meter register
 8. Pictures of old/new meters (if requested)
 9. New meter serial number
 10. Installation notes
 11. Percent complete sheet
 12. Monthly billing sheet
- viii. **Waterscope Updates and Billing System Integration.** Contractor will assist District in regular Waterscope updates. If part of the scope of services, Contractor will also arrange the development and implementation of the billing system interface for the District's system.
- ix. **Installation Time Table.** The work to be performed under this Contract shall commence on the date of a formal notice-to-proceed from District (email, sent or signed by appropriate authority). The work shall be substantially completed within 360 business days after the date of such notice. Substantial completion is defined as the full installation of all Standard Installations that can be accessed and completed.

PRICING

Meter locations: Indoor _____ Outdoor ___x___ Mixed _____

Antenna Location: Under Lid

Meter type/model to be replaced/retrofitted: Master Meter/Others

Product	Qty	Price	Extended
Mobilization Fee	1		\$3,500.00
Residential meters	1456	\$125	\$182,000.00
1" meters	473	\$195	\$92,235.00
1.5" meters	73	\$375	\$27,375.00
2" meters	29	\$375	\$10,875.00
3" meters	4	\$725	\$2900.00
4" meters	6	\$915	\$5490.00
6" meters	7	\$1300	\$9100.00
8" meters	0	\$1900	\$0.00
Register Replacement	0	N/A	\$0.00
Other	0	N/a	\$0.00

Total 2048 \$333,475.00

Non-Standard Work Labor \$125/hr
Non-Standard Work Materials To be quoted per circumstance
Non-Standard Work Travel/Housing To be quoted per circumstance

CONTACTS

Client Contact Name: _____

Primary Contact Email: _____

Primary Contact Number: _____

Billing Contact Name: _____

Billing Contact Email: _____

METER PRICING

Quantity	Est.	Product Description	Unit	Total
3	5/8"	Spectrum-25DBVN	\$395.00	\$1,185.00
1453	5/8"x3/4"	Spectrum-30DBVN	\$395.00	\$573,935.00
473		Spectrum-50DLVN 1"	\$575.00	\$271,975.00
73	1.5"	Spectrum-88DLVN	\$845.00	\$61,685.00
29		Spectrum-130DVN 2"	\$995.00	\$28,855.00
4		Spectrum-175DVN 3"	\$1,595.00	\$6,380.00
6		Spectrum-500DVN 4"	\$2,895.00	\$17,370.00
7	6"	Spectrum-1000DVN	\$3,995.00	\$27,965.00
			Tax	\$76,674.63
				\$1,066,024.63
TBD	Lids	Residential Meter Box	\$60.00	TBD

EXHIBIT "C"

PLANS AND SPECIFICATIONS

[INSERT ALL PLANS AND SPECS]

EXHIBIT "D"

SPECIAL CONDITIONS

ARTICLE 1. BONDS

Concurrently with this Contract, the Contractor shall deliver to the District four identical counterparts of the Performance Bond and Payment Bond on the forms supplied by the District and included as Exhibit "G" to the Contract. The surety supplying the bond must be an admitted surety insurer, as defined in Code of Civil Procedure Section 995.120, authorized to do business as such in the State of California and satisfactory to the District. The Performance Bond and the Payment Bond shall be for one hundred percent (100%) of the Total Contract Price.

EXHIBIT "E"

**CERTIFICATION
LABOR CODE - SECTION 1861**

I, the undersigned Contractor, am aware of the provisions of Section 3700, et seq., of the California Labor Code which require every employer to be insured against liability for Worker's Compensation or to undertake self-insurance in accordance with the provisions of the Code, and I, the undersigned Contractor, agree to and will comply with such provisions before commencing the performance of the Work on this Contract.

METRON FARNIER, LLC

By: _____
Signature

Name (Print)

Title (Print)

EXHIBIT "F"

PUBLIC WORKS CONTRACTOR REGISTRATION CERTIFICATION

Pursuant to Labor Code sections 1725.5 and 1771.1, all contractors and subcontractors that wish to bid on, be listed in a bid proposal, or enter into a contract to perform public work must be registered with the Department of Industrial Relations. See <http://www.dir.ca.gov/Public-Works/PublicWorks.html> for additional information.

No bid will be accepted nor any contract entered into without proof of the contractor's and subcontractors' current registration with the Department of Industrial Relations to perform public work.

Contractor hereby certifies that it is aware of the registration requirements set forth in Labor Code sections 1725.5 and 1771.1 and is currently registered as a contractor with the Department of Industrial Relations.¹

Name of Contractor: _____

DIR Registration Number: _____

DIR Registration Expiration: _____

Small Project Exemption: _____ Yes or _____ No

Unless Contractor is exempt pursuant to the small project exemption, Contractor further acknowledges:

1. Contractor shall maintain a current DIR registration for the duration of the project.
2. Contractor shall include the requirements of Labor Code sections 1725.5 and 1771.1 in its contract with subcontractors and ensure that all subcontractors are registered at the time of bid opening and maintain registration status for the duration of the project.
3. Failure to submit this form or comply with any of the above requirements may result in a finding that the bid is non-responsive.

Name of Contractor: _____

Signature: _____

Name and Title: _____

Dated: _____

¹ If the Project is exempt from the contractor registration requirements pursuant to the small project exemption under Labor Code Sections 1725.5 and 1771.1, please mark "Yes" in response to "Small Project Exemption."

EXHIBIT "G"
PAYMENT AND PERFORMANCE BONDS

PERFORMANCE BOND

KNOW ALL PERSONS BY THESE PRESENTS:

THAT WHEREAS, the Borrego Water District (hereinafter referred to as "District") has awarded to _____, (hereinafter referred to as the "Contractor") _____ an agreement for _____ (hereinafter referred to as the "Project").

WHEREAS, the work to be performed by the Contractor is more particularly set forth in the Contract Documents for the Project dated _____, (hereinafter referred to as "Contract Documents"), the terms and conditions of which are expressly incorporated herein by reference; and

WHEREAS, the Contractor is required by said Contract Documents to perform the terms thereof and to furnish a bond for the faithful performance of said Contract Documents.

NOW, THEREFORE, we, _____, the undersigned Contractor and _____ as Surety, a corporation organized and duly authorized to transact business under the laws of the State of California, are held and firmly bound unto the District in the sum of _____ DOLLARS, (\$_____), said sum being not less than one hundred percent (100%) of the total amount of the Contract, for which amount well and truly to be made, we bind ourselves, our heirs, executors and administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that, if the Contractor, his or its heirs, executors, administrators, successors or assigns, shall in all things stand to and abide by, and well and truly keep and perform the covenants, conditions and agreements in the Contract Documents and any alteration thereof made as therein provided, on its part, to be kept and performed at the time and in the manner therein specified, and in all respects according to their intent and meaning; and shall faithfully fulfill all obligations including the one-year guarantee of all materials and workmanship; and shall indemnify and save harmless the District, its officers and agents, as stipulated in said Contract Documents, then this obligation shall become null and void; otherwise it shall be and remain in full force and effect.

As a condition precedent to the satisfactory completion of the Contract Documents, unless otherwise provided for in the Contract Documents, the above obligation shall hold good for a period of one (1) year after the acceptance of the work by District, during which time if Contractor shall fail to make full, complete, and satisfactory repair and replacements and totally protect the District from loss or damage resulting from or caused by defective materials or faulty workmanship, Surety shall undertake and faithfully fulfill all such obligations. The obligations of Surety hereunder shall continue so long as any obligation of Contractor remains. Nothing herein shall limit the District's rights or the Contractor or Surety's obligations under the Contract, law or equity, including, but not limited to, California Code of Civil Procedure section 337.15.

Whenever Contractor shall be, and is declared by the District to be, in default under the Contract Documents, the Surety shall remedy the default pursuant to the Contract Documents, or shall promptly, at the District's option:

- (1) Take over and complete the Project in accordance with all terms and conditions in the Contract Documents; or
- (2) Obtain a bid or bids for completing the Project in accordance with all terms and conditions in the Contract Documents and upon determination by Surety of the lowest responsive and responsible bidder, arrange for a Contract between such bidder, the Surety and the District, and make available as work progresses sufficient funds to pay the cost of completion of the Project, less the balance of the contract price, including other costs and damages for which Surety may be liable. The term "balance of the contract price" as used in this paragraph shall mean the total amount payable to Contractor by the District under the Contract and any modification thereto, less any amount previously paid by the District to the Contractor and any other set offs pursuant to the Contract Documents.
- (3) Permit the District to complete the Project in any manner consistent with local, California and federal law and make available as work progresses sufficient funds to pay the cost of completion of the Project, less the balance of the contract price, including other costs and damages for which Surety may be liable. The term "balance of the contract price" as used in this paragraph shall mean the total amount payable to Contractor by the District under the Contract and any modification thereto, less any amount previously paid by the District to the Contractor and any other set offs pursuant to the Contract Documents.

Surety expressly agrees that the District may reject any contractor or subcontractor which may be proposed by Surety in fulfillment of its obligations in the event of default by the Contractor.

Surety shall not utilize Contractor in completing the Project nor shall Surety accept a bid from Contractor for completion of the Project if the District, when declaring the Contractor in default, notifies Surety of the District's objection to Contractor's further participation in the completion of the Project.

The Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract Documents or to the Project to be performed thereunder shall in any way affect its obligations on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract Documents or to the Project, including but not limited to the provisions of sections 2819 and 2845 of the California Civil Code.

IN WITNESS WHEREOF, we have hereunto set our hands and seals this _____ day of _____, 20__).

(Corporate Seal)

Contractor/ Principal

By _____

Title _____

(Corporate Seal)

Surety

By _____
Attorney-in-Fact

Signatures of those signing for the Contractor and Surety must be notarized and evidence of corporate authority attached.

(Attach Attorney-in-Fact Certificate) Title _____

The rate of premium on this bond is _____ per thousand. The total amount of premium charges, \$_____.

(The above must be filled in by corporate attorney.)

THIS IS A REQUIRED FORM

Any claims under this bond may be addressed to:

(Name and Address of Surety) _____

(Name and Address of Agent or Representative for service of process in California, if different from above) _____

(Telephone number of Surety and Agent or Representative for service of process in California) _____

NOTE: A copy of the Power-of-Attorney authorizing the person signing on behalf of the Surety to do so must be attached hereto.

Notary Acknowledgment

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA

COUNTY OF _____

On _____, 20____, before me, _____, Notary Public, personally

appeared _____, who proved to me on the basis of satisfactory

evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature of Notary Public

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document

and could prevent fraudulent removal and reattachment of this form to another document.

CAPACITY CLAIMED BY SIGNER

DESCRIPTION OF ATTACHED DOCUMENT

- Individual
- Corporate Officer

Title(s)

Title or Type of Document

- Partner(s) Limited
- General

Number of Pages

- Attorney-In-Fact
- Trustee(s)
- Guardian/Conservator
- Other:

Date of Document

Signer is representing:
Name Of Person(s) Or Entity(ies)

Signer(s) Other Than Named Above

PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS That

WHEREAS, the Borrego Water District (hereinafter designated as the "District"), by action taken or a resolution passed _____, 20____ has awarded to _____ hereinafter designated as the "Principal," a contract for the work described as follows:

_____ (the "Project"); and

WHEREAS, the work to be performed by the Principal is more particularly set forth in the Contract Documents for the Project dated _____ ("Contract Documents"), the terms and conditions of which are expressly incorporated by reference; and

WHEREAS, said Principal is required to furnish a bond in connection with said contract; providing that if said Principal or any of its Subcontractors shall fail to pay for any materials, provisions, provender, equipment, or other supplies used in, upon, for or about the performance of the work contracted to be done, or for any work or labor done thereon of any kind, or for amounts due under the Unemployment Insurance Code or for any amounts required to be deducted, withheld, and paid over to the Employment Development Department from the wages of employees of said Principal and its Subcontractors with respect to such work or labor the Surety on this bond will pay for the same to the extent hereinafter set forth.

NOW THEREFORE, we, the Principal and _____ as Surety, are held and firmly bound unto the District in the penal sum of _____ Dollars (\$_____) lawful money of the United States of America, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH that if said Principal, his or its subcontractors, heirs, executors, administrators, successors or assigns, shall fail to pay any of the persons named in Section 9100 of the Civil Code, fail to pay for any materials, provisions or other supplies, used in, upon, for or about the performance of the work contracted to be done, or for any work or labor thereon of any kind, or amounts due under the Unemployment Insurance Code with respect to work or labor performed under the contract, or for any amounts required to be deducted, withheld, and paid over to the Employment Development Department or Franchise Tax Board from the wages of employees of the contractor and his subcontractors pursuant to Section 18663 of the Revenue and Taxation Code, with respect to such work and labor the Surety or Sureties will pay for the same, in an amount not exceeding the sum herein above specified, and also, in case suit is brought upon this bond, all litigation expenses incurred by District in such suit, including reasonable attorneys' fees, court costs, expert witness fees and investigation expenses.

This bond shall inure to the benefit of any of the persons named in Section 9100 of the Civil Code so as to give a right of action to such persons or their assigns in any suit brought upon this bond.

It is further stipulated and agreed that the Surety on this bond shall not be exonerated or released from the obligation of this bond by any change, extension of time for performance, addition, alteration or modification in, to, or of any contract, plans, specifications, or agreement pertaining or relating to any scheme or work of improvement herein above described, or pertaining

or relating to the furnishing of labor, materials, or equipment therefore, nor by any change or modification of any terms of payment or extension of the time for any payment pertaining or relating to any scheme or work of improvement herein above described, nor by any rescission or attempted rescission of the contract, agreement or bond, nor by any conditions precedent or subsequent in the bond attempting to limit the right of recovery of claimants otherwise entitled to recover under any such contract or agreement or under the bond, nor by any fraud practiced by any person other than the claimant seeking to recover on the bond and that this bond be construed most strongly against the Surety and in favor of all persons for whose benefit such bond is given, and under no circumstances shall Surety be released from liability to those for whose benefit such bond has been given, by reason of any breach of contract between the owner or District and original contractor or on the part of any obligee named in such bond, but the sole conditions of recovery shall be that claimant is a person described in Section 9100 of the Civil Code, and has not been paid the full amount of his claim and that Surety does hereby waive notice of any such change, extension of time, addition, alteration or modification herein mentioned and the provisions of sections 2819 and 2845 of the California Civil Code.

IN WITNESS WHEREOF, we have hereunto set our hands and seals this _____ day of _____, 20__.

(Corporate Seal)_____

Contractor/ Principal

By_____

Title_____

(Corporate Seal)

Surety

By_____

Attorney-in-Fact

Title_____

Signatures of those signing for the Contractor and Surety must be notarized and evidence of corporate authority attached. A Power-of-Attorney authorizing the person signing on behalf of the Surety to do so much be attached hereto.

NOTE: A copy of the Power-of-Attorney authorizing the person signing on behalf of the Surety to do so must be attached hereto.

Notary Acknowledgment

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA

COUNTY OF _____

On _____, 20____, before me, _____, Notary Public, personally

appeared _____, who proved to me on the basis of satisfactory

evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature of Notary Public

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document

and could prevent fraudulent removal and reattachment of this form to another document.

CAPACITY CLAIMED BY SIGNER

DESCRIPTION OF ATTACHED DOCUMENT

- Individual
- Corporate Officer

Title(s)

Title or Type of Document

- Partner(s) Limited
- General

Number of Pages

- Attorney-In-Fact
- Trustee(s)
- Guardian/Conservator
- Other:

Date of Document

Signer is representing:
Name Of Person(s) Or Entity(ies)

Signer(s) Other Than Named Above

EXHIBIT H
PROPOSITION 68 FUNDING PROVISIONS

BORREGO WATER DISTRICT
BOARD OF DIRECTORS MEETING
FEBRUARY 13, 2024
AGENDA ITEM II.B

February 6, 2024

TO: Board of Directors

FROM: Geoffrey Poole, General Manager

SUBJECT: Town Hall 2024 Schedule and Agenda – K Dice/D Johnson

RECOMMENDED ACTION:

Review Agenda and direct staff accordingly

ITEM EXPLANATION:

The 2024 Town Hall plans are proceeding and the Outreach Committee would like to share the latest re: date and topics.

NEXT STEPS

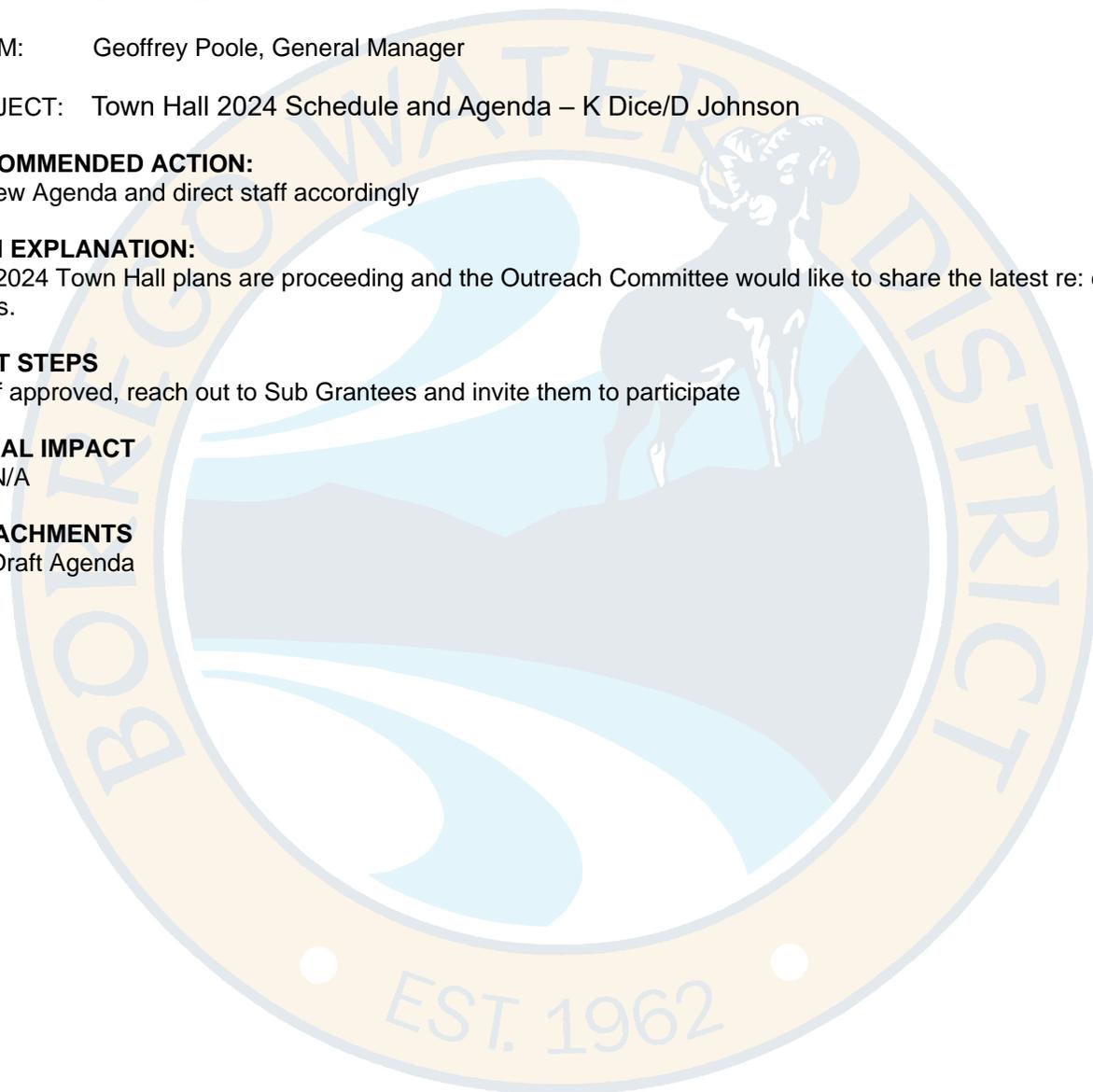
1. If approved, reach out to Sub Grantees and invite them to participate

FISCAL IMPACT

1. N/A

ATTACHMENTS

1. Draft Agenda



Borrego Water District Board of Directors
Special Meeting & Town Hall
April 3, 2024 @ 5:30 p.m. to 7:30 p.m.
SD County Library: 2580 Country Club Road
Borrego Springs, CA 92004

COVID-19 UPDATE: The Borrego Water District Board of Directors meeting as scheduled in an electronic format as well as on site at the Library. BWD will also be providing public access to the Meeting thru electronic means only to minimize the spread of the COVID-19 virus, based upon direction from the California Department of Public Health, the California Governor's Office and the County Public Health Office. Anyone who wants to listen to or participate in the meeting is encouraged to observe the GO TO MEETING at

<https://meet.goto.com/432670341>

You can also dial in using your phone. United States: +1 (646) 749-3122 Access Code: 432-670-341

I. OPENING PROCEDURES -

- A. Call to Order:
- B. Pledge of Allegiance
- C. Roll Call – Directors Baker, Duncan, Johnson and Rosenboom. President Dice
- D. Approval of Agenda
- E. Comments from the Public & Requests for Future Agenda Items (may be limited to 3 min)
- F. Comments from Directors

I. ITEMS FOR BOARD CONSIDERATION AND POSSIBLE ACTION –

- A. Welcome/Introductions/Overview of Agenda – President K. Dice
 - 1. Borrego Water District
 - i. 2023 Year in Review and 2024 Priorities – BWD Board (10 min)
 - ii. Water Quality Analysis – T Driscoll (10 min)
 - B. Proposition 68 Project Overviews
 - 1. Borrego Springs Watermaster (10 min)
 - i. Farmland Following
 - ii. GMP Update
 - iii. WQ Monitoring Network
 - 2. University of California - Groundwater Dependent Eco Systems (10 min)
 - 3. Borrego Valley Stewardship Council – Community Outreach (10 min)
 - 4. Borrego Springs School District – Educational Program (10 min)
 - 5. Borrego Water District (10 min)
 - i. Groundwater Monitoring Wells – WWTP
 - ii. Automated Metering Infrastructure
- C. Questions and Answers – (20 min est.) - G. Poole
- D. BWD Director Comments and Town Hall Closing Comments – President K Dice

III. **CLOSING PROCEDURE:** The next Board Meeting is scheduled for April 9, 2024 to be available online. See Board Agenda at BorregoWD.org for details, Agenda information available at least 72 hours before the meeting.

BORREGO WATER DISTRICT
BOARD OF DIRECTORS MEETING
FEBRUARY 13, 2024
AGENDA ITEM II.C

February 6, 2024

TO: Board of Directors

FROM: Geoffrey Poole, General Manager

SUBJECT: Distributed Energy System Demonstration with SDG&E – D Young, SDG&E

RECOMMENDED ACTION:

Receive Proposal from SDG&E and direct staff as deemed appropriate

ITEM EXPLANATION:

On Friday afternoon, Staff was contacted by SDG&E Representatives requesting time on the 2-13 Agenda via the email below. Staff spoke to SDG&E and requested information for the BWD Board packet and received the attached Powerpoint. THANKS TAMMY!!

Hi Geoff,

We are working on an application to the US. Dept of Energy and California Energy Commission for a Distributed Energy System Demonstration in Borrego Springs. One of our ideas would be to provide a battery backup system to one of the Borrego Water District's facilities. We wanted to see if we could be added to the Feb. 13 Borrego Water District Board of Directors meeting agenda to discuss.

Our application is due next month so we're a little short on time. We spoke to Tammy Baker yesterday who mentioned we should try to attend Tuesday's meeting.

Please let me know if this is possible. Also, feel free to give me a call if you would like to discuss further. 619-626-6628

Thanks and looking forward to hearing back from you.

Dallin Young

Public Affairs Manager

M 619.626.6628

E DYoung1@sdge.com

Follow Us:



Do the right thing. Champion People. Shape the Future

NEXT STEPS

1. TBD

FISCAL IMPACT

1. TBD

ATTACHMENTS

1. SDG&E Powerpoint



Funding Opportunity for New Energy Storage System at Borrego Water District

Distributed Energy Systems Demonstrations

U.S. Dept. Of Energy OCED (DE-FOA-0003139)
California Energy Commission (GFO-21-901)



Distributed Energy Systems Opportunity

Opportunity

- U.S. Dept. Of Energy OCED (DE-FOA-0003139) funding of **\$10-25M** per project, anticipates funding 2-4 projects. **50%** cost share required by SDG&E
- California Energy Commission (GFO-21-901) may provide up to **50%** of the cost share amount.

Status

- **Concept Paper “Encouraged” by DOE to submit full proposal**
- CEC cost share proposal Phase 1: **2/29/24**
- Full DOE proposal due **4/15/24**
- Selection anticipated: Summer 2024
- Estimated project start: **Spring 2025**
- Project duration: 5.75 years

Community-Driven Distributed Energy Resources in a Flexible, Aggregated, and Scalable Topology (FAST)

Project Goal: Design, develop, implement, and operate a robust, integrated distributed energy system (DES) in Borrego Springs and surrounding regions to increase customer resiliency and grid flexibility.

- **Design and install an energy storage system at a critical customer facility which can provide critical support during outage, and support the local grid system during normal operations**
- Demonstrate how the DES can improve resiliency of older customer rooftop PV systems
- Implement DES controls to extend Borrego microgrid operating duration using more local PV
- Integrate a mobile battery system into the SDG&E microgrid which can be deployed to critical customers in local remote/rural areas

Borrego Water District Project Concept

- **Financial:** Battery energy storage system is funded by the project (equipment and O&M)
- **Footprint:** Easement to SDG&E, system owned/operated by SDG&E. Size ~ < 40ft cargo container + safety clearance.
- **Possible Sites:**
 - Ram's Hill WWTP
 - Wellsite - *to run pumps without fossil fuel generators during outage*
- **Power/Energy:** Battery sized based on site needs – *power requirement?*
- **Collaboration through project phases:**
 - Phase 1 (planning) – 9 months
 - Phase 2 (development) – 12 months
 - Phase 3 (construction) – 12 months
 - Phase 4 (operations) – 36 months

Use Cases

- *Planned Outage* – battery is part of the renewable resource pool to support the microgrid during operations. Helps SDG&E mitigate risk of BWD and other customer outage on the circuit, reduces need for fossil fuel generator use to operate the microgrid
- *Unplanned Outage* – battery is a bridging power resource until main grid is restored or microgrid is islanded. *Number of hours duration will depend on battery sizing and the state of charge at the moment of outage.*
- *Normal grid operations* – battery supports local Borrego grid stability.

Key Benefits

- BWD resiliency at critical facility during emergency outage.
- BWD and SDG&E avoided emissions and fuel costs – reducing use of fossil generators
- SDG&E ability to operate the community microgrid for longer periods of time on renewable resources

Proposal Submission Next Steps (by 2/16)



- Two supporting letters from BWD to confirms interest in the project, willingness to provide site to SDG&E, collaboration.
 - Site Letter (for CEC)
 - Community Partnership Letter (for DOE OCED)
 - *SDG&E can provide drafts*

BORREGO WATER DISTRICT
BOARD OF DIRECTORS MEETING
FEBRUARY 13, 2024
AGENDA ITEM II.D

February 6, 2024

TO: Board of Directors

FROM: Geoffrey Poole, General Manager

SUBJECT: Borrego Springs Subbasin Watermaster Board – VERBAL D Duncan/K Dice/T Driscoll

1. Update on Board Activities Including 2-8-24 Agenda Items
2. Update on Technical Advisory Committee Activities
3. Annual Report Comments – T Driscoll

RECOMMENDED ACTION:

Discuss upcoming Watermaster related activities

ITEM EXPLANATION:

BWD Representatives from the Watermaster and TAC will provide a review of recent events and an update on upcoming meetings.

NEXT STEPS

1. TBD

FISCAL IMPACT

1. TBD

ATTACHMENTS

1. Annual Report Comments – T Driscoll

TECHNICAL MEMORANDUM

To: Andy Malone, Borrego Springs Watermaster, BorregoSpringsWM@westyost.com
From: Trey Driscoll, PG, CHG, Steven Humphrey, PG
Subject: Borrego Valley Hydrologic Model (BVHM) Update to Redetermine the Sustainable Yield By 2025 – Response for December 18, 2023 TAC Meeting
Date: January 22, 2024
cc: Geoff Poole, Borrego Water District, Tyler Hatch, PhD, INTERA

INTERA has prepared this technical memorandum (TM) on behalf of the Borrego Water District (BWD) regarding the ongoing update and extension of the Borrego Valley Hydrologic Model (BVHM) developed by the U.S. Geological Survey (Faunt 2015). This TM relays specific recommendations regarding the Borrego Springs Water Master Technical Advisory Committee (TAC) meeting held on December 18, 2023 and provides summary of review and comments completed to date by INTERA.

To improve the ability of the BVHM to estimate groundwater pumping, the water budget, and the Sustainable Yield of the Basin, the Borrego Springs Watermaster Board approved a scope of work and budget for water year (WY) 2023 and 2024 to update the BVHM and Redetermine the Sustainable Yield by 2025. The scope includes the following tasks:

- Task 1 – Compare FMP-estimated Pumping to Actual Pumping for WY 2022
- Task 2 – Update Water-Use Factors in the FMP
- Task 3 – Correct Errors Identified in the 2021 BVHM
- Task 4 – Perform Model Recalibration
- Task 5 – Determine the Sustainable Yield

To date, West Yost has completed tasks 1–3 and is in the process of performing the model recalibration. INTERA’s review and summary of recommendations on the update of the BVHM by task is provided as follows:

Task 1 – Compare FMP-estimated Pumping to Actual Pumping for WY 2022

Borrego Springs Watermaster staff has completed preliminary analysis of comparing Farm Process (FMP)¹ estimated pumping to metered pumping for water year (WY) 2021 and WY 2022 (Table 1).

¹ The farm process package dynamically estimates pumping based on calculations of water demands. Water demands are calculated by the farm package from several inputs to the model, including land use type, soil type, soil moisture demands by crop, crop rooting depth, monthly precipitation and evapotranspiration, and an assigned efficiency factor by crop type. The BVHM is set up to supply the total calculated water demand from groundwater pumping.

Table 1 FMP Estimated Pumping Comparison to Metered Pumping WY 2021 and 2022

WY	FMP Estimated Pumping (Acre-feet)	Metered Pumping (Acre-Feet) ^a	Percent Difference
2021	8,401	12,857	42%
2022	7,639	10,863	35%

a. A large majority of pumping is metered. A few parcels were not metered in WY 2021 and 2022.

The comparison of FMP estimated pumping to metered pumping indicates that the FMP used in the BVHM provides a coarse approximation of water requirements for crops and turf in the Borrego Springs Subbasin (Subbasin). For WY 2021 and 2022, the FMP underestimates pumping by 42% and 35%, respectively.

To better use the BVHM to redetermine the sustainable yield of the Subbasin, the FMP estimated pumping should be calibrated to match the metered pumping to provide more accurate estimates of historical pumping in the Subbasin. The BVHM will use metered pumping starting in WY 2021 and 2022 when metering of all non de minimis wells in the Subbasin commenced.

The Borrego Springs Watermaster staff provided two recommendations to calibrate FMP estimated pumping to improve the match to metered pumping:

1. Reset crop coefficient (KC) scaling factor to 1 in the BVHM.
2. Reset on-farm efficiency (OFE) scaling factor to a factor representative of current irrigation methods.

As explained at the TAC Meeting held on June 5, 2023, the U.S. Geological Survey applied scaling factors to KC assigned to crops in the FMP. Review of the scaling factors that were adjusted during BVHM calibration indicate that the scaling results in unrealistic seasonal change in crop coefficients (i.e., increased KC for most crops during winter months) and reduced crop coefficients during most months. A reset of the scaling factors used in the BVHM will result in increased groundwater pumping estimated by the FMP.

In addition, the BVHM uses unrealistic values of OFE (i.e., nearly 100% by WY 2009). Use of more realistic OFE or irrigation efficiencies previously documented for the Subbasin will result in increased groundwater pumping estimated by the FMP.

INTERA recommended that Borrego Springs Watermaster staff proceed with the recommended updates regarding the scaling of crop coefficients and on-farm efficiency in the BVHM. In addition, we recommended that Borrego Springs Watermaster staff complete a comparison of ET_o used in the BVHM with data available from CIMIS Station #207. For historical estimates of ET, it also may be advisable to evaluate use of remotely sensed satellite data available from OPENET (<https://openetdata.org/>) or LAND IQ (<https://www.landiq.com/>) to determine if these sources of estimated evapotranspiration (i.e., consumed water) may inform historical water use and irrigation efficiency in the Subbasin. An updated estimate of on-farm return flows may be estimated by subtracting the applied water (i.e., metered groundwater pumping) from the consumed water (i.e., actual ET remotely sensed satellite data).

Task 2 – Update Water-Use Factors in the FMP

Borrego Springs Watermaster staff has completed analysis of comparing Farm Process (FMP)² estimated pumping to actual pumping for water year (WY) 2021 and WY 2022 (Table 2) using different estimates of water use factors as follows:

1. Use of crop coefficient (KC) scaling factor and on-farm efficiency (OFE) scaling factor developed by USGS for the BVHM (original BVHM).
2. Resetting KC scaling factor to 1 and OFE scaling factor to a factor representative of current irrigation methods (modified BVHM).

Table 2 Comparison of Actual Pumping to FMP-Estimated Pumping WY 2021 and WY 2022

WY	Actual Pumping ^a (af)	Using Scaled KC and OFE Values (original BVHM)			Using Initial KC and OFE Values (modified BVHM)		
		FMP-Estimated Pumping (af)	Difference (af)	% Difference	FMP-Estimated Pumping (af)	Difference (af)	% Difference
2021	12,857	8,428	-4,429	-42%	11,625	-1,232	-10%
2022	10,863	7,649	-3,214	-35%	10,551	-312	-3%

Notes: af = acre-feet, KC = crop coefficient, OFE = on-farm efficiency

- a. A large majority of pumping is metered. A few parcels were not metered in WY 2021 and WY 2022 and pumping was estimated based on the Baseline Pumping Allocation crop factors and areas irrigated.

Source: West Yost 2023

The resulting outputs from the FMP for the original and modified BVHM were compared to WY 2021 and WY 2022 actual pumping. For WY 2021 and WY 2022, the original FMP underestimates pumping by 42% and 35%, respectively. For WY 2021 and WY 2022, the modified FMP underestimates pumping by 10% and 3%, respectively. By using more realistic water factors, historical estimates of water use for agricultural irrigation can be improved for years with similar irrigation practices and crop types as today. Given that irrigation practices and many of the crops (i.e., citrus and date orchards) have remained fixed for many decades in the Borrego Springs Subbasin (Subbasin), the WY 2021 and WY 2022 actual pumping data may be applied to hindcast historical pumping that is more representative of actual water use. This is important because USGS sensitivity analysis indicated that the model performance is most sensitive to estimated agricultural pumping (68%), specific yield (11%), stream recharge (7%), underflow (3%) and other factors³ (11%). The biggest reduction in uncertainty of the BVHM can be gained by using actual pumping as is now available for WY 2021 and WY 2022, and by updating historical estimates of agricultural water use.

INTERA provided the following initial conclusions and recommendations to the Borrego Springs Watermaster staff regarding Task 2 – Update Water-Use Factors in the FMP:

³ Other factors include, but are not limited to, unsaturated flow, hydraulic conductivity, and capillary fringe effects.

- Given that irrigation practices and many of the crops (i.e., citrus and date orchards) have remained fixed for many decades in the Subbasin, the WY 2021 and WY 2022 actual pumping data may be applied to hindcast historical pumping that is more representative of actual water use.
- Initial review of historical water use in the Subbasin prior to 1945 and during the 1950's and 1960's suggests that the BVHM may underestimate applied water use. A preliminary evaluation of 1954 water use indicated that the BVHM may underestimate pumping by 77% and 94%, respectively when compared to the original and modified estimate of agricultural water use. As model performance is most sensitive to estimated agricultural pumping it is important to define a defensible range for historical pumping.
- Use the initial KC values in Task 4 – Perform Model Recalibration.
- Use the initial OFE values in Task 4 – Perform Model Recalibration for recent and historical years with similar irrigation practices (e.g., drip and micro-spray) to current irrigation practices.
- Define historical OFE values based on the evolution of irrigation methods in the Subbasin (i.e., conversion of flood and furrow irrigation to drip and micro-spray).
- Define a defensible range of KC and OFE values to constrain model recalibration in Task 4.
- Use available OpenET data for the 5-year period from 2016 to 2020 to help constrain FMP estimated pumping (If OpenET data or other similar satellite-based ET data is available for a longer period of time this data should also be evaluated).
- Continue to use BCM ET data as part of the redetermination of sustainable yield for 2025. Further evaluation of BCM data is recommended as part of future updates (i.e. 2030).
- The linkage of the FMP to the unsaturated-zone flow (UZF) package should be evaluated as UZF flows or return flow to the groundwater system are approximately 10% of total pumping for the last 10 years of the BVHM-2015. As the scaled OFE ranged from 0.93 to 0.99 or 7% to 1% return flow it would seem there is a mismatch.

Additional information regarding historical land use and irrigation practices and review of Open ET for Water Years 2021 and 2022 were provided in INTERA's Draft Technical Memorandum dated September 15, 2023.

Task 3 – Correct Errors Identified in the 2021 BVHM

In Task 3, the errors and discrepancies identified in the 2021 BVHM were corrected. These corrections include fixing errors in the 1) Flow and Head Boundary (FHB), 2) Streamflow Routing (SFR), 3) Multi-Node Well (MNW2) packages, and 4) the Farm Process (FMP) package. INTERA recommends using the terms "original BVHM" and "modified BVHM" when referring to updates to the models. We have applied these terms below.

After all model packages were corrected in the BVHM, the model was run through WY 2022 and the Modified BVHM was compared to the Original BVHM by water budget component term as shown in Table 3. The Modified BVHM resulted in a 14% increase in total inflows, 2% increase in total outflows and 11% less change in storage when compared to the Original BVHM.

Table 3 Water Budget Comparison for Original and Modified BVHM (WY 1945 – 2022)

Water Budget Component	Annual Average WY 1945 - 2022		
	Original BVHM	Modified BVHM	
	afy	afy	% difference
Total Inflows	6,633	7,632	14%
Streambed Recharge	3,775	3,888	3%
Unsaturated Zone Recharge	1,490	1,622	8%
Subsurface Inflow	1,367	2,121	43%
Total Outflows	13,796	14,057	2%
Groundwater Pumping	10,630	10,693	1%
Non-FMP Wells	2,226	2,300	3%
FMP Wells	8,404	8,394	0%
Evapotranspiration	2,644	2,841	7%
Subsurface Outflow	521	523	0%
Total Change in Storage	-7,163	-6,425	11%

After preliminary review of the information provided regarding Task 3 – Correct Errors Identified in the 2021 BVHM, INTERA recommends confirming the well construction information in the Corrected Multi-Node Well (MNW2) packages as the total well depths provided in Table 6. Comparison of Well Construction Assigned in the Uncorrected BVHM and Well Construction Information in the Task 3 to Redetermine the Sustainable Yield by 2025—Correct Errors Identified in the 2021 BVHM dated December 11, 2023, do not appear to be correct. This appears to be a units issue (i.e. meters versus feet).

Task 4 – Perform Model Recalibration

Based on the updates and error corrections completed in tasks 1 through 3, the next step in the Watermaster Board approved scope of work is the model recalibration. INTERA suggests West Yost provides a detailed workflow for the calibration, clearly defining the calibration objectives and goals. INTERA notes that a summarized workflow was provided in the December 18, 2023 TAC meeting slides 17 through 19. The workflow should include a description of the specific tasks and methods used to achieve an acceptable measure of calibration. The calibration objective function(s) should be defined along with the methods of calibration (e.g., manual vs. automated). A key component of model calibration is understanding the sensitivity of model results to changes to the input parameters; therefore, INTERA suggests a review of sensitivity analyses completed for the model prior to recalibration. A prioritized list of the sensitive parameters and their associated ranges of values based on known information will provide an understanding of the limitations for the potential suite of model iterations and help guide the calibration process.

A description of how the parameters will be adjusted (e.g., zones vs. pilot points for hydraulic conductivity values) should be provided. In addition, the datasets used for calibration targets (i.e.,

observed groundwater levels) should be defined, along with any weighting factors applied based on data reliability. The preliminary results should be presented as simulated vs. observed groundwater levels in the format of both, 1) history-matching groundwater levels over time for individual well locations and, 2) scatter plots of groups of groundwater level datasets. In addition, multiple maps depicting the spatial and temporal variability of simulated vs. observed residuals should accompany the hydrographs and scatter plots, along with the summary statistics and objective function solution for the calibration results. INTERA recommends that preliminary results be presented to the TAC via PowerPoint slides at key points during the model recalibration task and prior to development of the task Technical Memorandum.

Task 5 – Determine the Sustainable Yield

The base period used to develop a provisional estimate of sustainable yield in the Groundwater Management Plan (GMP) was from 1945–2016 as listed in Table 4. The total average inflows to the basin estimated using the BVHM was 6,770 acre-feet per year. For comparison, the 10-year period from 2007–2016 (dry period) estimated inflows of 4,737 acre-feet per year as highlighted below in Table 4.

Table 4 BVHM Summarized Historical Water Budget

Water Budget Components (Units in Acre-Feet per Year)	Original USGS Model (1945–2010)	Model Update (1945–2016)	Most Recent 20 Years (1997–2016)	Most Recent 10 Years (2007–2016)
<i>Inflows</i>				
Stream Recharge	4,028	3,905	2,749	1,865
Unsaturated Zone Recharge ^a	1,486	1,497	1,635	1,505
Underflow (Inflow from Adjacent Basins)	1,367	1,367	1,367	1,367
Total Average Annual Inflow	6,881	6,770	5,751	4,737
<i>Outflows</i>				
Pumping	10,128	10,597	16,466	16,856
Evapotranspiration ^b	3,032	2,815	759	498
Underflow (Flow out of Southern End)	522	522	520	523
Total Average Annual Outflow	13,682	13,934	17,745	17,877
<i>Average Annual Deficit</i>				
Change in Storage	-6,801	-7,164	-11,994	-13,140

The Borrego Springs Subbasin provisional estimate of sustainable yield is 5,700 acre-feet per year and is based on an estimate of surplus of inflows over outflows using the BVHM. Average inflows from the entire historical period of the model update from 1945–2016 provided a reasonable estimate of potential basin inflows because they capture a wide variety of climatic conditions. Outflows (besides

pumping) from the most recent 10 years (2007–2016) were considered to be more representative of current Subbasin outflows than the entire historical model period because the change in land use (i.e., loss of native phreatophytes) has decreased outflow from evapotranspiration in the Subbasin over the model period. Using these assumptions, the surplus of inflows over outflows in the Subbasin was estimated to be approximately 5,750 acre-feet per year (rounded; Table 5).

Table 5 Provisional Estimate of Sustainable Yield for the Borrego Springs Subbasin

Water Budget Components (Units in Acre-Feet per Year)	Acre-Feet/Year
<i>INFLOWS (Model Update 1945–2016)</i>	
<i>INFLOWS</i>	
<i>Stream Recharge</i>	3,905
<i>Unsaturated Zone Recharge</i>	1,497
<i>Underflow (Inflow from Adjacent Basins)</i>	1,367
Total Inflows	6,770
<i>OUTFLOWS BESIDES PUMPING (Most Recent 10 Years, 2007–2016)</i>	
<i>Evapotranspiration</i>	498
<i>Underflow (Flow out of Southern End)</i>	523
Total Outflows	1,021
Surplus of Inflows over Outflows	5,749

For the initial redetermination of the sustainable yield required as per the Judgment, INTERA recommends using the approach developed in the GMP to estimate the average inflows to the Subbasin over the period from 1945–2023 (78 years) using the updated BVHM. The updated sustainable yield estimate should also account for outflows from the Subbasin including evapotranspiration from both native and non-native vegetation and underflow to the south. It is recognized that the two components of outflow: 1) evapotranspiration and 2) underflow are derived from the model and have some degree of uncertainty.

For evapotranspiration, it may be possible to use remotely sensed data available from OpenET to provide a check on the model estimate. In addition, the ten-year period used to estimate outflows may be expanded to account for a greater range in climatic conditions that may affect evapotranspiration from both native and non-native vegetation (e.g., use 2007–2023; 16 years).

The underflow of 523 acre-feet per year occurs in the southern end of the model within the Ocotillo Wells Subbasin requires further investigation if it is decided to limit the basin boundary to the Bulletin 118 Borrego Springs Boundaries as subsurface outflow from the Borrego Springs Subbasin to the Ocotillo Wells Subbasin may be much less due to the uplift and folding of sediments that occurs in the area of San Felipe Creek as described further in the GMP. This underflow occurs outside of the Subbasin in the larger BVHM model domain and these outflows may offset inflows from the area of the model in the Ocotillo Wells Groundwater Subbasin that is part of the BVHM. It will be necessary to evaluate how underflow is estimated using the revised model boundary.

Watermaster staff has recommended an additional step in estimating the sustainable yield through an evaluation of a future pumping scenario(s) to simulate Rampdown⁴ of pumping to the Preliminary Sustainable Yield by 2040 and beyond. While this future pumping scenario will be informative in terms of comparing future basin groundwater levels to sustainable management criteria to evaluate whether the Rampdown achieves the sustainability goals, it is likely an unnecessary step under the terms of the Judgment whereby the sustainable yield is periodically updated. That is, the January 1, 2025 estimate of sustainable yield is applied to the second five-year Rampdown period through Water Year 2029-2030. Rather than apply an uncertainty analysis to future climate change and climate variability, it may be more informative to apply an uncertainty analysis to the historical estimate of sustainable yield to develop a range of upper and lower bounds.

INTERA provides the following initial conclusions and recommendations to the Borrego Springs Watermaster staff regarding Task 5 – Update Water-Use Factors in the FMP:

- After the BVHM is recalibrated, the estimate of sustainable yield should be performed according to the approach used in the GMP.
- An uncertainty analysis should be performed to calculate the upper and lower bounds of the inflow and outflow components of the historical water budget in order to better characterize the range of uncertainty.
- The future pumping scenario to simulate Rampdown should be applied to actual wells in the BVHM using the Multi-Node Well (MNW2) packages considering the current and likely future distribution of agricultural, municipal and recreation pumping. The groundwater levels and change of groundwater in storage from the model runs for future groundwater pumping should be compared to sustainability management criteria to generally evaluate if future groundwater conditions achieve sustainability goals. If this is the case, the sustainable yield does not require refinement based on future scenarios.

Different procedures to Perform Uncertainty Analysis of Future Climate Change and Climate Variability using climate predictions for downscaled precipitation and temperature (e.g., NASA Earth Exchange Downscaled Climate Projections [NEX DCP 30], NASA Earth Exchange Global Daily Downscaled Projections [NEX GDDP CMIP 6], and CMIP 6 Downscaling Using the Weather Research and Forecasting model [WRF CMIP 6]) are not recommended currently. As explained in the GMP, use of the DWR change factors for 2030 and 2070 to historical climate is appropriate in this basin. If a different procedure/approach is proposed for the 2025 estimate of sustainable yield, then it should be described in detail and vetted by the TAC. Considering the Judgment provides an adaptive approach to periodically update the sustainable yield, an uncertain future climate (i.e., 2040 to 2070) has less importance than actual historical and current conditions.

⁴ Rampdown – The percentage reduction in cumulative authorized Pumping of BPA effective across the Basin in any particular Water Year, which when subtracted from 100 percent will determine the effective Pumping Percentage.

References

Faunt, C. C., Stamos, C. L., Flint, L. E., Wright, M. T., Burgess, M. K., Sneed, M., Brandt, J., Martin, P., and Coes, A. L., 2015. Hydrogeology, Hydrologic Effects of Development, and Simulation of Groundwater Flow in the Borrego Valley, San Diego County, California: U.S. Geological Survey Scientific Investigations Report 2015-5150, DOI: 10.3133/sir20155150

**Water Year 2023
Annual Report for the
Borrego Springs Subbasin**

PREPARED FOR

Borrego Springs Watermaster

PREPARED BY



Water Year 2023 Annual Report for the Borrego Springs Subbasin

Prepared for

Borrego Springs Watermaster

Project No. 940-80-23-07

Project Manager: Lauren Salberg, GIT

Date

QA/QC Review: Andy Malone, PG

Date

QA/QC Review: Samantha Adams

Date

Table of Contents

Executive Summary	1
1.0 Introduction and Background	4
1.1 Purpose and Report Organization	4
1.2 Background and Regulatory Setting	7
1.3 Physical Solution.....	8
1.3.1 Stipulated Judgment	8
1.3.2 Groundwater Management Plan	10
1.3.2.1 Overview of Sustainable Management Criteria	11
1.3.2.2 Overview of GMP Projects and Management Actions	11
1.4 Watermaster Powers and Responsibilities.....	12
1.5 Annual Reporting Compliance	14
1.5.1 Judgment Compliance.....	14
1.5.2 Sustainable Groundwater Management Act Compliance	14
2.0 Watermaster Administrative Activities	17
2.1 Watermaster Board.....	17
2.2 Watermaster Staff	17
2.3 Watermaster Contact Information and Website	18
2.4 Watermaster Service and Distribution Lists	18
2.5 Watermaster Meetings and Board Actions	19
2.6 Rules and Regulations	19
2.7 Board Resolutions.....	20
2.8 Judgment Amendments	20
2.9 Financial Management.....	20
2.9.1 Grant Funding and Vendor Payment Terms	21
2.9.2 Water Year 2023 Budget Status and Annual Audit.....	22
2.9.3 Water Year 2024 Budget.....	25
3.0 Watermaster Technical Activities	29
3.1 Monitoring and Data Management.....	29
3.1.1 Groundwater Pumping	29
3.1.1.1 Status of Meter Installation.....	30
3.1.1.2 Meter Reading Program	30
3.1.1.3 Meter Accuracy Testing.....	31
3.1.2 Groundwater Levels and Quality Monitoring Program	31
3.1.2.1 Groundwater Monitoring Plan	32
3.1.2.2 Groundwater Monitoring Network as of WY 2023	33
3.1.2.3 Efforts to Expand the Groundwater Monitoring Program	34
3.1.3 Surface Water Monitoring	37
3.2 Technical Advisory Committee	37

Table of Contents

3.2.1 TAC Responsibilities	38
3.2.2 TAC Membership	39
3.2.3 Reporting Period Meetings and Recommendations	40
3.3 Environmental Working Group	42
3.4 Redetermination of Sustainable Yield	44
3.5 Biological Restoration of Fallowed Lands Project	46
3.6 Stakeholder Engagement	48
4.0 Water Year 2023 Water Rights Accounting	49
4.1 Definitions	49
4.1.1 Judgment Terms for Water Rights Accounting	49
4.1.2 Additional Terminology for Water Rights Accounting	51
4.2 Permanent Transfers and Leases	51
4.2.1 Permanent Transfers of BPA	51
4.2.2 Leases of Annual Allocation	52
4.2.3 Transfers of Carryover Rights	52
4.3 Adjusted Pumping Calculation for WY 2023	53
4.4 WY 2024 Pumping Assessments	59
4.4.1 Pumping Assessment Rate	59
4.4.2 Overproduction Penalty Assessments	59
5.0 Borrego Springs Subbasin Hydrogeologic Conditions	60
5.1 Basin Setting	60
5.2 Climate	60
5.2.1 Precipitation	61
5.2.2 Temperature and Evapotranspiration	61
5.3 Surface Water	65
5.4 Water Use	69
5.4.1 Groundwater Pumping	69
5.4.1.1 Methods for Estimating Groundwater Pumping	69
5.4.1.2 Groundwater Pumping in WY 2023	72
5.4.1.3 Comparison of Groundwater Pumping to the Rampdown	72
5.4.2 Surface Water Use	76
5.4.3 Total Water Use	76
5.5 Groundwater Conditions	76
5.5.1 Groundwater Elevations	76
5.5.1.1 Historical Trends and Current Conditions	76
5.5.1.2 Comparison to Sustainable Management Criteria	81
5.5.2 Change in Groundwater Storage	100
5.5.2.1 Historical Trends and Current Conditions	100
5.5.2.2 Methods for Estimating Annual Change in Groundwater Storage	100

Table of Contents

5.5.2.3 Annual and Cumulative Change in Storage	105
5.5.2.4 Comparison to Sustainable Management Criteria	108
5.5.3 Groundwater Quality	108
6.0 Summary of Physical Solution Implementation Progress.....	115
7.0 References	118

LIST OF TABLES

Table 1. Judgment Requirements in the WY 2023 Annual Report.....	15
Table 2. Alternative Annual Report Elements Guide Map for the Borrego Springs Subbasin WY 2023 Annual Report	16
Table 3. Borrego Springs Watermaster Board Representatives and Officers in WY 2023.....	17
Table 4. Watermaster Board Meetings During the Reporting Period – WY 2023.....	19
Table 5. Watermaster Board Resolutions Adopted in WY 2023	20
Table 6. Comparison of Approved and Actual Watermaster Budget for Water Year 2023	24
Table 7. Watermaster Operating Budget for Water Year 2024	26
Table 8. Groundwater Level and Quality Monitoring Network and Wells Monitored in Water Year 2023.....	36
Table 9. Technical Advisory Committee Membership in Water Year 2023	39
Table 10. Technical Advisory Committee Meetings and Topics During the Reporting Period	40
Table 11. Summary of TAC Recommendation to the Board on the Scope of Work to Redetermine the Sustainable Yield	41
Table 12. Environmental Working Group Membership in WY 2023.....	43
Table 13. Environmental Working Group Meetings and Topics in WY 2023	44
Table 14. Open Houses and Topics During the Reporting Period	48
Table 15. Transfers of Carryover Rights in WY 2023	53
Table 16. WY 2023 Water Rights Accounting Summary for the Borrego Springs Subbasin	57
Table 17. Monthly and Yearly Reference Evapotranspiration (ET _o) Totals for CIMIS Station No. 207 from 2009 – 2023 (inches)	66
Table 18. Groundwater Pumping by Sector - 2015 to 2023.....	75
Table 19. Current Groundwater Elevations at Representative Monitoring Wells Compared to Sustainable Management Criteria.....	98
Table 20. Groundwater Level Trends at Representative Monitoring Wells - <i>Fall 2023</i>	99
Table 21. Annual and Cumulative Change in Groundwater, af	105

Table of Contents

LIST OF FIGURES

Figure 1. Borrego Springs Subbasin Location Map.....	6
Figure 2. GW Level and Quality Monitoring Network.....	35
Figure 3. Atmospheric and Surface-Water Monitoring Stations.....	63
Figure 4. Time History of Annual Precipitation and CDFM Borrego Desert Park Station.....	64
Figure 5a. USGS 10255810 Borrego Palm Canyon Daily Stream Flow, 1950 to 2023.....	67
Figure 5b. USGS 10255810 Borrego Palm Canyon Total Annual Stream Flow, 1950 to 2023.....	68
Figure 6. History of Groundwater Pumping Compared to Rampdown Schedule.....	71
Figure 7. Groundwater Extractions by Sector (2023).....	73
Figure 8. Annual Groundwater Pumping by Sector – 2015 to 2023.....	74
Figure 9. Groundwater Levels in Selected Wells within the Borrego Groundwater Subbasin.....	78
Figure 10. Spring 2023 Groundwater Elevation.....	79
Figure 11. Fall 2023 Groundwater Elevation.....	80
Figure 12a. Time Series and Management Criteria at MW-1.....	82
Figure 12b. Time Series and Management Criteria at ID4-3.....	83
Figure 12c. Time Series and Management Criteria at Fortiner.....	84
Figure 12d. Time Series and Management Criteria at ID4-18.....	85
Figure 12e. Time Series and Management Criteria at ID4-4.....	86
Figure 12f. Time Series and Management Criteria at ID4-1.....	87
Figure 12g. Time Series and Management Criteria at Airport 2.....	88
Figure 12h. Time Series and Management Criteria at ID1-16.....	89
Figure 12i. Time Series and Management Criteria at ID4-11.....	90
Figure 12j. Time Series and Management Criteria at ID1-12.....	91
Figure 12k. Time Series and Management Criteria at ID5-5.....	92
Figure 12l. Time Series and Management Criteria at MW-5A.....	93
Figure 12m. Time Series and Management Criteria at MW-5B.....	94
Figure 12n. Time Series and Management Criteria at MW-3.....	95
Figure 12o. Time Series and Management Criteria at Air Ranch.....	96
Figure 12p. Time Series and Management Criteria at RH-1.....	97
Figure 13. History of Groundwater Storage Compared to Sustainable Management Criteria.....	102
Figure 14. Spring 2022 Groundwater Elevation.....	103
Figure 15. Storage Change Grid and Area Used to Compute Storage Change.....	104
Figure 16. Change in Groundwater Storage Spring 2022 to Spring 2023.....	106

Table of Contents

Figure 17. Annual Groundwater Extractions and Change in Groundwater Storage – 2015 to 2023 .	107
Figure 18. TDS in Groundwater	110
Figure 19. Nitrate in Groundwater	111
Figure 20. Arsenic in Groundwater	112
Figure 21. Sulfate in Groundwater	113
Figure 22. Fluoride in Groundwater	114

LIST OF APPENDICES

Appendix A. Watermaster Board Motions Water Year 2023
Appendix B. Water Year 2023 Financial Audit
Appendix C. Water Year 2024 Budget Memo
Appendix D. Baseline Pumping Allocations, Revised Exhibit “4”
Appendix E. Amendments to Prior Water Rights Accounting
Appendix F. Groundwater Level Time Histories – 1950 to 2023
Appendix G. Groundwater Quality Time Histories – 1970 to 2023

LIST OF ACRONYMS AND ABBREVIATIONS

AAWARE	Agricultural Alliance for Water and Resource Education
ABDSP	Anza-Borrego Desert State Park
AEM	Airborne Electromagnetic survey
af	Acre-Feet
afy	Acre-Feet Per Year
Annual Report	Annual Report for the Borrego Springs Subbasin
Basin	Borrego Springs Groundwater Subbasin
BPA	Baseline Pumping Allocation
BSUSD	Borrego Springs Unified School District
BVHM	Borrego Valley Hydrologic Model
BWD	Borrego Water District
CA	California
CCP	Code of Civil Procedure
CCR	California Code of Regulations
cfs	cubic feet per second
CDFM	Cumulative Departure form Mean Precipitation
CIMIS	California Irrigation Management Information System Station
COC	Constituent of Concern
County	County of San Diego

Table of Contents

CWC	California Water Code
DWR	California Department of Water Resources
\$/af	dollars per acre-foot
ET	Evapotranspiration
ETo	Reference Evapotranspiration
EWG	Environmental Working Group
FMP	Farm process
ft-amsl	feet above mean sea level
ft/yr	feet per year
GDE	Groundwater Dependent Ecosystem
GIS	Geographic Information System
GMP	Groundwater Management Plan for the Borrego Springs Groundwater Subbasin
GWMP	Groundwater Monitoring Plan
GSA	Groundwater Sustainability Agency
GSP	Groundwater Sustainability Plan
Judgment	Stipulated Judgment
KC	crop coefficient
MCL	maximum contaminant level
mg/L	milligrams per liter
µg/L	micrograms per liter
MNW2	Multi-Node Well package
PMA	Project and Management Actions
OFE	on-farm efficiency (irrigation efficiency)
QA/QC	Quality Assurance and Quality Control
SGMA	Sustainable Groundwater Management Act
TAC	Technical Advisory Committee
TDS	total dissolved solids
TSS	Technical Support Services
USGS	United States Geological Survey
Watermaster	Borrego Springs Watermaster
WQMP	Water Quality Monitoring Plan
WY	Water Year

Annual Report for the Borrego Springs Subbasin Water Year 2023

EXECUTIVE SUMMARY

This *Annual Report for the Borrego Springs Subbasin* (Annual Report) was prepared by the Borrego Springs Watermaster (Watermaster) to satisfy reporting requirements of (1) the Stipulated Judgment (Judgment) that adjudicated the groundwater rights of the Borrego Springs Subbasin (Basin) and (2) the Sustainable Groundwater Management Act (SGMA).¹

On April 8, 2021, the honorable Judge Peter Wilson of the California (CA) Superior Court for the County of Orange granted the motion for entry of the Stipulated Judgment. As stated in Section II.F of the [Judgment](#)², the Court found that the Physical Solution for the Basin, which is comprised of the Judgment and *Groundwater Management Plan for the Borrego Springs Subbasin* (GMP), is consistent with California Water Code (CWC) §10737.8 and is a prudent, legal, and durable means to achieve sustainable groundwater management within the Basin as intended by SGMA. The entry of the Judgment represents a key milestone for the Basin in achieving sustainability by 2040, as required by SGMA.

This is the third Annual Report of the Watermaster to satisfy these combined reporting requirements. Two prior annual reports were prepared and submitted to the DWR to satisfy both SGMA and Judgment requirements (West Yost, 2022a; West Yost, 2023). Two prior annual reports were prepared and submitted to the CA Department of Water Resources (DWR) to satisfy the SGMA requirements only (Dudek, 2020b; West Yost, 2021). This Annual Report covers the full year of Watermaster operations in Water Year (WY) 2023: October 1, 2022 through September 30, 2023.

Section 1 – Introduction. This section provides background information on the Basin, Physical Solution, the Watermaster’s powers and responsibilities, and how this report complies with the reporting requirements of the Judgment and SGMA.

Section 2 – Watermaster Administrative Activities. This section describes the Watermaster’s administrative activities for the reporting period, including an overview of the Watermaster Board and Staff, meetings and Board actions, rules and regulations, Judgment amendments, and financial management (budget, audit, and grant funding).

Section 3 – Watermaster Technical Activities.

This section describes the Watermaster’s technical activities during the reporting period, including monitoring of groundwater pumping, water levels, and water quality, data management, the activities of the Technical Advisory Committee (TAC) and the Environmental Working Group (EWG), and stakeholder engagement to share technical information. Key activities during the reporting period included:

- Achieved 98 percent compliance with the meter reading program as of the end of WY 2023 (98 percent of wells are metered).
- Approved Resolution 23-02 to establish a revised comprehensive metering program.
- Approved the Groundwater Monitoring Plan for the Borrego Springs Subbasin to comply with the requirement to develop a WQMP within 24 months of entry of the Judgment.

¹ Judgment Section IV.E(5); California Water Code (CWC) Section (§) 10728.

² https://borregospringswatermaster.com/wp-content/uploads/2021/06/stipulated-judgment-04-08-2021_bookmarked.pdf

- Developed and implemented a public outreach effort to enhance the groundwater monitoring network and added one new well in WY 2023 as a result of the efforts.
- Completed the extension of the Borrego Valley Hydrologic Model through WY 2022 and identified improvements to be made to the model to support the recalculation of Sustainable Yield.
- Began implementing the Biological Restoration of Fallowed Lands study with DWR grant funding.

Section 4 – WY 2023 Water Rights Accounting³. This section summarizes the Watermaster’s Water Rights Accounting for WY 2023. The water rights accounting is performed for each Party to the Judgment, including Parties with Baseline Pumping Allocation (BPA) rights and Parties with other non-De Minimis rights that are not based on BPA, specifically the Anza Borrego Desert State Park (ABDSP) and the Borrego Springs Unified School District (BSUSD). This section defines the water rights terminology, and it summarizes (by Party and in the aggregate) water rights, allowable and actual pumping, transfers and leases of BPA and Carryover, the amount of Carryover held by each BPA Party, and the Adjusted Pumping Calculation for establishing the WY 2024 Pumping Assessment. In WY 2023:

- The total pumping by all Parties in WY 2023 was 10,403.38 acre-feet (af).
 - Total pumping by BPA Parties was 10,377.03 af
 - Total pumping by ABDSP and BSUSD was 26.35 af
- Parties with BPA elected to Carryover a total of 13,825.38 af of the available unpumped Annual Allocation to WY 2024.
- The Adjusted Pumping Calculation for establishing the Pumping Assessment for WY 2024 was 17,224.95 af.
- The uniform Pumping Assessment rate for WY 2024, based on the Adjusted Pumping Calculation and budgeted WY 2024 Pumping Assessment of \$458,000, is \$26.59 per af of Adjusted Pumping in WY 2023.

Section 5 – Borrego Springs Subbasin Hydrologic Conditions. This section describes the current Basin conditions as of WY 2023, including climate, surface water, water use, groundwater levels, change in groundwater storage, and groundwater quality. The data and analysis in this section satisfy the reporting requirements of SGMA. The data shows that:

- Precipitation in WY 2023 was 8.55 inches, which is 2.99 inches more than the mean for the period of record. Based on the standard deviation from the mean, WY 2023 was a “normal” year. Based on the cumulative departure from mean (CDFM) precipitation, the region has been experiencing a nearly 30-year dry period since 1993, punctuated by a few wet years.
- Groundwater pumping decreased by 37 percent since the start of the GMP implementation (WY 2020) and by 20 percent relative to WY 2022.
- The rate of decline in groundwater levels (e.g., feet per year [ft/yr] of decline) since GMP implementation is less than the historical rate of decline at most wells.
- The change in groundwater storage from spring 2022 to spring 2023 was approximately -1,705 af (decrease of groundwater in storage).

³ The Water Rights Accounting does not quantify or account for pumping by De Minimis pumps.

- The cumulative change in groundwater storage from spring 2015 to spring 2023 was approximately -45,082 af (net decrease of groundwater in storage).
- The cumulative storage change that occurred during the first four years of GMP implementation (2020-2023) was a reduction of about -12,700 af (or about -3,175 afy).

Section 6 – Summary of Physical Solution Implementation Progress. This section summarizes the key milestones accomplished since the formation of the Watermaster in March 2020 through the end of the reporting period.

As required by the Judgment Section IV.E.5, the Watermaster will notify the Parties and interested stakeholders that this draft Annual Report is available for review and will hold a public hearing to receive comments. The public hearing will be held during Watermaster’s regular Board meeting on February 8, 2024 (virtual meeting). Additionally, the Watermaster will accept written comments on the draft Annual Report through February 22, 2024. A final report reflecting the changes made based on the comments received will be published on March 4, 2024. Appendix H of this Annual Report will provide a summary documentation of the comments received and how the comments were addressed by the Watermaster.

1.0 INTRODUCTION AND BACKGROUND

1.1 Purpose and Report Organization

This *Annual Report for the Borrego Springs Subbasin* (Annual Report) was prepared by the Borrego Springs Watermaster (Watermaster) to satisfy reporting requirements of (1) the Stipulated Judgment⁴ (Judgment) that adjudicated the groundwater rights of the Borrego Springs Subbasin (Basin) and (2) the Sustainable Groundwater Management Act (SGMA)⁵. Figure 1 is a location map of the Basin and surrounding region. This Annual Report is intended to provide the Court with a comprehensive overview of the Watermaster's activities during Water Year (WY) 2023: October 1, 2022 through September 30, 2023.

Pursuant to Section IV.E.5 of the Judgment, the Watermaster is required to prepare and file an Annual Report with the Court not later than April 1 following the end of each WY.⁶ Watermaster is also required to file an Annual Report with the California (CA) State Department of Water Resources (DWR) pursuant to the requirements of the SGMA, specifically Article 7, Section 356.2—Annual Reports, of the California Code of Regulations (CCR). The regulations require that an annual report be submitted to the DWR by April 1 of each year following the adoption of the Groundwater Sustainability Plan (GSP) or Alternative Plan.

This is the third Annual Report of the Watermaster to satisfy these combined reporting requirements. Two prior annual reports were prepared and submitted to the DWR to satisfy the SGMA requirements only, prior to entry of the Judgment (Dudek, 2020b; West Yost, 2021). All Annual Reports are available on the Watermaster's website at: <https://borregospringswatermaster.com/documents>.

This report is organized into the following sections:

Section 1 – Introduction. This section provides background information on the Basin, Judgment, Physical Solution, Watermaster, and SGMA compliance.

Section 2 – Watermaster Administrative Activities. This section describes the Watermaster's administrative activities for WY 2023.

Section 3 – Watermaster Technical Activities. This section describes the Watermaster's technical activities, including those of the Technical Advisory Committee (TAC) and the Environmental Working Group (EWG), for WY 2023.

Section 4 – WY 2023 Water Rights Accounting. This section summarizes the Watermaster's Water Rights Accounting for WY 2023 including: a description of the Baseline Pumping Allocation (BPA) and other non-De Minimis water rights allocated by the Judgment; reporting of aggregate pumping Parties, a record of leases and transfers of BPA and Carryover water, the amount of Carryover water held by each Party with BPA, and the Adjusted Pumping Calculation for establishing the WY 2024 Pumping Assessment to fund Watermaster operations.

⁴ Judgment Section IV.E.5.

⁵ California Water Code (CWC) Section (§) 10728.

⁶ A motion to amend the Judgment to extend the Annual Report filing deadline to April 1st was filed with the Superior Court of Orange County on January 13, 2023 and was approved at an April 20, 2023 hearing.

Section 5 – Borrego Springs Subbasin Hydrologic Conditions. This section describes the current Basin conditions as of WY 2023, including climate, surface water, water use, groundwater levels, groundwater quality, and change in groundwater storage.

Section 6 – Summary of Physical Solution Implementation Progress. This section summarizes the key milestones accomplished by the Watermaster in implementing the Judgment as of WY 2023.

As required by the Judgment Section IV.E.5, the Watermaster will hold a public hearing to receive comments on the draft Annual Report. The public hearing will occur during the Watermaster’s regular Board meeting on February 8, 2024. Additionally, the Watermaster will accept written comments on the Annual Report through February 22, 2024. A final report reflecting the changes made based on the comments received will be published on March 4, 2024 and considered for adoption by the Watermaster Board on March 14, 2024. Appendix H of the final Annual Report will document the comments received and how the comments were addressed by the Watermaster.

DRAFT



Figure 1

Borrego Springs Subbasin Location Map

Prepared by:



1.2 Background and Regulatory Setting

The Basin is designated by the DWR as a critically overdrafted basin and a high priority for the development of a GSP in accordance with SGMA (CWC§ 10720-10737.8, et al). In October 2016, the County of San Diego (County) and the Borrego Water District (BWD), formed the groundwater sustainability agency (GSA) for the Borrego Valley, to address the requirement to prepare a GSP. In August 2019, the County and BWD completed a draft final GSP⁷ in accordance with the DWR’s GSP Regulations defined in the CCR Title 23, Section 350 et seq. In accordance with a Settlement Agreement amongst Basin pumpers that were responsible for over 90 percent of the groundwater pumping in the Basin (Settling Parties), the GSP was subsequently modified and repurposed as the *Groundwater Management Plan for the Borrego Springs Subbasin* (GMP) to serve as an integral part of a “Physical Solution” in a groundwater rights adjudication of the Basin. In anticipation of the adjudication action, the County withdrew from the Borrego Valley GSA effective December 31, 2019.

In January 2020, a complaint seeking a comprehensive adjudication of the groundwater rights of the Basin was filed by the BWD in the CA Superior Court for San Diego County, pursuant to Code of Civil Procedure (CCP) sections 830, et seq (*Borrego Water District v. All Persons Who Claim a Right to Extract Groundwater in the Borrego Valley Groundwater Subbasin, et al.*, San Diego Superior Court Case no. 37--2020--00005776--CU-TT-CTL). The proposed Stipulated Judgment was filed with the Court pursuant to the Settlement Agreement. Additionally in January 2020, on behalf of the Settling Parties, the BWD submitted the proposed Stipulated Judgment and GMP to the DWR as an “Alternative” to a GSP, in accordance with CWC § 10733.6 (b).

The Settlement Agreement also provided for the establishment of an Interim Borrego Springs Watermaster to assume responsibility for the sustainable management of the Basin pursuant to the terms of the proposed Stipulated Judgment until finalized by the Court. The Interim Borrego Springs Watermaster held its first meeting on March 31, 2020. On April 8, 2021, the honorable Judge Peter Wilson of the CA Superior Court for the County of Orange granted the motion for entry of the [Judgment](#)⁸. As stated in Section II.F of the Judgment, the Court found that the Physical Solution for the Basin, which is comprised of the Judgment and GMP⁹, is consistent with CWC §10737.8 and is a prudent, legal, and durable means to achieve sustainable groundwater management within the Basin as intended by SGMA. The entry of the Judgment represents the most important milestone for the Basin in achieving sustainability by 2040, as is required by SGMA for all critically overdrafted basins.

The Watermaster held its first official meeting as a Court-appointed entity on April 8, 2021. In accordance with the terms of the Settlement Agreement, the BWD withdrew as the Borrego Valley GSA on June 16, 2021 and informed DWR to direct all SGMA compliance matters to the Watermaster as the primary point of contact (BWD, 2021). This action formally dissolved the Borrego Valley GSA.

As part of the [Judgment Findings and Order](#)¹⁰, the Court ordered the submittal of the final approved Judgment to DWR for evaluation and assessment. On June 15, 2021, pursuant to the Court order, the Watermaster re-submitted a complete GSP Alternative submission package to the DWR documenting the Judgment’s Physical Solution (including the GMP) as its Alternative to a GSP. The submission package is

⁷ Information regarding the GSP, including its stakeholder process, is available from the [County’s website](#).

⁸ https://borregospringswatermaster.com/wp-content/uploads/2021/06/stipulated-judgment-04-08-2021_bookmarked.pdf

⁹ The GMP is included in the Judgment as Exhibit 1.

¹⁰ <https://borregospringswatermaster.com/wp-content/uploads/2021/04/2021-04-08-judgment-findings-and-order.pdf>

available for review on the [DWR's SGMA Portal](#)¹¹. As of this writing, DWR has not completed review of the Watermaster's Alternative submission package. CWC §10733.4 requires DWR to evaluate GSPs and issue written assessments within two years of the submission date. However, there is no timeline specified in the water code regarding the timeline for review of Alternatives to GSPs.

1.3 Physical Solution

The Judgment, together with the GMP (included as Exhibit 1 to the Judgment), constitutes the Physical Solution for the Basin to achieve sustainable groundwater management. It serves as the technical approach for Basin management to achieve sustainability and is intended to provide flexibility and adaptability to allow the Court to use existing and future technological, social, institutional, and economic options to maximize reasonable and beneficial water use in the Basin (Judgment Section III.C).

1.3.1 Stipulated Judgment

The Judgment comprehensively determined and adjudicated all groundwater rights in the Basin, whether based on appropriation, overlying right, prescriptive right, or other basis of right. It provides a Physical Solution for the perpetual management of the Basin, consistent with the objectives of SGMA and with reasonable and beneficial use under Article X, Section 2 of the California Constitution. To maintain a viable water supply for current and future beneficial uses and users of groundwater in the Basin, the sustainability goal of the Physical Solution is to ensure that by 2040, and thereafter within the planning and implementation horizon of the GMP (50 years), the Basin is operated within its Sustainable Yield and does not exhibit undesirable results as defined by CWC § 10721(x). Some of the key provisions of the Judgment are highlighted below¹².

Establishment of Pumping Rights¹³. Exhibit 4 to the Judgment established a baseline water right known as BPA for each Party with BPA rights. The BPA is defined as the maximum allowed pumping quantity allocated to a Party to the Judgment (Judgment Section I.A.8) and each Party's BPA is listed in Exhibit 4 of the Judgment. Exhibit 4 is updated annually with any changes to BPA allocation based on Permanent Transfers of rights (see Section 4 and Appendix D). The total BPA is 24,293 acre-feet (af).

Starting in WY 2021, annual pumping rights of each Party, referred to as the "Annual Allocation", are limited to a percentage of the Party's BPA such that by 2040 the total Annual Allocation does not exceed the Sustainable Yield of the Basin.

The Judgment also establishes separate pumping rights for two entities—the Anza Borrego Desert State Park (ABDSP) and the Borrego Springs Unified School District (BSUSD). These pumping rights are not BPA rights and are not subject to pumping Rampdown or Carryover provisions (see description of these provisions below) but are subject to all other substantive provisions of the Judgment, including the requirements to meter pumping and pay pumping assessments. The combined pumping rights of these two parties is 42 af per year (afy).

The Judgment also regulates existing De Minimis pumping by any person or entity owning real property overlying the Basin, but initially finds that De Minimis pumping will not likely significantly contribute to undesirable results in the Basin. The BPA does not include the pumping rights of existing De Minimis

¹¹ <https://sgma.water.ca.gov/portal/alternative/print/39>

¹² This is not intended to be a complete list of provisions or rules of operation pursuant to the Judgment.

¹³ See Judgment Sections I.A.8, II.G, III.A, III.D, and III.H

Pumpers who produce two (2) afy or less. De Minimis pumping rights are not eligible to be transferred to another real property owned by another person. Any person or entity that seeks to initiate De Minimis pumping following entry of the Judgment must submit an [application](#)¹⁴ to the Watermaster and the Watermaster will determine if the proposed De Minimis pumping will contribute to or threaten to contribute to undesirable results. The application will be denied if the Watermaster Board finds that the new De Minimis pumping will contribute to or threaten to contribute to undesirable results. To the extent that the Court determines that De Minimis pumping (existing and/or new) has significantly contributed to or threatens to significantly contribute to undesirable results, the Court may regulate De Minimis pumping as deemed prudent (Judgment Section III.H).

Determination of Sustainable Yield¹⁵. Sustainable Yield is defined as the maximum quantity of water that can be cumulatively pumped on an annual basis from the Basin without causing an undesirable result, consistent with SGMA (CWC § 10721(w)). The initial Sustainable Yield of the Basin is set at 5,700 afy for the first five-year period of implementation (WY 2021 through WY 2025). The Sustainable Yield was calculated over a base period representative of long-term conditions in the Basin. A refined and specific estimate of the Sustainable Yield will be determined by Watermaster by every five years through 2035, as specified in Section III.F of the Judgment. The schedule for redetermining the Sustainable Yield is as follows:

- By January 1, 2025 – Establish the Sustainable Yield for the Second Five-Year Period of WY 2026 through WY 2030.
- By January 1, 2030 – Establish the Sustainable Yield for the Third Five-Year Period of WY 2031 through WY 2035.
- By January 1, 2035 – Establish the Sustainable Yield for the Fourth Five-Year Period of WY 2036 through WY 2040.

Future Sustainable Yield estimates will be made using the best available records and data and sound scientific and engineering methods. The redetermined Sustainable Yield will consider all sources of replenishment, including return flows and underflows, and all outflows from the Basin, and will consider, among other data, information derived from updated runs of the Borrego Valley Hydrologic Model (BVHM). After input and recommendation from the TAC, the Watermaster will revise the determination of Sustainable Yield.

Pumping Rampdown Schedule¹⁶. Rampdown is defined as the reduction in cumulative authorized pumping of BPA imposed pursuant to the terms of the Judgment to alleviate the Overdraft of the Basin and achieve Sustainable Groundwater Management and the reasonable and beneficial use of the Basin's water resources. To ensure that the Annual Allocation does not exceed the Sustainable Yield of the Basin by 2040, the Judgment provides for an annual Rampdown schedule for Parties with BPA. The Rampdown amount is intended to be adjusted, as necessary, after each scheduled update of the Sustainable Yield estimate goes into effect (e.g., WY 2026, WY 2031, and WY 2036).

The initial Rampdown schedule provides for a five percent annual reduction in pumping relative to the BPA for the first five years, such that in WY 2025 the Annual Allocation is 75 percent of BPA. If the estimate of Sustainable Yield does not change after the first redetermination is completed in WY 2025, the Rampdown

¹⁴<https://borregospringswatermaster.com/wp-content/uploads/2023/01/Application-for-New-De-Min-Pumping.pdf>

¹⁵ See Judgment Sections I.A.57, II.E, III.F, and IV.G

¹⁶ See Judgment Sections I.A.5, III.E, and III.F

will continue at a rate of five percent per year, such that by WY 2030 the annual pumping allocation is 50 percent of BPA (about two-thirds of the total Rampdown required if the Sustainable Yield is 5,700 afy). If the revised estimate of Sustainable Yield falls below or exceeds the initial 5,700 afy estimate, the annual Rampdown Rate for the subsequent five-year period will be reduced or increased proportional to the change in the Sustainable Yield so that by WY 2030, two-thirds of the total Rampdown required to meet the sustainability goal by 2040 will be achieved. More specifically, under the Judgment, the “Annual Rampdown Rate for each Water Year of the Third Five-Year Period will be calculated to reduce the then cumulative allowed pumping (i.e., cumulative Annual Allocation in effect for Water Year 2029-2030) over 10 years to equal the revised determination of Sustainable Yield by Water Year 2039-2040. Thus, the annual Rampdown Rate will be established by dividing the necessary ten-year cumulative Rampdown by ten.” (Judgment Section III.F.8) That is, the annual Rampdown Rate of the pumping allocation in the final ten years of the Physical Solution implementation period will be set to 2.5 percent per year if the Sustainable Yield is 5,700 afy or will be reduced or increased proportional to the change in the Sustainable Yield so that by WY 2040, the total pumping allocation equals the Sustainable Yield. Thus, if the Sustainable Yield were to remain at 5,700 afy, the annual pumping allocation would be ramped down by over 75 percent in 20 years.

Allowance for Carryover¹⁷. The Judgment allows for a Party’s unused Annual Allocation to be carried over for use in subsequent water years, subject to certain restrictions defined in Section III.B of the Judgment. Initially, the maximum quantity of Carryover that a Party can accrue is two times the amount of the Party’s BPA (2x BPA). Carryover is subject to periodic review and adjustment by the Watermaster to prevent undesirable results. The first prescribed review of Carryover will be completed by January 1, 2025 as part of the process to redetermine the Sustainable Yield. The rights of the ABDSP and BSUSD are not eligible for Carryover.

Allowance for Leases and Transfers of BPA¹⁸. In the interest of advancing the effective and efficient management of the Basin, all BPA may be permanently transferred or leased, subject to the procedures and limitations defined in the Judgment.

Remedies and Penalties for Overproduction¹⁹. The Judgment provides remedies for Overproduction of annual pumping limits and provides Watermaster the authority to establish penalty assessments for Overproduction.

Fallowing Standards²⁰. To ensure that the permanent fallowing of irrigated crops in furtherance of achieving groundwater sustainability does not result in blight, reduced air quality, or other public health impacts associated with wind-blown dust, the Judgment establishes minimum fallowing standards that must be met in order to permanently transfer all or a portion of the BPA associated with the fallowed land to another Party. Fallowing standards may also be applicable to multi-year leases, per Judgment Section III.J.3.

1.3.2 Groundwater Management Plan

The GMP document includes the scientific and other background information about the Basin required by SGMA and its implementing regulations. It describes the Basin, historical groundwater conditions and trends, the initial estimate of Sustainable Yield of 5,700 afy, the sustainable management criteria (e.g., sustainability indicators, Minimum Thresholds, and Measurable Objectives), the groundwater level

¹⁷ See Judgment Sections I.A.12, III.B, and IV.E.4

¹⁸ See Judgment Sections III.I and III.J

¹⁹ See Judgment Sections III.G and V.2

²⁰ See Judgment Section III.J

and groundwater-quality monitoring program to be used to track progress over time, and projects and management actions (PMAs) to achieve sustainability. The GMP's initial estimate of Sustainable Yield, sustainable management criteria, management areas, monitoring program, and PMAs will be refined on the schedule required by the DWR and Court through the TAC process defined in the Judgment.

1.3.2.1 Overview of Sustainable Management Criteria

The GMP included initial sustainable management criteria, including Minimum Thresholds and Measurable Objectives, for the following sustainability indicators determined to be a current and/or potential future undesirable result of groundwater management. The sustainable management criteria defined in the GMP, and that informed the elements of the Physical Solution of the Judgment described in Section 1.3.1 of this Annual Report, include:

Reduction of Groundwater in Storage. The sustainability goal of the Physical Solution is to halt the overdraft condition in the Basin by bringing the groundwater pumping in balance with the Sustainable Yield by 2040. This goal will be accomplished through implementation of a Pumping Rampdown and progress is monitored by metering all pumping by Parties with BPA and implementing the groundwater level monitoring program. Pumping and groundwater levels, along with other data, will be used to refine the estimate of the Sustainable Yield every five years through 2035. This work will also include assessments of the change in groundwater storage over time.

Chronic Lowering of Groundwater Levels. The sustainability goal is to stabilize groundwater levels to ensure groundwater is maintained at adequate levels, as defined at specific wells (Representative Monitoring Wells). Progress in achieving this goal through pumping Rampdown and other means will be assessed by comparing observed groundwater levels to historical trends, Interim Milestones, Minimum Thresholds, Measurable Objectives, and projections from the BVHM.

Degraded Water Quality. The sustainability goals for water quality are for (1) the potable water supply to continue to meet California Title 22 drinking water standards and (2) the non-potable irrigation supply to be suitable for agricultural and recreational uses. Progress in achieving this goal will be assessed by monitoring groundwater quality through Physical Solution implementation.

1.3.2.2 Overview of GMP Projects and Management Actions

The technical information in the GMP informed the elements of the Physical Solution of the Judgment described in Section 1.3.1 of this Annual Report. The primary management tool to eliminate overdraft is to Rampdown pumping to a level that does not exceed the Basin's estimated Sustainable Yield by 2040 – a Rampdown that will be on the order of a 75 percent reduction in pumping relative to pre-SGMA conditions. As previously described, the Physical Solution for the Basin consists of the Judgment and the GMP. The Judgment must be considered together with the GMP in describing PMAs. The provisions of the Judgment control over and supersede any contrary provisions contained in the GMP (Judgment Section A, p. 5). Six PMAs are described in the GMP and the Judgment contains provisions that directly implement or indirectly support the intent of the PMAs. The PMAs listed in the GMP include:

PMA No. 1 – Water Trading Program. The intent of the water trading program is to create a mechanism for Parties to lease and transfer the water rights needed to maintain economic activities in the Basin and facilitate adjustment to the required Rampdown. The Judgment directly implements this PMA by authorizing and defining procedures for the transfer and lease of BPA, pumping allocations and Carryover. The relevant procedures are specified in Sections III.I and III.J. The Watermaster maintains documentation of all transfers and reviews each transaction to address consistency with the Judgment.

PMA No. 2 – Water Conservation Program. The Water Conservation Program described in the GMP would consist of separate programmatic components to evaluate and advance water conservation for the three primary water use sectors in the Basin: agricultural, municipal, and recreation. The ability to implement a programmatic water conservation program will be highly dependent upon securing funding, such as through grants and low interest loan programs. Regardless of the Watermaster’s (or any Pumper’s) ability to secure funding to implement this PMA, the Judgment requires Rampdown of pumping by all BPA Parties.

PMA No. 3 – Pumping Reduction Program. Reduction of pumping is the primary tool of the Physical Solution to achieve sustainability. As described in Section 1.3.1, the Judgment directly implements this PMA through the Rampdown provisions, which includes implementation and enforcement processes and provide for the periodic re-evaluation of the Sustainable Yield. Under the Rampdown, excepting the water allocations for the ABDSP and BSUSD, each BPA Party’s Annual Allocation is reduced incrementally such that the total extraction from the Basin by 2040 will equal the then-current estimate of Sustainable Yield. The implementation and enforcement mechanisms defined in the Judgment include mandatory water metering and reporting for all non-De Minimis groundwater users.

PMA No. 4 – Voluntary Fallowing of Agricultural Land. The intent of the voluntary fallowing program is to create a mechanism to facilitate the responsible conversion of high water use irrigated agriculture to lower water use open space, public land, or other development. The Judgment specifies minimum fallowing standards that must be implemented in connection with the permanent transfers of BPA or long-term leases of BPA that result in fallowing of agricultural land (Judgment Section III.J and Exhibit 3).

PMA No. 5 – Water Quality Optimization. The intent of the Water Quality Optimization program would be to identify as-needed direct and indirect treatment options for BWD and other Pumpers to optimize groundwater quality and its use and minimize the need for expensive water treatment to meet drinking water standards. The Judgment provides that Watermaster will (1) implement a groundwater quality monitoring program to support characterization of water quality and trends over time and (2) determine if changes in water quality are significant and unreasonable following consideration of the cause of impact, the affected beneficial use, potential remedies, input from the TAC, and subject to approval by the Court exercising independent judgment (Judgment Section VI.B.2).

PMA No. 6 – Intra-Subbasin Water Transfers. The purpose of an intra-subbasin transfer program would be to physically mitigate existing and future reductions in groundwater storage and groundwater quality impairment through pumping optimization and conveyance. Under Section III.I.5 of the Judgment, in order to protect the Basin against Undesirable Results, the Watermaster, with input from the TAC, may restrict Permanent Transfers and Leases to specific areas of the Basin based on reasonable, evidence-based concern that a Permanent Transfer or Lease will cause or exacerbate Undesirable Results, and then only in a manner that is equitable to all affected Pumpers.

1.4 Watermaster Powers and Responsibilities

To assist the Court in the Administration of the Judgment, the Court established the Borrego Springs Watermaster. The Watermaster is charged with administering and enforcing the provisions of the Judgment, including implementation of the Physical Solution, and any other instructions or orders of the Court. The specific powers, authorities, and duties of the Watermaster are defined in the Judgment. The Watermaster must carry out its duties, powers, and responsibilities in an impartial manner without favor or prejudice to any Pumper, Party, Management Area, or purpose of use.

The Watermaster is comprised of a Board of five members representing the following interests in the Basin—municipal (BWD), agricultural, recreational, community, and the County—and may hire employees

or contractors, as needed, to enable administration of the Judgment. The Watermaster operates pursuant to the Rules and Regulations, attached as Exhibit 5 to the Judgment, and which may be amended from time to time by Supermajority Vote following a public hearing (Judgment Section IV.D).

The following are some of the key responsibilities of the Watermaster in administering the Judgment²¹:

- **Establish an Annual Budget.** The Watermaster must approve an annual budget that defines the operating and capital expenses required to administer the Judgment. The budget must also define the revenues and cash reserves that will be collected or used to fund the budget. Section IV.E.3 of the Judgment defines a detailed process and schedule for developing the annual budget and collecting pumping assessments to fund the budget. The Judgment also defines a separate process and schedule (Judgment Section III.F) by which the TAC advises the Watermaster on the scope of work and budget for technical work specific to redetermination of the Sustainable Yield.
- **Levy Pumping Assessments.** The annual Watermaster Budget costs in excess of loans, grants, and available Overproduction Penalty assessments funds are funded by a uniform pumping assessment, expressed as a cost in dollars per af (\$/af) and each Party's assessment is based on their annual Adjusted Pumping Calculation (see Section 4 of this Report for details). Assessments are collected in two installment payments each WY in December and June.
- **Metering and Pumping Reports.** Watermaster is responsible for collecting data from the Parties to track groundwater pumping and annually verify that pumping meters meet the accuracy standards defined in Article V of the Rules and Regulations. Section VI.A of the Judgment specifies the well metering requirements of the Parties. Watermaster develops and periodically adapts the meter reporting frequency and schedule in consultation with the TAC to ensure data is sufficient to support calculations of Sustainable Yield.
- **Water Rights Accounting.** Watermaster is responsible for performing water rights accounting on an annual basis to track pumping, Carryover elections, transfers and leases between the Parties, and to calculate (1) the Adjusted Pumping Calculation on which assessments for the ensuing year are based and (2) the total allowable pumping by Party for the ensuing year. Section IV.E.4 of the Judgment defines the process to compute the Adjusted Pumping Calculation (see Section 4 of this Report for details).
- **Monitoring Programs.** Watermaster is responsible for implementing monitoring programs and collecting data from the Parties that enable the annual reporting of Basin conditions to the DWR pursuant to SGMA, to support the periodic recalculation of Sustainable Yield, and to support the periodic update of the GMP²². Section IV.B of the Judgment provides for a schedule and process to establish a water quality monitoring plan.

²¹ This is not intended to be a complete list of duties or responsibilities pursuant to the Judgment.

²² SGMA requires that GSPs and Alternative Plans be updated every five years. Per DWR: "Agencies with approved alternatives are also required to submit the alternative every five years and whenever the alternative is amended, and to provide a written assessment to the Department. The written assessment must describe whether implementation of the alternative, including implementation of projects and management actions, is meeting the sustainability goal in the basin, and shall include detailed information as stated in 23 CCR §356.4. The five-year update should show how a local agency is addressing any recommended actions identified in the Department's written assessment of the alternative."

- **Unauthorized Pumping.** The Watermaster shall undertake any action, including bringing any motion to the Court, necessary to halt unauthorized pumping.
- **Meetings with the Technical Advisory Committee.** The TAC is the advisory body established pursuant to Section IV.G.I of the Judgment to study technical aspects of the Basin and to issue recommendations to Watermaster based on such technical study for the purpose of achieving Sustainable Groundwater Management in the Basin in an effective and efficient manner, consistent with the rights and obligations of the Parties established by the Judgment. The Judgment defines the role of the TAC in advising the Watermaster and the process for striving for consensus recommendations. The Watermaster is responsible to convene the TAC at least twice per year to review Watermaster activities pursuant to this Judgment and to receive advisory recommendations.
- **Establishment of Environmental Working Group.** Per the Judgment, the Watermaster has established an EWG to advise the Watermaster on groundwater dependent ecosystems (GDE) and any other matters approved by the Watermaster. An EWG budget, which shall be adequate for the EWG to carry out its responsibilities as directed by the Watermaster, will be included in the Watermaster’s annual budget.
- **Annual Report.** Watermaster is responsible for preparing an annual report to the Court.

1.5 Annual Reporting Compliance

1.5.1 Judgment Compliance

Section IV.E.5 of the Judgment defines the minimum reporting requirements to the Court. Table 1 is a reference guide that illustrates where each of the required annual reporting elements can be found within this report.

1.5.2 Sustainable Groundwater Management Act Compliance

SGMA regulations require that an annual report be submitted to the DWR by April 1 of each year following the adoption of the GSP or Alternative Plan. This Annual Report provides the Basin conditions update as of WY 2023 (October 1, 2022 through September 30, 2023). Table 2 is a reference guide that illustrates where each of the required annual reporting elements described in CCR Article 7, Section 356.2 can be found within this report.

<https://water.ca.gov/Programs/Groundwater%20Management/SGMA-Groundwater-Management/Alternatives>, accessed November 22, 2023.

Table 1. Judgment Requirements Guide Map for the Borrego Springs Subbasin WY 2023 Annual Report

Judgment Requirement	Section(s) and page number(s) in the Annual Report
Annual fiscal report of the operation of Watermaster during the preceding Water Year	Section 2.9.2 – Water Year 2023 Budget Status and Annual Audit: Pages 22-24
Audit of all assessments and expenditures by Watermaster	Appendix B – WY 2023 Financial Audit
Summary of the management of the Basin and Watermaster activities pursuant to the Judgment	Section 2 – Watermaster Administrative Activities: Pages 17-28 Section 3 – Watermaster Technical Activities: Pages 29-48 Section 6 – Summary of Physical Solution Implementation Progress: Pages 115-117 Appendix A. Watermaster Board Motions – WY 2023
Summary of aggregate pumping	Section 4.3 – Adjusted Pumping Calculation for WY 2023: Pages 53-58
Record of Leases and Permanent Transfers of BPA and the amount of Carryover held by each Party	Section 4.2 Permanent Transfers and Leases: Pages 51-52 Section 4.3 – Adjusted Pumping Calculation for WY 2023: Pages 53-58
Any recommendations to the Court concerning further orders to advance the management of the Basin	No recommendations to the Court are made in this Annual Report. Section 2.8 reports on Judgment amendments recommended by the Board during WY 2023 (Page 20).
DWR reporting requirements to satisfy SGMA	Table 2. Alternative Annual Report Elements Guide Map for the Borrego Springs Subbasin WY 2023 Annual Report: Page 16

Table 2. Alternative Annual Report Elements Guide Map for the Borrego Springs Subbasin WY 2023 Annual Report

CCR – GSP Regulation Sections	Alternative Elements	Document which section(s), page number(s), or briefly describe why that Alternative element does not apply to the entity.
Article 7	Annual Reports and Periodic Evaluations by the Agency	
§ 356.2	Annual Reports	
Each Agency shall submit an annual report to the Department by April 1 of each year following the adoption of the Plan. The annual report shall include the following components for the preceding water year:		
(a)	General information, including an executive summary and a location map depicting the basin covered by the report.	Executive Summary: Pages 1-3 Section 1 – Introduction and Background: Pages 4-16 Borrego Springs Groundwater Subbasin Location: Figure 1 (Page 6)
(b)	A detailed description and graphical representation of the following conditions of the basin managed in the Plan:	Section 5 – Borrego Springs Subbasin Hydrogeologic Conditions: Pages 60-114
(1)	Groundwater elevation data from monitoring wells identified in the monitoring network shall be analyzed and displayed as follows:	
(A)	Groundwater elevation contour maps for each principal aquifer in the basin illustrating, at a minimum, the seasonal high and seasonal low groundwater conditions.	Spring 2023 contours: Figure 10 (Page 79) Fall 2023 contours: Figure 11 (Page 80)
(B)	Hydrographs of groundwater elevations and water year type using historical data to the greatest extent available, including from January 1, 2015, to current reporting year.	Time History of Groundwater Levels for Selected Wells: Figure 9 (Page 78) Historical groundwater elevation time-series for Representative Monitoring Wells: Figures 12a-12p (Pages 82-97) Appendix F – Groundwater level hydrographs for all monitoring wells for period of 1950 to 2023
(2)	Groundwater extraction for the preceding water year. Data shall be collected using the best available measurement methods and shall be presented in a table that summarizes groundwater extractions by water use sector, and identifies the method of measurement (direct or estimate) and accuracy of measurements, and a map that illustrates the general location and volume of groundwater extractions.	Section 5.4.1: Groundwater Pumping: Pages 69-75 General groundwater extraction locations/volumes: Figure 7 (Page 73) Groundwater Pumping by Sector 2015 to 2023: Table 18 (Page 75)
(3)	Surface water supply used or available for use, for groundwater recharge or in-lieu use shall be reported based on quantitative data that describes the annual volume and sources for the preceding water year.	Section 5.4.2 - Surface Water Use: Page 76
(4)	Total water use shall be collected using the best available measurement methods and shall be reported in a table that summarizes total water use by water use sector, water source type, and identifies the method of measurement (direct or estimate) and accuracy of measurements. Existing water use data from the most recent Urban Water Management Plans or Agricultural Water Management Plans within the basin may be used, as long as the data are reported by water year.	Section 5.4.3 - Total Water Use: Page 76
(5)	Change in groundwater in storage shall include the following:	Section 5.5.2 - Change in Groundwater Storage: Pages 100-108
(A)	Change in groundwater in storage maps for each principal aquifer in the basin.	Change in Groundwater Storage Spring 2022 to Spring 2023: Figure 16 (Page 106)
(B)	A graph depicting water year type, groundwater use, the annual change in groundwater in storage, and the cumulative change in groundwater in storage for the basin based on historical data to the greatest extent available, including from January 1, 2015, to the current reporting year.	Annual and Cumulative Change in Groundwater Storage: Table 21 (Page 105) Annual Groundwater Extractions and Change in Groundwater Storage– 2015 to 2023: Figure 17 (Page 107)
(c)	A description of progress towards implementing the Plan, including achieving interim milestones, and implementation of projects or management actions since the previous annual report.	Section 6: Physical Solution Implementation Progress: Pages 115-117

2.0 WATERMASTER ADMINISTRATIVE ACTIVITIES

Watermaster conducts business and reports on its business and finances on a WY basis. This report summarizes the Watermaster’s administrative activities for WY 2023: October 1, 2022 through September 30, 2023.

2.1 Watermaster Board

The Watermaster Board is comprised of five members, with each member having one vote. The membership of the Board is comprised of one representative and one alternate representing the municipal sector (BWD), the agricultural sector, the recreational sector, the public/community, and the County. The Parties within the respective agricultural and recreational sectors, and the process for selecting the respective agricultural, recreational, and public/community representatives are described in Exhibit 7 of the Judgment. The Board was comprised of the representatives and Board officer appointments during the reporting period, as listed in Table 3.

Entity/Sector	Board Representative	Board Alternate	Appointment
Borrego Water District	Dave Duncan	Kathy Dice	Chairperson
Recreational Sector	Shannon Smith	Rich Pinel	Vice Chairperson Treasurer Secretary
Agricultural Sector	Tyler Bilyk	Mike Seley	
Community Representative	Mark Jorgensen	Martha Deichler (Oct – Jun) Jim Dax (Jun – Sep)	
County of San Diego	Jim Bennet, PG, CHG	Leanne Crow, PG	

2.2 Watermaster Staff

The Watermaster may hire employees or contractors, as needed, to enable administration of the Judgment. Section IV.C of the Judgment describes the specific process the Board must follow in hiring staff to avoid a potential conflict of interest. Any technical advisor, attorney, executive director, or similar employee or contractor performing services that concern technical or policy matters of the Watermaster must be independent (not under contract with any Party) and selected by the Watermaster through an arms-length request for proposal process unless otherwise agreed by a Supermajority Vote of the Board. These procedures were followed to establish Watermaster’s current staff.

Legal Counsel. In July 2020, the Watermaster contracted with James M. Markman of RWG law to serve as legal counsel. Attorneys at RWG law support Mr. Markman, as needed.

Executive Director and Technical Services. In August 2020, the Watermaster contracted with West Yost²³ to retain Samantha Adams as the Executive Director and Andy Malone, PG as the Lead Technical Consultant. Ms. Adams and Mr. Malone are supported by West Yost financial, administrative, and technical staff in the performance of their administrative and technical duties, as needed. The contract was established for an initial 2.5-year period, with an expiration date of December 31, 2022. In WY 2023, Watermaster amended the contract to extend the contract expiration date through December 31, 2025.

²³ The contract was originally executed with Wildermuth Environmental Inc., who was later acquired by West Yost on November 9, 2020.

2.3 Watermaster Contact Information and Website

Correspondence and inquiries regarding meetings or other Watermaster business can be sent to Watermaster via email at borregospringswm@westyost.com or via regular mail to:

Borrego Springs Watermaster
c/o West Yost
23692 Birtcher Drive
Lake Forest, CA 92630
(949) 420-3030

The Watermaster maintains a website to keep the Parties and public informed about its activities and to provide other important forms, documents, and information associated with the administration of the Judgment. The website address is: <https://borregospringswatermaster.com>.

2.4 Watermaster Service and Distribution Lists

Watermaster notifies Parties and interested stakeholders of its activities and actions through maintenance and use of two notice lists: a Court Service List and an Email Distribution List.

The Court Service List contains the contact information for all Parties in the case that resulted in the Stipulated Judgment (*Borrego Water District v. All Persons Who Claim a Right to Extract Groundwater in the Borrego Valley Groundwater Subbasin, et al.*, San Diego Superior Court Case No. 37-2020-00005776). The Court Service List is used to provide Parties with electronic copies of all documents filed with the Court, including notices and motions filed by a party or the Watermaster, and Court orders. The Court Service List is maintained by Legal Counsel. To be added or removed from the Email Distribution List, a Party must notify the Court and other Parties and file a Form MC-040²⁴, "Notice of Change of Address or Other Contact Information," with the Court. Parties may contact Legal Counsel to receive assistance with filing Form MC-040 or to receive copies of the Court Service List via email at JMarkman@rwglaw.com and JMetz@rwglaw.com.

The Email Distribution List includes members of the Board, the TAC, the EWG and interested members of the public. The Email Distribution List is used to notify of Watermaster activities, including (but not limited to): regular and special Board meetings, TAC and EWG meetings, the completion of Water Rights Accounting, publication of the annual budget, and noticing the draft and final Annual Report. In addition, the Email Distribution List receives all materials that support Watermaster activities, such as the agenda and agenda package for Watermaster Board, TAC, and EWG meetings. The Email Distribution List is maintained by Watermaster staff. To be added to or removed from the Email Distribution List, please contact Watermaster staff via email at borregospringswm@westyost.com.

²⁴ MC-040 Forms are available at: <https://selfhelp.courts.ca.gov/jcc-form/MC-040>

2.5 Watermaster Meetings and Board Actions

Watermaster conducts monthly Board meetings on the second Thursday of the month at 4:30 p.m. The Watermaster also holds Special meetings, as needed to conduct business between regularly scheduled meetings. All Watermaster meetings are open to the public and are noticed via Watermaster’s email distribution list and website.

During WY 2023, the Watermaster Board held a total of 11 Regular Meetings and two Special Meetings. One Regular Meeting was cancelled. Most meetings of the Board were held virtually. The virtual meetings were conducted via the GoToMeeting® platform that has both telephone and video call-in options. For the first time since its formation, the Board held two in-person Board meetings in WY 2023 (that also provided for virtual attendance via GoToMeeting). Table 4 lists the Board meeting dates for WY 2023.

Electronic copies of all Board meeting agendas, packets, presentation materials, recordings, and approved minutes are available on Watermaster’s website (<https://borregospringswatermaster.com>). Appendix A of this Annual Report contains a record of the Board’s motions and actions for WY 2023.

Meeting Date	Meeting Type	Meeting Platform
October 13, 2022	Regular	Virtual
November 10, 2022	Regular	Virtual
November 15, 2022	Special	Virtual
December 8, 2022	Regular	In-Person at the Borrego Springs Library
January 12, 2023	Regular	Virtual
February 9, 2023	Regular	Virtual
March 9, 2023	Regular	Virtual
April 6, 2023	Regular	Virtual
April 17, 2023	Special	Virtual
May 11, 2023	Regular	Virtual
June 14, 2023	Regular	In-Person at the Borrego Springs Library
July 13, 2023	Regular	Virtual
September 14, 2023	Regular	Virtual

2.6 Rules and Regulations

The Rules and Regulations are included with the Judgment as Exhibit 5. A copy is posted to the Watermaster [website](https://borregospringswatermaster.com/wp-content/uploads/2020/12/rules-and-regulations-1.pdf)²⁵. The Judgment specifies that Rules and Regulations may only be amended by a Supermajority Vote of the Watermaster Board. All amendments must be consistent with the Judgment and, at the request of the Watermaster Board or any Party with objections, must be reviewed and approved by the Court before any proposed changes become effective. During the reporting period, no changes to the Rules and Regulations were considered.

²⁵<https://borregospringswatermaster.com/wp-content/uploads/2020/12/rules-and-regulations-1.pdf>

2.7 Board Resolutions

Table 5 lists the Board resolutions adopted during WY 2023. All resolutions are available on Watermaster’s [website](#)²⁶.

Table 5. Watermaster Board Resolutions Adopted in WY 2023		
Resolution Number	Resolution Date	Resolution Title
23-01	March 9, 2023	Establish Guidelines for the Technical Advisory Committee Process
23-02	March 9, 2023	Establishing a Revised Comprehensive Metering Program

2.8 Judgment Amendments

At the September 14, 2023 meeting, the Board voted unanimously to file a motion with the Court to amend the Judgment to allow the Community Representative to appoint a member to the TAC on behalf of the public. The motion to amend the Judgment will be filed in WY 2024.

2.9 Financial Management

Each year, Watermaster develops a budget that defines the operating expenses required to administer the Judgment in the ensuing year. The operating budget covers administrative services (including costs for financial audit, insurance, website, and miscellaneous expenses), legal services, engineering and technical services, funding to support the EWG, and reimbursable services to parties with manual-read meters²⁷. The budget also defines the revenue sources that will fund the operating expenses and maintain cash reserves at a specific level. Under normal operative procedures, the Watermaster has a reserve goal of nine months of operating expenses.

Section IV.E.3 of the Judgment defines a detailed process and schedule for developing the annual budget and collecting pumping assessments to fund the budget. Section III.F of the Judgment also defines a separate process and periodic schedule by which the TAC advises the Watermaster on the scope of work and budget for technical work to determine Sustainable Yield. The TAC has advised or shall advise the Watermaster on the technical scope and budget as follows:

- By June 1, 2021, TAC to reach agreement on the scope and budget for technical work for October 1, 2021 through September 30, 2023 (completed).
- By January 1, 2025, TAC to reach agreement on the scope and budget for technical work for October 1, 2025 through September 30, 2029.
- By January 1, 2030, TAC to reach agreement on the scope and budget for technical work for October 1, 2030 through September 30, 2034.

²⁶ <https://borregospringswatermaster.com/watermaster-resolutions/>

²⁷ The Judgment provides that all parties will install “smart” pumping meters that can be read via telemetry system. At the option of the Parties, manual-read meters may be installed, however the Party must cover all costs associated with collecting data manually. The costs include contract services with the BWD to perform the field work to manually read/record the meters and Watermaster staff time to coordinate with the BWD field crew and to collect self-reported meter reads in-between official Watermaster meter-read events.

To fund the annual budget, Watermaster levies pumping assessments to all active BPA Pumpers. Watermaster can also rely on the following sources to fund the budget:

- Cash reserves
- Overproduction Penalty Assessments
- Grants and loans

In WY 2022, Watermaster staff developed a detailed monthly financial model to support the development of the WY 2023 Budget. The financial model was first developed to support the development of vendor payment terms that would be needed to enable Watermaster to accept over two million dollars in grant funding through March 2025. The Watermaster now uses the financial model annually, and as needed, to develop or amend the annual budget.

Watermaster staff prepares monthly financial reports for review by the Board as part of the consent calendar during regular Board meetings. At a minimum, the monthly financial reports include the following:

- Income (Profit & Loss) Statement
- Balance Sheet
- Expense Distribution Detail
- Union Bank Checking Register

The following subsections describe the Watermaster's current grant funding and vendor payment terms, the final WY 2023 budget status and annual audit, and the WY 2024 budget and assessment approved in June 2023.

2.9.1 Grant Funding and Vendor Payment Terms

In December 2021, the DWR released a solicitation package for grant funding for SGMA implementation (DWR SGMA grant). In this first round of grant solicitations, each of the 21 critically overdrafted basins in the state were guaranteed up to \$7.6 million in grant funding. In February 2022, on behalf of itself and four subgrantees eligible for funding, the BWD submitted a grant application package requesting \$6,115,833 in funding²⁸. Included in the grant package were two Watermaster projects, including:

- Monitoring, Reporting, and GMP Update for Sustainable Management in the Borrego Springs Subbasin: \$1,983,250 funding request
- Biological Restoration of Fallowed Lands: \$755,340 funding request

The DWR SGMA grant award for the Watermaster projects (\$2,738,590) covers eligible work performed for these projects from January 2022 through March 2025. The notice of grant award was made by the DWR in April 2022 and the grant agreement between DWR and BWD was executed on December 13, 2022. The subsequent subgrantee agreement between BWD and Watermaster was executed on February 16, 2023.

At the time that the grant was being awarded, it was identified that there would be a significant delay in the timing of performing work pursuant to the grant and receiving reimbursements from DWR, thus

²⁸ DWR determined that BWD was the only eligible entity (a Public Agency) to apply for the SGMA grant funding directly. Watermaster is a subgrantee to BWD.

requiring a significant working capital investment by the Watermaster to implement the grant-funded projects. Watermaster staff developed a detailed monthly financial model to estimate the working capital investment over the grant implementation period. In April 2022, the working capital investment was projected to range from about \$600,000 to \$800,000 - depending on the timing of the reimbursements.

Recognizing the significant cost to the Pumpers to establish the working capital, the Watermaster explored options for financing through various financial institutions but was unable to find a solution given the unique nature of the Watermaster as an arm of the Court. The Watermaster Treasurer (Smith) recommended, and the Board subsequently directed, that Staff explore the possibility of obtaining extended payment terms with the two consultants that would be implementing the projects, West Yost and Land IQ, as a means of covering the working capital investment necessary to support implementation. The financial model was used to support the development of vendor payment terms and define an alternative cash reserve target of seven months of operating expenses for the grant funding period. West Yost and Land IQ both agreed to extended payment terms that enable Watermaster to delay payments on invoiced amounts and maintain a fiscally sound level of cash reserves through the closeout of the grant agreement with BWD and DWR.

For the period of the grant agreement and vendor payment terms, the Watermaster's monthly financial reports include accrual of monthly grant-reimbursable expenditures (Income Statement) and a statement of outstanding balances (including interest) owed to each vendor.

2.9.2 Water Year 2023 Budget Status and Annual Audit

The Watermaster approved the WY 2023 Budget at its July 14, 2022 meeting. On April 6, 2023 the Board amended the WY 2023 Budget to address several issues that arose from the delays in executing an agreement to receive grant funds under the DWR SGMA grant, including establishing a supplemental pumping assessment to ensure sufficient cash reserves to meet the Watermaster's fiscal objectives and comply with the vendor payment terms while awaiting the first reimbursement check from the DWR.

Table 6 compares the amended WY 2023 budget to the Watermaster's actual revenues, expenditures, and reserves for WY 2023. For the revenue section, the table details the budget and actual for the invoiced amounts, revenues paid, and unpaid balances still owed to the Watermaster. As of the end of WY 2023:

- A total of 237% of budgeted revenues were accrued (\$1,541,949.36).
 - The significant variance compared to budget for this line item is due to the budget including only the amount that was anticipated to be received from DWR (\$0) in WY 2023, as opposed to the amount of reimbursable expenses accrued.
 - The accrual shown for the DWR Prop 68 grant reimbursement represents the amount of reimbursable expenditures requested from DWR in WY 2023 (\$886,032.85).
- A total of 79% of budgeted expenditures were spent (\$981,676.79). Spending by operating category included:
 - 93% of budgeted Watermaster Staff Administrative services
 - 89% of budgeted other Administrative or Vendor services
 - 79% of budgeted Legal services
 - 79% of budgeted Technical and Engineering services
 - 67% of budgeted Environmental Working Group services
 - 120% of budgeted services to parties with manual read meters

Water Year 2023 Annual Report for the Borrego Springs Subbasin

- Watermaster had a payment liability totaling \$749,183.96, which is about 100% of the available credit through payment terms.
- Cash reserves were \$889,614.34, which represents about 7.7 months of operating expenditures. The surplus reserves over the 7-month reserve target were used to pay down the Land IQ and West Yost outstanding balances at the start of WY 2024.

The financial audit for WY 2023 was performed by C.J. Brown & Company, CPAs and is included with this report as Appendix B. *<<Note: Draft financial audit is not yet available and will be included in the Final Annual Report.>>*

Table 6. Comparison of Approved and Actual Watermaster Budget in WY 2023

Revenues, Expenditures, and Reserves	Approved WY 2023 Budget (as Amended)	Actual WY 2023 (final)	Percent (%) of Budget	Variance to Date (Budget minus Actual)	Notes
Revenues	\$ 649,281	\$ 1,541,949.36	237%	\$ (892,668.36)	See below note re: DWR Prop 68 Revenue
Pumping Assessments Invoiced	\$ 658,000	\$ 649,021.31	99%	\$ 8,978.69	Assessments less than budget due to credit owed to one BPA party
payments received		\$ 617,010.25	94%		
Bad Debt (non-payment on Assessments)	\$ (15,000)	\$ -	0%	\$ (15,000.00)	Have not recorded bad debt
Overproduction Penalty Assessments	\$ -	\$ -		\$ -	
Revenues Collected for Pass thru Expenses	\$ 6,281	\$ 6,895	110%	\$ (614.20)	Services were more than budgeted in WY 2023, invoiced amount also accounts for credit for over payment in WY 2022 pre-invoiced amount
payments received		\$ -	0%		Issued invoices in September 2023 Payment due November 2023
DWR Prop 68 Grant Reimbursements Accrued	\$ -	\$ 886,032.85		\$ (886,032.85)	Approved budget amount reflected expected payment amount made by DWR, instead of accrued reimbursement requested.
payments received		\$ -			
Total Expenditures	\$ 1,241,730	\$ 981,676.79	79%	\$ 260,053.61	
Administrative Services	\$ 333,973	\$ 306,502.43	92%	\$ 27,470.97	
Watermaster Staff Admin Services	\$ 237,772	\$ 220,480.27	93%	\$ 17,291.73	
Board Meetings	\$ 92,508	\$ 88,542.09	96%	\$ 3,965.91	
Technical Advisory Committee Meetings	\$ 29,590	\$ 27,510.75	93%	\$ 2,079.25	
Court Hearings	\$ 5,668	\$ 1,198.00	21%	\$ 4,470.00	
Stakeholder Outreach/Workshops	\$ 12,206	\$ 12,169.10	100%	\$ 36.90	
Administration and Management	\$ 67,800	\$ 58,473.33	86%	\$ 9,326.67	
Prop 68 Project Admin and Grant Reporting	\$ 30,000	\$ 32,587.00	109%	\$ (2,587.00)	
Other Administrative or Vendor Services	\$ 93,226	\$ 83,047.74	89%	\$ 10,178.66	
Financial Audit	\$ 8,555	\$ 8,425.00	98%	\$ 130.00	
Insurance	\$ 35,652	\$ 33,197.04	93%	\$ 2,454.73	Note: This is a pre-paid expense - this reflects balance sheet amount
Misc. Expenses	\$ 5,000	\$ -	0%	\$ 5,000.00	
Meter Accuracy Testing Vendors	\$ 13,000	\$ 12,600.00	97%	\$ 400.00	
Interest on Vendor Terms During Prop 68 Grant Period	\$ 31,020	\$ 28,825.70	93%	\$ 2,193.93	
Pass Through Expenses	\$ 2,975	\$ 2,974.42	100%	\$ 0.58	
Reimbursement to Settling Parties	\$ 716	\$ 715.67	100%	\$ 0.33	
Reimbursement to BWD for GSP	\$ 2,259	\$ 2,258.75	100%	\$ 0.25	
Legal Services	\$ 100,000	\$ 78,829.12	79%	\$ 21,170.88	
Technical/Engineering Services	\$ 417,406	\$ 331,047.00	79%	\$ 86,359.00	
General Technical Consultant Services	\$ 203,762	\$ 196,029.11	96%	\$ 7,732.89	
Coordinate/Implement meter reading program	\$ 30,893	\$ 28,752.75	93%	\$ 2,140.25	
Groundwater Monitoring Program	\$ 87,180	\$ 90,524.11	104%	\$ (3,344.11)	
Surface Water Monitoring Program	\$ -	\$ -		\$ -	Elected not to perform this task due to various constraints
Data Management and Reporting Data to DWR	\$ 18,083	\$ 11,932.50	66%	\$ 6,150.50	
Annual Report to the Court and DWR	\$ 52,442	\$ 53,027.75	101%	\$ (585.75)	
Address Inactive Wells via Abandonment/Conversion	\$ -	\$ 2,885.25		\$ (2,885.25)	CEQA work performed earlier than budgeted due to grant req.
As-needed technical support	\$ 15,164	\$ 8,906.75	59%	\$ 6,257.25	
Consulting Services with TAC Support/Input	\$ 213,644	\$ 135,017.89	63%	\$ 78,626.11	
Technical Work to Support Sustainable Yield Updates	\$ 146,322	\$ 75,233.50	51%	\$ 71,088.50	Behind schedule, will need some of the unspent budget in WY 2024
Development of Work Plan for an Expanded Groundwater Quality & Level Monitoring Workplan	\$ 46,392	\$ 49,013.39	106%	\$ (2,621.39)	
TSS Grant Implementation (new monitoring well)	\$ 11,000	\$ 10,771.00	98%	\$ 229.00	
5-Year Update of the GMP (required by DWR)	\$ -	\$ -		\$ -	Work deferred to WY 2024 for budget purposes
Address Ad Hoc Requests from the Board	\$ 9,930	\$ -	0%	\$ 9,930.00	No work requested this year
Environmental Working Group	\$ 384,070	\$ 257,747.52	67%	\$ 126,322.48	
Biological Restoration of Fallowed Lands	\$ 378,301	\$ 257,747.52	68%	\$ 120,553.48	Behind schedule, will need to use the unspent budget in WY 2024
Ad Hoc EWG Meetings/Requests	\$ 5,769	\$ -	0%	\$ 5,769.00	No work requested this year
Services to Parties with Manual Read Meters	\$ 6,281	\$ 7,550.72	120%	\$ (1,269.72)	
Liabilities on Payment Terms					
Beginning Balance	\$ -	\$ -		\$ -	
Year-End (or Current) Balance	\$ 877,108	\$ 749,183.96	85%	\$ 127,924.00	
Cash Reserves					
Beginning Cash Reserves	\$ 523,518	\$ 523,517.65		\$ -	
Year-End or Current Cash Reserve Balance	\$ 810,229	\$ 889,614.34	110%	\$ (79,385.65)	
Number of Months of Operating Reserve	7.00	7.69	110%	\$ (0.69)	Seven months is target during grant period

2.9.3 Water Year 2024 Budget

The Watermaster approved the WY 2024 Budget at its June 14, 2023 regular meeting. The full budget memo is included with this report as Appendix C. Table 7 shows the approved line-item budget for WY 2024, including revenue, expenditures, deferred payment liabilities, and reserves. Table 7 also includes the projected budgets and year-end balances for WYs 2025 through 2028. Approval of the WY 2024 Budget, included approval of the following:

- A WY 2024 Pumping Assessment of \$458,0000.
- An Overproduction Penalty Assessment of \$500 per acre-foot. This is the minimum rate allowed by the Judgment (Section III.G.4).
- Operating expenditures in the amount of \$1,527,952, of which \$1,100,904 is grant reimbursable work.

Following approval, Watermaster staff published the WY 2024 Budget to the Watermaster website and issued notice via the email distribution list. No Party challenged the approved budget.

Table 7.
Detailed Five-Year Projection of Borrego Springs Watermaster Operating Budget: Water Years 2024 through 2028
Assuming Vendor Extended Payment Terms, 8-Month Delay in DWR Grant Request Reimbursements, and Target for 7-month Operating Reserve

Revenues, Expenditures, and Reserves	Amended WY 2023 Budget	Projected Actual WY 2023	WY 2024	Projected Budget ¹			
				WY 2025	WY 2026	WY 2027	WY 2028
Revenues²	\$ 649,281	\$ 1,679,164	\$ 1,561,374	\$ 1,138,324	\$ 256,863	\$ 557,069	\$ 557,281
Pumping Assessments Collected	\$ 658,000	\$ 658,000	\$ 458,000	\$ 250,000	\$ 250,000	\$ 550,000	\$ 550,000
Bad Debt (non-payment on Assessments)	\$ (15,000)	\$ (15,000)	\$ (4,000)	\$ -	\$ -	\$ -	\$ -
Overproduction Penalty Assessments	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Revenues Collected for Pass thru Expenses	\$ 6,281	\$ 6,281	\$ 6,469	\$ 6,664	\$ 6,863	\$ 7,069	\$ 7,281
DWR Prop 68 Grant Reimbursements ³	\$ -	\$ 1,029,883	\$ 1,100,904	\$ 881,661	\$ -	\$ -	\$ -
Total Expenditures⁴	\$ 1,241,730	\$ 1,179,205	\$ 1,527,952	\$ 1,109,903	\$ 561,203	\$ 552,022	\$ 567,308
Administrative Services	\$ 333,973	\$ 318,223	\$ 405,695	\$ 377,630	\$ 245,373	\$ 227,317	\$ 233,461
Watermaster Staff Admin Services	\$ 237,772	\$ 228,035	\$ 280,284	\$ 263,872	\$ 188,242	\$ 193,890	\$ 199,706
Board Meetings	\$ 92,508	\$ 93,858	\$ 101,120	\$ 104,153	\$ 80,000	\$ 82,400	\$ 84,872
Technical Advisory Committee Meetings	\$ 29,590	\$ 29,590	\$ 45,326	\$ 30,000	\$ 23,175	\$ 23,870	\$ 24,586
Court Hearings	\$ 5,668	\$ 2,239	\$ 4,016	\$ 4,136	\$ 4,261	\$ 4,388	\$ 4,520
Stakeholder Outreach/Workshops	\$ 12,206	\$ 12,206	\$ 12,590	\$ 12,954	\$ 6,000	\$ 6,180	\$ 6,365
Administration and Management	\$ 67,800	\$ 62,651	\$ 72,628	\$ 72,628	\$ 74,807	\$ 77,051	\$ 79,363
Prop 68 Project Admin and Grant Reporting	\$ 30,000	\$ 27,491	\$ 44,604	\$ 40,000	\$ -	\$ -	\$ -
Other Administrative or Vendor Services	\$ 93,226	\$ 87,213	\$ 125,411	\$ 113,759	\$ 57,130	\$ 33,427	\$ 33,755
Financial Audit	\$ 8,555	\$ 8,425	\$ 10,000	\$ 10,300	\$ 10,609	\$ 10,927	\$ 11,255
Insurance	\$ 35,651	\$ 33,197	\$ 40,474	\$ 41,688	\$ 42,939	\$ 20,000	\$ 20,000
Misc. Expenses	\$ 5,000	\$ 2,500	\$ 2,500	\$ 2,500	\$ 2,500	\$ 2,500	\$ 2,500
Meter Accuracy Testing Vendors	\$ 13,000	\$ 12,600	\$ 13,500	\$ 14,000	\$ -	\$ -	\$ -
Interest on Vendor Terms During Prop 68 Grant Period ⁵	\$ 31,020	\$ 30,492	\$ 58,937	\$ 45,271	\$ 1,083	\$ -	\$ -
Pass Through Expenses	\$ 2,975	\$ 2,975	\$ -	\$ -	\$ -	\$ -	\$ -
Reimbursement to Settling Parties	\$ 716	\$ 716	\$ -	\$ -	\$ -	\$ -	\$ -
Reimbursement to BWD for GSP	\$ 2,259	\$ 2,259	\$ -	\$ -	\$ -	\$ -	\$ -
Legal Services	\$ 100,000	\$ 100,000	\$ 100,000	\$ 103,000	\$ 106,090	\$ 109,273	\$ 112,551

Table 7.
Detailed Five-Year Projection of Borrego Springs Watermaster Operating Budget: Water Years 2024 through 2028
Assuming Vendor Extended Payment Terms, 8-Month Delay in DWR Grant Request Reimbursements, and Target for 7-month Operating Reserve

Revenues, Expenditures, and Reserves	Amended WY 2023 Budget	Projected Actual WY 2023	WY 2024	Projected Budget ¹			
				WY 2025	WY 2026	WY 2027	WY 2028
Technical/Engineering Services	\$ 417,406	\$ 418,248	\$ 744,298	\$ 457,068	\$ 182,877	\$ 188,363	\$ 194,014
<i>General Technical Consultant Services</i>	\$ 203,762	\$ 204,604	\$ 403,556	\$ 369,923	\$ 172,429	\$ 177,602	\$ 182,930
<i>Coordinate/Implement meter reading program</i>	\$ 30,893	\$ 27,739	\$ 30,388	\$ 31,634	\$ 26,889	\$ 27,696	\$ 28,526
<i>Groundwater Monitoring Program</i>	\$ 87,180	\$ 87,351	\$ 99,151	\$ 101,940	\$ 60,000	\$ 61,800	\$ 63,654
<i>Data Management and Data Reporting</i>	\$ 18,083	\$ 18,083	\$ 19,890	\$ 16,567	\$ 14,910	\$ 15,357	\$ 15,818
<i>Annual Report to the Court and DWR</i>	\$ 52,442	\$ 53,028	\$ 50,936	\$ 52,464	\$ 54,038	\$ 55,659	\$ 57,329
<i>Address Inactive Wells via Abandonment/Conversion</i>	\$ -	\$ 3,239	\$ 187,551	\$ 151,210	\$ -	\$ -	\$ -
<i>As-needed technical support</i>	\$ 15,164	\$ 15,164	\$ 15,640	\$ 16,109	\$ 16,592	\$ 17,090	\$ 17,603
<i>Grant services</i>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Consulting Services with TAC Support/Input	\$ 213,644	\$ 213,644	\$ 340,742	\$ 87,144	\$ 10,448	\$ 10,761	\$ 11,084
<i>Technical Work to Support Sustainable Yield Updates</i>	\$ 146,322	\$ 146,322	\$ 200,240	\$ 17,655	\$ -	\$ -	\$ -
<i>Development of Work Plan for an Expanded</i>	\$ 46,392	\$ 46,392	\$ -	\$ -	\$ -	\$ -	\$ -
<i>Groundwater Quality & Level Monitoring Workplan</i>							
<i>TSS Grant Implementation (new monitoring well)</i>	\$ 11,000	\$ 11,000	\$ -	\$ -	\$ -	\$ -	\$ -
<i>5-Year Update of the GMP (required by DWR)</i>	\$ -	\$ -	\$ 130,654	\$ 59,346	\$ -	\$ -	\$ -
<i>Address Ad Hoc Requests from the Board</i>	\$ 9,930	\$ 9,930	\$ 9,848	\$ 10,143	\$ 10,448	\$ 10,761	\$ 11,084
Environmental Working Group	\$ 384,070	\$ 336,453	\$ 271,490	\$ 165,541	\$ 20,000	\$ 20,000	\$ 20,000
<i>Biological Restoration of Fallowed Lands</i>	\$ 378,301	\$ 330,684	\$ 265,394	\$ 159,262	\$ -	\$ -	\$ -
<i>Ad Hoc Requests and EWG Meetings</i>	\$ 5,769	\$ 5,769	\$ 6,096	\$ 6,279	\$ 20,000	\$ 20,000	\$ 20,000
Services to Parties with Manual Read Meters	\$ 6,281	\$ 6,281	\$ 6,469	\$ 6,664	\$ 6,863	\$ 7,069	\$ 7,281

Table 7.
Detailed Five-Year Projection of Borrego Springs Watermaster Operating Budget: Water Years 2024 through 2028
Assuming Vendor Extended Payment Terms, 8-Month Delay in DWR Grant Request Reimbursements, and Target for 7-month Operating Reserve

Revenues, Expenditures, and Reserves	Amended WY 2023 Budget	Projected Actual WY 2023	WY 2024	Projected Budget ¹			
				WY 2025	WY 2026	WY 2027	WY 2028
Liabilities on Payment Terms⁶							
Beginning Balance	\$ -	\$ -	\$ 877,108	\$ 305,790	\$ -	\$ -	\$ -
Minimum Monthly Balance	\$ -		\$ 305,790	\$ -	\$ -	\$ -	\$ -
Maximum Monthly Balance	\$ 877,108		\$ 871,840	\$ 633,433	\$ -	\$ -	\$ -
Year-End Balance	\$ 877,108	\$ 803,450	\$ 305,790	\$ 185,580	\$ -	\$ -	\$ -
Cash Reserves⁸							
Beginning Cash Reserves	\$ 523,518	\$ 523,518	\$ 842,513	\$ 619,387	\$ 619,387	\$ 397,911	\$ 404,890
Year-End Cash Reserve Balance	\$ 810,229	\$ 842,513	\$ 619,387	\$ 619,387	\$ 397,911	\$ 404,890	\$ 405,950
Average Reserve Needed During the Year to Maintain Target Operating Expenses (7-9 months)	\$ 723,330	\$ 723,330	\$ 758,197	\$ 619,387	\$ 348,557	\$ 416,883	\$ 425,481
Minimum Month-End Reserve Balance	\$ 581,550		\$ 609,228	\$ 589,838	\$ 335,703	\$ 312,768	\$ 312,768
Average Month-End Reserve Balance	\$ 691,162		\$ 732,374	\$ 610,339	\$ 431,066	\$ 405,765	\$ 409,444
Variance from Desired Reserve	\$ (32,168)	\$ 119,183	\$ (25,822)	\$ (9,048)	\$ 82,509	\$ (11,118)	\$ (16,037)

Notes

1-- The projected budget is estimated based on Staff's best professional judgement as to how the cost of each line item will change over time. Some tasks increase at an assumed inflation rate of 3%; some tasks decrease in cost with efficiencies, followed by annual inflation increases; and some tasks fluctuate year to year based on the level of effort for non-routine work such as Sustainable Yield updates. For grant funded work, the projection matches the total allowable grant reimbursement.

2 -- Revenues shown are the amounts invoiced by Watermaster to pumpers, or in the case of the DWR grant, they are the amounts that are eligible for reimbursement, during the Water Year. In the case of the DWR Reimbursements, payment on the reimbursement requests are actually delayed by 8 months from request date. This delay in payment is taken into consideration in the financial model to determine when to defer or pay on vendor invoices to maintain the target cash reserves.

3 -- A total of \$2,738,590 was awarded for Watermaster projects. See also Note 2.

4 -- Expenditures highlighted in green will be **partially reimbursed** by the Prop 68 grant. Expenditures highlighted in blue will be **fully reimbursed** by the Prop 68 grant. Expenditures shown in bold, purple text are **costs that would not have been incurred (in part or in full)** absent the Prop 68 grant.

5 -- Combined interest to West Yost and Land IQ under proposed Payment Terms allowing an outstanding balance of up to \$550,000 per vendor in any 30-day period.

6 -- Reflects the balance owed to West Yost and Land IQ under Payment Terms allowing outstanding balance of up to \$550,000 each in any 30-day period.

7 -- The cash reserve projections are based on the monthly financial model prepared by Watermaster Staff to support extended payment terms with West Yost and Land IQ, based on expected timing of receipt of payment on Watermaster assessments and reimbursement requests and deferred payments to West Yost and Land IQ.

3.0 WATERMASTER TECHNICAL ACTIVITIES

3.1 Monitoring and Data Management

This section describes the monitoring program implemented by the Watermaster to support the sustainable management of the Basin and includes the collection of climatic, surface-water, and groundwater data. These data are used to characterize and understand current Basin conditions and trends and to evaluate the Basin response to Physical Solution implementation. The data collected by Watermaster are post-processed into standardized formats, checked for quality assurance/quality control (QA/QC), and uploaded to a centralized relational database management system, HydroDaVESM. The following subsections describe the Watermaster's groundwater and surface water monitoring efforts during the reporting period.

3.1.1 Groundwater Pumping

Prior to the development of the Judgment and GMP, all municipal pumping wells and some golf course and private agricultural Pumpers were monitoring pumping via meters. Except for municipal pumping by BWD, most metered pumping was not being recorded and/or reported on a regular basis. In lieu of metered data, historical groundwater pumping was estimated using either numerical modeling with the BVHM or other water duty methods that consider the type of water use (such as area of irrigated landscape and crop types).

The Judgment requires that all non-De Minimis Pumpers install Watermaster-approved meters on all active groundwater wells to measure and record groundwater pumping. Metered pumping is reported to the Watermaster for the purpose of performing water rights accounting and technical analyses of the Basin. Each year, the Pumpers must perform a third-party verification of the accuracy of their meters.

The Watermaster has successfully implemented a program to collect monthly pumping data from Parties with a combination of Watermaster meter reads and self-reporting (via telemetry or manual-read of meters). The Board approved the following actions and resolutions to establish protocols for the metering program²⁹:

- Adopted Resolution 2020-02 Establishing Approved Meters (March 2020).
- Adopted Resolution 2020-03 Establishing Criteria for Verification of Meter Calibration, Installation, and Accuracy (August 2020).
- Adopted Resolution 2020-05 Establishing Meter Read Protocols and Required Documentation (September 2020).
- Established a monthly frequency for meter read reporting to effectively implement the Judgment (November 2020). The monthly reads are accomplished through a combination of official Watermaster reading events and self-reporting.
- Adopted Resolution 23-02 Establishing a Revised Comprehensive Metering Program (March 2023). Resolution 23-02 supersedes all prior actions and combines all elements of the metering program into one resolution.

²⁹ The meter program resolutions are available on the Watermaster's website:
<https://borregospingswatermaster.com/pumper-resources/>.

Parties that are not in compliance with the meter installation and reporting requirements are considered to be not in good standing with the Watermaster.

3.1.1.1 Status of Meter Installation

As of the end of WY 2023, the following is the status of metering the BPA and other non-De Minimis Party wells:

- There are a total of 42 Parties with pumping rights defined in the Judgment (40 Parties with Exhibit 4 BPA rights and 2 Parties (ABDSP and BSUSD) with other non-De Minimis pumping rights).
- Of the 42 Parties with pumping rights:
 - 12 Parties (29%) are assumed to be or have confirmed they are not active Pumpers.
 - 27 Parties (64%) are confirmed Pumpers.
 - 3 Parties (7%) are of unknown status but are assumed to be active Pumpers.
- Among the 27 confirmed active pumping Parties, there are a total of 68 pumping wells. Of these 68 pumping wells:
 - 19 wells have smart meters installed. Full access to read the smart meters via telemetry has been provided to Watermaster staff at all 19 smart meters.
 - 49 wells have manual-read meters installed. Full cooperation to read the meters through a combination of official Watermaster reads and self-reporting was provided to WM for the entirety of WY 2023.
- For the 3 Parties that Watermaster has not been able to confirm as active Pumpers, the Watermaster continues to estimate groundwater pumping for these Parties based on the water-duty methods used to establish BPA for the Judgment. In WY 2024, Watermaster staff and legal counsel will continue to seek means to contact these Pumpers.

3.1.1.2 Meter Reading Program

The meter reading program implemented during the reporting period was as follows:

- Watermaster maintained a monthly frequency for meter read reporting to support the effective implementation of the Judgment.
- For wells with smart meters:
 - Meter read data transmitted via telemetry was accessed and downloaded monthly by Watermaster.
 - Any time a telemetric read was not available due to system errors or other technical issues, the well owners were requested to provide self-reported meter reads until the telemetry issue could be resolved.
- For manual-read meters:
 - Official Watermaster meter reads were collected bi-monthly by Watermaster's meter reading consultant (BWD) in November 2022, January 2023, March 2023, May 2023, July 2023, and September 2023.
 - Self-reporting of meter reads was performed by the well owners in October 2022, December 2022, February 2023, April 2023, June 2023, and August 2023.

All metered data are reviewed by Watermaster staff monthly and checked for QA/QC and are used to calculate monthly pumping volumes, which are stored in Watermaster's data management system.

3.1.1.3 Meter Accuracy Testing

Meter accuracy testing is the responsibility of the well owners. In WY 2023, Watermaster supported the Parties by identifying cost savings with vendors who could perform multiple meter reads per day over a period of a few weeks. Most of the meter accuracy testing for WY 2023 was completed in December 2022 and January 2023.

All meter verification information and accuracy tests were collected and reviewed by Watermaster staff and checked for compliance with accuracy standards. If a meter test indicated that a meter is not accurately reporting pumping, Watermaster requested corrective actions within 30 days.

Of the confirmed 68 BPA Party wells in the Basin:

- 56 wells were tested for accuracy, of these:
 - 51 wells tested within the required accuracy standard of +/- 5 percent.
 - 4 wells initially tested outside the accuracy standard and were subsequently serviced and retested to confirm post-service accuracy is within +/- 5 percent.
 - 1 well tested outside the accuracy standard but no record of recalibration was provided to Watermaster.
- 1 well was not tested because the well was inoperable during the testing period.
- 8 wells were not tested for accuracy because the wells were not planned to be operated in WY 2023 and beyond.
- 3 wells were not tested for unspecified reasons.

3.1.2 Groundwater Levels and Quality Monitoring Program

The Borrego Springs Watermaster conducts monitoring programs for groundwater levels and groundwater quality in the Basin pursuant to the Stipulated Judgment and GMP. Generally, the main objectives of the monitoring programs are to collect the data necessary to:

- Demonstrate progress toward meeting the Sustainability Goal of the GMP, which is to ensure that by 2040 the Basin is operated within its Sustainable Yield without causing Undesirable Results. The main Undesirable Results to be avoided are the significant and unreasonable occurrences of the following Sustainability Indicators: chronic lowering of groundwater levels; reductions in groundwater storage; and degradation of groundwater quality. Current conditions are compared to Sustainable Management Criteria (e.g. Minimum Thresholds, Interim Milestones, and Measurable Objectives) for the Sustainability Indicators for each of the three management areas in the Basin: the North Management Area, the Central Management Area, and the South Management Area.
- Inform adaptive management of the Basin to achieve the Sustainability Goal.
- Improve the BVHM in a cost-effective manner that offers the most benefit for the resources expended.

The groundwater level and quality monitoring are performed by Watermaster staff and the BWD semi-annually in the spring and fall of each year.

The Watermaster maintains a webpage dedicated to the Groundwater Monitoring Program, where interested persons can download the Groundwater Monitoring Plan (GWMP), maps of the current groundwater-level and groundwater-quality monitoring networks, and results from each semi-annual monitoring event. The GWMP information is on the website at:

<https://borregospringswatermaster.com/groundwater-monitoring-program>.

3.1.2.1 Groundwater Monitoring Plan

Section VI.B of the Judgment calls for the Watermaster to develop a Water Quality Monitoring Plan (WQMP), with input from the TAC, within 24 months of entry of the Judgment (by April 8, 2023). The purpose of the WQMP is to understand water quality and how it is changing, so that the Watermaster can determine if changes in water quality are significant and unreasonable following consideration of the cause of impact, the affected beneficial use, and potential remedies. The WQMP must describe the network of monitoring wells, the frequency of monitoring, and the constituents to be monitored.

On April 6, 2023, the Watermaster adopted its GWMP³⁰ to satisfy the Judgment requirement to develop the WQMP. The GWMP addresses both groundwater-level and groundwater-quality monitoring to capitalize on grant funding awarded through the SGM Implementation Grant program administered by the DWR. The GWMP describes the monitoring objectives, the current monitoring network, frequency of monitoring, constituents monitored, database management, recommended locations for additional groundwater-level and groundwater-quality monitoring, recommendations and methods for expanding/improving the monitoring programs, how monitoring data will be reported, and the process for updating the GWMP.

A key element of the GWMP methods to expand the monitoring program is a public outreach and engagement effort whereby the Watermaster is seeking collaboration from the Borrego Springs community to help identify well owners that would be willing to allow the Watermaster to monitor their well(s). The Watermaster prepared public outreach and engagement materials and conducted outreach with members of the public in Borrego Springs to solicit interest from private well owners in participating in the monitoring program and/or to identify wells that may be a good candidate for filling a groundwater monitoring gap. The outreach materials include:

- Letter requesting participation in the GWMP
- Potential participant information form
- Map of the current groundwater monitoring network
- Frequently Asked Questions

These outreach materials are published on the [Watermaster's website](#). Wells identified by the public are then canvassed during a regularly scheduled semi-annual monitoring event. During the well canvass, the well will be assessed for the following: site access, current condition of the well, any repair(s) or rehabilitation required to convert the well to a monitoring well, if a transducer can be placed in the well, or if a groundwater quality sample can be collected. Based on the well canvass, the Watermaster will recommend whether the well is a suitable candidate to add to the groundwater quality and/or groundwater level monitoring network and develop an action plan to convert the well to a monitoring well.

³⁰<https://borregospringswatermaster.com/wp-content/uploads/2023/04/R-BSW-Groundwater-Monitoring-Program-FINAL-20230411.pdf>

3.1.2.2 Groundwater Monitoring Network as of WY 2023

Wells included in the groundwater monitoring network were incorporated from previous monitoring networks established by the BWD, the County, DWR, and United States Geological Survey (USGS); and from recent public outreach efforts. Wells are selected for monitoring based on a combination of factors, including geographic location, screen interval relative to the three principal aquifers, accessibility, well condition, and continuity of historical data. Long-term trends are tracked from wells with long-term historical records dating to the mid-1950s.

The wells included in the current groundwater level and water quality monitoring program are listed in Table 8 and the locations are shown in Figure 2. Table 8 lists the wells by management area, and includes the local well name, State Well ID, well use (if known), type of monitoring performed, and, if applicable, the reason(s) why a sample or measurement was not collected during the WY 2023 events (fall 2022 and spring 2023). As shown in Table 8, the monitoring network currently consists of 52 groundwater wells, which include the 16 Representative Monitoring Wells identified in the GMP. Some of the wells in the monitoring network are strictly observation wells (no pumping), while others are used to pump groundwater for municipal, recreation (e.g., golf courses), and other purposes. Of the 52 wells in the network:

- 50 are designated to be monitored for groundwater levels. Of these 50 wells:
 - 31 wells are measured using manual methods. Manual measurements are collected semi-annually in the spring and fall of each year.
 - 19 wells are measured at a high frequency interval (15 minutes to 1 hour) using a pressure transducer with an integrated data logger.
- 34 are designated to be monitored for water quality.

In WY 2023, four wells were added to the monitoring network. All four wells added to the monitoring network in WY 2023 are located in the North Management Area and include:

- Two newly constructed monitoring wells (MW-6S and MW-6D), which are equipped for monitoring groundwater level and quality. The monitoring well pair was constructed by DWR in Spring 2023 under the Technical Support Services (TSS) program.
- The T2 Farms well was added to the groundwater-quality monitoring due to access granted through public outreach efforts.
- Access was regained at the Fortiner well in the North Management Area, access to which had been interrupted since 2019.

During WY 2023, groundwater levels were able to be monitored at 48 of the 50 wells in the network. Two wells were not able to be monitored in fall 2022 or spring 2023: ID4-4 and Fortiner (see Table 8). The two wells will remain in the program as they will be able to be monitored in the future.

Seven new transducers were installed to replace failing units at the following wells: JC well, RH-1, RH-2, RH-3, RH-4, RH-6, and WWTP. And, a new Barologger was installed in the BSR 6 well to compensate transducer measurements for barometric pressure at surrounding wells. The new equipment was funded by the DWR SGM grant.

During WY 2023, groundwater quality samples were able to be collected at 32 of the 34 wells in the network. Two wells were unable to be sampled in both fall 2022 and spring 2023: RH-5 and Army Well. Watermaster staff were unable to sample RH-5 in WY 2023 due to the well being rehabilitated. RH-5 will continue to be monitored moving forward. A groundwater quality sample was not collected from the Army Well because the water level was too low to maintain sufficient head and pressure. The Army Well

has not been able to be sampled since fall 2021 due to low water levels and, because of this, this well will be removed from the groundwater quality network moving forward. Additionally, due to the inability to collect a representative groundwater quality sample from the JC well in spring 2023, this well will also be removed from the groundwater quality monitoring network moving forward.

3.1.2.3 Efforts to Expand the Groundwater Monitoring Program

In evaluating how to expand/improve the monitoring programs, the GWMP considered the data gaps identified in the GMP and identified additional limitations. Filling these data gaps and expanding the groundwater monitoring networks will improve the understanding of the hydrogeology of the Basin by collecting additional information on seasonal long-term trends in groundwater quality, the effects of recharge and GMP implementation on groundwater quality, and the depth distribution of groundwater quality, groundwater elevation, groundwater-flow directions, and hydraulic gradients in the North Management Area and the Central Management Area. The GWMP identified a total of 15 locations where the groundwater-level monitoring network could be expanded to address the recommendations in the GMP and meet the objectives of the monitoring program³¹. The GWMP also identified a total of 20 locations where the groundwater-quality monitoring network could be expanded to address the recommendations in the GMP and meet the objectives of the monitoring program³².

To implement the recommended improvements to the groundwater monitoring network, the GWMP identified that there are three primary methods to add a well to the monitoring network, which include: i) using an existing pumping well, ii) converting an abandoned or inactive well into a monitoring well, and iii) constructing a new monitoring well. Expanding the groundwater monitoring network during the first two years of implementation of the GWMP is focused on using existing wells in the Basin.

In WY 2023, the Watermaster, in coordination with the TAC, made efforts to expand the groundwater monitoring networks, with an emphasis on identifying existing wells in the Basin that could be incorporated into the monitoring network. Efforts included:

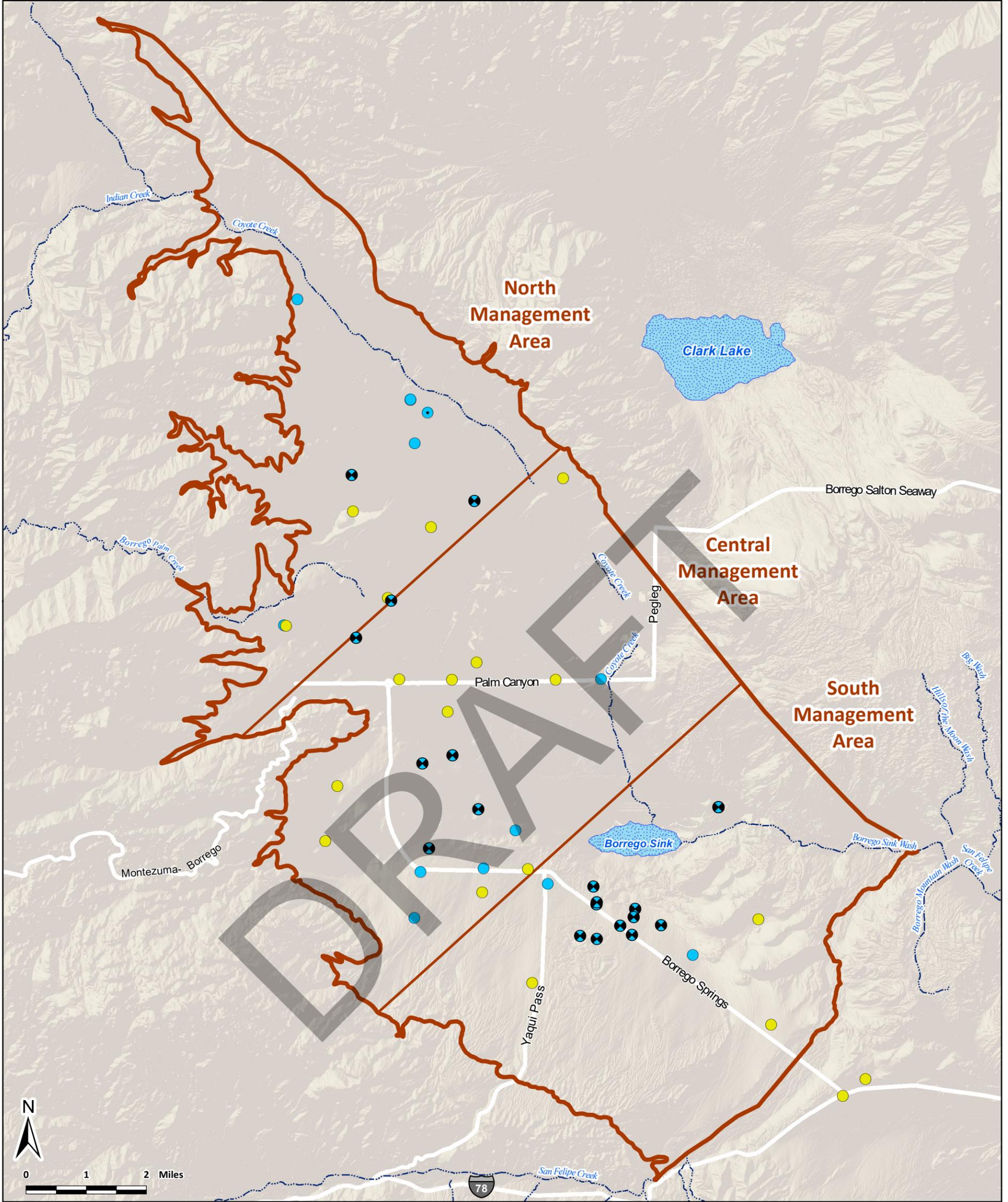
- Engaged with the public to solicit interest from private well owners in participating in the monitoring program and/or to identify wells that may be a good candidate for filling a monitoring gap (see Section 3.6.2 for more information).
- Performed site visits of wells identified through public outreach.
- Collected well construction information on candidate wells.
- Performed a desktop assessment of all candidate wells that could be added to the monitoring networks to evaluate which wells are most appropriate to add.

Through these efforts, the Watermaster identified 35 wells that are potential candidates for filling either a groundwater-level and/or groundwater quality monitoring gap in WY 2023. Of the 35 wells, 14 wells could potentially fill gaps in the groundwater-level monitoring network and 24 wells could potentially fill gaps in the groundwater-quality monitoring network.

In WY 2024, the Watermaster will canvass the potential well candidates identified to date and continue public outreach efforts to expand the groundwater monitoring program and fill data gaps identified in the GWMP.

³¹ See Figure 1 and Table 2 in the GWMP.

³² See Figure 2 and Table 4 in the GWMP.



Groundwater Monitoring Network

Wells Monitored for Groundwater Level
(symbol style)

- Manual Water-level Data
- ⊗ Transducer Water-level Data
- No Water-level Data

Status of Groundwater Quality Sampling of Wells
(symbol color)

- Sampled for Water Quality
- Not Sampled for Water Quality

Other Features

- ▭ Borrego Springs Subbasin with Management Area Divisions

Surface Water Features

- Stream Channel
- ▭ Dry Lake



Figure 2

Groundwater Level and Quality Monitoring Network

Borrego Springs Watermaster
Borrego Springs Subbasin
2023 Annual Report

Prepared by:



Table 8. Groundwater Level and Quality Monitoring Network and Wells Monitored in Water Year 2023

Local Well Name	State Well ID	Well Use	Groundwater Monitoring Network						Comments
			Water Level			Water Quality			
			Method if in program ⁽¹⁾	Fall 2022	Spring 2023	Well in program?	Fall 2022	Spring 2023	
North Management Area									
ID4-18*	010S006E18J001S	Public Supply	transducer	x	x	yes	x	x	
ID4-3*	010S006E18R001S	Observation	manual	x	x				
ID4-4*	010S006E29K002S	Observation	manual						Unable to measure GWL in WY 2023 due to the well being converted to a monitoring well.
ID4-9	010S006E29K003S	Public Supply	transducer	x	x	yes	x	x	
MW-1*	010S006E21A002S	Observation	transducer	x	x	yes	x	x	
Evans	010S006E21E001S	Observation	manual	x	x				
Horse Camp	009S006E31E003S	Other	manual	x	x	yes	x	x	
Fortiner #1*	010S006E09N001S	Domestic	manual			yes		x	Unable to measure GWL; access to well denied by owner. BWD obtained access to collect GWQ sample in Spring 2023.
Auxiliary Well 3	010S005E25R002S	Other	manual	x	x				
Auxiliary Well 2	010S005E25R001S	Other				yes	x	x	Unable to measure GWL due to sounding tube obstruction
T2 Farms	010S006E09C001S	Irrigation				yes		x	New well added in Spring 2023. Unable to measure GWL due to sounding tube obstruction.
MW-6S	010S06E08A003S	Observation	manual		x	yes		x	New well added in Spring 2023.
MW-6D	010S06E08A002S	Observation	manual		x	yes		x	New well added in Spring 2023.
Central Management Area									
Anzio/Yaqui Pass	011S006E22E001S	Observation	manual	x	x				
BSR Well 6	011S006E09B002S	Irrigation	manual	x	x	yes	x	x	Barologger installed in Spring 2023.
Cameron 2	011S006E04F001S	Observation	manual	x	x				
County Yard	011S006E15G001S	Industrial	manual	x	x	yes	x	x	
ID1-10	011S006E22D001S	Public Supply	manual	x	x	yes	x	x	
ID1-12*	011S006E16A002S	Public Supply	transducer	x	x	yes	x	x	
ID1-16*	011S006E16N001S	Public Supply	transducer	x	x	yes	x	x	
ID4-1*	010S006E32R001S	Observation	manual	x	x				
ID4-10	011S006E18L001S	Observation	manual		x				GWL not measured by BWD in Fall 2022.
ID4-11*	010S006E32D001S	Public Supply	transducer	x	x	yes	x	x	
ID4-2	011S006E07K003S	Observation	manual	x	x				
ID4-5	010S006E33Q001S	Observation	manual	x	x				
ID5-5*	011S006E09E001S	Public Supply	transducer	x	x	yes	x	x	
MW-4	010S006E35Q001S	Observation	manual	x	x	yes	x	x	Spring 2023 GWL measurement was not recorded.
Paddock	011S006E22B001S	Observation	manual	x	x				
Palleson	010S006E33J001S	Observation	manual	x	x				
Wilcox	011S006E20A001S	Public Supply	manual	x	x	yes	x	x	
Hanna (Flowers)	010S006E14G001S	Observation	manual	x	x				
Airport 2*	010S006E35N001S	Observation	manual	x	x				
Terry Well	011S006E20R001S	Irrigation	manual		x	yes	x		Unable to measure GWL in Fall 2022 due to access issue. Unable to sample for GWQ in Spring 2023 due to no power.
South Management Area									
Air Ranch Well 4*	011S007E30L001S	Public Supply	manual	x	x	yes	x	x	
Army Well	011S006E34A001S	Observation	manual	x	x	yes			Unable to collect GWQ due to low water levels. Well being removed from GWQ network after Spring 2023.
Hayden (32Q1)	011S007E32Q001S	Observation	manual	x	x				
ID1-8	011S006E23J001S	Public Supply	transducer	x	x	yes	x	x	
JC Well	011S006E24Q001S	Observation	transducer	x	x	yes	x		Transducer replaced in Spring 2023. Unable to collect a representative GWQ sample in Spring 2023.
La Casa	011S006E23E001S	Irrigation	manual	x	x	yes	x	x	
MW-3*	011S006E23J002S	Observation	transducer	x	x	yes	x	x	
MW-5A*	011S007E07R001S	Observation	transducer		x	yes		x	Unable to access in Fall 2022 due to access road washed out.
MW-5B*	011S007E07R002S	Observation	transducer		x	yes		x	Unable to access in Fall 2022 due to access road washed out.
RH-1 (ID1-1)*	011S006E25A001S	Recreation	transducer	x	x	yes	x	x	Transducer replaced in Spring 2023.
RH-2 (ID1-2)	011S006E25C001S	Recreation	transducer	x	x	yes	x	x	Transducer replaced in Spring 2023.
RH-3	011S006E25C002S	Recreation	transducer	x	x	yes	x	x	Transducer replaced in Spring 2023.
RH-4	011S006E24Q002S	Recreation	transducer	x	x	yes	x	x	Transducer replaced in Spring 2023.
RH-5	011S006E26B001S	Recreation	transducer	x	x	yes			Unable to collect GWQ sample due to well rehabilitation.
RH-6	011S006E26H001S	Recreation	transducer	x	x	yes	x	x	Transducer replaced in Spring 2023.
WWTP	011S006E23H001S	Observation	transducer	x	x	yes	x	x	Transducer replaced in Spring 2023.
Bing Crosby Well	011S007E20P001S	Observation	manual	x	x				
Outside Borrego Springs Subbasin									
State Well	012S007E03L001S	Observation	manual	x	x				
Nel Well	012S007E04R001S	Observation	manual	x	x				

Wells not included in the groundwater level or groundwater quality monitoring program are greyed out.

*Representative Monitoring Well with defined Minimum Thresholds and Measurable Objectives, as identified in Table 3-4 and Table 3-5 of the GMP

(1) Wells denoted with "transducer" have a pressure transducer installed that continuously records water level measurements on a high frequency interval (15-minutes to 1 hour)

3.1.3 Surface Water Monitoring

As part of the development of the GMP, surface-water flow in Coyote Creek was investigated to assess whether the perennial and ephemeral creek segments are gaining water or losing water to the underlying aquifer system. To complete this analysis, the perennial extent of flow into the Basin was measured on a semi-annual basis (fall and spring) from spring 2018 to fall 2019 at five sites: Upper Historical Stream Gage Site (USGS 10255800), Third Crossing, Locking Gate, Lower Historical Stream Gage Site (USGS 10255805), and First Crossing. The manual flow measurements and visual observation of stream conditions on Coyote Creek taking from spring 2018 to fall 2019 showed that stream flow decreases from upstream to downstream and can be completely infiltrated by the First Crossing (Dudek, 2020b; West Yost, 2021). This suggests that the Creek system, in aggregate, is losing water to the underlying aquifer system.

Watermaster staff continued to visit Coyote Creek, but beginning in fall 2020, all five sites on Coyote Creek were either i) dry, or ii) not accessible for manual flow measurements due to excessive vegetation growth, shallow flows, and the presence of braided channels. Based on these observations, it was determined to be impractical to measure streamflow in Coyote Creek and Watermaster staff has since relied on visual observations to describe Coyote Creek flow conditions. In WY 2023, Watermaster staff visited Coyote Creek in the spring and fall and continued to make visual observations of flow conditions.

3.2 Technical Advisory Committee

Section IV.G of the Judgment and Article III of the Rules & Regulations provides for the formation of the Watermaster TAC. The Judgment defines the TAC as (Section I.A.58):

The advisory body established pursuant to Section IV.G(1) of this Judgment to study technical aspects of the Basin and to issue recommendations to Watermaster based on such technical study for the purpose of achieving Sustainable Groundwater Management in the Basin in an effective and efficient manner, consistent with the rights and obligations of the Parties established by this Judgment.

Section IV.E.7 calls for the TAC to meet at least semi-annually to review Watermaster activities pursuant to the Judgment. The types of activities within the subject matter expertise of the TAC on which recommendations are to be made to the Watermaster pursuant to the Judgment are summarized as follows.

Determination of Sustainable Yield (Section II.E; Section III.F). The Judgment describes the detailed process for re-determining the Sustainable Yield and the implementation of the Rampdown through 2040, and provides a schedule for the TAC to develop and agree upon a scope of work to determine the Sustainable Yield.

Evaluation of Carryover (Section III.B). The Carryover provision for unused annual allocations of pumping rights must be re-evaluated by January 1, 2025, in consultation with the TAC.

BPA transfers (Section III.I.5). The Watermaster will seek input from the TAC if it seeks to restrict Permanent Transfers and Leases to specific areas of the Basin. This is an as-needed duty of the TAC.

Selection of Watermaster staff (Section IV.C). This is an as-needed duty of the TAC.

Water quality monitoring plan (Section VI.B). A water quality monitoring plan must be developed with TAC input within 24 months of entry of the Judgment. The TAC will also support the Watermaster's evaluation of water-quality data and any findings of impacts on beneficial uses and associated remedies.

3.2.1 TAC Responsibilities

Section IV.G.2 of the Judgment defines the TAC's duties and responsibilities to include making recommendations based on best science and data collected regarding the Water Budget and the avoidance of undesirable results, including without limitation information generated from model runs of the BVHM. With regards to making recommendations, Section IV.G.1 of the Judgment provides that the TAC will endeavor to decide all matters by consensus. In WY 2023, the Board adopted guidelines for the TAC process ([Resolution 23-01](#))³³. The guidelines were adopted to clarify the role of the Technical Consultant and the expectations of the participants in the TAC.

For issues discussed during TAC meetings that require a formal TAC recommendation to the Watermaster Board, a TAC recommendation report is produced. The Technical Consultant summarizes the TAC recommendations based on the discussion at the TAC meeting and coordinates with the TAC via email with the goal of obtaining TAC consensus. A report is prepared describing the TAC recommendation and documenting if consensus has been achieved amongst the TAC. If consensus cannot be achieved, the TAC recommendation report to the Watermaster describes the differences in opinion and arguments for each opinion, as required in Section IV.G of the Judgment and as described in Resolution 23-01. A draft of the report is circulated for comment and input by all TAC members prior to submission of the report to the Watermaster to ensure the recommendation accurately reflects the views of each TAC member.

³³<https://borregospringswatermaster.com/wp-content/uploads/2023/03/Resolution-23-01-Guidelines-for-TAC-Process-Executed.pdf>

3.2.2 TAC Membership

Under Section IV.G.1 of the Judgment, TAC membership is open to an expert hired by any Party holding BPA or the County. The expert must be a California licensed hydrogeologist, California licensed engineer, professional hydrogeological modeler, professional groundwater statistician, or other California licensed member of a recognized professional discipline approved by the Watermaster. As noted in Section 2.8 of the annual report, at the September 14, 2023 meeting, the Board voted to file a motion to amend the Judgment to allow the Community Representative to appoint a member to the TAC on behalf of the public. The motion to amend the Judgment will be filed in WY 2024.

Table 9 lists the members of the TAC as of the end of the reporting period on September 30, 2023. In WY 2023, one new member was added to the TAC. Detailed information about each TAC member’s qualifications is provided on the Watermaster’s [website](#)³⁴.

Table 9. Technical Advisory Committee Membership in Water Year 2023	
Representing	TAC Member
Borrego Water District	Trey Driscoll, PG, CHG - Principal Hydrogeologist, Intera
T2 Borrego, LLC	Tom Watson, PG – Principal Geologist, Aquilogic
Parties who are members of the Agricultural Alliance for Water and Resource Education (“AAWARE”)	Bob Wagner, PE – Principal Water Resources Engineer, Wagner & Bonsignore
County of San Diego	Jim Bennett, PG, CHG – Water Resources Manager, County of San Diego
Roadrunner Club	John Peterson, PG, CHG - Retired (Appointed July 2023)

³⁴ <https://borregospringswatermaster.com/technical-advisory-committee-meetings/>

3.2.3 Reporting Period Meetings and Recommendations

The meetings of the TAC are facilitated by Watermaster’s Technical Consultant. TAC meetings are held virtually and are open to the public. The public is afforded the opportunity to address the TAC at the beginning and end of the meetings, and during TAC discussion if requested by the TAC. Table 10 lists the TAC meeting dates, agenda topics, and summary of the recommendations to the Board for the reporting period. The TAC meeting materials are available on the Watermaster’s [website](#)³⁵.

Table 10. Technical Advisory Committee Meetings and Topics During the Reporting Period	
Meeting Date	Agenda Topics
November 2, 2022	<ul style="list-style-type: none"> • Recommend revised technical scope-of-work for WY 2023 to support the redetermination of the Sustainable Yield, based on outcomes of work performed in WY 2022 • Review and discuss the draft technical memorandum <i>Groundwater Monitoring Gap Analysis</i> • Methods to estimate annual storage change • Status update on the new groundwater monitoring well to be constructed by and funded through the DWR’s TSS Program
February 21, 2023	<ul style="list-style-type: none"> • Review of the new guidelines regarding TAC procedures • Review of draft <i>Groundwater Monitoring Plan</i> • Recommendations for repurposing SGM grant funding to support the revised scope of work for redetermination of the Sustainable Yield • Status update on the new groundwater monitoring well constructed by and funded through the DWR’s TSSc Program
June 5, 2023	<ul style="list-style-type: none"> • Review results of Task 1 and Task 2 of the revised scope-of-work to Redetermine the Sustainable Yield by 2025: <ul style="list-style-type: none"> ○ Task 1 – <i>Compare FMP-Estimated Pumping Actual Pumping for WY 2022</i> ○ Task 2 – <i>Update Water-Use Factors in the FMP</i>
August 29, 2023	<ul style="list-style-type: none"> • Review results of Task 2 – <i>Update Water-Use Factors in the FMP</i> of the revised scope-of-work to Redetermine the Sustainable Yield by 2025 • Discuss the DWR’s Statewide Airborne Electromagnetic Survey (AEM) project • Status update on the new groundwater monitoring well constructed by and funded through the DWR’s TSS Program

The TAC made one formal recommendation to the Board during WY 2023 regarding the scope-of-work to redetermine the Sustainable Yield by 2025. The TAC prepared a revised scope of work and budget for seven potential tasks to perform to support the redetermination of the Sustainable Yield, based on the results of the BVHM extension. Table 11 summarizes each TAC member’s recommendation of whether to perform each potential task listed in the revised scope-of-work to redetermine the Sustainable Yield. The official TAC

³⁵ <https://borregospringswatermaster.com/technical-advisory-committee-meetings/>

**Water Year 2023 Annual Report
for the Borrego Springs Subbasin**

recommendation report dated January 27, 2023 is available on the Watermaster’s [website](#)³⁶. The Board approved the TAC-majority recommended scope of work, which included Tasks 1, 2, 3, 6, and 7 listed in Table 11.

Table 11. Summary of TAC Recommendation to the Board on the Scope of Work to Redetermine the Sustainable Yield					
Recommendation(s) to the Board	TAC Committee Member Party and Representative ³⁷				Watermaster Board Decision
	AAWARE <i>Bob Wagner</i>	BWD <i>Trey Driscoll</i>	County of San Diego <i>Jim Bennett</i>	T2 Borrego, LLC <i>Tom Watson</i>	
Task 1 – Compare Farm Process (FMP)-Estimated Pumping to Actual Pumping for WY 2022	X	X	X	X	Approved as Task 1
Task 2 – Update Water-Use Factors in the FMP	X	X	X	X	Approved as Task 2
Task 3 – Correct Errors identified in the 2021 BVHM	X	X	X	X	Approved as Task 3
Task 4 – Develop and Implement New Methods to Estimate Recharge		X			Not approved
Task 5 – Upgrade BVHM to Use the New Version of MODFLOW-OVHM					Not approved
Task 6 – Perform Model Recalibration	X	X	X	X	Approved as Task 4
Task 7 – Determine the Sustainable Yield (including documentation)	X	X	X	X	Approved as Task 5

³⁶ The reasons for each TAC members’ recommendation regarding the revised scope of work are documented in the report available on the Watermaster’s website at: https://borregospringswatermaster.com/wp-content/uploads/2023/02/TAC-Recommendation-Report_SY-2023-24_final.pdf

³⁷ John Peterson was not yet elected as a member of the TAC during this TAC-recommendation to the Board.

3.3 Environmental Working Group

The Watermaster has established an EWG to advise the Watermaster on GDEs and any other matters approved by the Board. At its November 2020 meeting, the Board established a sub-committee consisting of Directors Jim Bennett and Mark Jorgensen to develop a recommendation on a process to establish the EWG. The subcommittee established a draft mission statement for the EWG. The final mission statement approved by the Board is:

The role of the Environmental Working Group (EWG) is to advise and further the mission of the Borrego Springs Watermaster to implement the Stipulated Judgment and comply with Sustainable Groundwater Management Act (SGMA) by focusing on the protection of human health and the environment. The activities of the EWG shall be approved by the Watermaster Board and will always include a nexus between environmental issues and the sustainable use of groundwater in the Borrego Springs Subbasin. Activities of the EWG could include, but are not limited to:

- *Environmental assessment, monitoring, and habitat restoration or enhancement associated with groundwater dependent ecosystems*
- *Management of fallowed lands and the potential for participating in biological mitigation projects*
- *Addressing improperly abandoned wells*
- *Management of non-native (invasive) species for water conservation purposes*
- *Air quality monitoring*
- *Pursuit of funding opportunities*

The EWG sub-committee also defined the proposed membership structure for the EWG, the desired qualifications of EWG members, and an application process to solicit membership. The EWG was to consist of a minimum of five members, including Director Jim Bennett (County of San Diego), Director Mark Jorgensen (Community Representative), and at least three at-large members selected by the Board. To best fulfill the mission, EWG members should have a background in science and one or more of the following specialties: desert ecosystems, groundwater dependent ecosystems, hydrogeology, hydrology, and/or the local water resources and biology of the Borrego Springs Subbasin and surrounding area. Local knowledge of the Borrego Springs area and local residency are also preferred.

In December 2020, the Watermaster posted and noticed an EWG membership application to solicit membership and accepted applications through January 2021. The EWG applications were reviewed by the Board and members were appointed at the January 14, 2021 meeting. Table 12 lists the EWG members appointed by the Board and actively serving in WY 2023.

Table 12. Environmental Working Group Membership in WY 2023

Member and Affiliation	Member Experience
Mark Jorgensen Community Representative	Mr. Jorgensen is a retired Park Superintendent for Anza Borrego State Park and worked for California State Parks for 30 years. He sits on the Borrego Springs Watermaster Board representing the community of Borrego Springs.
Jim Bennett, PG, CHG County of San Diego	Mr. Bennett has 23 years of experience in hydrogeology. Mr. Bennett was the manager of the development of the GSP for the Borrego Springs Groundwater Subbasin. He sits on the Borrego Springs Watermaster Board, representing the County of San Diego
Jim Dice Reserve Manager at the Steele/Burnand Anza-Borrego Desert Research Center	Mr. Dice has been Reserve Manager since the Steele/Burnand Anza-Borrego Desert Research Center opened in 2012. He retired in 2012 from California State Parks after 25 years of service with the State of California. He served as manager for San Diego State University’s Santa Margarita Ecological Reserve from 1987-88 and Curator of the Desert Garden at Huntington Botanical Gardens in San Marino, California from 1981-1985.
Danny McCamish Senior Environmental Scientist for the Colorado Desert District of California State Parks	Mr. McCamish is a supervisory scientist overseeing Natural Resources Management for Colorado Desert District at California State Parks. He has 15 years of experience working in natural resources management and experience in climate change research.
John Peterson, PG, CHG Retired County Groundwater Geologist, California Professional Geologist and Certified Hydrogeologist	Mr. Peterson is a long-time resident of Borrego Springs with 40 years of experience in hydrogeology. He joined the County of San Diego as County Groundwater Geologist in 1981 and retired from the County in 2003. He also serves as Anza-Borrego Foundation Board Member.
Michael Wells, PhD Retired District Superintendent, Colorado Desert District, California Department of Parks and Recreation	Dr. Wells has over three decades of experience in natural resources management and a 34-year career with California State Parks. Dr. Wells has a PhD in physical geography from a joint program between San Diego State University and the University of California, Santa Barbara. He and his wife recently wrote a book on the natural history of the Anza-Borrego Region.

The meetings of the EWG are open to the public. The public is afforded the opportunity to address the EWG at the beginning and end of the meetings, and during EWG discussion if requested by the EWG. Table 13 lists the EWG meeting dates and agenda topics for the reporting period. The EWG meeting materials are available on the Watermaster’s [website](#)³⁸.

Meeting Date and Format	Agenda Topics
January 27, 2023 (in-person)	<ul style="list-style-type: none"> • Status update on the Biological Restoration of Fallowed Lands project: <ul style="list-style-type: none"> ○ Introduction and overview on fallowed farmland ○ Reference natural habitat and sand fence design ○ Farmland rehabilitation strategies and prioritization
September 26, 2023 (virtual)	<ul style="list-style-type: none"> • Status update on the Biological Restoration of Fallowed Lands project: <ul style="list-style-type: none"> ○ Design, research questions, and methods of Task 2 – <i>Existing Abandoned Farmland and Reference Natural Habitat Study</i> ○ Design, research questions, methods, and update of Task 3 – <i>Fallowed Farmland Brush Fence Study</i> • Presentation on the Wildland Urban Interface Climate Action Network and opportunities for collaboration

3.4 Redetermination of Sustainable Yield

In WY 2021, in accordance with the process defined in the Judgment, the TAC developed and the Board approved a scope of work to redetermine the Sustainable Yield by January 1, 2025, which included an initial task to extend the BVHM from WY 2016 through WY 2021 and compare model-estimated groundwater pumping to the metered groundwater pumping data in the Basin newly available from the Meter Reading Program (see Section 3.1.1.2). The objective of this task was to evaluate the ability of the BVHM to accurately estimate historical and future pumping because this ability is essential to future redeterminations of the Sustainable Yield and the Rampdown rate that determines annual pumping allocations for the Judgment Parties. Watermaster began implementing the work in WY 2022, including publishing a technical memorandum (TM) documenting (i) the model results, (ii) the comparison of model-estimated pumping versus newly-metered pumping in WY 2021, and (iii) recommendations for additional model updates and/or model recalibration that are necessary to redetermine the Sustainable Yield by 2025 (West Yost, 2022b)³⁹. In comparing model-estimated to metered groundwater pumping, the TAC identified that the model was underestimating groundwater pumping by approximately 42% and identified several other discrepancies that could directly impact the BVHM’s ability to accurately estimate the water budget and Sustainable Yield. Based on the results of the BVHM extension through WY 2021, the TAC identified improving the ability of the BVHM to accurately estimate historical and future pumping as the top priority issue to address prior to the 2025 redetermination of the Sustainable Yield.

To address this priority, in WY 2023, the TAC recommended a revised scope of work, schedule, and budget to complete the work through WY 2024 (see Section 3.2.3 above). The Board approved a revised scope of

³⁸ <https://borregospringswatermaster.com/environmental-working-group/>

³⁹ Available on the Watermaster’s website at: <https://borregospringswatermaster.com/wp-content/uploads/2022/12/TM-940-2021-BVHM-Extension-220921.pdf>

work and budget at its February 9, 2023 regular meeting. The scope of work is being funded by the DWR SGMA grant.

The revised scope of work to complete the redetermination of Sustainable Yield by January 2025 includes the following five tasks:

- Task 1 – Compare Farm Process (FMP)-Estimated Pumping to Actual Pumping for WY 2022
- Task 2 – Update Water-Use Factors in the FMP
- Task 3 – Correct Errors Identified in the 2021 BVHM
- Task 4 – Perform Model Recalibration
- Task 5 – Determine the Sustainable Yield

In WY 2023, Tasks 1 and 2 were completed and Task 3 was initiated, as follows:

- Task 1 – *Compare FMP-Estimated Pumping to Actual Pumping for WY 2022*. The primary objective of this work was to extend the BVHM by one additional year from WY 2021 through WY 2022 and compare FMP-estimated pumping to metered pumping data to understand the ability of the FMP to estimate pumping. The BVHM was extended through WY 2022 and then re-ran from WY 1930 through WY 2022. The model results were then evaluated to compare FMP-estimated pumping to actual metered pumping in WY 2021 and 2022. The evaluation showed that the FMP significantly underestimates groundwater pumping, which indicated that the water-use factors used in the FMP to estimate actual ET and groundwater pumping are inaccurate, and hence, the BVHM needs to be improved and recalibrated. The methods and results of performing Task 1 are documented in a TM available on the Watermaster’s website.⁴⁰
- Task 2 – *Update Water-Use Factors in the FMP*. The objective of this task was to develop updated estimates of the water-use factors used in the FMP to improve the ability of the FMP to estimate groundwater pumping. In this task, the water-use factors used in the FMP were evaluated and updated to more realistic/defensible values to improve the ability of the FMP to estimate pumping. The two water-use factors that were updated were: crop coefficient (KC) and on-farm efficiency (OFE), or irrigation efficiency. Using updated KC and OFE values, the BVHM was then re-run from WY 1930 through WY 2022. The model results were then evaluated to compare FMP-estimated pumping to actual metered pumping in WY 2021 and 2022. The updated KC and OFE values improved the ability of the FMP to estimate groundwater pumping in WY 2021 and 2022. The TAC recommended using the revised water use factors during Task 4 – Model Recalibration and to further evaluate historical OFE values to represent historical irrigation methods in the Basin. The methods, conclusions, and recommendations of performing Task 2 are documented in a TM available on the Watermaster’s website.⁴¹
- Task 3 – *Correct Errors Identified in the 2021 BVHM*. The objective of this task was to fix known errors in the BVHM and quantify the influence of the errors on the BVHM results. In this task, the errors and discrepancies identified in the 2021 BVHM TM were corrected. These corrections included fixing errors in the Streamflow Routing, Flow and Head Boundary, and Multi-Node Well (MNW2) packages, and in the FMP. Additionally, the screen depths of wells

⁴⁰ <https://borregospringswatermaster.com/wp-content/uploads/2023/08/III-BVHM-memo.pdf>

⁴¹ https://borregospringswatermaster.com/wp-content/uploads/2023/08/III_BVHM-Task-2.pdf

in the MNW2 package were compared to well completion data to validate the depth distribution of pumping in the BVHM. In WY 2024, once all identified errors have been corrected, the BVHM will be run through WY 2022. The results from the corrected BVHM will be compared to the historical BVHM results to quantify the influence of the errors on the model results.

In WY 2024, Tasks 3 and 4 will be completed and a draft Sustainable Yield will be determined as part of Task 5.

3.5 Biological Restoration of Fallowed Lands Project

To capitalize on available grant funding for SGMA implementation, the EWG developed a scope of work⁴² to develop data, information, and criteria to guide the use of biological restoration as a technique to mitigate the potential adverse impacts associated with the fallowing of lands (*i.e.* airborne dust emissions or introduction of invasive species) that is expected to occur within the Basin in order to meet the sustainability goal of reducing groundwater pumping. The anticipated benefits of restoring fallowed land include reduced water consumption, management of airborne dust emissions, increase natural biodiversity and habitat value, and maintain or enhance values pertinent to the Anza Borrego State Park and the residents of Borrego Springs.

The project is being administered by the EWG and performed by Land IQ. The project includes the following main tasks:

- Task 1 - Review and Analysis of Existing Data
- Task 2 - Existing Abandoned Farmland and Reference Natural Habitat Study
- Task 3 - Fallowed Farmland Brush Fence Study
- Task 4 – Farmland Fallowing Rehabilitation Strategies
- Task 5 – Farmland Fallowing Prioritization

During the reporting period, the following work was performed on Tasks 1 through 3:

- Task 1 - Review and Analysis of Existing Data. The Watermaster produced the Literature Review of the Rehabilitation of Fallowed Farmlands in Borrego Valley, California.⁴³ The Literature Review characterizes historic and current conditions of agricultural crops and practices and the natural habitat in the Basin based off a compilation of existing reports, historical maps and data, and interviews with key stakeholders and local experts in the Basin. The Literature review also includes potential strategies and information needs to inform the implementation of Tasks 2 through 5 of the scope of work and the Initial Fallowed Farmland Rehabilitation Opportunities and Prioritization Map, which is an initial prioritization map for fallowing farmland in the Basin.
- Task 2 - Existing Abandoned Farmland and Reference Natural Habitat Study. The objective of this task is to survey a range of fallowed and natural reference sites and identify drivers of biologically complex conditions. In WY 2023, Watermaster worked with the Anza-Borrego

⁴² Available on the Watermaster's website at: <https://borregospringswatermaster.com/wp-content/uploads/2023/01/Project-Submittal-Form-Biological-Restoration-com.pdf>

⁴³ Available on the Watermaster's website at: <https://borregospringswatermaster.com/wp-content/uploads/2023/06/Borrego-Lit-Review-2023-03-31-Final-with-Appendices.pdf>

Foundation, Anza-Borrego State Park, Under the Sun Foundation, and private landowners to obtain access to nine fallowed sites to study the Basin’s natural response to land fallowing. The nine sites selected were fallowed between 3 and 57 years prior. Field data and drone images were collected from these nine sites to assess the differences in vegetation (species type, cover, proportion of native vs. non-native species), soil type, geomorphology, and landscape structure.

- Task 3 - Fallowed Farmland Brush Fence Study. The objective of this task is to assess the feasibility and effectiveness of various fallowing techniques on dust mitigation and habitat recovery. In WY 2023, Watermaster identified potential study locations, began coordination with landowners to obtain access to potential study sites, and designed four fallowing techniques to construct and study in the Basin (mulch rows, scattered trees, tree fence rows, and temporary sand fence rows). The four designs are documented in a presentation given to the EWG during the September 26, 2023 EWG meeting.⁴⁴

In WY 2024, the Watermaster will:

- Produce a technical memorandum summarizing the field study results from Task 2.
- Obtain land easement agreements with landowners to access study sites and construct the four fallowing technique designs to support Task 3.
- Begin work on Task 4 and Task 5.

⁴⁴ Available on the Watermaster’s website at: https://borregospringswatermaster.com/wp-content/uploads/2023/09/20230926_EWG-Presentation.pdf

3.6 Stakeholder Engagement

The DWR SGMA Implementation Grant provides funding for public outreach and engagement efforts. Using grant funding, the Watermaster began hosting Open Houses to facilitate public outreach and provide a venue to receive public input on grant-related projects, Watermaster activities, and sustainable management of the Basin. The Open Houses are an opportunity for the public to meet with, ask questions, and have a discussion with Watermaster Staff and Board members. All Watermaster Open Houses are noticed via Watermaster’s email distribution list and website.

During WY 2023, the Watermaster held two in-person Open Houses at the Borrego Springs Library. A regular, in-person Watermaster Board meeting followed each Open House. Table 14 lists the Open House meeting dates and a summary of the topics discussed for WY 2023.

Table 14. Open Houses and Topics During the Reporting Period	
Open House Date	Topics Discussed
December 8, 2022	<ul style="list-style-type: none"> • Discussion on groundwater quality in the North Management Area • A recommendation from the public to engage the community through outreach efforts to identify monitoring locations and expand the groundwater monitoring network • Questions from the public were received on the following topics: <ul style="list-style-type: none"> ○ Selling and acquiring water rights in accordance with the Judgment ○ Borrego Springs Watermaster’s website ○ Process for electing Board Representatives ○ Historical TDS measurements in the Basin ○ Role of Watermaster Staff
June 14, 2023	<ul style="list-style-type: none"> • Review of the results from the spring 2023 semi-annual monitoring event • Status update on the Watermaster’s effort to expand the groundwater monitoring network and public outreach efforts • Questions from the public on the following topics: <ul style="list-style-type: none"> ○ Changes in land ownership and BPA ownership ○ 5-year assessment of the Groundwater Management Plan

4.0 WATER YEAR 2023 WATER RIGHTS ACCOUNTING

Watermaster is responsible for performing water rights accounting on an annual basis to track pumping, Carryover elections, transfers and leases between the Parties, and to calculate the Adjusted Pumping Calculation on which pumping assessments for the ensuing year are based and the total allowable pumping by Party for the ensuing WY.

4.1 Definitions

4.1.1 Judgment Terms for Water Rights Accounting

Key definitions from the Judgment for Watermaster's water rights accounting are:

Baseline Pumping Allocation. BPA is the maximum allowed pumping quantity allocated to a Party (Judgment Section I.A.8). Exhibit 4 to the Judgment defines the BPA for each Party to the Judgment. Exhibit 4 is to be updated annually with any changes to BPA allocation based on Permanent Transfers of rights (see Appendix D). The total BPA is 24,293 af.

Rampdown Rate. The Rampdown Rate is the percentage reduction in cumulative authorized pumping of BPA effective across the Basin in any particular WY, which when subtracted from 100 percent will determine the effective Pumping Percentage (Judgment Section I.A.51). For example, the Rampdown Rate for the first five-year period is 25 percent, for a total of five percent Rampdown relative to BPA per year. The Rampdown Rate for WY 2023 is five percent. The cumulative Rampdown Rate for WYs 2021 and 2023 is 15 percent.

Pumping Percentage. The Pumping Percentage is the percentage of a Party's BPA that is authorized to be pumped in any particular WY, based on the pumping Rampdown percentage then in effect (Judgment Section I.A.49). For example, in WY 2023 the Pumping Percentage is 85 percent, which is a 15 percent pumping Rampdown from BPA.

Annual Allocation. The Annual Allocation is the maximum amount of pumping allowed by a Party in a given WY, excluding Carryover or imported water if available. The Annual Allocation for each WY will be determined by multiplying the Party's BPA by the Pumping Percentage in effect for that WY. Annual Allocation is rounded to the nearest whole af (Judgment Section I.A.51). For example, if a Party's BPA right is 418 acre-feet, the WY 2023 Annual Allocation is 355 af ($0.85 \times 418 \text{ af} = 355.3 \text{ af}$).

Carryover. Any unused Annual Allocation may be carried over for use in subsequent water years as "Carryover", so long as the Party's assessment is paid in the current year, subject to restrictions on the amount or duration of Carryover specified in Section III.B of the Judgment. The initial maximum quantity of Carryover that a Pumper can accrue is two times the Party's BPA (Judgment Sections I.A.12 and III.B). The first Groundwater produced by a Party during any WY will be deemed to be an exercise of any Carryover (Judgment Section III.G.1).

Permanent Transfer. A Permanent Transfer is a transfer of BPA, including any portion of a Party's total BPA, which is permanently added to a grantee's cumulative BPA and subtracted from the grantor's BPA, and when multiplied by the pumping Rampdown percentage will establish additional Annual Allocation of the grantee in each WY (less any water pumped in that year by the selling Party) and thereafter (Judgment Section I.A.42).

Lease. A Lease is a transfer of Annual Allocation or Carryover for one WY or for several WYs, as set forth in a written lease agreement (Judgment Section I.A.32).

Adjusted Pumping Calculation. The Adjusted Pumping Calculation is the basis of establishing each Party's pumping assessment and is defined in Section IV.E.4 of the Judgment. Section IV.E.4 establishes that the annual Watermaster Budget will be funded through the establishment of an annual uniform pumping assessment (expressed in \$/af of pumping). The Adjusted Pumping Calculation is computed for all Parties with BPA rights and for the two parties with other non-De Minimis water rights (ABDSP and BSUSD).

Watermaster calculates each Party's annual Adjusted Pumping Calculation in af as follows:

+ Total Pumping by Party (af)
+ Total Pumping by Party's Lessee (af)
– Amount of Carryover Pumped by Party (af)
– Amount of Annual Allocation or Carryover Leased from Others and Pumped by Party (af)
+ Carryover Election (af)
<hr/>
= Adjusted Pumping Calculation (af)

Overproduction. Overproduction is pumping by a Party in any particular WY that is in excess of the sum of the Party's Annual Allocation plus any leased Annual Allocation plus any accrued Carryover (Judgment Section I.A.38). Overproduction up to the Maximum Over Production Limit must be covered within one year of the Overproduction, either by using less Annual Allocation (e.g., under-pumping the allowable pumping limit afforded by Annual Allocation) or applying Carryover in the subsequent WY or by Lease or Permanent Transfer. If Overproduction is not covered by one of these means by the end of the subsequent WY, an Overproduction Penalty Assessment applies. For example, a Party that engages in Overproduction in WY 2025 has until the end of WY 2026 to remedy the Overproduction through the means stated herein.

Special Rules for Overproduction during the first three Water Years. Under Judgment section III.G.1, 2 and 3, special rules apply to Overproduction in the first 3 Water Years (WY 2021, WY 2022, and WY 2023). During the first three Water Years, no Party will be subject to an immediate Overproduction Penalty Assessment so long as such Party's total cumulative Overproduction in those Water Years does not exceed the Maximum Overproduction Limit. The Maximum Overproduction Limit is 20 percent of a Party's cumulative Annual Allocation for WY 2021 through WY 2023. Any Party that engages in Overproduction in any of the first three WYs that does not exceed the Maximum Overproduction Limit will be notified by the Watermaster of the amount of Overproduction annually following the end of Water Year. The Party engaging in Overproduction shall cover the cumulative quantity of its Overproduction that occurred in WY 2021, WY 2022 and WY 2023 by the end of WY 2025 through either Carryover, reduced production below the authorized Annual Allocation in WY 2024 and WY 2025, or through lease or permanent transfer. If the Party has not covered its Overproduction from WY 2021, WY 2022 and WY 2023 by the end of WY 2025 (September 30, 2025), an Overproduction Penalty Assessment will be assessed to the Party.

If Overproduction in any of the first three WYs exceeds the Maximum Overproduction Limit, an Overproduction Penalty Assessment applies for the Overproduction amount in excess of the Maximum Overproduction Limit unless such Overproduction in excess of the Maximum Overproduction Limit is covered and cured through under-pumping, Carryover, Lease, or Permanent Transfer for all such Overproduction during the subsequent WY. For example, a Party that engages in Overproduction in excess of the Maximum Overproduction Limit in WY 2021 has until the end of WY 2022 to remedy the excess Overproduction through the means stated herein.

4.1.2 Additional Terminology for Water Rights Accounting

In addition to the definitions from the Judgment, the following terminology are used by the Watermaster to support the Water Rights accounting.

Other Non-De Minimis Water Rights. This is the term used to refer to the Judgment-defined water rights of the ABDSP (20 afy) and the BSUSD (22 afy) that are not BPA rights. This terminology is used to distinguish them from BPA rights. Although these rights do not qualify for Carryover and cannot be leased or transferred, the pumping pursuant to them must be considered in the Adjusted Pumping Calculation and in assessing Overproduction. The ABDSP and BSUSD are called Parties with non-De Minimis rights.

Total Allowable Pumping. The total allowable pumping in a particular WY is the total amount of pumping that a Party can do without triggering Overproduction rules. The total allowable pumping is computed as follows:

- For BPA Parties: the total allowable pumping is the sum of the WY Annual Allocation plus (or less than) any transfers and leases of Annual Allocation plus any available Carryover account balance at the beginning of the WY.
- For Parties with non-De Minimis rights: the total allowable pumping is the sum of the non-De Minimis Water rights plus any transfers and leases of Annual Allocation.

4.2 Permanent Transfers and Leases

Pursuant to Section III.I of the Stipulated Judgment, all Parties have the option for a Permanent Transfer or Lease of BPA, Annual Allocation, or Carryover Rights. Each type of Transfer is described in the sections below.

Parties who elect to transfer BPA, Annual Allocation, or Carryover Rights are required to identify the total volume transferred, the term of the Transfer, the Party responsible for payment of applicable pumping assessments, and identify the assigned parcels and wells that the transferred water may be used at. All Transfers and Leases are reviewed by Watermaster staff to ensure compliance with the terms of the Judgment (such as compliance with minimum following standards) and documented on Watermaster-approved forms⁴⁵. Once the Transfer or Lease documents are complete and executed by the parties to the Transfer or Lease, Watermaster, and Legal Counsel, the Transfers or Leases are submitted to the Board to receive and file as part of a Consent Calendar action.

4.2.1 Permanent Transfers of BPA

Section III.I of the Judgment describes the provisions for Permanent Transfer of BPA. During WY 2023, there were four permanent Transfers of BPA, totaling 1,997.3 af. The Transfers included:

- The Springs RV and Golf Resort transferred 25.3 af (a portion of the Springs entire BPA) to the BWD. The transfer does not include transfer of a BPA parcel.
- David and Juli Bauer, co-trustees of the D&J Bauer Family Trust 11-18-04 transferred 415 af of BPA to the BWD. The transfer includes transfer of BPA, a BPA parcel, and one well. No Carryover water previously purchased by D & J Bauer was transferred to BWD as part of the transaction. The transferred BPA and BPA Parcel represents only a portion of the entire BPA held by D & J Bauer. The BWD ultimately intends to fallow the BPA Parcel in accordance with

⁴⁵ <https://borregospringswatermaster.com/pumper-resources/>. See Forms for Documentation and Approval of Water Rights Transfers.

the Judgment following standards and transfer the BPA rights to be accounted together with its primary BPA rights. Until the land is fallowed, the BPA purchased by BWD (and any Carryover elected) remains attached to the subject BPA Parcel and can only be pumped for use on that BPA Parcel. Thus, the BPA transferred to the BWD is shown as a new stand-alone entry in Exhibit 4 of the Judgment and is not yet benefitted by the same special provisions afforded by the Judgment for the BWD's primary BPA.

- William M. Bauer transferred 670 af of BPA and its associated BPA parcel and wells to the BWD. This represents the entirety of W. Bauer's BPA rights, including all Carryover rights (note that the transfer of W. Bauer's remaining Carryover water to the BWD was documented as a separate transfer to the BWD). The BWD ultimately intends to fallow the BPA Parcel in accordance with the Judgment following standards and transfer the BPA rights to be accounted together with its primary BPA rights. Until the land is fallowed, the BPA purchased by BWD (and any Carryover elected) remains attached to the subject BPA Parcel and can only be pumped for use on that BPA Parcel. Thus, the BPA transferred to the BWD is shown as a new stand-alone entry in Exhibit 4 of the Judgment and is not yet benefitted by the same special provisions afforded by the Judgment for the BWD's primary BPA.
- 887 af of BPA was automatically transferred from John Doljanin to T2 Palms, LLC through a foreclosure action. At the time of the transfer, Doljanin was not in good standing with the Watermaster due to non-payment of the Water Year 2023 Pumping Assessments. Additionally, at the time of the foreclosure action, T2 Palms, LLC was not a Party to the Judgment. T2 Palms, LLC has filed a motion to intervene into the Judgment that will be heard by the Court in WY 2024. T2 Palms, LLC will have the ability to exercise its water rights upon Court approval of the intervention and upon payment of all past due assessments associated with the BPA Parcel.

Appendix D of this Annual Report contains the updated Exhibit 4 listing of BPA by Party as of October 1, 2023. The most current version of Exhibit 4 is also available on the Watermaster's website.

4.2.2 Leases of Annual Allocation

Parties may Lease part or all of their Annual Allocation to another Party (BPA or Non-De Minimis) for a specific WY. In the Lease of Annual Allocation, the BPA right is retained by the lessor. Parties that Lease Annual Allocation have the option to include the Allocation's Carryover Rights as part of the transaction. For Leases where the Transferor elects to include Carryover Rights in the Transfer, the Transferee may make an election of a portion of or all of the associated Carryover from any unpumped Annual Allocation leased (subject to limits on Carryover). For Leases where the Transferor elects to exclude Carryover rights from the transfer of Annual Allocation, the Transferor may make an election of a portion of or all of the associated Carryover from any unpumped Annual Allocation transferred (subject to limits on Carryover).

There were no Leases of Annual Allocation among Parties during WY 2023.

4.2.3 Transfers of Carryover Rights

Parties may Transfer Carryover to another Party (BPA or Non-De Minimis). Transfers of Carryover are subject to the limits established by the Judgment, including that Carryover is the first water pumped each year and the maximum amount of Carryover allowed to be held by a Party is two times the Party's BPA.

During WY 2023, there were two Transfers of Carryover Rights not associated with permanent transfers of BPA, totaling 49.55 af. Table 15 identifies the Transfers of Carryover Rights that occurred in WY 2023.

Table 15. Transfers of Carryover Rights in WY 2023

Transferor	Transfer Amount	Transferee
T2 Borrego, LLC	30 af	Gamini D. Weerasekera
BWD ⁴⁶	19.55 af	BSUSD

4.3 Adjusted Pumping Calculation for WY 2023

To support the estimation of the Adjusted Pumping Calculations by October 15th of each new WY, Watermaster is required to submit a notice to each Party of its total prior WY pumping, the amount of Carryover pumped, the amount of any Leases and Transfers pumped, and the maximum amount of Annual Allocation eligible for Carryover from the preceding WY. The report must also provide an estimate of the Pumping Assessment for the ensuing WY to support the Parties' elections to Carryover or not pump. The schedule in Section IV.E.4 of the Judgment also prescribes that all elections to Carryover or to not pump must be reported to the Watermaster by October 31st of each new WY.

Watermaster completed the WY 2023 water rights accounting in November 2023 and reported it to the Board at its November 9, 2023 regular Board meeting. Table 16 shows the summary of the WY 2023 water rights accounting for each Party to the Judgment, including the Parties with BPA rights and the Parties with other non-De Minimis rights (ABDSP and BSUSD). The table includes detailed footnotes on how each column of information is obtained or calculated. Table 16 shows:

- The BPA and Non-De Minimis rights of each Party as of the end of the prior WY – September 30, 2022 [see column (a)]. The total of BPA plus other Non-De Minimis rights was 24,335 af:
 - Total BPA is 24,293 af
 - Total other Non-De Minimis rights for ABDSP and BSUSD is 42 af
- The permanent transfers of BPA that occurred in WY 2023 [see column (b)]. A total of 1,997 af of water was permanently transferred, as described in Section 4.2.1.⁴⁷
- The BPA and Non-De Minimis rights of each Party as of the start of the current WY – October 1, 2023 [see column (c)⁴⁸]. The total of BPA plus other Non-De Minimis rights remain the same as in column (a).
- The Maximum Allowable Carryover Account limit of each Party based on their BPA rights as of WY 2023 [see column (d)⁴⁹]. The Maximum Allowable Carryover Account limit of all Parties was 48,586 af:
 - The Carryover limit of BPA Parties is 48,586 af (= 2 x 24,293 af)
 - The Carryover limit of ABDSP and BSUSD is 0, as their rights are not eligible for Carryover
- The Carryover account balance of each Party at the start of WY 2023 [see column (e)]. The total Carryover account balance at the start of WY 2023 was 14,552.04 af:

⁴⁶ BWD (Purchase from W. Bauer and attached to APN 140-010-08)

⁴⁷ The net of transfers of BPA is always 0 af, as seen on the Totals line of Table 16 for column (b).

⁴⁸ $(c) = (a) + (b)$

⁴⁹ $(d) = 2 \times (c)$

- The Carryover account balance of BPA Parties is 14,552.04 af
- The Carryover account balance of ABDSP and BSUSD is 0, as their rights are not eligible for Carryover
- The cumulative Maximum Overproduction Limit of each Party for WYs 2021 to 2023 [see column (f)⁵⁰]. The cumulative Maximum Overproduction Limit of all Parties is 13,145 af.
- The balance of Overproduction for each Party at the beginning of WY 2023 [see column (g)]. The balance of Overproduction was 139.54 af:
 - The total Overproduction balance of BPA Parties was 119.99 af
 - The total Overproduction balance of ABDSP and BSUSD was 19.55 af
- The portion of Overproduction to be resolved by each Party by September 30, 2023 due to Overproduction in excess of the three-year cumulative Maximum Overproduction Limit [see column (h)⁵¹]. The total Overproduction to be resolved by September 30, 2023 was 26.61 af:
 - The total BPA Party Overproduction to be resolved by September 30, 2023 was 20.26 af
 - The total ABDSP and BSUSD Overproduction to be resolved by September 30, 2023 was 6.35 af
- The portion of Overproduction Balance to be resolved by each Party by September 30, 2025 due to Overproduction in that is less than the three-year cumulative Maximum Overproduction Limit [see column (i)⁵²]. The total Overproduction to be resolved by September 30, 2025 was 112.93 af:
 - The total BPA Party Overproduction to be resolved by September 30, 2025 was 99.73 af
 - The total ABDSP and BSUSD Overproduction to be resolved by September 30, 2025 was 13.20 af
- The WY 2023 Pumping Allocation of each Party [see column (j)]. The total WY 2023 Pumping Allocation was 20,694 af:
 - The Annual Allocation for BPA parties was 20,652 af (85 percent of BPA)⁵³
 - The allocation for ABDSP and BSUSD was 42 af
- The Leases of Annual Allocation for each Party [see column (k)]. A total of 0 af was Leased among BPA Parties in WY 2023, as described in Section 4.2.2.⁵⁴
- The total Carryover Leased or Transferred among BPA Parties in WY 2023 [see column (l)]. A total of 798.44 af Carryover was Transferred among BPA Parties, through Permanent Transfers of BPA or Transfers of Carryover, as described in Sections 4.2.1 and 4.2.3.⁵⁵

⁵⁰ For each Pumper, the Maximum Overproduction Limit for WYs 2021 to 2023 is calculated as follows: = (20% x WY 2021 Annual Allocation) + (20% x WY 2022 Annual Allocation) + (20% x WY 2023 Annual Allocation). The WY 2021, 2022, and 2023 Annual Allocations are based on a 5 percent, 10 percent, and 15 percent Rampdown Rate, respectively (e.g. Pumping Percentages of 95, 90, and 85 percent, respectively).

⁵¹ (h): if (g) > (f), then (h) = (g) - (f), otherwise (h) = 0

⁵² (i) = (g) - (h)

⁵³ Each parties individual BPA is multiplied by 0.85 and then rounded to the nearest whole number. These number are then summed to get a value of 20,652.

⁵⁴ The net of Leases and Transfers across all Parties is always 0 af, as seen on the Totals line of Table 16 for column (k).

⁵⁵ The net of Leases and Transfers across all Parties is always 0 af, as seen on the Totals line of Table 16 for column (l).

- The total allowable pumping of each Party for WY 2023 [see column (m)⁵⁶]. The total allowable pumping of all Parties was 35,106.50 af⁵⁷:
 - The WY 2023 allowable pumping for BPA parties was 35,064.50 af
 - The WY 2023 allowable pumping for ABDSP and BSUSD was 42 af
- The total pumping by each Party in WY 2023 [see column (n)]. The total pumping by all Parties in WY 2023 was 10,403.38 af:
 - Total pumping by BPA Parties was 10,377.03 af
 - Total pumping by ABDSP and BSUSD was 26.35 af
- The total amount of Carryover pumped by each Party in WY 2023 [see column (p)⁵⁸]. The total amount of Carryover pumped by each Party in WY 2023 was 7,003.82 af:
 - Total Carryover pumped by BPA Parties was 7,003.82 af
 - Total pumping by ABDSP and BSUSD was 0 af⁵⁹
- The new balance of Overproduction as of the end of WY 2023 for each Party af [see column (q)⁶⁰]. The new balance of Overproduction as of the end of WY 2023 was 193.02:
 - Overproduction by the BPA Parties was 193.02 af; two Parties pumped in excess of their Maximum Overproduction Limit for WYs 2021 through 2023
 - 44.20 af of the total Overproduction must be resolved by September 30, 2024 [see column (r)⁶¹]
 - 148.82 af of the total Overproduction must be resolved by September 30, 2025 [see column (s)⁶²]
 - Overproduction by ABDSP and BSUSD was 0 af
- The Annual Allocation eligible for Carryover to WY 2024 by each BPA Party [see column (t)⁶³]. The total Annual Allocation eligible for Carryover to WY 2024 was 16,779.58 af.
- The Annual Allocation eligible for Carryover to WY 2024 by each BPA Party [see column (u)⁶⁴]. The total election of Carryover to WY 2024 was 13,825.38 af, which is 82 percent of the eligible Carryover.
- The total Carryover Account Balance of each Party at the end of WY 2023 [see column (v)⁶⁵]. The total Carryover Account Balance was 21,354.06 af.

⁵⁶ $(m) = (e) + (j) + (k) + (l) - (g)$

⁵⁷ The total allowable pumping for WY 2023 is the sum of the Carryover account balance plus the Annual Allocation plus any leased/transferred Allocation or Carryover less the total balance of Overproduction.

⁵⁸ Recall that the first water pumped each year is Carryover, thus, *if* $(e) > 0$, *then* $(p) = \text{minimum of } [(e)+(l)] \text{ or } (n)$

⁵⁹ Non-De Minimis Parties can pump Carryover that is leased to them by a BPA Party.

⁶⁰ $(q) = \text{if } (n) > (e) + (j) + (k) + (l) - (g), \text{ then } (n) - [(e) + (j) + (k) + (l) - (g)], \text{ otherwise } 0$

⁶¹ $(r): \text{if } (q) > (f), \text{ then } (r) = (q) - (f), \text{ otherwise } (r) = 0$

⁶² $(s) = (q) - (r)$

⁶³ *If no Overproduction,* $(t) = (j) + (k) - [(n) - (p)]$

⁶⁴ The Carryover Election is not a calculated value, it is an amount elected by each BPA Party. This is the sum of all elected Carryover by each Party.

⁶⁵ $(v) = (e)+(l)-(p)+(u)$

- The Adjusted Pumping Calculation of each Party for WY 2023 [see column (w)⁶⁶]. The total Adjusted Pumping Calculation for determining the Assessment rate for WY 2024 was 17,224.95 af:
 - The Adjusted Pumping Calculation of the BPA Parties was 17,198.59 af
 - The Adjusted Pumping Calculation of ABDSP and BSUSD was 26.35 af

DRAFT

⁶⁶ $(w) = (n) - (k) - (p) + (u)$

Table 16 - WY 2023 Water Rights Accounting Summary for the Borrego Springs Subbasin - (all values in acre-feet)

	BPA or Other Non-De Minimis Rights as of Sep 30, 2022 ¹	Permanent Transfer of BPA ^{1,2} effective in WY 2023	BPA or Other Non-De Minimis Rights as of Oct 1, 2023	Maximum Allowable Carryover Account Balance ^{3,1}	Carryover Account Balance as of Oct 1, 2022 ^{3,1}	Cumulative Max Over-production Limit for WYs 2021-2023 ⁴	Balance of Over-production as of Oct 1, 2022 ⁵	Portion of Over-production Balance to Resolve Effective Sept 30, 2023 ⁶	Portion of Over-production Balance to Resolve Effective Sept 30, 2025 ⁶	WY 2023 Annual Allocation per Rampdown: 85% of BPA ⁷ ; 100% of non-BPA rights ^{8,1}	Leased or Transferred Annual Allocation Effective in WY 2023 ²	Leased or Transferred Carryover Effective in WY 2023 ²	Total Allowable Pumping for WY 2023 ⁹	Total Pumping in WY 2023	WY 2023 Pumping was Metered or Estimated ¹⁰	Carryover Pumped in WY 2023 ^{11,1}	Balance of Over-production as of September 30, 2023	Balance of Over-production to Resolve by Sept 30, 2024 ¹³	Balance of Over-production to Resolve by Sept 30, 2025 ¹³	Pumping Allocation Eligible for Carryover ¹⁴	Carryover Election by Party	Carryover Account Balance as of October 1, 2023	WY 2023 Adjusted Pumping Calculation
BPA Party or Party with Other Non-De Minimis Water Rights	(a)	(b)	(c) = (a) + (b)	(d) = 2 x (c)	(e)	(f) = 20% of Annual Allocation in WYs 21, 22, 23	(g)	(h): if (g) > (f), then (h) = (g) - (f), otherwise (h) = 0	(i) = (g) - (h)	For BPA Parties: (j) = 0.85 x (c) For other Parties: (d) = (c)	(k)	(l)	(m) = (e) + (j) + (k) + (l) - (g)	(n)	(o)	(p) ¹¹	(q) ¹²	(r): if (q) > (f), then (r) = (q) - (f), otherwise (r) = 0	(s) = (q) - (r)	(t) ¹⁴	(u)	(v) = (e)+(l)-(p)+(u)	(w) = (m)-(k)-(p)+(u)
TOTALS	24,335	0.00	24,335	48,586	14,552.04	13,145	139.54	26.61	112.93	20,694	0.00	0.00	35,106.50	10,403.38		7,003.82	193.02	44.20	148.82	16,779.58	13,825.38	21,354.06	17,224.95
BPA Parties																							
BPA Party Subtotal	24,293	0	24,293	48,586.00	14,552.04	13,119.80	119.99	20.26	99.73	20,652.00	0.00	-19.55	35,064.50	10,377.03		7,003.82	193.02	44.20	148.82	16,779.58	13,825.38	21,354.06	17,198.59
Agri-Empire	574	0	574	1,148	0.00	310.00	0.00	0.00	0.00	488.00	0.00	0.00	488.00	0.00	Metered	0.00	0.00	0.00	0.00	488.00	0.00	0.00	0.00
Rick and Joan Anson, co-trustees of the Anson Family Trust 08-1 8-08	2	0	2	4	0.00	1.20	0.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	na	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00
Alan & Tracy Asche	5	0	5	10	8.35	2.80	0.00	0.00	0.00	4.00	0.00	0.00	12.35	1.33	Metered	1.33	0.00	0.00	0.00	2.98	2.98	10.00	2.98
Gary D. & Darlis A. Bailey	7	0	7	14	4.48	3.80	0.00	0.00	0.00	6.00	0.00	0.00	10.48	7.12	Metered	4.48	0.00	0.00	0.00	3.36	3.36	3.36	6.00
David and Juli Bauer, co-trustees of the D&J Bauer Family Trust 11-18-04	1,826	-415	1,411	2,822	772.14	761.80	0.00	0.00	0.00	1,199.00	0.00	0.00	1,971.14	913.32	Metered	772.14	0.00	0.00	0.00	1,057.82	700.00	700.00	841.18
BWD (Purchase from D & J Bauer and attached to APN 140-070-18) ^(A)	0	415	415	830	0.00	224.20	0.00	0.00	0.00	353.00	0.00	0.00	353.00	0.00	na	0.00	0.00	0.00	0.00	353.00	353.00	353.00	353.00
William M. Bauer ^(B)	670	-670	0	0	494.08	0.00	0.00	0.00	0.00	0.00	0.00	-458.98	35.10	35.10	Metered	35.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BWD (Purchase from W. Bauer and attached to APN140-010-08) ^{(B),(C)}	0	670	670	1,340	0.00	362.00	0.00	0.00	0.00	570.00	0.00	439.43	1,009.43	0.00	na	0.00	0.00	0.00	0.00	570.00	570.00	1,009.43	570.00
Borrego Air Ranch Mutual Water & Improvement Co.	12	0	12	24	6.13	6.40	0.00	0.00	0.00	10.00	0.00	0.00	16.13	6.85	Metered	6.13	0.00	0.00	0.00	9.28	9.28	9.28	10.00
Borrego Nazareth LLC	1,462	0	1,462	2,924	1,330.66	789.60	0.00	0.00	0.00	1,243.00	0.00	0.00	2,573.66	45.39	Estimated (P)	45.39	0.00	0.00	0.00	1,243.00	46.00	1,331.27	46.00
Borrego Water District	2,563	25.3	2,588.30	5,177	1,684.70	1,397.60	0.00	0.00	0.00	2,200.00	0.00	0.00	3,884.70	1,516.10	Metered	1,516.10	0.00	0.00	0.00	2,200.00	2,200.00	2,368.60	2,200.00
Carpenter Family Trust 12-11-07	6	0	6	12	3.98	3.20	0.00	0.00	0.00	5.00	0.00	0.00	8.98	7.94	Metered	3.98	0.00	0.00	0.00	1.04	1.04	1.04	5.00
Conzelman/Jensen/Sommerville Family Trusts	4,741	0	4,741	9,482	1,473.39	2,560.20	0.00	0.00	0.00	4,030.00	0.00	0.00	5,503.39	2,537.96	Metered	1,473.39	0.00	0.00	0.00	2,965.43	2,965.43	2,965.43	4,030.00
Desert Farm LLC, Crumrine Family Trust 04-19-06	21	0	21	42	0.00	11.40	0.54	0.00	0.54	18.00	0.00	0.00	17.46	13.94	Metered	0.00	0.00	0.00	0.00	4.06	4.06	4.06	18.00
CWC Casa Del Zorro LLC	22	0	22	44	0.00	12.00	10.81	0.00	10.81	19.00	0.00	0.00	8.19	27.76	Metered	0.00	19.57	7.57	12.00	0.00	0.00	0.00	27.76
De Anza Desert Country Club	957	0	957	1,914	126.61	516.60	0.00	0.00	0.00	813.00	0.00	0.00	939.61	508.28	Metered	126.61	0.00	0.00	0.00	431.33	431.33	431.33	813.00
John B. & Silvia H. Hogan	8	0	8	16	3.63	4.40	0.00	0.00	0.00	7.00	0.00	0.00	10.63	4.51	Metered	3.63	0.00	0.00	0.00	6.12	6.12	6.12	7.00
John Doljanin ^{(D),(E)}	887	-887	0	0	471.88	0.00	0.00	0.00	0.00	0.00	0.00	-309.46	162.42	162.42	Metered	162.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T2 Palms, LLC ^(D)	0	887	887	1,774	0.00	479.00	0.00	0.00	0.00	754.00	0.00	309.46	1,063.46	0.00	na	0.00	0.00	0.00	0.00	754.00	0.00	309.46	0.00
Genus L.P.	112	0	112	224	0.00	60.40	0.00	0.00	0.00	95.00	0.00	0.00	95.00	0.00	na	0.00	0.00	0.00	0.00	95.00	0.00	0.00	0.00
JM Roadrunner, LLC	1,594.87	0	1,594.87	3,190	1,348.95	861.20	0.00	0.00	0.00	1,356.00	0.00	0.00	2,704.95	776.75	Metered	776.75	0.00	0.00	0.00	1,356.00	1,356.00	1,928.20	1,356.00
Robert Larkins	2	0	2	4	0.00	1.20	0.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	na	0.00	0.00	0.00	0.00	ne	0.00	0.00	0.00
Michael Maiter & John Savittieri	1	0	1	2	2.00	0.60	0.00	0.00	0.00	1.00	0.00	0.00	3.00	0.00	na	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00
Gamini D. Weerasekera	103	0	103	206	0.00	55.80	76.06	20.26	55.80	88.00	0.00	30.00	41.94	134.37	Metered	30.00	92.43	36.63	55.80	0.00	0.00	0.00	104.37
Manuel & Araceli C. Navarro	14	0	14	28	0.00	7.60	1.16	0.00	1.16	12.00	0.00	0.00	10.84	13.58	Estimated	0.00	2.74	0.00	2.74	ne	0.00	0.00	13.58
Doug & Patricia Munson	1	0	1	2	0.00	0.60	0.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	na	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00
Ronald Pecoff	114	0	114	228	0.00	61.60	0.00	0.00	0.00	97.00	0.00	0.00	97.00	26.80	Metered	0.00	0.00	0.00	0.00	70.20	70.20	70.20	97.00
The Roadrunner Club at Borrego, LP	520	0	520	1,040	100.73	280.80	0.00	0.00	0.00	442.00	0.00	0.00	542.73	281.66	Metered	100.73	0.00	0.00	0.00	261.07	261.07	261.07	442.00
RTA Borrego, LLC	12	0	12	24	0.00	6.40	0.00	0.00	0.00	10.00	0.00	0.00	10.00	0.00	na	0.00	0.00	0.00	0.00	10.00	0.00	0.00	0.00
Jose G. & Maria E. Sanchez	4	0	4	8	0.00	2.20	0.00	0.00	0.00	3.00	0.00	0.00	3.00	1.20	Estimated	0.00	0.00	0.00	0.00	ne	0.00	0.00	1.20

Table 16 - WY 2023 Water Rights Accounting Summary for the Borrego Springs Subbasin - (all values in acre-feet)

	BPA or Other Non-De Minimis Rights as of Sep 30, 2022 ¹	Permanent Transfer of BPA ^{1,2} effective in WY 2023	BPA or Other Non-De Minimis Rights as of Oct 1, 2023	Maximum Allowable Carryover Account Balance ^{3,1}	Carryover Account Balance as of Oct 1, 2022 ^{3,1}	Cumulative Max Over-production Limit for WYs 2021-2023 ⁴	Balance of Over-production as of Oct 1, 2022 ⁵	Portion of Over-production Balance to Resolve Effective Sept 30, 2023 ⁶	Portion of Over-production Balance to Resolve Effective Sept 30, 2025 ⁶	WY 2023 Annual Allocation per Rampdown: 85% of BPA ⁷ ; 100% of non-BPA rights ^{8,1}	Leased or Transferred Annual Allocation Effective in WY 2023 ²	Leased or Transferred Carryover Effective in WY 2023 ²	Total Allowable Pumping for WY 2023 ⁹	Total Pumping in WY 2023	WY 2023 Pumping was Metered or Estimated ¹⁰	Carryover Pumped in WY 2023 ^{11,1}	Balance of Over-production as of September 30, 2023	Balance of Over-production to Resolve by Sept 30, 2024 ¹³	Balance of Over-production to Resolve by Sept 30, 2025 ¹³	Pumping Allocation Eligible for Carryover ¹⁴	Carryover Election by Party	Carryover Account Balance as of October 1, 2023	WY 2023 Adjusted Pumping Calculation
<i>BPA Party or Party with Other Non-De Minimis Water Rights</i>	(a)	(b)	(c) = (a) + (b)	(d) = 2 x (c)	(e)	(f) = 20% of Annual Allocation in WYs 21, 22, 23	(g)	(h): if (g) > (f), then (h) = (g) - (f), otherwise (h) = 0	(i) = (g) - (h)	For BPA Parties: (j) = 0.85 x (c) For other Parties: (d) = (c)	(k)	(l)	(m) = (e) + (j) + (k) + (l) - (g)	(n)	(o)	(p) ¹¹	(q) ¹²	(r): if (q) > (f), then (r) = (q) - (f), otherwise (r) = 0	(s) = (q) - (r)	(t) ¹⁴	(u)	(v) = (e)+(l)-(p)+(u)	(w) = (n)-(k)-(p)+(u)
Seley Ranches, L.P.	2,226	0	2,226	4,452	896.84	1,202.00	0.00	0.00	0.00	1,892.00	0.00	0.00	2,788.84	1,247.92	Metered	896.84	0.00	0.00	0.00	1,540.92	1,540.92	1,540.92	1,892.00
Soli Organic Inc.	61	0	61	122	0.00	33.00	6.56	0.00	6.56	52.00	0.00	0.00	45.44	74.43	Metered	0.00	28.99	0.00	28.99	0.00	0.00	0.00	74.43
Max Siefker	2	0	2	4	0.00	1.20	0.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	na	0.00	0.00	0.00	0.00	ne	0.00	0.00	0.00
Brian Siefker Trust 12-18-01	3	0	3	6	0.00	1.80	0.00	0.00	0.00	3.00	0.00	0.00	3.00	0.00	na	0.00	0.00	0.00	0.00	ne	0.00	0.00	0.00
Smith Kent R. Revocable Living Trust 01-04-90	50	0	50	100	75.00	27.20	0.00	0.00	0.00	43.00	0.00	0.00	118.00	0.00	na	0.00	0.00	0.00	0.00	25.00	25.00	100.00	25.00
The Springs RV and Golf Resort, LP	287	-25.3	261.70	523	94.08	141.40	0.00	0.00	0.00	222.00	0.00	0.00	316.08	108.82	Metered	94.08	0.00	0.00	0.00	207.26	207.26	207.26	222.00
T2 Borrego, LLC	965	0	965	1,930	1,663.34	521.20	0.00	0.00	0.00	820.00	0.00	-30.00	2,453.34	0.00	na	0.00	0.00	0.00	0.00	296.66	296.66	1,930.00	296.66
T2 Borrego, LLC - Ram's Hill	2,536	0	2,536	5,072	3,304.71	1,369.40	0.00	0.00	0.00	2,156.00	0.00	0.00	5,460.71	464.66	Metered	464.66	0.00	0.00	0.00	2,156.00	2,156.00	4,996.05	2,156.00
T2 Farms LLC	485	0	485	970	273.41	262.00	0.00	0.00	0.00	412.00	0.00	0.00	685.41	237.95	Metered	237.95	0.00	0.00	0.00	412.00	412.00	447.46	412.00
Bagdasarian Farms, LLC	1,142	0	1,142	2,284	244.08	616.80	0.00	0.00	0.00	971.00	0.00	0.00	1,215.08	1,054.41	Metered	244.08	0.00	0.00	0.00	160.67	160.67	160.67	971.00
Joel Vanasdlen	36	0	36	72	34.00	19.40	0.00	0.00	0.00	31.00	0.00	0.00	65.00	0.00	na	0.00	0.00	0.00	0.00	31.00	31.00	65.00	31.00
Michael C. Ward, Sr. Revocable Trust 10-05-17	82	0	82	164	119.77	44.40	0.00	0.00	0.00	70.00	0.00	0.00	189.77	6.15	Metered	6.15	0.00	0.00	0.00	50.38	0.00	113.62	0.00
Wisdom Gabriel B & Weiss-Wisdom Diana Family 2008 Trust 08-01-08	1	0	1	2	2.00	0.60	0.00	0.00	0.00	1.00	0.00	0.00	3.00	0.00	na	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00
Wright Family Living Trust 06-19-89	158	0	158	316	0.00	85.20	24.86	0.00	24.86	134.00	0.00	0.00	109.14	158.43	Estimated	0.00	49.29	0.00	49.29	ne	0.00	0.00	158.43
Ashley Bilyk and Lee Tyler Bilyk	18.13	0	18.13	36.26	13.10	9.60	0.00	0.00	0.00	15.00	0.00	0.00	28.10	1.88	Metered	1.88	0.00	0.00	0.00	15.00	15.00	26.22	15.00

Parties with Other Non-De Minimis Water Rights																							
<i>Other Party Subtotal</i>	42	0	42	na	na	25.20	19.55	6.35	13.20	42.00	0.00	19.55	42.00	26.35	0.00	0.00	0.00	0.00	na	na	na	na	26.35
Borrego Springs Unified School District ^(F)	22	na	22	na	na	13.20	19.55	6.35	13.20	22.00	0.00	19.55	22.00	17.56	Metered	0.00	0.00	0.00	0.00	na	na	na	17.56
Anza Borrego Desert State Park	20	na	20	na	na	12.00	0.00	0.00	0.00	20.00	0.00	0.00	20.00	8.79	Metered	0.00	0.00	0.00	0.00	na	na	na	8.79

(1) The Judgment establishes separate, non-BPA pumping rights for two entities—the Anza Borrego Desert State Park (ABDSP) and the Borrego Springs Unified School District (BSUSD). These non-BPA rights are not subject to pumping Rampdown, Carryover, or transfer (to other Parties), but are subject to all other substantive provisions of the Judgment, including paying pumping assessments based on annual pumping and the ability to purchase/lease Annual Allocation or Carryover to cover Overproduction.

(2) A negative transfer value indicates rights transferred to another Party. A positive value indicates rights transferred from another Party. Non-BPA rights cannot be transferred. Parties with Other Non-De Minimis Water Rights may receive a lease/transfer of annual allocation or Carryover to resolve Overproduction (see note numbers 4, 5, and 6 below). The sum of all transfers across all Parties will always be 0.

(3) Carryover only applies to BPA rights; non-BPA rights are not eligible for Carryover. The maximum Carryover balance is two times the BPA (= 2 x BPA). Balance as of October 1, 2023 is based on the final WY 2022 water rights accounting, unless adjustments have been made and documented since publishing the prior year accounting. One adjustment was made to the WY 2022 final Water Rights accounting – See note [C].

(4) The Judgment provides that in the first three years of operation, a Party can pump in excess of its Annual Allocation without incurring an immediate Overproduction penalty, so long as the total cumulative Overproduction in those three years does not exceed the cumulative Maximum Overproduction Limit for the three-year period. Parties have until September 30, 2025 to remedy Overproduction in WYs 2021 through 2023. If a Party produces in excess of the three-year cumulative Maximum Overproduction Limit, then the Overproduction amount over the maximum limit is subject to Overproduction assessments if not remedied by (effective as of) September 30, 2022. For each Pumper, the Maximum Overproduction Limit for WYs 2021 to 2023 is calculated as follows: = (20% x WY 2021 Annual Allocation) + (20% x WY 2022 Annual Allocation) + (20% x WY 2023 Annual Allocation). The WY 2021, 2022, and 2023 Annual Allocations are based on a 5 percent, 10 percent, and 15 percent Rampdown Rate, respectively.

(5) The balance of Overproduction as of October 1, 2022 is based on the final WY 2022 water rights accounting, unless adjustments have been made and documented since publishing the prior year accounting. Overproduction can be remedied through under-pumping of the Annual Allocation or transfers and leases of BPA/Annual Allocation/Carryover.

(6) The amount of Overproduction that exceeds the Cumulative Maximum Overproduction Limit in column (f) must be resolved effective September 30, 2023 to avoid an Overproduction penalty assessment in the amount of \$500 per acre-foot of Overproduction: If (g) > (f), then (h) = (g) - (f), otherwise (h) = 0. The remaining balance of Overproduction does not need to be resolved until September 30, 2025.

(7) The Annual Allocation in each WY is determined by multiplying the Party's BPA by the Pumping Percentage in effect for that WY, based on the pumping Rampdown percentage then in effect pursuant to the Judgment. For example, in WY 2023 the Pumping Percentage is 85 percent, which is a 15 percent Rampdown from BPA. Annual Allocation is rounded to the nearest whole af. The subtotal and totals across all Parties is the sum of each Party's rounded Annual Allocation value.

(8) The Rampdown applies only to BPA Parties. For BPA Parties the WY 2023 pumping allocation is 85% of BPA, rounded to the nearest whole number. For BSUSD and ABDSP, the rights are not subject to Rampdown and annual allocation is always equal to the pumping right defined in the Judgment.

(9) The total allowable pumping for the Water Year is the sum of the Carryover account balance (e) plus the Annual Allocation (j) plus any leased/transferred Allocation or Carryover less the total balance of Overproduction (g). Allowable (m) = (e) + (j) + (k) + (l) - (g).

(10) Not all Parties were metered by October 1, 2023. "Estimated (P)" values were estimated for Parties with partial year metered data (the available data was used to estimate pumping for the WY based on the data available). "Estimated" values are for Parties with no meter data available in which case the pumping was estimated based on the method used in the GMP. "na" values represent parties who are not actively pumping and have no operable wells.

(11) Pursuant to Judgment Section III.G.1 "The first Groundwater produced by a Party during any Water Year will be deemed to be an exercise of any Carryover." If (e) > 0, then (p) = minimum of [(e)+(l)] or (n).

(12) (q) = If (n) > (e) + (j) + (k) + (l) - (g), then (n) - [(e) + (j) + (k) + (l) - (g)], otherwise 0

(13) The amount of Overproduction that exceeds the Cumulative Maximum Overproduction Limit in column (f) must be resolved effective September 30, 2023 to avoid an Overproduction penalty assessment in WY 2024. The penalty assessment rate is to be determined by the Board by June 30, 2024. If (q) > (f), then (r) = (q) - (f), otherwise (r) = 0. The remaining balance of Overproduction does not need to be resolved until September 30, 2025.

(14) If the Party has no Overproduction balance and has not reached their Maximum Allowable Carryover Account Balance, then the eligible Carryover is (t) = (j) + (k) - [(n) - (p)]. For Parties who are not eligible to elect full Carryover due to nearing or reaching the Maximum Allowable Carryover Account Balance, then the eligible Carryover is (t) = (d) - [(e)+(l)]-(p). Parties who are not in good standing with the Watermaster (either are not reporting pumping or have unpaid assessments) are not eligible for Carryover; in this case (t) is shown as "ne".

Other Notes:
 (A) In WY 2023, BWD purchased a portion of BPA, including the associated BPA parcel, from David and Juli Bauer, co-trustees of the D&J Bauer Family Trust 11-18-04. The BWD intends to follow the land in accordance with the Judgment following standards and transfer the BPA rights to its primary BPA rights. Until the land is followed, the BPA purchased by BWD remains attached to the BPA Parcel and can only be pumped for use on the subject Parcel. Thus, the BPA assigned to BWD is shown as a stand-alone entry in Exhibit 4 of the Judgment.
 (B) In WY 2023, William M. Bauer permanently transferred the entirety of their water rights, inclusive of full sale of the BPA/Carryover water and the associated BPA Parcel, to the BWD. A portion of W. Bauer's available Carryover water (35.10 af) was used to cover W. Bauer's pumping in WY 2023 that occurred prior to the transaction with BWD (pumping ceased after the transaction). The remaining Carryover water (439.43 af) is transferred to the BWD (see column [i]).
 (C) In WY 2023, BWD purchased the entirety of BPA and remaining Carryover water, including the associated BPA parcel, from William M. Bauer. The BWD intends to follow the land in accordance with the Judgment following standards and transfer the BPA rights to be accounted with its primary BPA rights. Until the land is followed, the BPA purchased by BWD remains attached to the BPA Parcel and can only be pumped for use on the subject Parcel. Thus, the BPA assigned to BWD is shown as a stand-alone entry in Exhibit 4 of the Judgment. The Carryover water can be transferred in accordance with the terms of the Judgment. In WY 2023, 19.55 af of the Carryover water obtained from W. Bauer was transferred to the BSUSD (see note [F]).
 (D) In WY 2023, T2 Palms, LLC acquired the BPA parcel assigned to John Doljanin through foreclosure. The BPA and its available Carryover water permanently transferred to T2 Palms, LLC. To exercise the water rights, T2 Palms must intervene into the Judgment to become a Party. A motion to intervene will be heard by the Court in December 2023. For the purpose of the Water Rights Accounting, T2 Palms, LLC is shown as the transferee holding the BPA and Carryover rights, though this remains subject to Court approval of the intervention.
 (E) In WY 2022, John Doljanin elected to Carryover 471.88 af of eligible Carryover. The WY 2023 Assessments were never paid by Doljanin. However, T2 Palms, LLC has informed the Watermaster it will cover the outstanding WY 2023 Assessments when its Party status is formally approved by the Court. Thus, the elected Carryover from WY 2022 is shown to Transfer to T2 Palms, LLC. Of the total available Carryover water of 471.88 af, 162.42 af will cover Doljanin's pumping in WY 2023 that occurred prior to the foreclosure; the remaining 309.46 af is Transferred to T2 Palms, LLC. As noted in note [D], the Transfer and status of T2 Palms as a Party is subject to Court approval of the intervention.
 (F) The Carryover water transferred to BSUSD from BWD is intended to cover the Overproduction balance of 19.55 af as of October 1, 2022. For this reason, it is not shown as "pumped" in column (p).

4.4 WY 2024 Pumping Assessments

4.4.1 Pumping Assessment Rate

The uniform pumping assessment is calculated based on the total of all Parties' Adjusted Pumping Calculations as follows:

$$\begin{array}{r} \text{Total Watermaster Assessment for WY (\$)} \\ \div \text{Total Adjusted Pumping (af)} \\ \hline \hline = \text{Pumping Assessment Rate (\$/af)} \end{array}$$

The final Pumping Assessment of each Party is then computed as follows:

$$\begin{array}{r} \text{Adjusted Pumping Calculation (af)} \\ \times \text{Pumping Assessment Rate (\$/af)} \\ \hline \hline = \text{Pumping Assessment (\$)} \end{array}$$

The final Pumping Assessment Rate for WY 2024, based on the approved WY 2024 Budget (see Section 2.6.3 of this Report) and the WY 2023 Adjusted Pumping Calculations is:

$$\begin{array}{r} \$458,000 \\ \div 17,224.95 \text{ af} \\ \hline \hline = \$26.59/\text{af} \end{array}$$

4.4.2 Overproduction Penalty Assessments

The Judgment provides the Watermaster the authority to establish penalty assessments for Overproduction in accordance with the definitions described in Section 4.1. Pursuant to Section III.G.4 of the Judgment, the Watermaster annually establishes the Overproduction Penalty Assessment rate, which may not be less than \$500 per af of Overproduction. As part of the approval of the WY 2024 Budget, the Watermaster established the Overproduction Penalty Assessment rate at \$500 per af of Overproduction for any Party that does not remedy Overproduction in excess of the Maximum Overproduction Limit as of the completion of Water Rights Accounting for WY 2023.

As described in Section 4.3, and shown in Table 16, two Parties produced in excess of their cumulative Maximum Overproduction Limits during WY 2022. Both Parties remedied the excess Overproduction by leasing Carryover in WY 2023. Thus, no Overproduction Penalty Assessments will be issued in WY 2023.

5.0 BORREGO SPRINGS SUBBASIN HYDROGEOLOGIC CONDITIONS

5.1 Basin Setting

The Basin is defined as DWR Basin No. 7.024.01: the Borrego Springs Groundwater Subbasin (see location in Figure 1). The Basin has a surface area of approximately 98 square miles (62,776 acres). The western and southwestern boundaries of the Basin are defined by the contact of poorly to moderately consolidated sediments with the plutonic and metamorphic basement of Pinyon Ridge and the San Ysidro Mountains. The northern and eastern boundaries are defined by the mapped trace of the Coyote Creek fault that trends northwest-southeast. East of the Coyote Creek fault lies Coyote Mountain, the Borrego Badlands, and the Ocotillo-Clark Valley Groundwater Basin. The southeastern boundary of the Basin is defined by the location of San Felipe Creek, as mapped by the USGS National Hydrography Dataset, which also marks the northern boundary of the Ocotillo Wells Groundwater Subbasin (DWR Basin No. 7.024.02).

The Basin consists primarily of private land under County jurisdiction, which is surrounded on nearly all sides by land owned by the State of California – the ABDSP. Within the Basin, most of the land is undeveloped. The developed land uses include residential, agricultural, recreational (including golf courses), transportation infrastructure, and commercial uses. The sole municipal water district is the BWD, which provides water and sewer service to the developed portions of Borrego Valley within its service area. The sole mutual water company is the Borrego Air Ranch Mutual Water & Improvement Co., which provides water service to lots within its boundary.

Groundwater from the Basin is the sole source of water supply within the area. Groundwater is pumped for municipal supply; irrigation of agriculture, golf courses, and other recreational landscapes; and private domestic or commercial supply. Over a 65-year period prior to the development of the GMP, groundwater levels declined as much as 126 feet due to groundwater pumping in excesses of average annual recharge. An estimated 520,000 af of water was removed from storage over this period. These conditions prompted the DWR to designate the Basin as critically overdrafted and of high priority for groundwater management.

The hydrostratigraphy of the Basin has been divided into upper, middle, and lower aquifers. The differentiation between the three aquifers is based on a textural analysis of borehole lithologic logs and geophysical logs. The aquifer-system sediments consist of unconsolidated to poorly-consolidated, interbedded mixtures of gravel, sand, silt, and clay. As there are no regionally extensive aquitards (*i.e.*, a laterally continuous thick clay layers), the upper aquifer behaves in a predominantly unconfined manner, and the middle and lower aquifers exhibit leaky-confined or semi-confined characteristics based on limited aquifer testing. The lower aquifer is the most fine-grained unit, containing higher percentages of silt and clay. For the calculation of change in groundwater storage pursuant to CCR Article 7, Section 356.2, the three aquifers are considered to be a single unconfined aquifer.

A detailed description of the institutional setting, hydrogeology, and historical conditions within the Basin is included in Chapter 2 of the GMP (Dudek, 2020a).

5.2 Climate

Figure 3 shows the location of climate monitoring stations in and around the Basin that measure and record precipitation, temperature, and/or evapotranspiration (ET) data for the Plan Area. Each data type is described below.

5.2.1 Precipitation

Average annual precipitation is variable across the Basin, ranging from up to eight inches per year along the northwest edge of the valley to less than four inches per year to the southeast. Precipitation is greater outside the Basin in the mountains to the west, north, and northeast of the Borrego Valley. Precipitation patterns are influenced by two distinct hydrologic mechanisms. The first is the Pacific frontal systems that bring regional rain bands to Southern California, typically between October and April. The second is the isolated and scattered thunderstorms that occur when moisture from the Gulf of California travels from south to north across the Basin. This phenomenon, commonly referred to as the “monsoon season,” is strongest in the summer months, but is not a regular or consistent occurrence. Occasionally, the decaying remnants of former tropical storms or hurricanes can pass through the area and, in some years, will increase precipitation totals during the monsoon season. As a result of these disparate mechanisms, the precipitation record is highly variable both seasonally and annually. For example, one storm can drop half of the yearly rainfall in an otherwise dry season. To characterizing the water year type in the Basin as “wet,” “normal,” or “dry,” the standard deviation from mean precipitation is used.

The weather station with the longest and most complete precipitation record is the Borrego Desert Park Station maintained by NOAA’s National Climatic Data Center⁶⁷ (see location on Figure 3). The station has complete water-year records from WY 1948 to present (75 years). The mean WY precipitation for this period is approximately 5.56 inches and the standard deviation from the mean is 3.44 inches. Years with precipitation within one standard deviation of the long-term average precipitation are defined as “normal” (e.g., between 2.12 to 9.00 inches); years with above “normal” precipitation are considered “wet;” and years with below “normal” precipitation are considered “dry.”

Figure 4 is plot of the WY annual precipitation totals, the long-term mean and standard deviation from the mean, and the cumulative departure from the mean (CDFM) precipitation for WYs 1948 to 2023. The CDFM plot is a useful way to characterize the occurrence and magnitude of wet and dry periods (relative to the mean): positive sloping segments (trending upward from left to right) indicate wet periods, and negative sloping segments (trending downward from left to right) indicate dry periods. Precipitation in WY 2023 was 8.55 inches, which is 2.99 inches more than the mean for the period of record. Based on the standard deviation from the mean, WY 2023 was a “normal” year. As shown on Figure 4, the region has been experiencing a nearly 30-year dry period since 1993, punctuated by a few wet years.

5.2.2 Temperature and Evapotranspiration

The climate of the Borrego Valley is arid with hot summers and cool winters. Based on the Borrego Desert Park Station, which has a nearly complete daily temperature record since 1968, the long-term mean annual daytime high temperature is 87.9°F, ranging from 61.1°F in January to 112.0°F in July. The mean annual nighttime low temperature is 58.9°F, ranging from 38.2°F in December to 82.5°F in July.

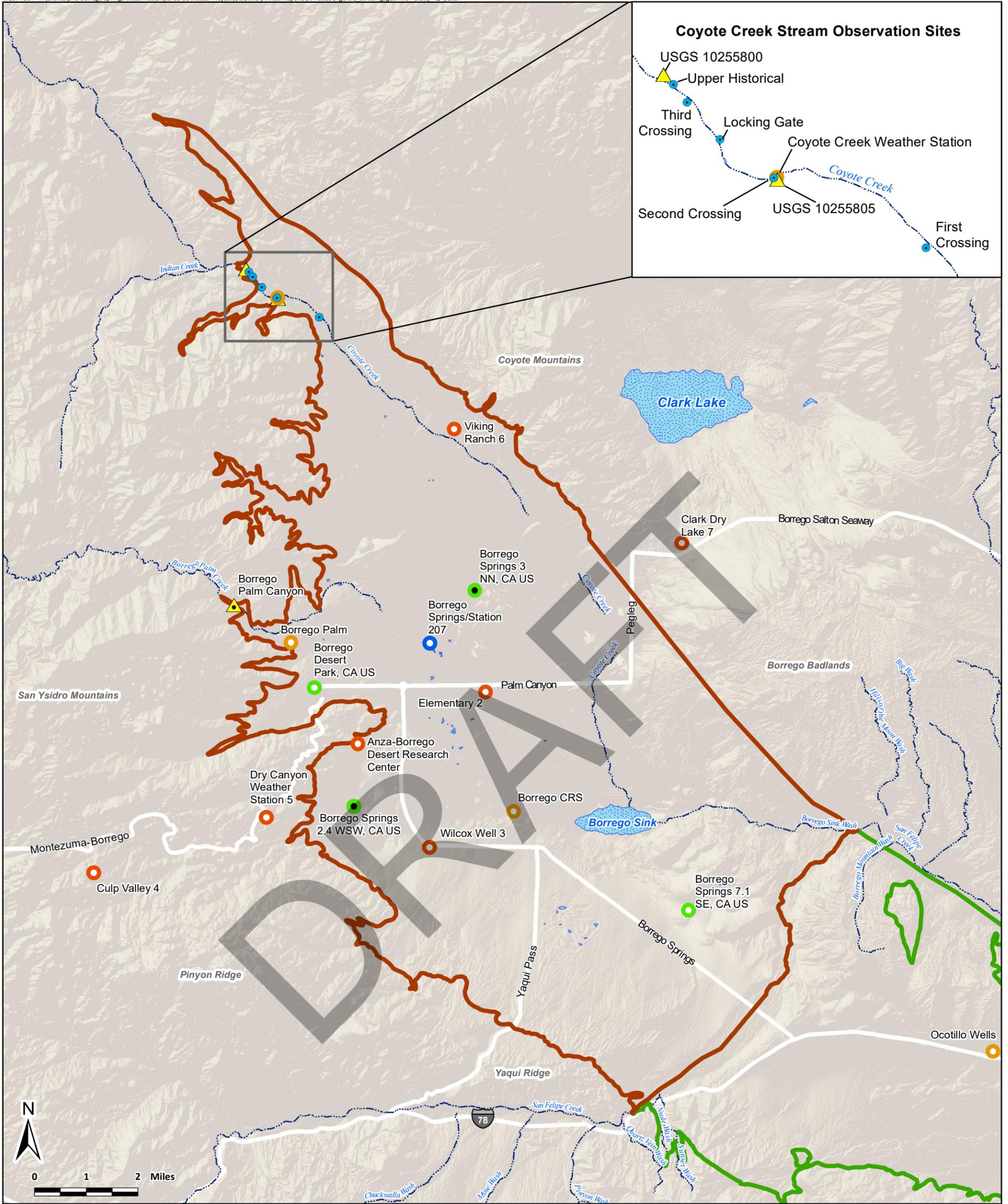
In WY 2023, the average daytime high temperature was 84.6°F and the average nighttime low was 58.6°F. The maximum average monthly daytime high temperature was 110.7°F in July 2023, and the minimum average monthly nighttime low temperature was 43.1°F in February 2023.

⁶⁷ NOAA, 2022. Station: Borrego Desert Park, Network ID - [GHCND: USC00040983](https://www.ncep.noaa.gov/cdo/cdo.do?stationid=USC00040983).

According to the *State of California Reference Evapotranspiration Map* developed by California Irrigation Management Information System (CIMIS), the Basin is located within Evapotranspiration Zone 18, with an annual average reference evapotranspiration (ET_o) of 71.6 inches or 5.97 feet, which is typical compared to other California desert environments⁶⁸ (DWR, 2012). The ET_o in the Basin is obtained from CIMIS Station 207 (see location on Figure 3). The ET_o values calculated from the CIMIS data reflect the amount of water that could be transpired by grass or alfalfa if supplied by irrigation. The ET_o values do not represent the actual transpiration from any specific crop or native vegetation. To calculate the ET rate for a specific crop or vegetation type, the ET_o is multiplied by a crop coefficient that adjusts the water consumption for that crop relative to the water consumption for alfalfa.

CIMIS Station 207 has nearly complete annual records of daily data since January 2009. The monthly and annual totals are shown in Table 17. The mean annual ET_o measured at CIMIS Station 207 between WY 2010 and WY 2023 was 68.03 inches per year (5.67 feet per year). In WY 2023, the total ET_o was 58.03 inches (4.84 feet) (CIMIS, 2023).

⁶⁸ A study comparing ET_o across different desert environments in California calculated the average annual ET_o to range from approximately 5.46 ft/year to 7.28 ft/yr depending on the method used to calculate ET (Abd El-Wahed and Snyder, 2015. Available at: https://www.researchgate.net/profile/Mohamed-Abd-El-wahed/publication/276150597_Calculating_Sunshine_Hours_and_Reference_Evapotranspiration_in_Arid_Regions_When_Solar_Radiation_Data_are_Limited/links/5a350e5e45851532e82f0ca1/Calculating-Sunshine-Hours-and-Reference-Evapotranspiration-in-Arid-Regions-When-Solar-Radiation-Data-are-Limited.pdf).



Surface-Water Monitoring Sites

- ▲ USGS Inactive Streamgages
- ▲ USGS Active Streamgage
- Coyote Creek Stream Observation Sites

Weather Stations

- California Irrigation Management Information System Station
- National Climatic Data Center Station (black fill denotes inactive stations)
- San Diego County Flood Control Station
- U.C. Irvine Station

Borrego Valley Groundwater Basin Subbasins

- Borrego Springs Groundwater Subbasin (7-024.01)
- Ocotillo Wells Groundwater Subbasin (7-024.02)

Surface Water Features

- Stream Channel
- Dry Lake



Prepared by:

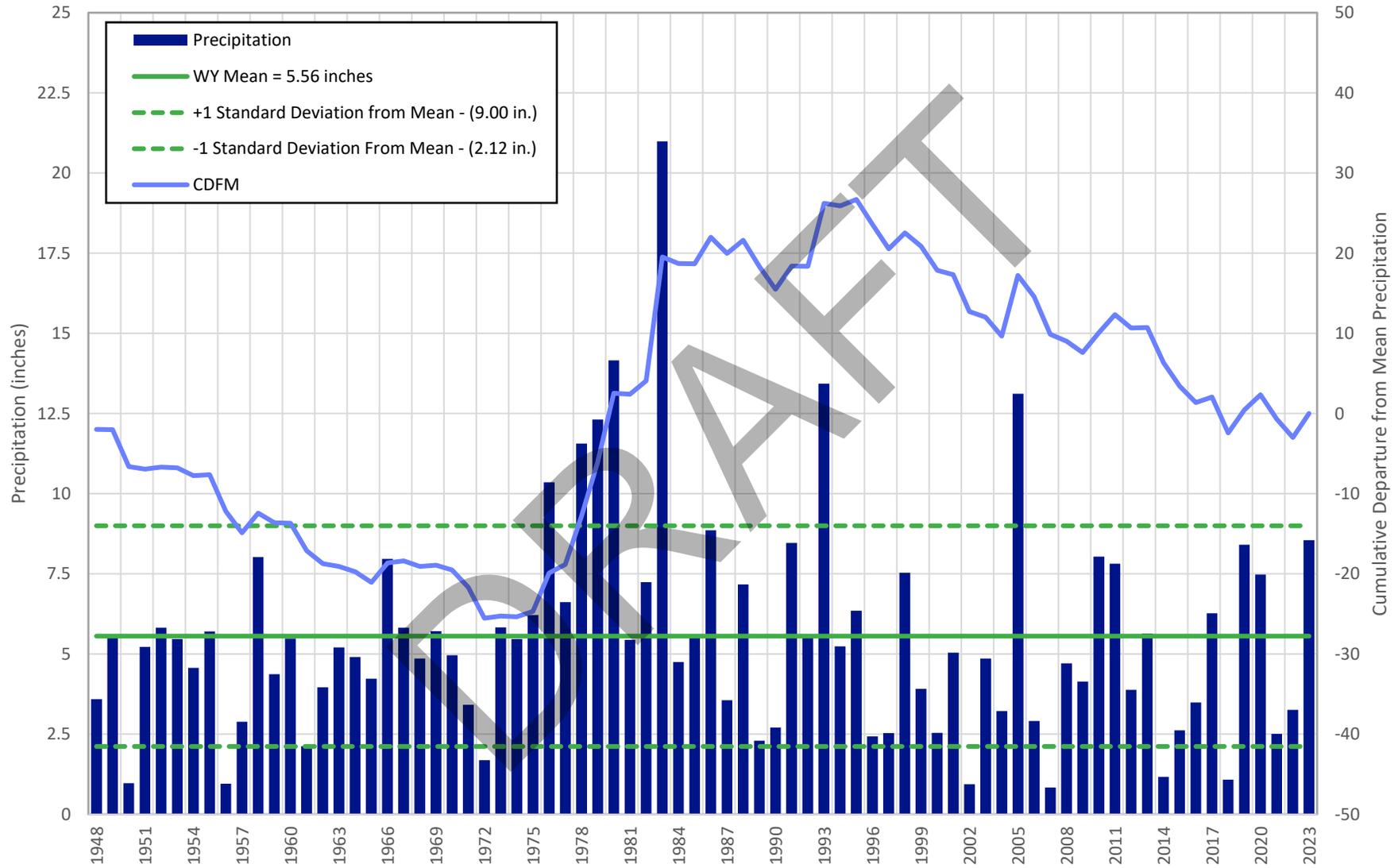


Figure 3

Atmospheric and Surface-Water Monitoring Stations

Borrego Springs Watermaster
Borrego Springs Subbasin
2023 Annual Report

**Figure 4. Time History of Annual Precipitation and Cumulative Departure From Mean
Borrego Desert Park Station (GHCND:USC00040983)**



5.3 Surface Water

The Coyote Creek Watershed, which drains the Santa Rosa Mountains to the north of the Basin, provides most of the recharge to the Basin through infiltration of streamflow into the shallow alluvial sediments. Figure 3 shows the location of historical and current surface-water monitoring stations. There are two inactive USGS stream gages located along Coyote Creek at the northernmost boundary of the Basin. USGS Station Number 10255800 recorded daily discharge data from 1950-1983. During this period, mean annual stream discharge was about 1,831 afy (USGS, 2023a). USGS Station Number 10255805 recorded daily discharge data from 1983–1993. During this period, mean annual stream flow was about 1,774 afy (USGS, 2023b).

There is one drainage entering the Basin that is actively monitored with a USGS stream gage: Station Number 10255810, which is located in Borrego Palm Canyon downstream of the palm oasis (USGS, 2023c). This stream gage has a period of record dating back to 1950, with a data gap from 2004 through 2014. Daily data are available from 1950 to 2003 and sub-daily data (15 minute) from 2015 to 2023. Surface-water discharge at Station Number 10255810 is generally low over the period of record, with most of the discharge following precipitation events and thunderstorms, typically in the winter and spring months.

Figure 5a is a chart of the daily discharge measured at the Borrego Palm Canyon USGS stream gage for the period of record. The maximum daily mean discharge was 277 cubic feet per second (cfs), which occurred on August 16, 1979. In WY 2023, stream flow was present from early January 2023 through September 2023, with daily mean discharge ranging from 0.01 to 89.7 cfs on days when flow was recorded. The largest discharge event of 89.7 cfs occurred on August 20, 2023, when Hurricane Hilary brought torrential rainfalls to most of southern California. Figure 5b is a chart of the total annual stream discharge for the period of record. Annual stream discharge (for years with data) averaged 562.2 afy, ranging from 6.6 afy to 5,526.1 afy. The total annual stream discharge measured at the Borrego Palm Canyon station for WY 2023 was about 1,518 af (USGS, 2023c).

Table 17. Monthly and Water Year Reference Evapotranspiration (ET_o) Totals for CIMIS Station No. 207 – 2010-2023 (inches, except where noted)

Water Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Water Year Total
2010	5.00	3.08	1.96	2.41	3.21	8.81	9.84	8.58	9.22	9.51	9.11	7.44	78.17
2011	4.36	2.88	1.98	2.68	3.35	5.55	7.12	8.77	8.23	7.98	8.47	6.43	67.8
2012	4.92	2.72	2.11	2.82	3.56	5.33	6.77	7.66	9.47	8.77	8.04	7.09	69.26
2013	5.04	3.20	2.23	2.54	3.57	5.75	7.56	8.64	9.02	8.01	7.57	6.46	69.59
2014	5.05	3.00	2.27	2.67	3.66	5.94	7.23	8.66	9.72	9.24	8.38	6.97	72.79
2015	4.70	3.14	1.58	2.17	3.54	5.83	7.23	7.95	8.52	8.76	8.74	6.55	68.71
2016	5.16	3.35	2.43	2.42	4.15	6.35	7.44	8.97	9.79	10.17	8.91	6.51	75.65
2017	5.17	3.37	1.99	2.33	3.28	6.27	8.18	9.14	10.20	9.70	9.43	6.99	76.05
2018	5.38	3.16	2.47	2.75	3.46	5.43	7.66	8.63	9.13	8.65	8.00	6.48	71.2
2019	4.20	2.96	1.65	2.00	2.38	4.68	6.56	6.82	7.61	8.19	7.67	6.10	60.82
2020	4.60	2.94	2.21	2.38	3.66	4.27	5.93	8.19	7.97	8.67	7.80	6.66	65.28
2021	4.81	2.96	2.04	2.29	3.19	4.86	6.59	7.90	8.03	7.97	7.43	6.31	64.38
2022^a	4.11	3.08	1.86	2.37	3.44	5.30	6.59	7.41	7.73	7.53	5.25	0.00	54.67
2023	2.85	2.65	1.72	2.22	2.80	4.39	6.70	7.78	7.44	7.82	6.90	4.76	58.03
14-Year Average, inches	4.67	3.04	2.04	2.43	3.38	5.63	7.24	8.22	8.72	8.64	7.98	6.05	68.03
14-Year Average, feet	0.39	0.25	0.17	0.20	0.28	0.47	0.60	0.69	0.73	0.72	0.66	0.50	5.67

Source: CIMIS 2023 – Station No. 207 (<https://cimis.water.ca.gov/>)

(a) Values reported for 2022 were downloaded from CIMIS daily data and compiled on 12/30/2022. CIMIS reports 0 in. ET for September 2022.

Figure 5a. USGS 10255810 Borrego Palm Canyon Stream Flow, 1950 to 2023

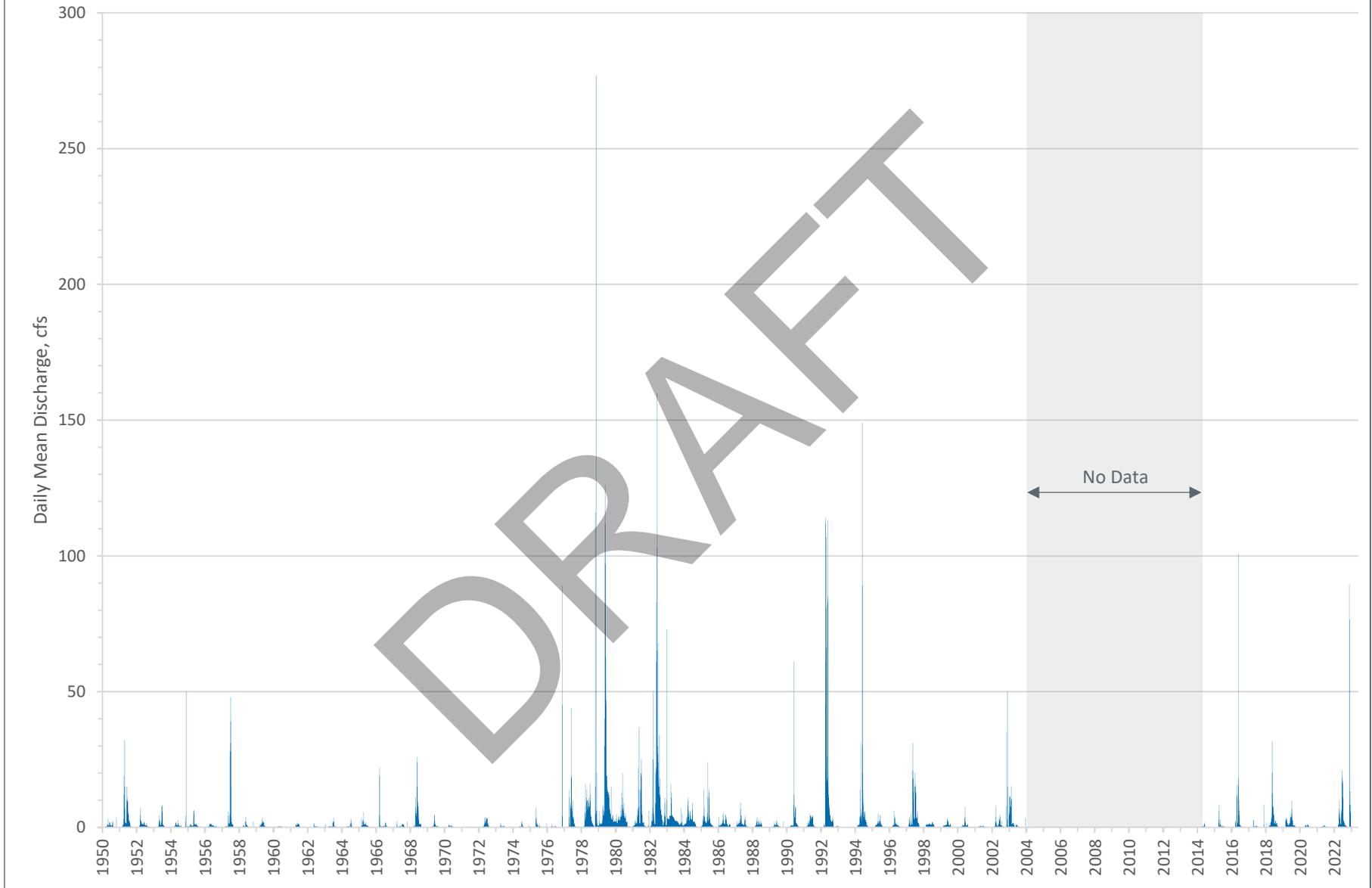
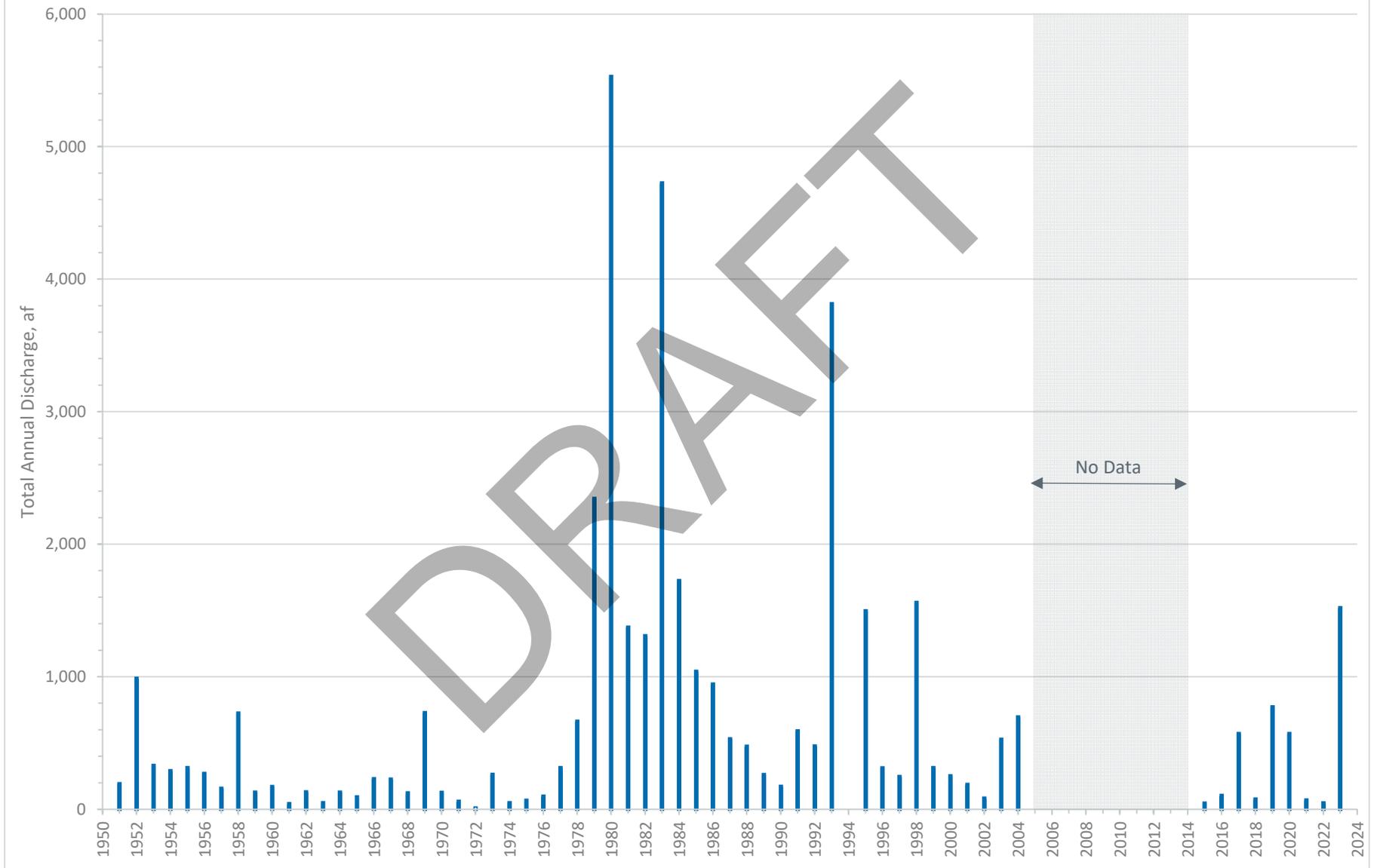


Figure 5b. USGS 10255810 Borrego Palm Canyon Total Annual Stream Discharge, 1950 to 2023



5.4 Water Use

5.4.1 Groundwater Pumping

Groundwater is pumped from the Basin for use by the following sectors:

- **Agriculture.** Agricultural pumping serves a variety of crop types including citrus, palms, date palms, and nurseries. The majority of groundwater pumped from the Basin is used for crop irrigation.
- **Recreational.** Recreational pumping is used to irrigate of golf courses, including: De Anza Country Club, Rams Hill Country Club, Road Runner Golf and Country Club, and The Springs at Borrego RV Resort and Golf Course.
- **Municipal.** Municipal pumping is performed by the BWD and served to its customers for drinking water (potable) and other non-potable uses.
- **Other Non-De Minimis.** Other non-De Minimis users are those BPA Parties that do not fall into the Agriculture, Recreational, or Municipal categories.
- **De Minimis.** Private groundwater pumpers who extract less than two (2) afy for use on their real property overlying the Basin are considered De Minimis pumpers under the Judgment. Well users are generally considered to be De Minimis unless their properties contain irrigated areas more than about 0.5 acres, which could result in use of more than two afy of water. During the development of the GMP, it was estimated there were 53 De Minimis pumpers in the Basin.

Figure 6 is a time-series chart of historical groundwater pumping in the Basin from 1945 through 2023. The chart is divided into two parts to facilitate the comparison of groundwater pumping to the Rampdown:

1. Groundwater pumping that occurred prior to GMP implementation (1945-2019)
2. Groundwater pumping that occurred during GMP implementation (2020-2023)

The subsections below describe: (i) the methods that have been used to estimate groundwater pumping; (ii) total groundwater pumping for WY 2023 by sector; and (iii) a comparison of annual groundwater pumping during GMP implementation (2020-2023) to the Rampdown schedule in the Judgment.

5.4.1.1 Methods for Estimating Groundwater Pumping

The following methods have been used to estimate groundwater pumping in the Basin:

1. **Model-estimated.** The BVHM simulated historical groundwater pumping as a component of the water budget for the period of 1945-2016. Most of the historical pumping was un-metered agricultural pumping. The BVHM estimated historical un-metered pumping through the application of the FMP. Other metered pumping was assigned in the BVHM as through the MNW2 package. These historical pumping estimates are currently being updated for the Redetermination of the Sustainable Yield (as discussed in Section 3.4).

2. **Water Duty Method.** To support the development of the GMP and updates to the Stipulated Judgment filings, un-metered pumping was estimated using a water duty method for the period of 2015 to 2020.⁶⁹ The water duty method estimated un-metered pumping based on crop-specific water-use factors defined in the GMP (Dudek, 2020a) and the most current information on the irrigated area and crop type of each Pumper based on an aerial imagery analysis.
3. **Meter Data.** Prior to WY 2021, meter data was available at a small number of wells. Since WY 2021, most of the pumping by BPA Parties has been metered and reported to the Watermaster on a monthly basis (refer to Section 3.1.1).⁷⁰
4. **De Minimis Pumping.** There are an estimated 53 active De Minimis pumpers within the Basin—each assumed to pump 0.5 afy (Dudek, 2020b). Therefore, De Minimis pumping in the Basin is estimated to be approximately 26.5 afy.

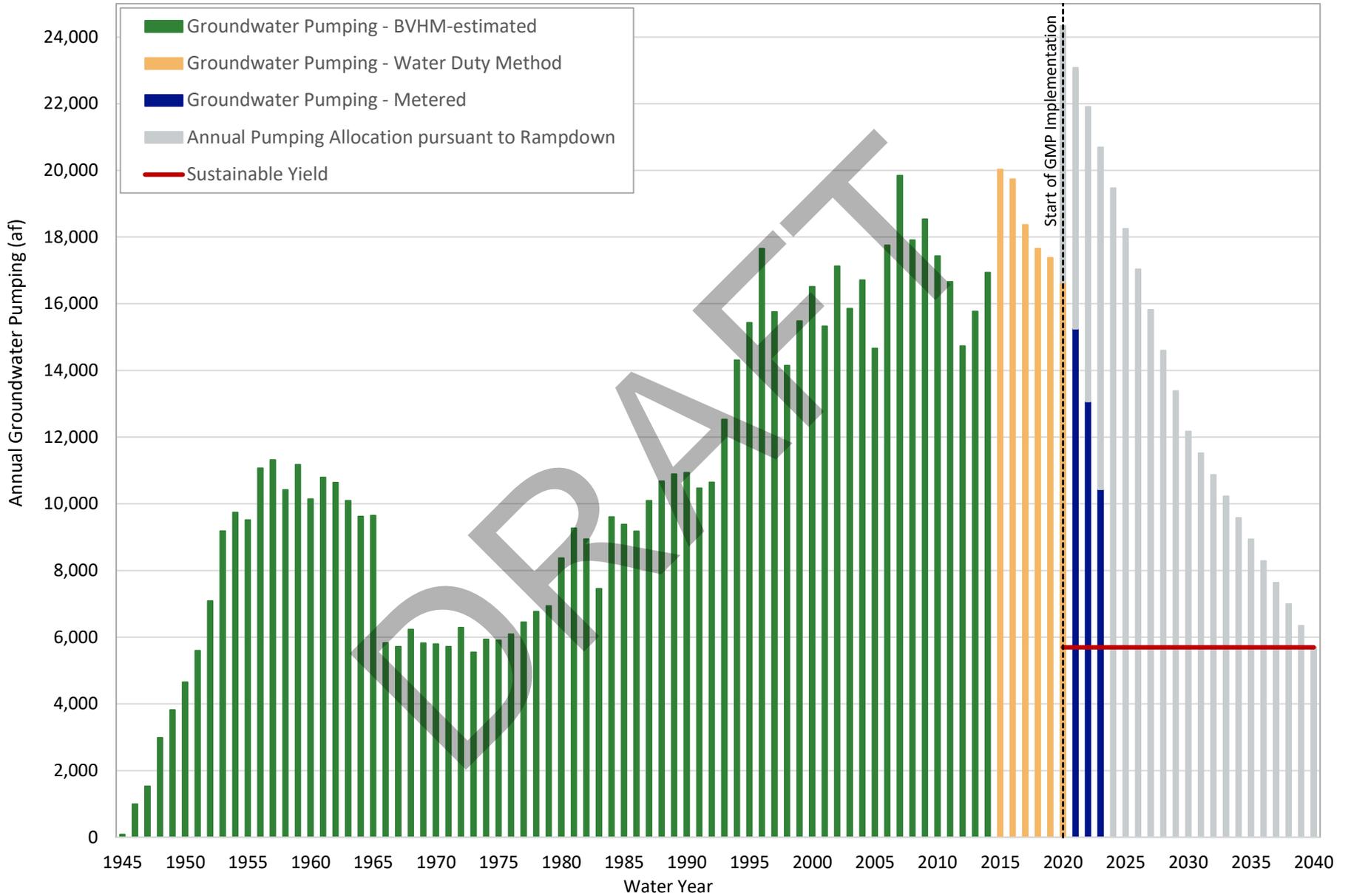
In Figure 6, the pumping totals shown are comprised of the following methods:

- WY 1945 to 2014: Model-estimated data, which are symbolized as dark green bars.
- WY 2015 to 2020: Water duty estimates (majority), plus limited meter data, plus De Minimis estimates. The total annual estimates are symbolized as orange bars.
- WY 2021 to 2023: Meter data (majority), plus water duty estimates, plus De Minimis estimates. The total annual estimates are symbolized as dark blue bars.

⁶⁹ In select cases, pumping records were available and provided by non-De Minimis users to support the estimate of groundwater pumping during GMP development.

⁷⁰ The Judgment was entered on April 8, 2021. The non-Settling Parties were not required to meter wells until after entry of the Judgment, thus most did not have a full year of metered data for WY 2021. Where metered data were not available for a Party, the water duty methodology used in the GMP was applied to estimate pumping (refer to Table 16 to see the meter status of each Party as of 2023). By WY 2022, and in WY 2023, the majority of Parties were metered and had a full year of metered data.

Figure 6. History of Groundwater Pumping Compared to Rampdown Schedule (WY 1945 - 2040)



5.4.1.2 Groundwater Pumping in WY 2023

Total pumping in WY 2023 was about 10,430 af.⁷¹ The following figures and tables characterize the pumping that occurred in WY 2023:

- Figure 7 shows the location of each pumping well in the Basin for WY 2023. Each well is symbolized by sector and magnitude of pumping in WY 2023.
- Figure 8 is a time-series chart of annual groundwater pumping, by sector, for WY 2015 through 2023.
- Table 18 summarizes annual groundwater pumping in the Basin, by sector, for WY 2015 through 2023.

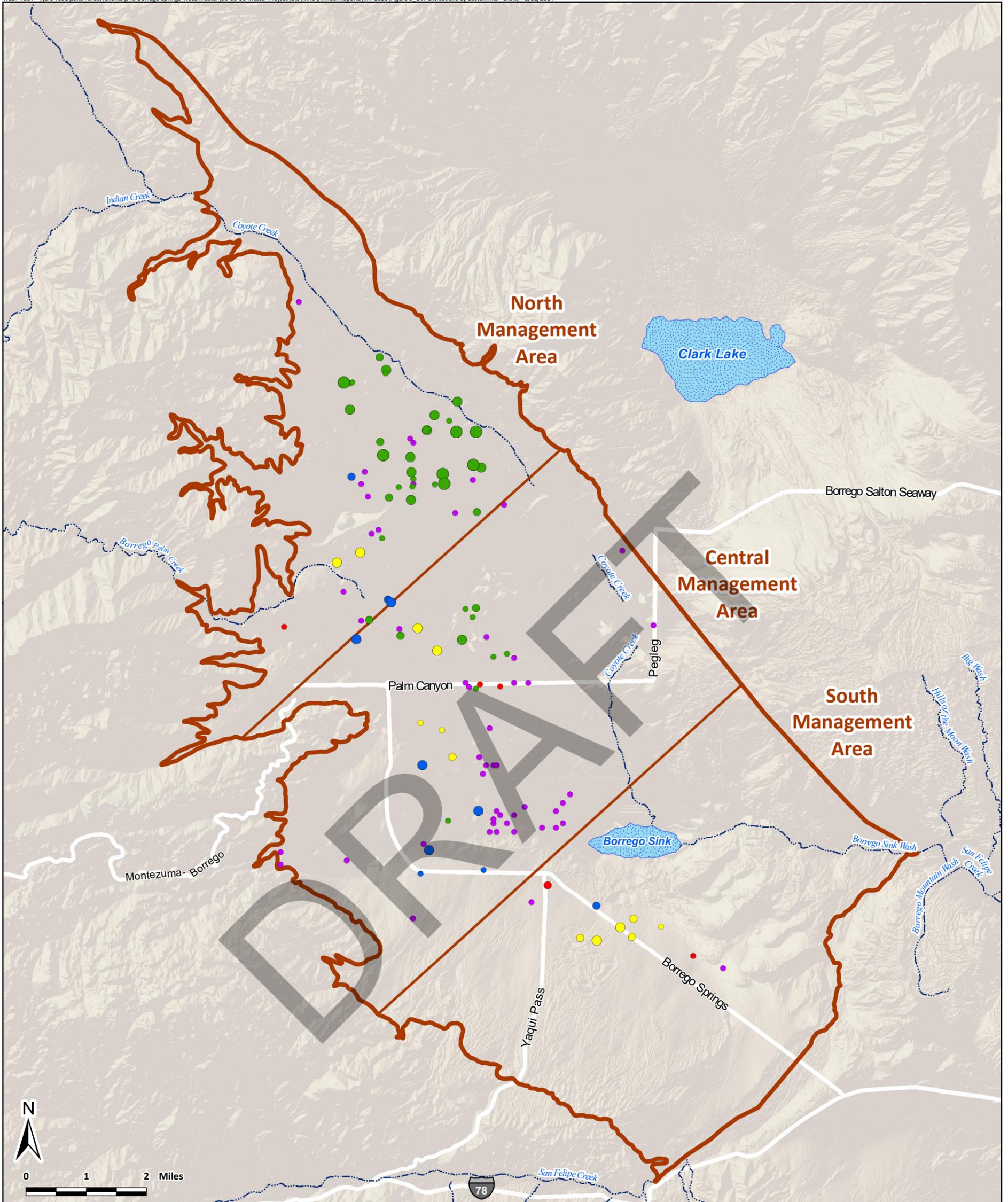
The following observations are made through inspection of these data graphics:

- Total annual groundwater pumping has been decreasing over the last eight years. From WY 2015 to WY 2023, pumping declined from about 20,028 af in WY 2015 to about 10,430 af in WY 2023 (a decrease of 9,598 af, or approximately 48 percent). It should be noted that pumping estimates for WY 2021 through 2023 are based primarily on metered data and are not directly comparable to the WY pumping estimates from WY 2015 to WY 2020 that were primarily estimated by the water duty method.
- The agriculture sector continued to pump most of the groundwater from the Basin in WY 2023. The majority of the reduction in pumping from WY 2015 to WY 2023 was from the agriculture sector (about 7,904 af).
- Groundwater pumping decreased by 37 percent since the start of the GMP implementation (WY 2020) and by 20 percent relative to WY 2022.

5.4.1.3 Comparison of Groundwater Pumping to the Rampdown

Figure 6, in addition to presenting historical groundwater pumping, compares the pumping that occurred to the Annual Allocation pursuant to the Rampdown. Annual pumping has been less than the Annual Allocation for each year since the start of GMP implementation. In WY 2023, total pumping of 10,430 af was approximately 50% less than the Annual Allocation of 20,694 af. As discussed in Section 4, a portion of the unpumped water is eligible to be purchased as Carryover for pumping in future years.

⁷¹ The WY 2023 pumping amount shown in Table 18 is slightly larger than reported in Section 4.3 (by 26.5 af) because the Water Rights Accounting does not consider De Minimis pumping.



Groundwater Extractions in 2023 by Sector (af)

Extraction Amount Represented by Symbol Size and Sector Represented by Symbol Color

- | | |
|--------------|-----------------------|
| ● 0 - 25 | ● Agriculture |
| ● 25 - 100 | ● Recreation |
| ● 100 - 500 | ● Municipal |
| ● 500 - 1000 | ● Other Non-Deminimis |
| ● >1000 | ● De Minimis |

Other Features

- Borrego Springs Subbasin with Management Area Divisions

Surface Water Features

- Stream Channel
- Dry Lake



Figure 7

Groundwater Extractions by Sector (2023)

Borrego Springs Watermaster
Borrego Springs Subbasin
2023 Annual Report

Prepared by:



Figure 8. Annual Groundwater Pumping by Sector – 2015 to 2023

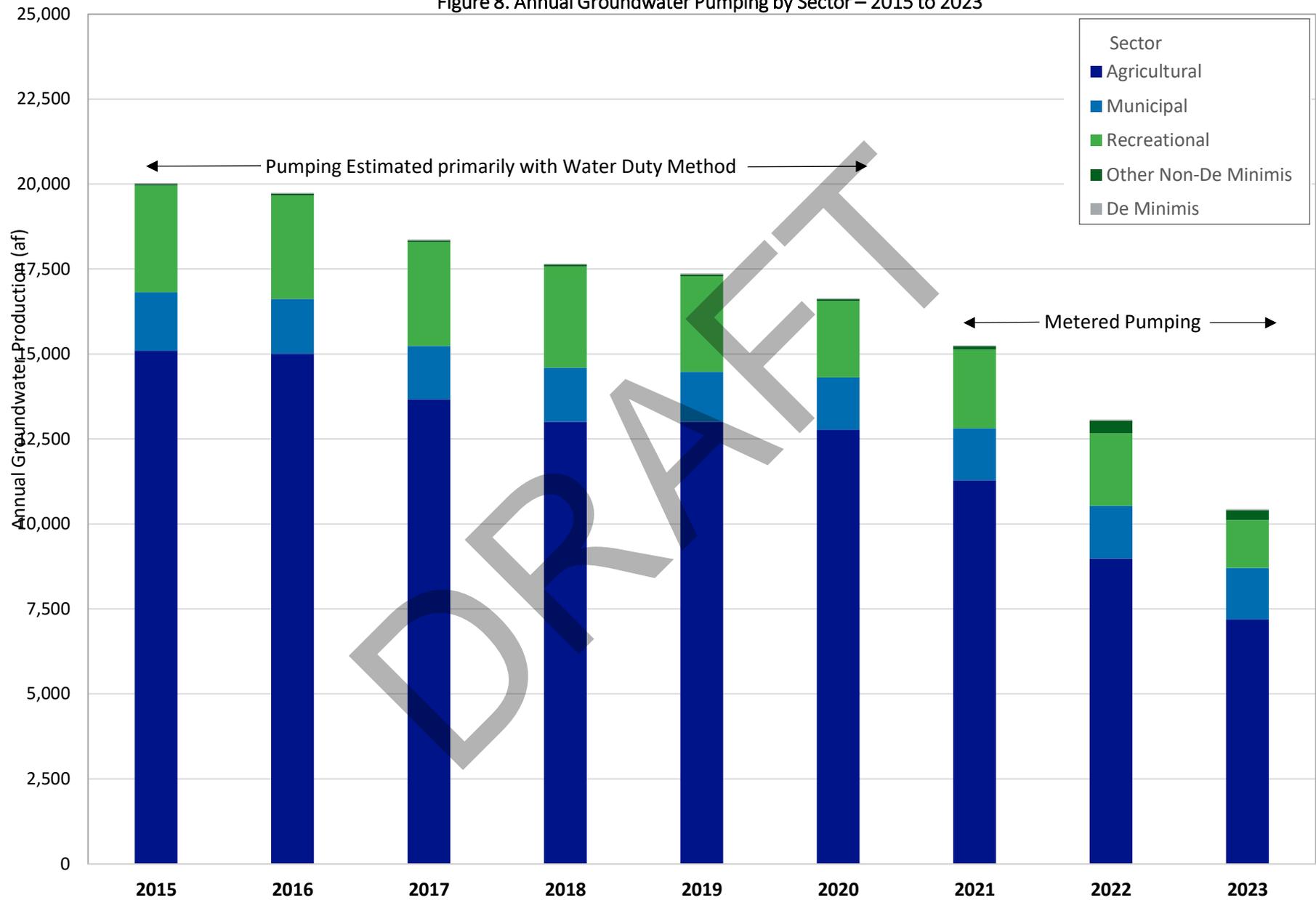


Table 18. Groundwater Pumping by Sector - 2015 to 2023

Groundwater User Type	Annual Groundwater Extraction, acre-feet								
	2015 ^(a)	2016 ^(a)	2017 ^(a)	2018 ^(a)	2019 ^(b)	2020 ^(c)	2021 ^(d)	2022 ^(d)	2023 ^{(d),(e)}
Agricultural	15,093.73	15,007.35	13,668.09	13,006.45	13,025.81	12,771.21	11,282.89	8,986.39	7,189.78
Recreational	3,137.39	3,045.22	3,058.91	2,973.94	2,807.67	2,245.84	2,317.84	2,131.40	1,408.81
Municipal	1,719.91	1,610.42	1,568.04	1,593.74	1,466.48	1,541.42	1,528.84	1,545.46	1,516.10
Other Non-De Minimis	50.40	49.72	47.93	52.51	52.51	52.51	91.89	374.42	288.69
De Minimis	26.50	26.50	26.50	26.50	26.50	26.50	26.50	26.50	26.50
Total Pumping	20,027.93	19,739.21	18,369.47	17,653.14	17,378.97	16,637.48	15,247.96	13,064.17	10,429.88

(a) Source for 2015-2018 estimates: Dudek, 2020b:

- 2015 pumping extrapolated from preceding year aerial imagery for all sites without metered pumping records.
- Water credit sites assumed to have ceased irrigation either on date of issuance of water credits or based on review of mid-2014 aerial imagery.
- A water use factor of 0.5 acre-feet per dwelling unit utilized to calculate De Minimis groundwater use.

(b) 2019 pumping updated from the WY 2019 Annual Report (Dudek, 2020b) to be consistent with recent updates made Dudek to support the Court proceedings on the proposed Stipulated Judgment. The 2019 pumping was extrapolated by Dudek from comparisons of 2018 and 2020 aerial imagery for all sites without metered pumping records.

(c) 2020 Sources and Methods:

- Agricultural pumping estimated based on method used for 2015-2018 (Dudek 2020a, 2020b) and using reported changes in 2020 aerial imagery that were assessed by Dudek to update the 2019 pumping estimates described for 2019 in note (b) above.
- Municipal: Based on BWD monthly reports to the Board.
- Golf Course: Based on meter reads for Borrego Springs Resort, Circle Club, and Rams Hill. Other pumping by golf courses (De Anza, Road Runner, The Springs) based on estimation method used for 2015-2018 (Dudek 2020a, 2020b).
- Other non-De Minimis and De Minimis pumping estimated based on method used for 2015-2018 (Dudek 2020a, 2020b).

(d) 2021, 2022, and 2023 Sources and Methods:

- Pumping metered or estimated for all BPA parties. Table 11 in Section 4 of this Annual Report indicates whether pumping was metered or estimated, by Party for WY 2023.
- De minimis pumping estimated based on GMP method used for 2015-2018 (Dudek 2020a, 2020b).

(e) The total WY 2023 pumping amount shown in Table 13 is slightly larger than reported in Section 4.3 (by 26.5 af) because the Water Rights Accounting does not consider De Minimis pumping

5.4.2 Surface Water Use

Currently, there is no surface water supply that is directly used or indirectly used for artificial or in-lieu recharge in the Basin.

5.4.3 Total Water Use

Because there is no surface water used in the Basin, total water use in WY 2023 was equivalent to the sum of all groundwater pumping shown in Table 18: 10,430 af.⁷²

5.5 Groundwater Conditions

This section describes groundwater conditions for the three applicable Sustainability Indicators⁷³ identified in the GMP (and described in Section 1.3.2.1):

- Chronic Lowering of Groundwater Levels
- Reduction of Groundwater Storage
- Degradation of Groundwater Quality

For each Sustainability Indicator, this section describes historical trends and current conditions, and compares these groundwater conditions to the Minimum Thresholds. The Minimum Thresholds are quantitative values that represent the groundwater conditions at a Representative Monitoring Well that, when exceeded individually or in combination with Minimum Thresholds at other monitoring sites, may cause an Undesirable Result(s) in the Basin.

5.5.1 Groundwater Elevations

This section describes the historical trends and current conditions for groundwater elevations in the Basin through WY 2023, and then compares the trends and current conditions to the Sustainable Management Criteria in the GMP to evaluate progress towards achieving sustainability.

5.5.1.1 Historical Trends and Current Conditions

Prior to development of the Basin, groundwater flow was predominantly from the northwest to the southeast and groundwater elevations ranged from 600 feet above mean sea level (ft-amsl) in the northwestern part of the Basin to 460 ft-amsl in the southeast, near the Borrego Sink (Dudek, 2020a). Since the early 1950s, groundwater pumping in the Basin has exceeded recharge causing long-term declines in groundwater levels and changes to the direction of groundwater flow in the Basin.

Figure 9 is a time-series chart that shows long-term trends in groundwater levels at selected wells in the North, Central, and South Management Areas of the Basin. Appendix F contains time-series charts of groundwater-level data for each well in the groundwater-level monitoring network from 1950 through 2023. Inspection of the groundwater levels shown on Figures 9 and Appendix F illustrate that:

⁷² The WY 2023 pumping amount shown in Table 18 is slightly larger than reported in Section 4.3 (by 26.5 af) because the Water Rights Accounting does not consider De Minimis pumping.

⁷³ “Sustainability Indicator” refers to any of the effects caused by groundwater conditions occurring throughout the Basin that, when significant and unreasonable, cause undesirable results (California Water Code Section 10721(x)).

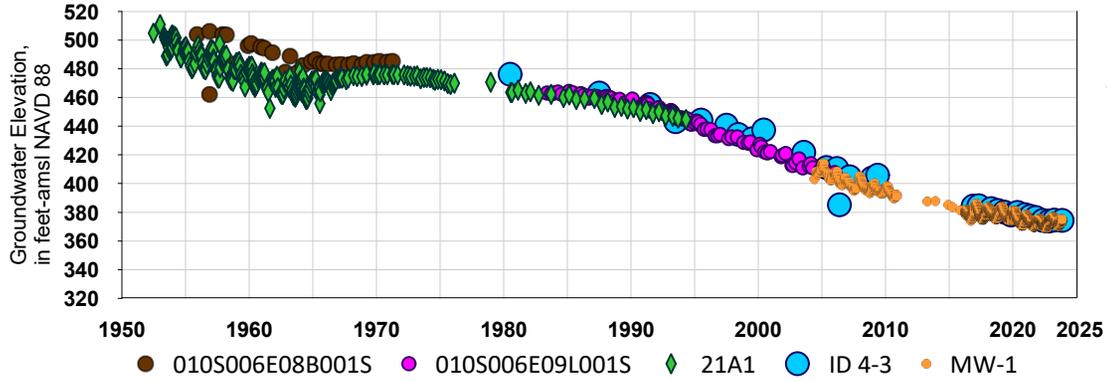
- The long-term decline in groundwater levels within the Basin was most pronounced in the North Management Area and generally decreased in magnitude towards the South Management Area.
- From 1950 through 2023, groundwater levels have:
 - Decreased at most wells with measured groundwater-level data. A maximum decline of approximately 101 ft occurred at the ID4-3 well (see Figure F-8) in the North Management Area.
 - Increased or remained relatively stable at some wells located in southern portion of the Basin (see Figures F-34, F-39, F-51, F-52, F-54, and F-56).

Figures 10 and 11 are maps that depict WY 2023 conditions for groundwater elevations during spring 2023 and fall 2023, respectively. These maps display “true static” groundwater elevations at selected wells across the Basin and contours of equal groundwater elevation. The maps were prepared pursuant to a Watermaster-approved methodology to estimate annual changes in groundwater storage (see Section 5.5.2).⁷⁴ The main observations from Figures 10 and 11 are:

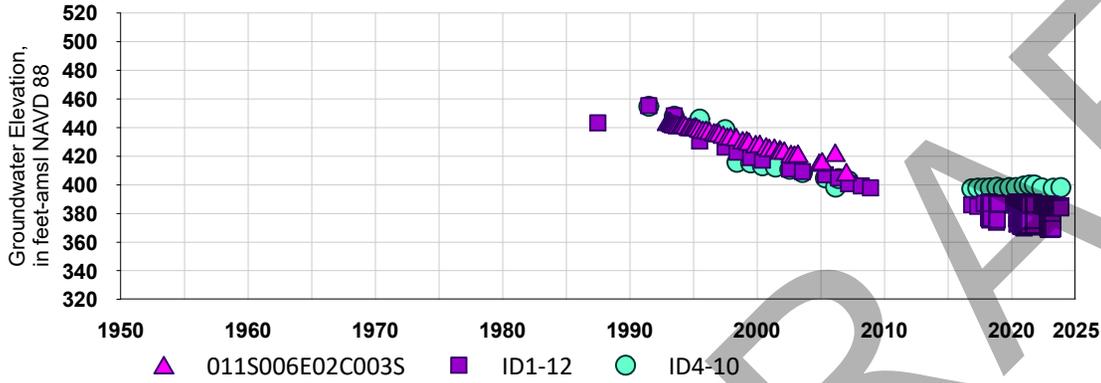
- Groundwater elevations were highest in the North Management Area and South Management Area and lowest near the major pumping centers in the Central Management Areas.
- The direction of groundwater flow was away from recharge areas along the Basin boundaries (mountain front watersheds and San Felipe Creek) towards the areas of major pumping in the Central Management Area.
- Seasonal variations in groundwater elevations were minor and did not change the regional directions of groundwater flow.

⁷⁴ West Yost. 2022. [Methods to Estimate Annual Storage Change in the Borrego Springs Subbasin](#). Prepared for the Borrego Springs Watermaster. February 11, 2022.

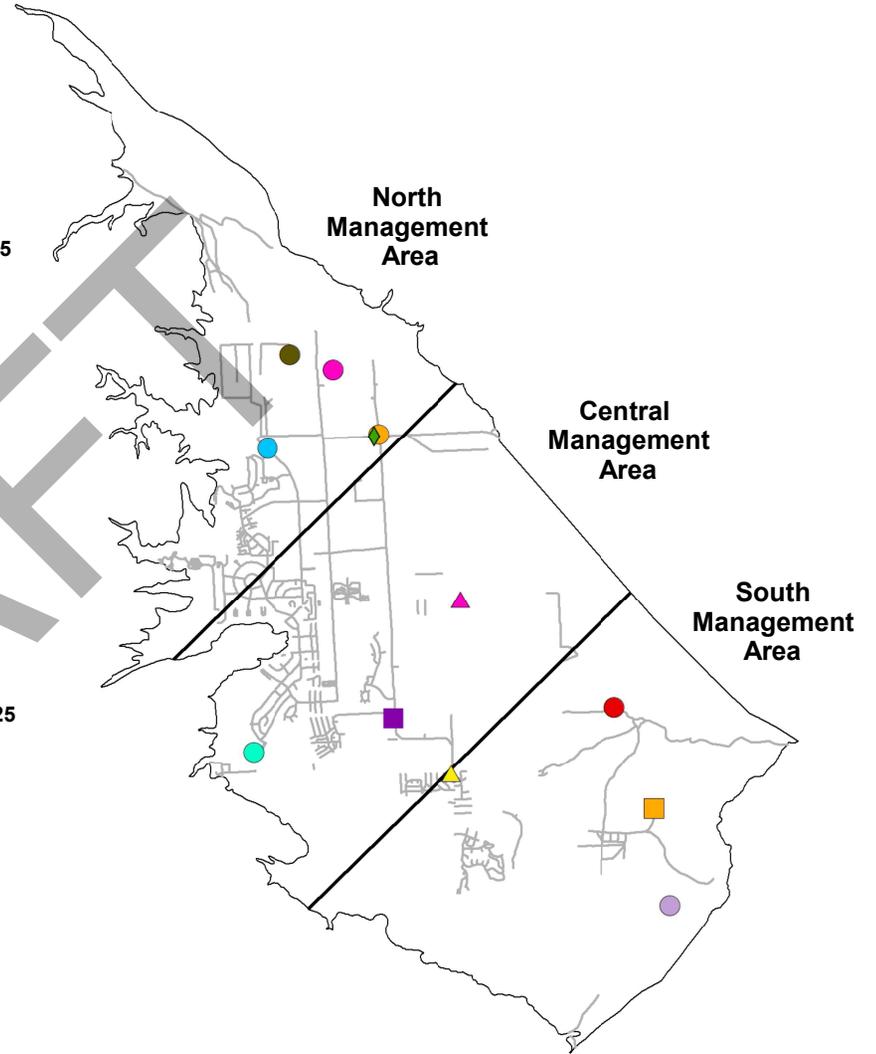
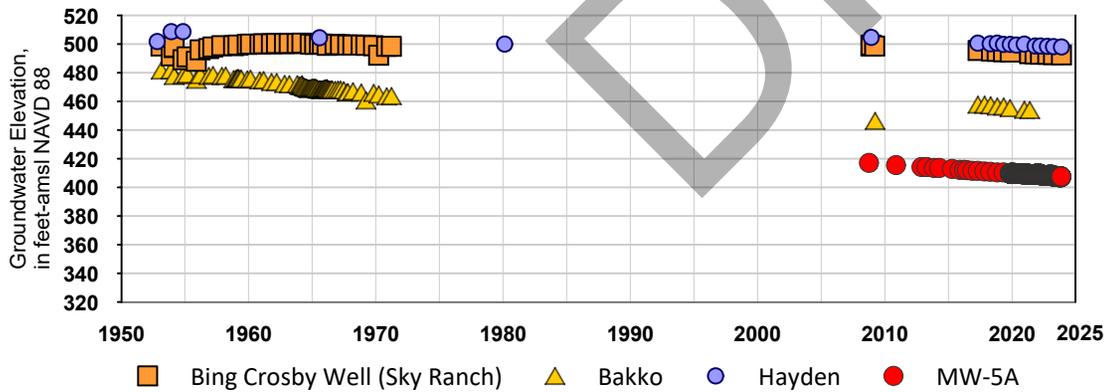
North Management Area

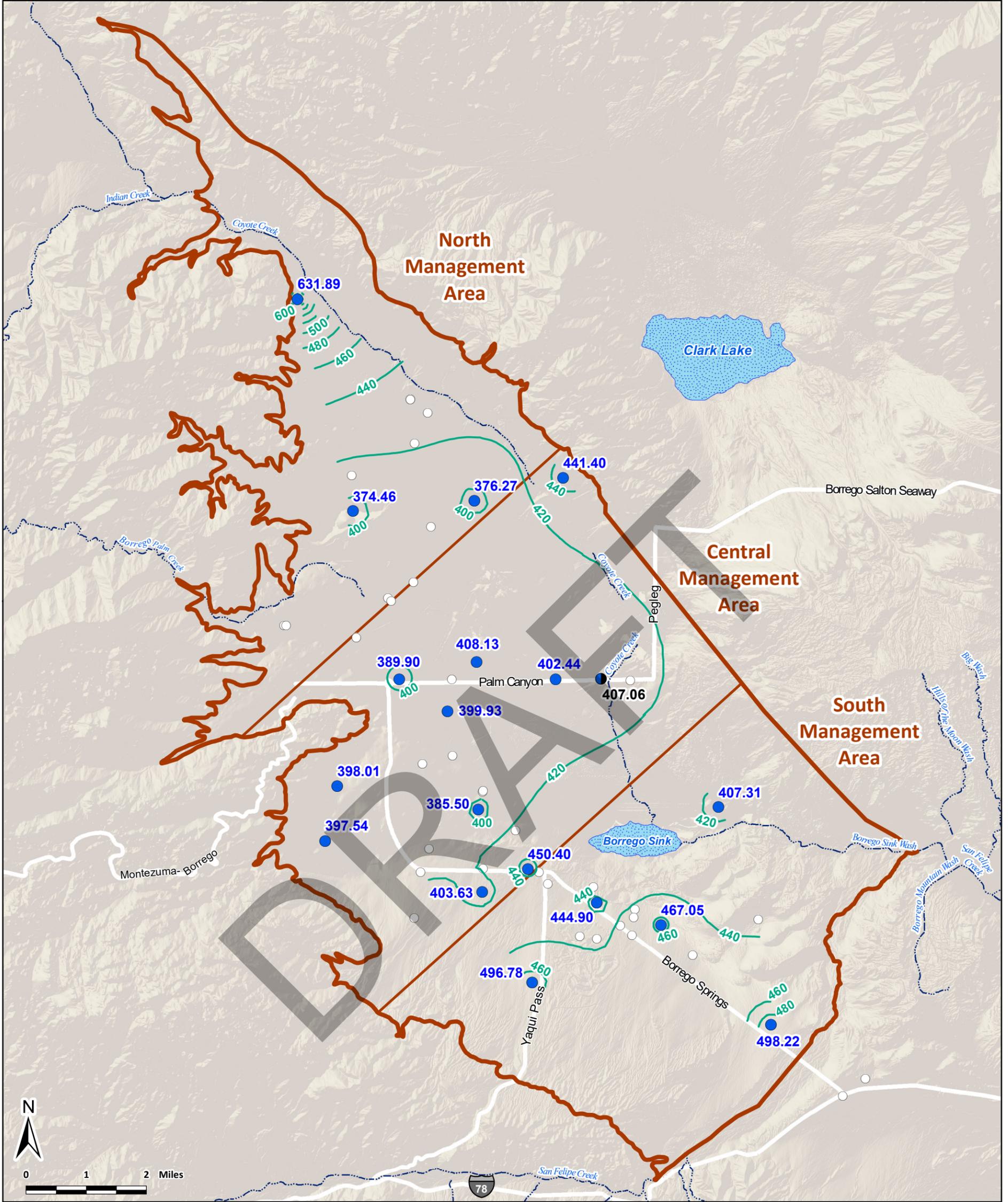


Central Management Area



South Management Area



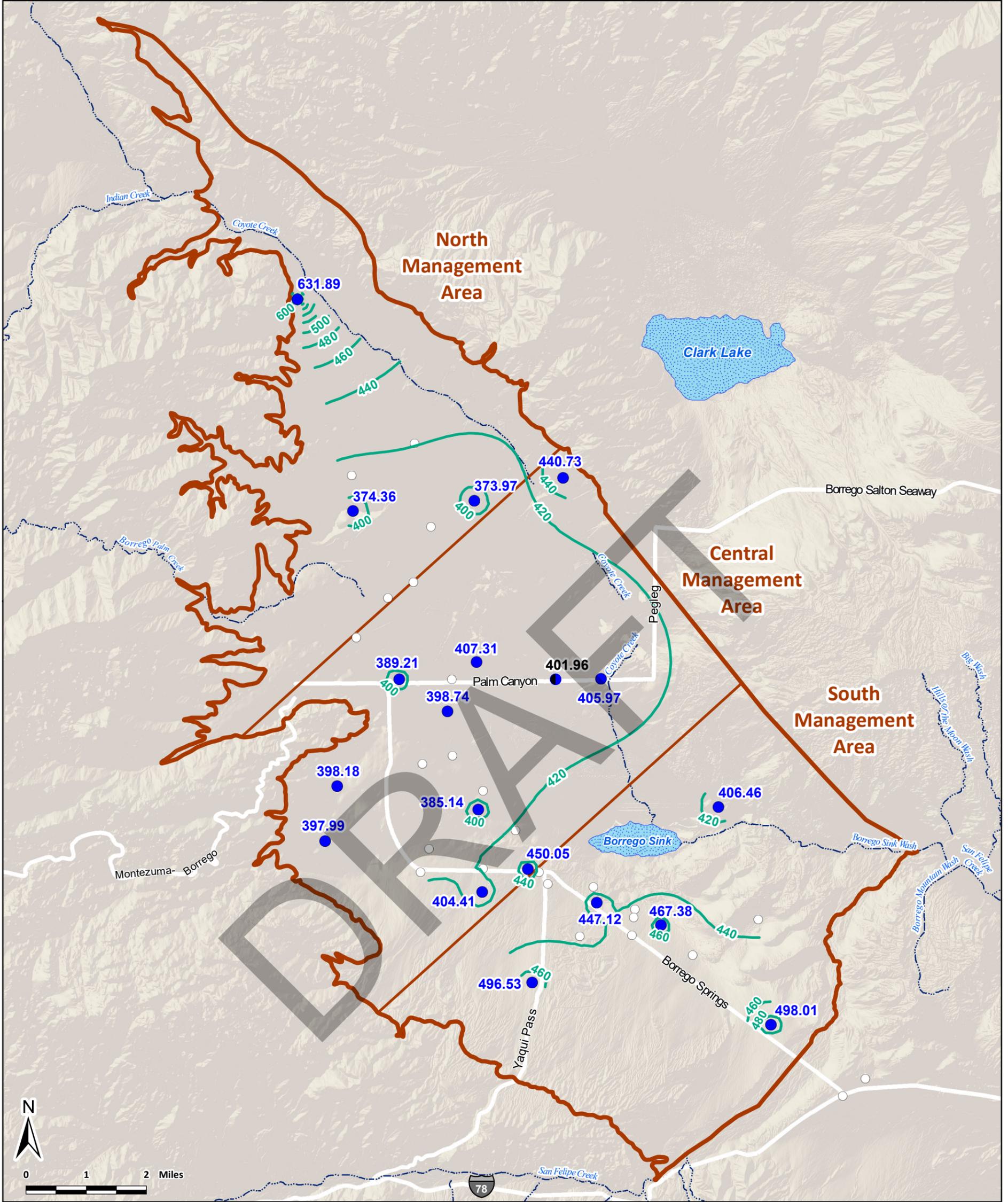


- Groundwater Monitoring Wells Used to Develop Groundwater Elevation Contours for Spring 2023**
- True static groundwater elevation (ft-amsl)
 - Estimated static groundwater elevation (ft-amsl)
 - Groundwater Elevation Contours Spring 2023 (ft-amsl)

- Other Features**
- Borrego Springs Subbasin with Management Area Divisions
 - Other Groundwater Monitoring Wells
- Surface Water Features**
- Stream Channel
 - Dry Lake



The groundwater-elevation contours shown on this map were prepared for the specific purpose of estimating groundwater storage change for the Annual Report, and should not be used for other purposes.



Groundwater Monitoring Wells Used to Develop Groundwater Elevation Contours for Fall 2022

- True static groundwater elevation (ft-amsl)
- Estimated static groundwater elevation (ft-amsl)

Groundwater Elevation Contours Fall 2023 (ft-amsl)

—400—

Other Features

- Borrego Springs Subbasin with Management Area Divisions
- Other Groundwater Monitoring Wells

Surface Water Features

- Stream Channel
- Dry Lake



Prepared by:



Figure 11

**Fall 2023
Groundwater Elevation**

5.5.1.2 Comparison to Sustainable Management Criteria

The GMP identifies two groundwater level conditions that will occur when the Sustainability Goal is met in the Basin: 1) groundwater levels are at sufficient elevations to not cause undesirable results and 2) the trends in groundwater levels are stable or increasing. The GMP quantified these goals by establishing Minimum Thresholds for static groundwater elevations at 16 Representative Monitoring Wells across the Basin.⁷⁵ The Minimum Thresholds were based on an analysis of i) the top of well screens, ii) on model projections of groundwater level changes that are expected to occur by 2040, and iii) the variability of climate and groundwater recharge. The Minimum Thresholds are intended to be compared to static (non-pumping) groundwater elevations conditions.

The following figures and tables were prepared to assess the groundwater level trends since the beginning of GMP implementation, where the “baseline” condition is the start of WY 2020 (e.g. October [fall] 2019), which is year “0” of the pumping Rampdown:

- Figures 12a through 12p are time-series charts that show historical groundwater elevations prior to the start of GMP implementation, groundwater elevations since the start of GMP implementation (e.g. fall 2019), and the Minimum Threshold for each of the 16 Representative Monitoring Wells.
- Table 19 compares fall 2023 groundwater elevations to the Minimum Thresholds for the 16 Representative Monitoring Wells.
- Table 20 compares the trends in groundwater-elevations at the 16 Representative Monitoring Wells for the period of GMP implementation to the period prior to GMP implementation.

Inspection of the groundwater-elevation data shown on these figures and tables illustrates that:

- There have been no exceedances of Minimum Thresholds at any Representative Monitoring Well.⁷⁶
- Generally, groundwater levels continue to decline across the Basin. However, the rate of decline since GMP implementation is less than the historical rate of decline at all but three wells.

⁷⁵ Minimum Thresholds for the chronic lowering of groundwater levels for each Representative Monitoring Well are defined in Tables 3-4 and 3-5 in the GMP.

⁷⁶ Figures 12d, 12f, and 12n show that the lowest groundwater elevations are periodically below the Minimum Thresholds for the RH-1, ID1-16, and MW-3 wells, respectively. The groundwater elevations below the Minimum Threshold occur during well operation (i.e. pumping) of the RH-1 and ID1-16 wells. For MW-3, the lowest groundwater elevations occur when a nearby pumping well (ID1-8) is in operation. The groundwater elevations that occur while the wells are pumping or influenced by pumping are not representative of static groundwater conditions and, therefore, are not considered to be below the Minimum Threshold.

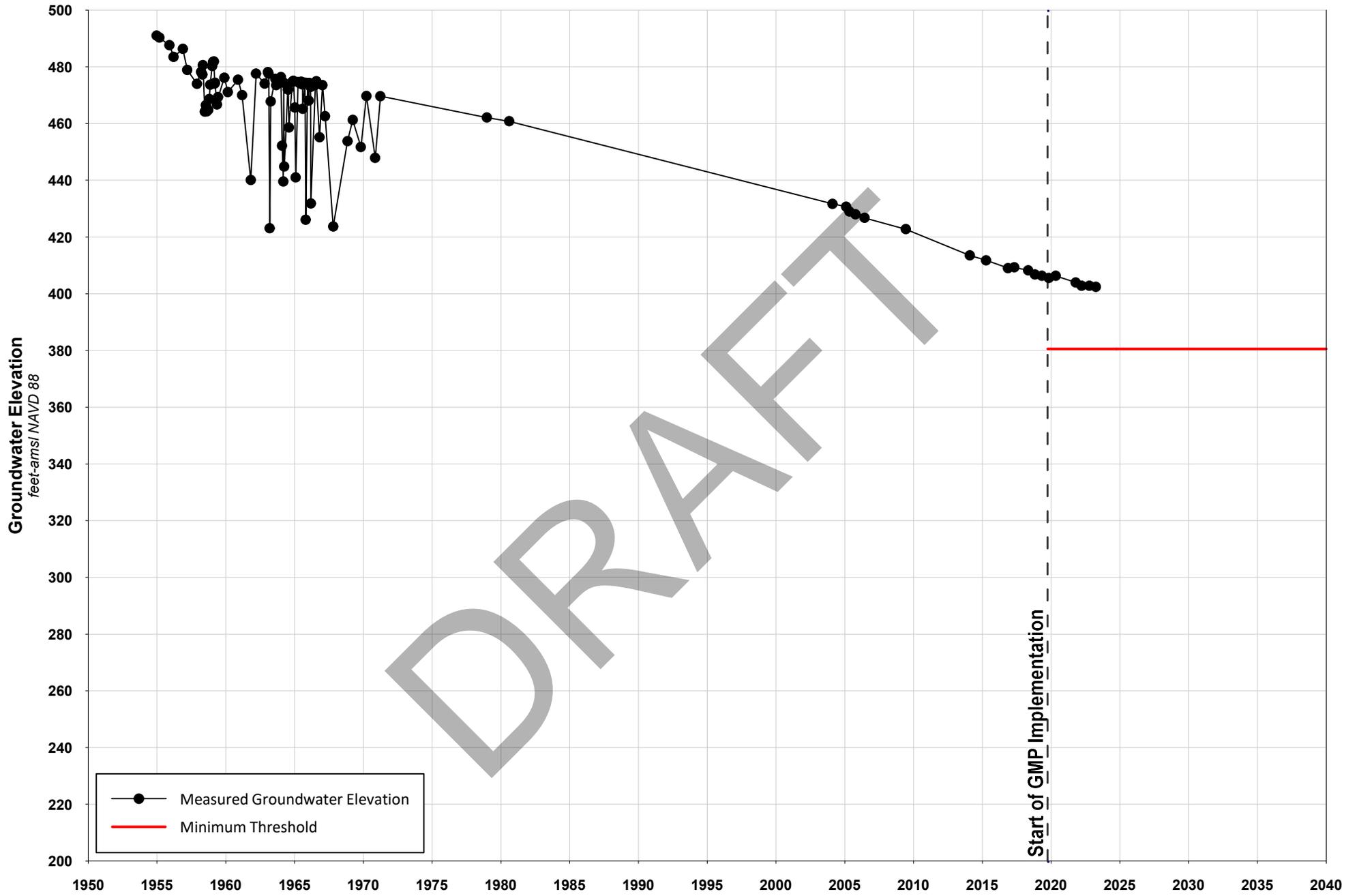
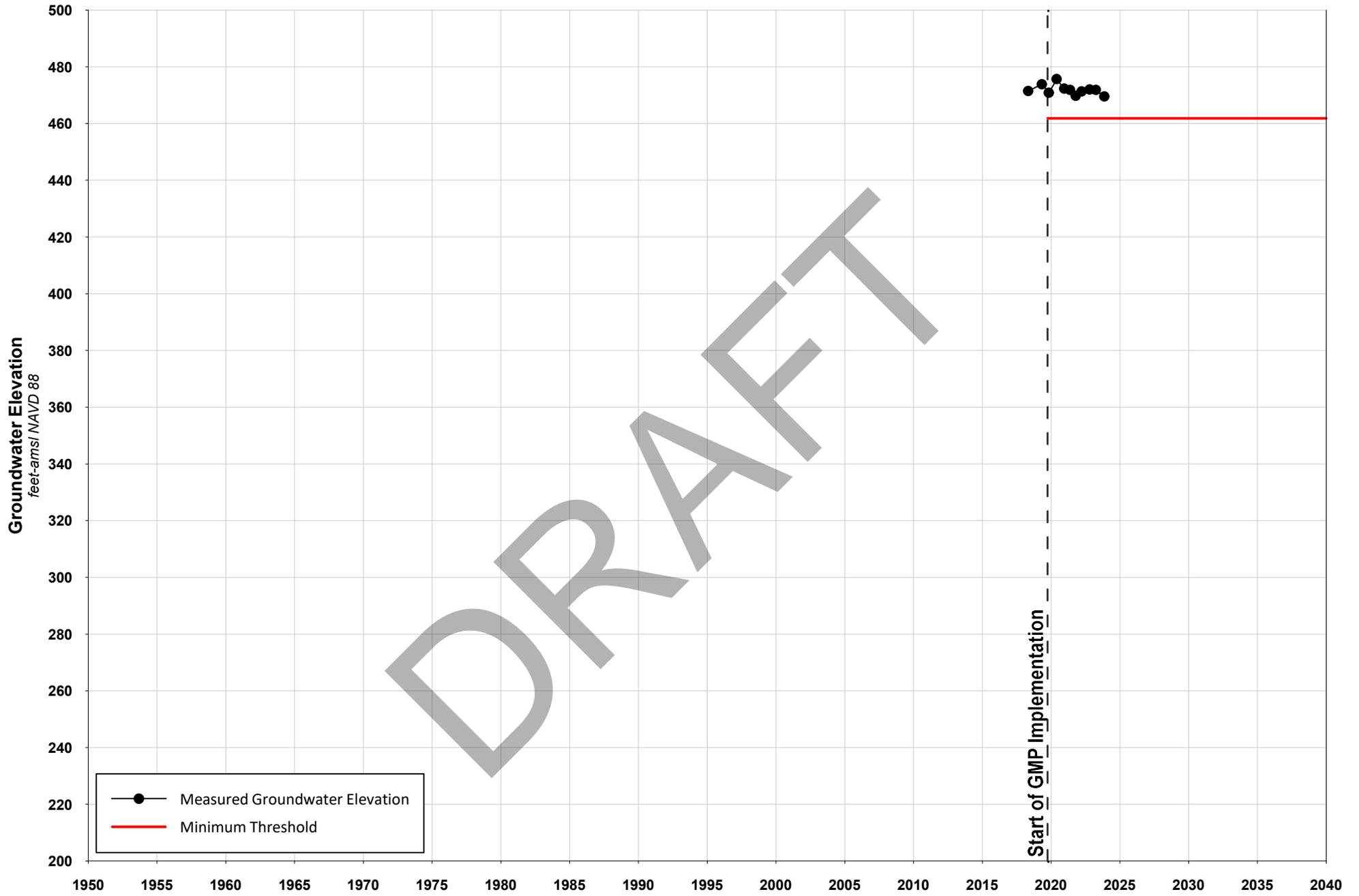
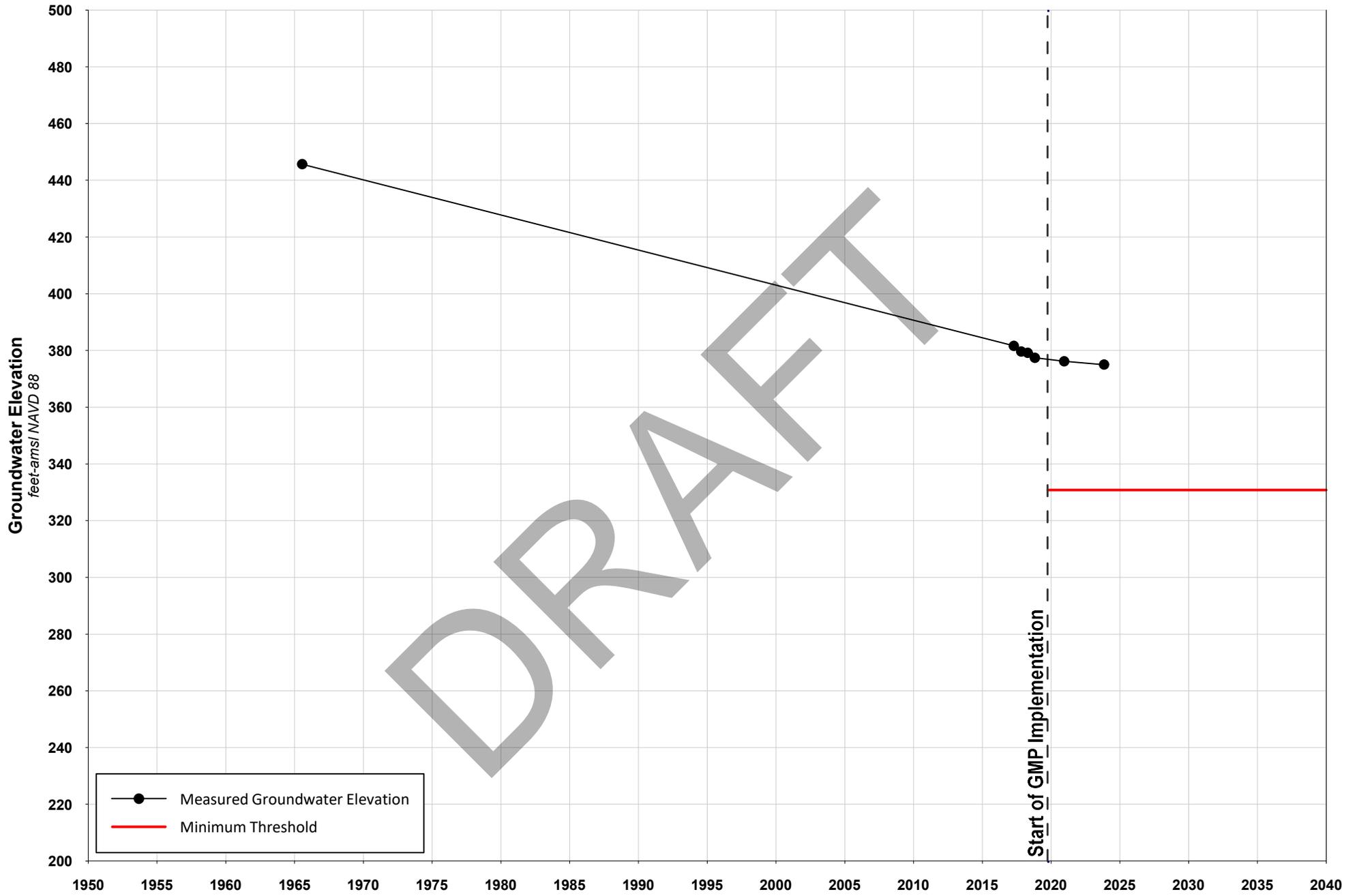


Figure 12a
Groundwater Level and Sustainable Management Criteria
at Representative Monitoring Well Airport 2





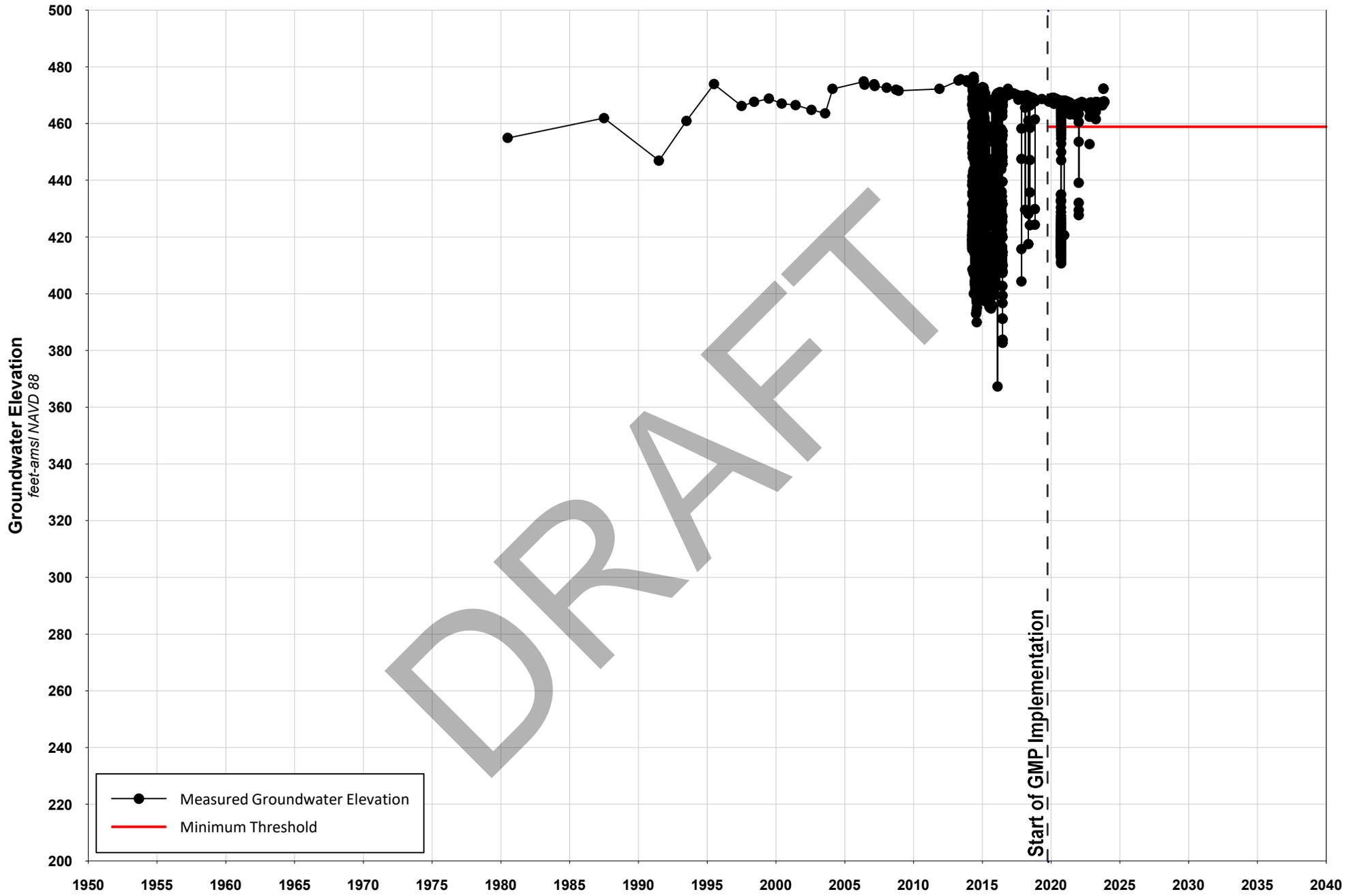
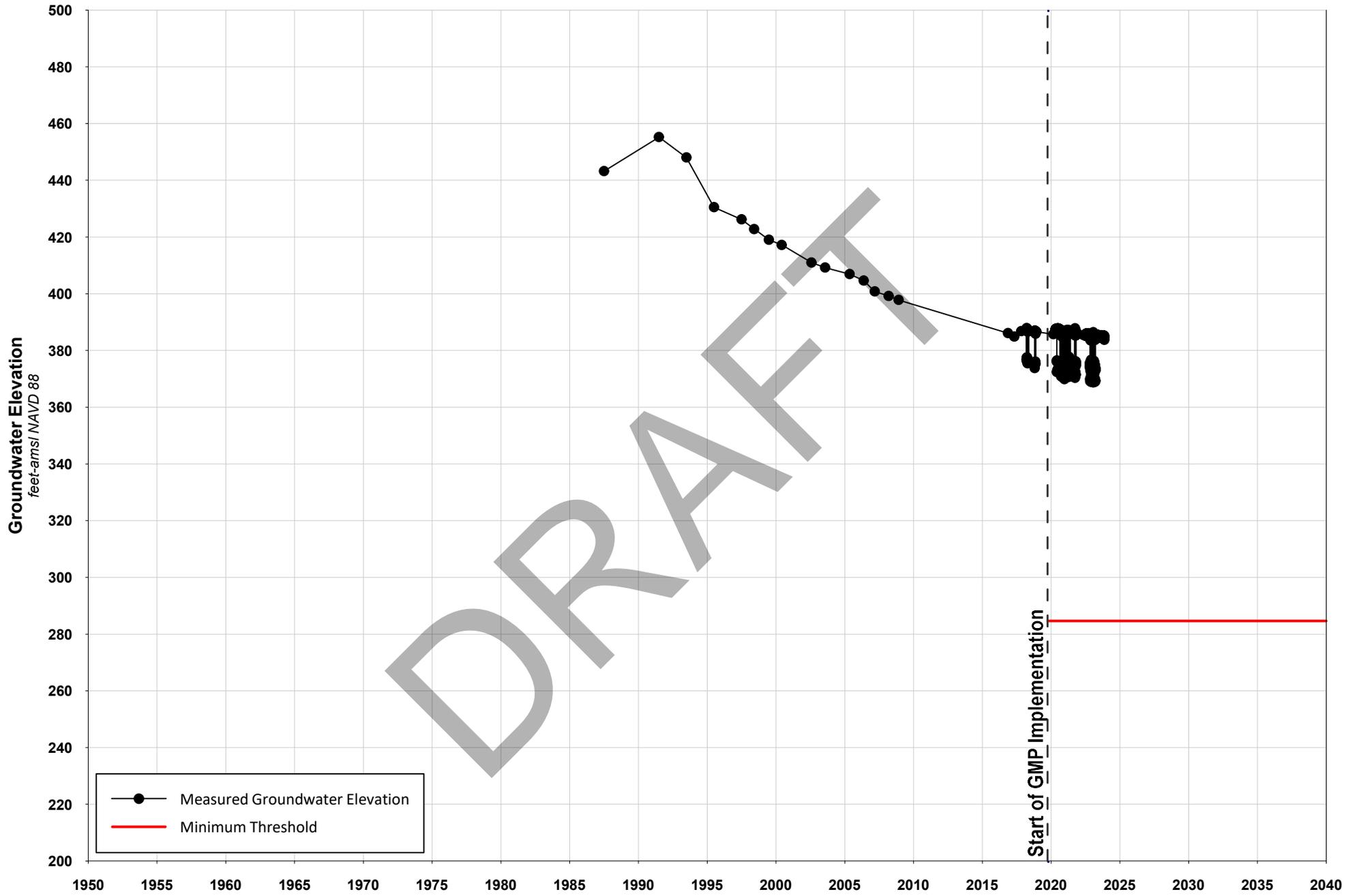


Figure 12d
Groundwater Level and Sustainable Management Criteria
at Representative Monitoring Well RH-1



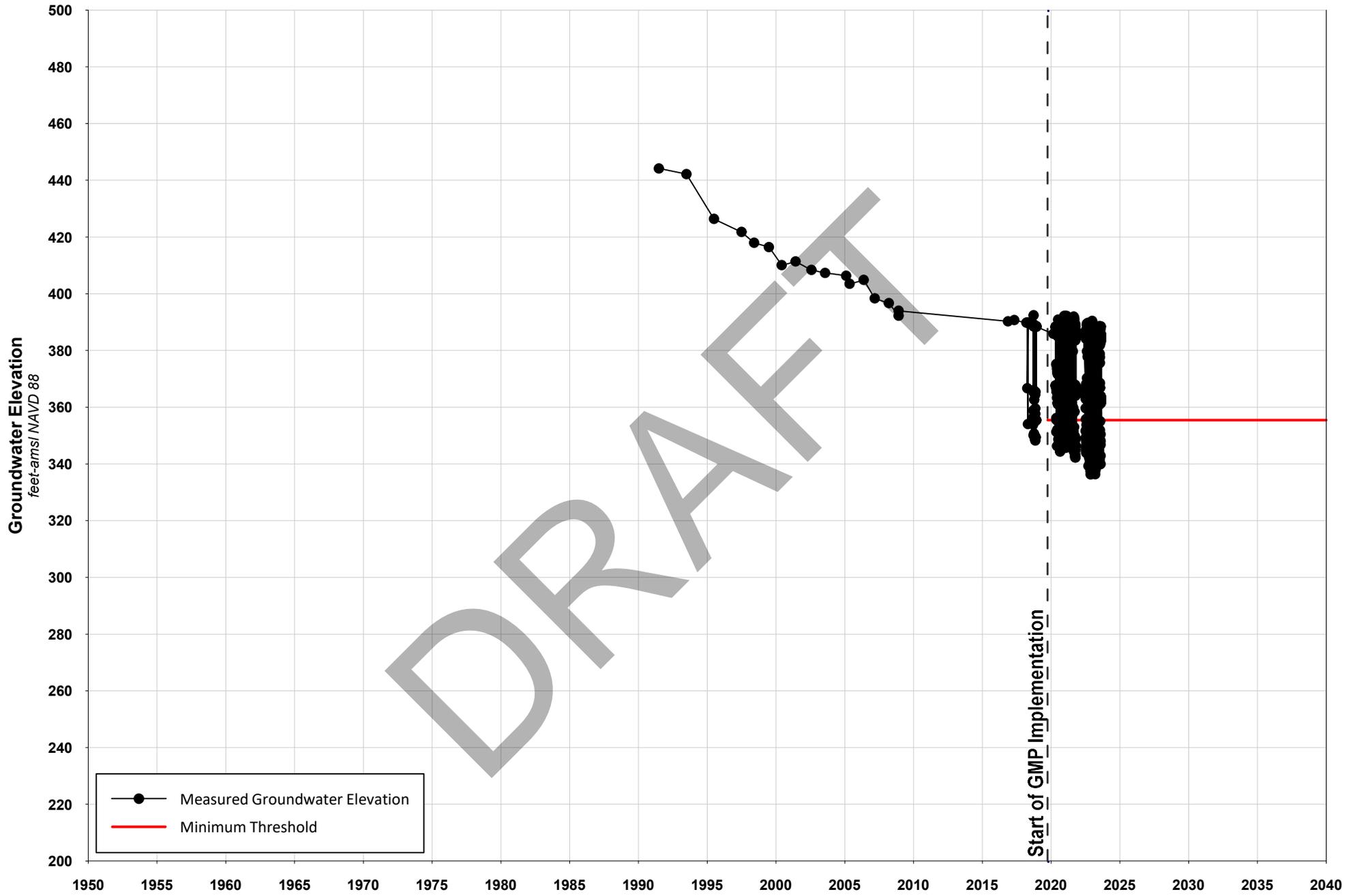
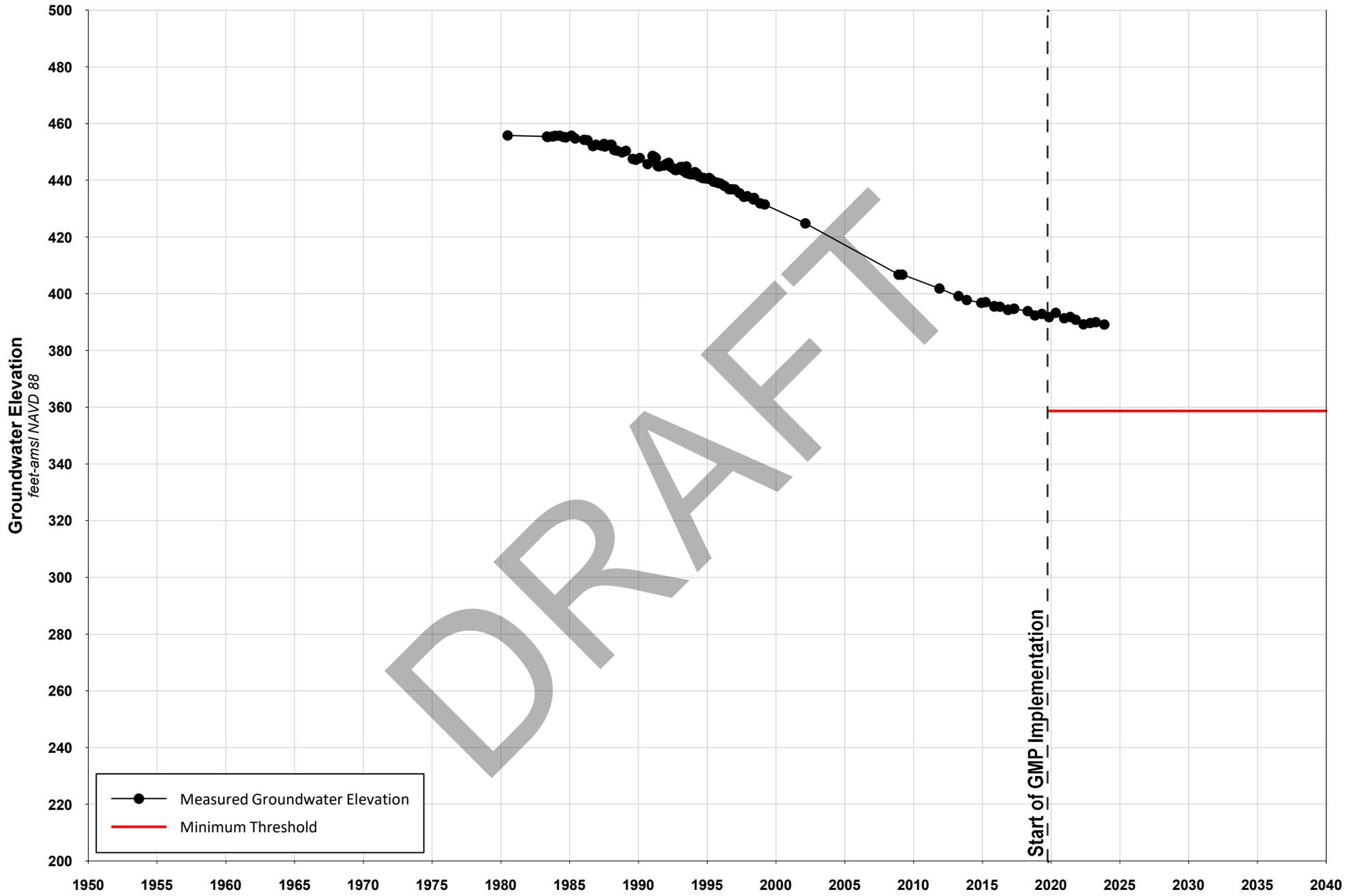
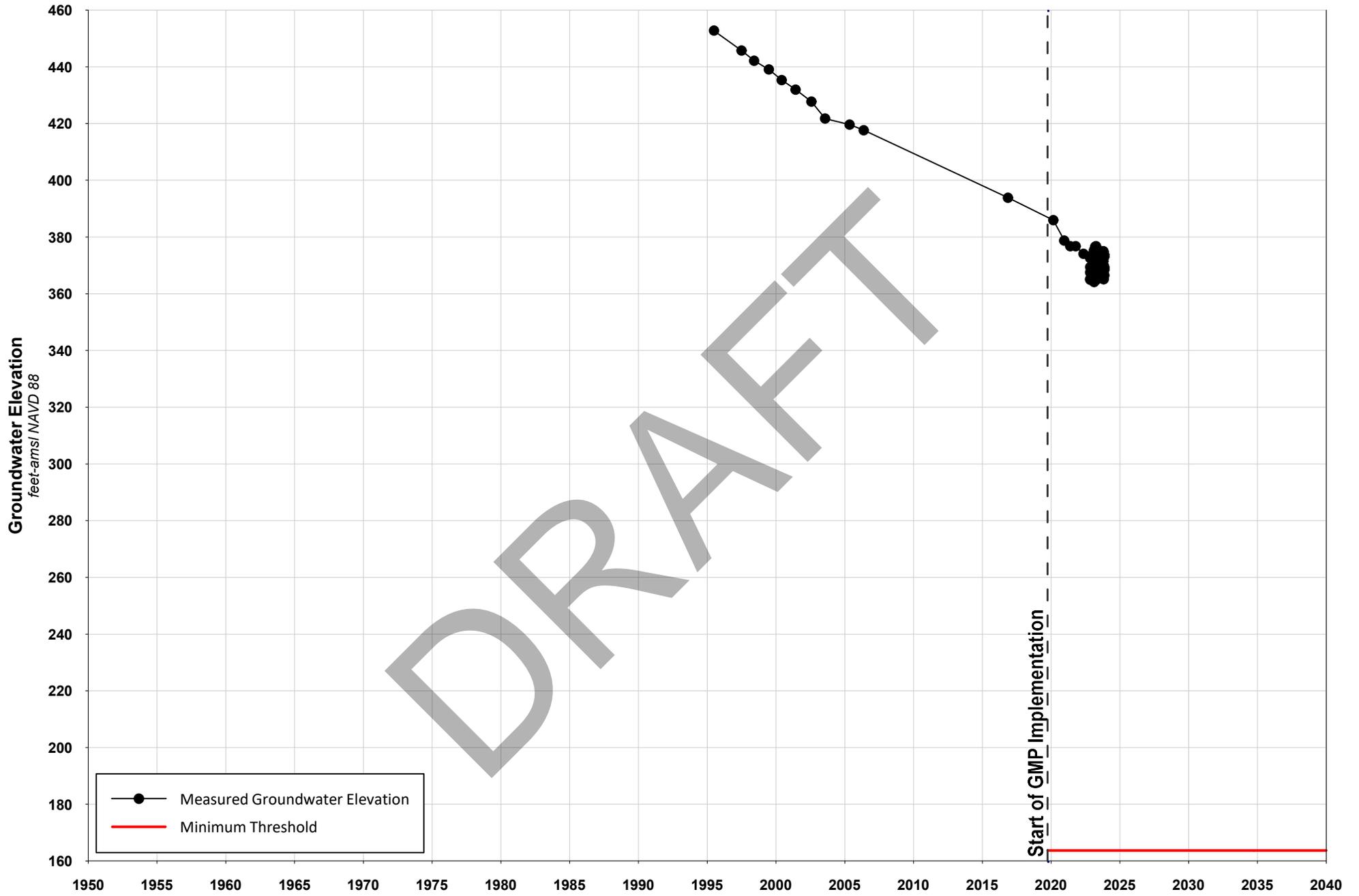


Figure 12f
Groundwater Level and Sustainable Management Criteria
at Representative Monitoring Well ID1-16





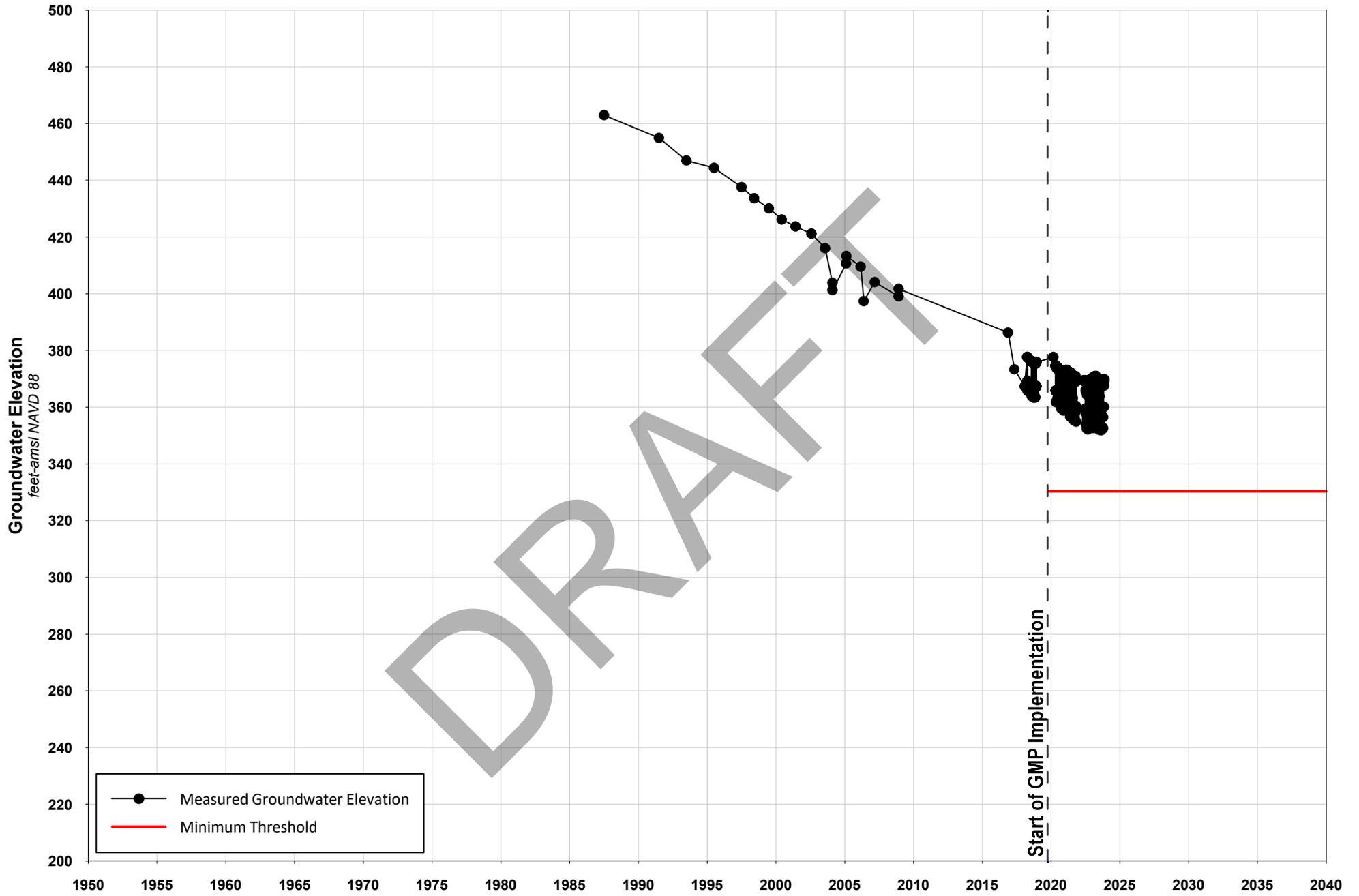
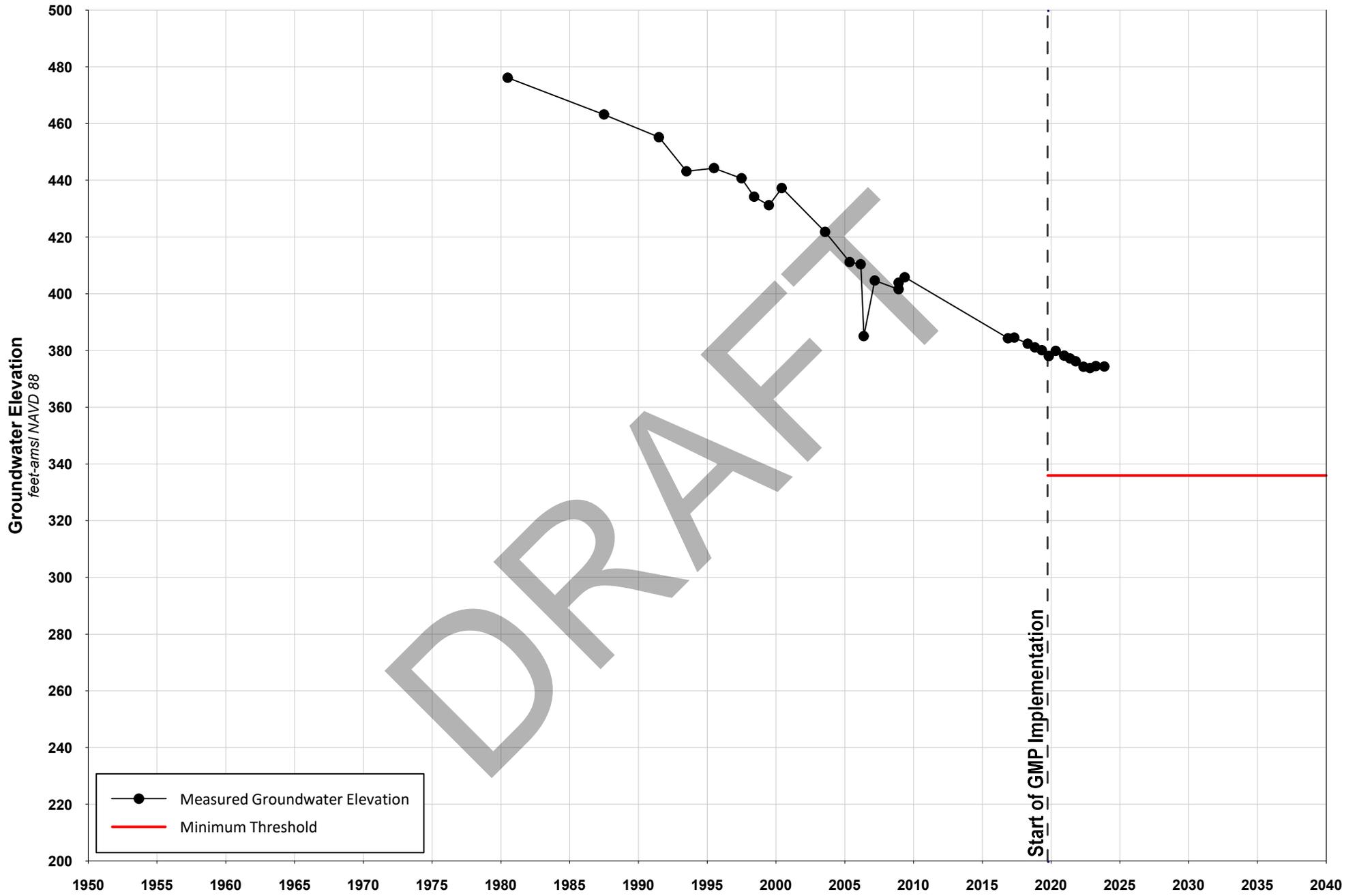


Figure 12i
Groundwater Level and Sustainable Management Criteria
at Representative Monitoring Well ID4-18



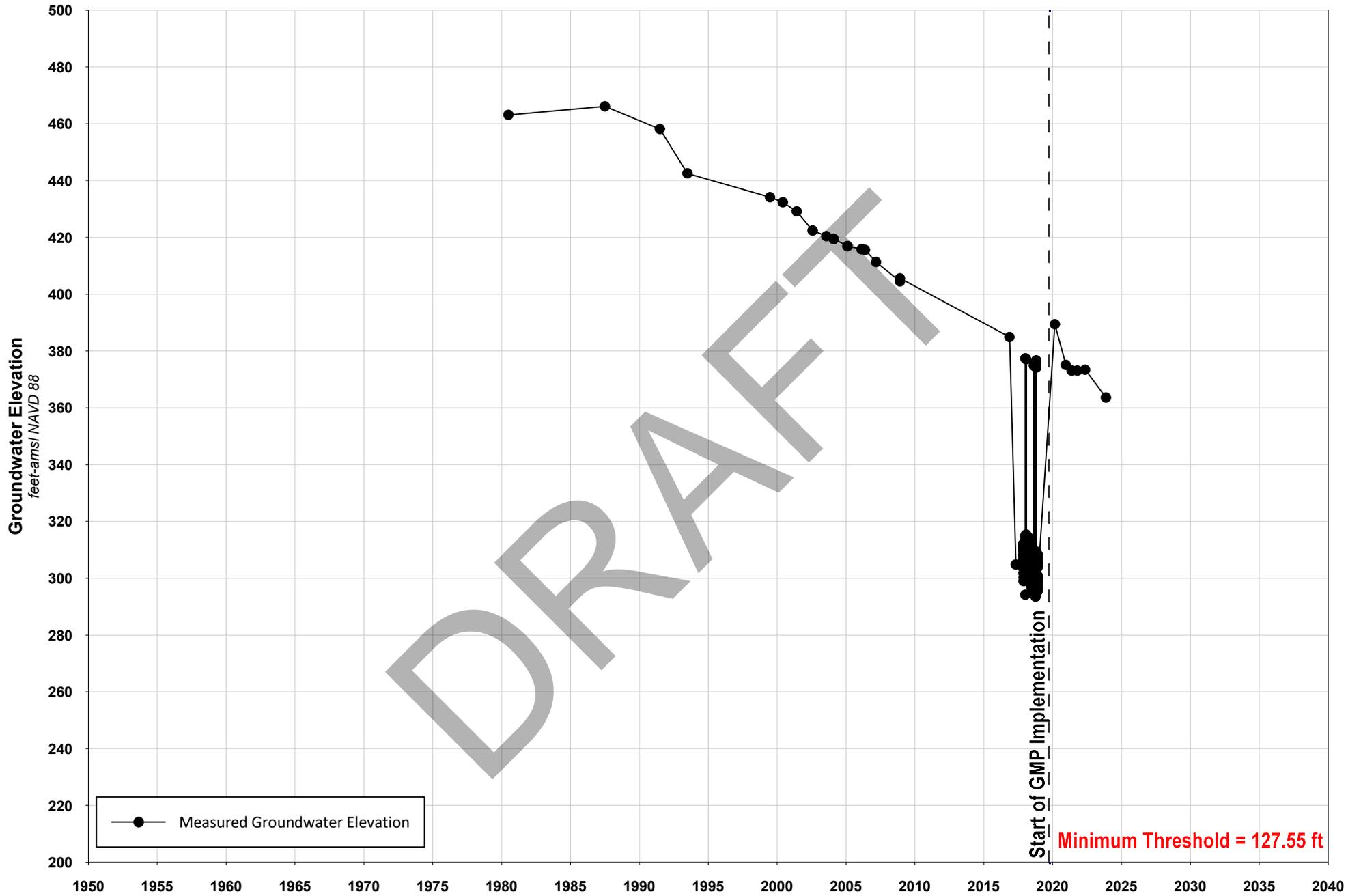


Figure 12k
Groundwater Level and Sustainable Management Criteria
at Representative Monitoring Well ID4-4

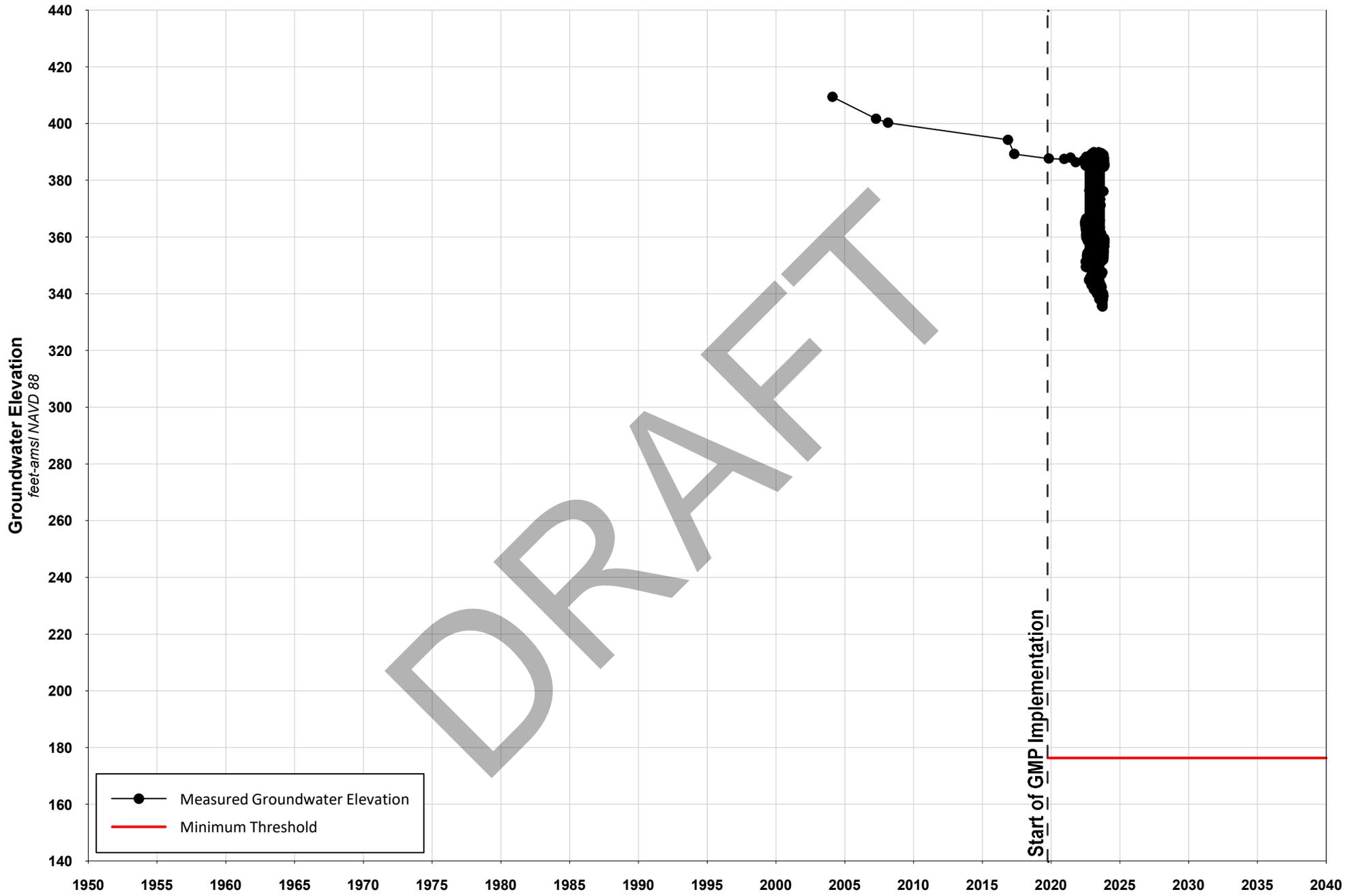
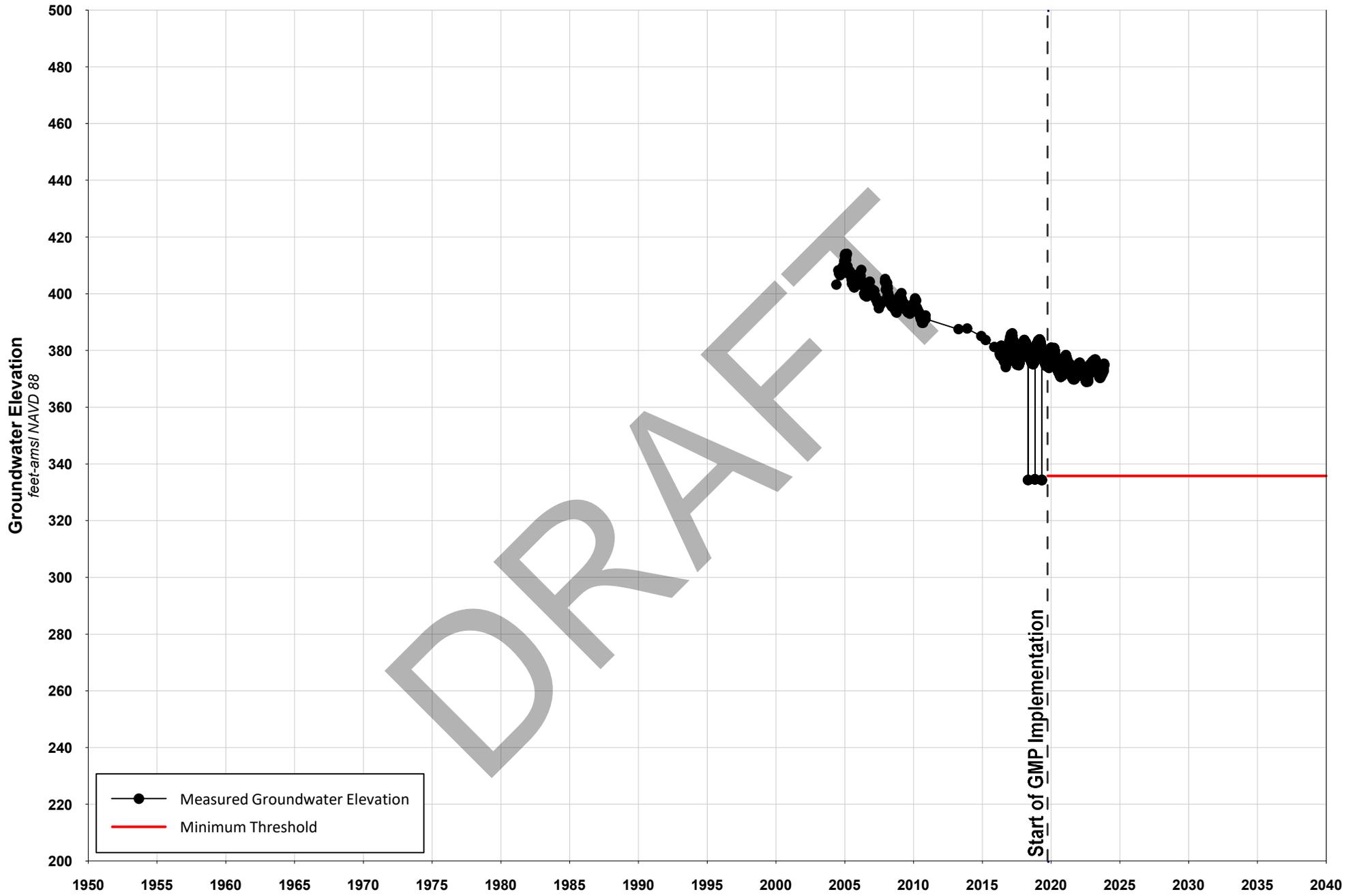
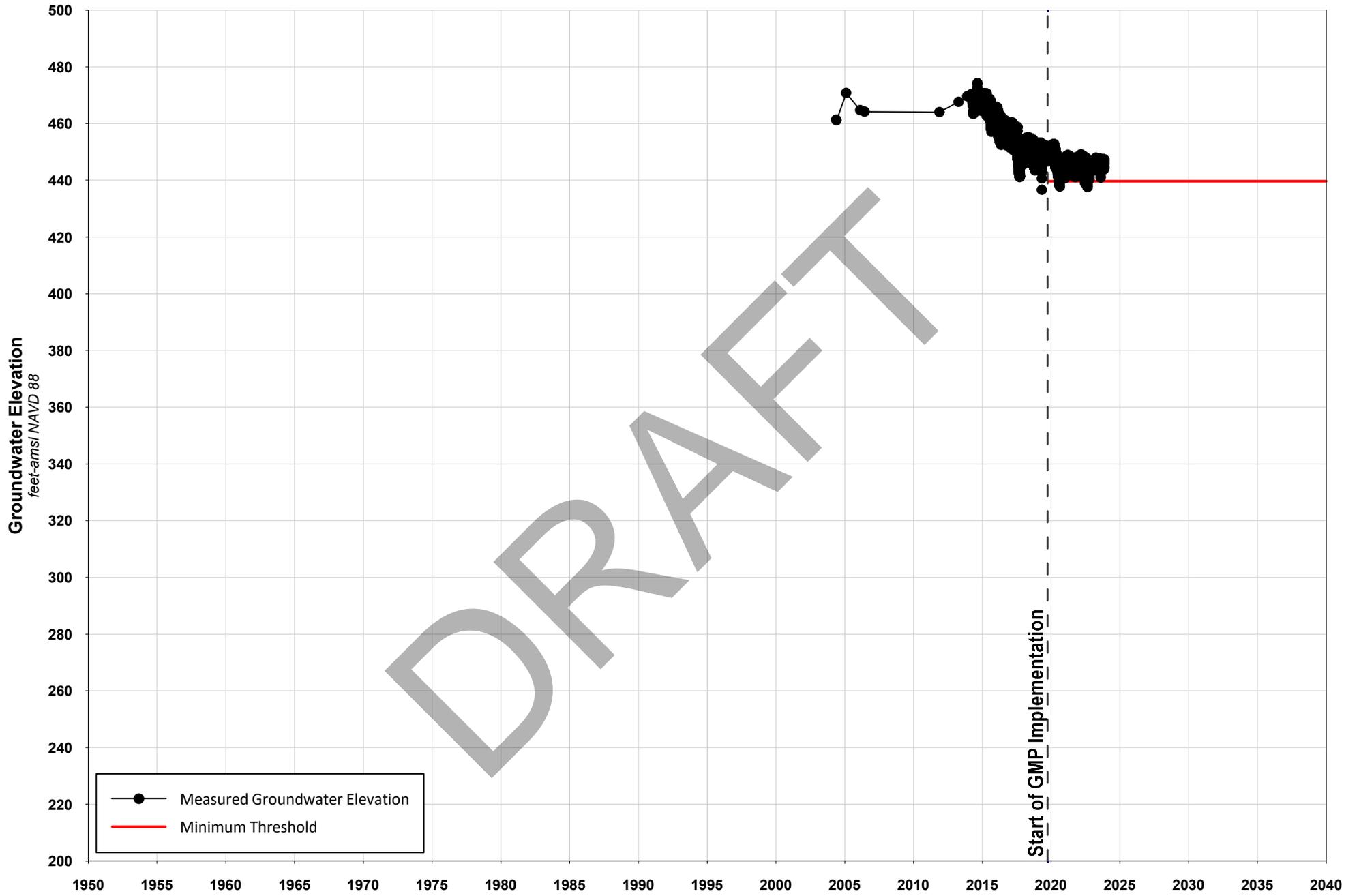
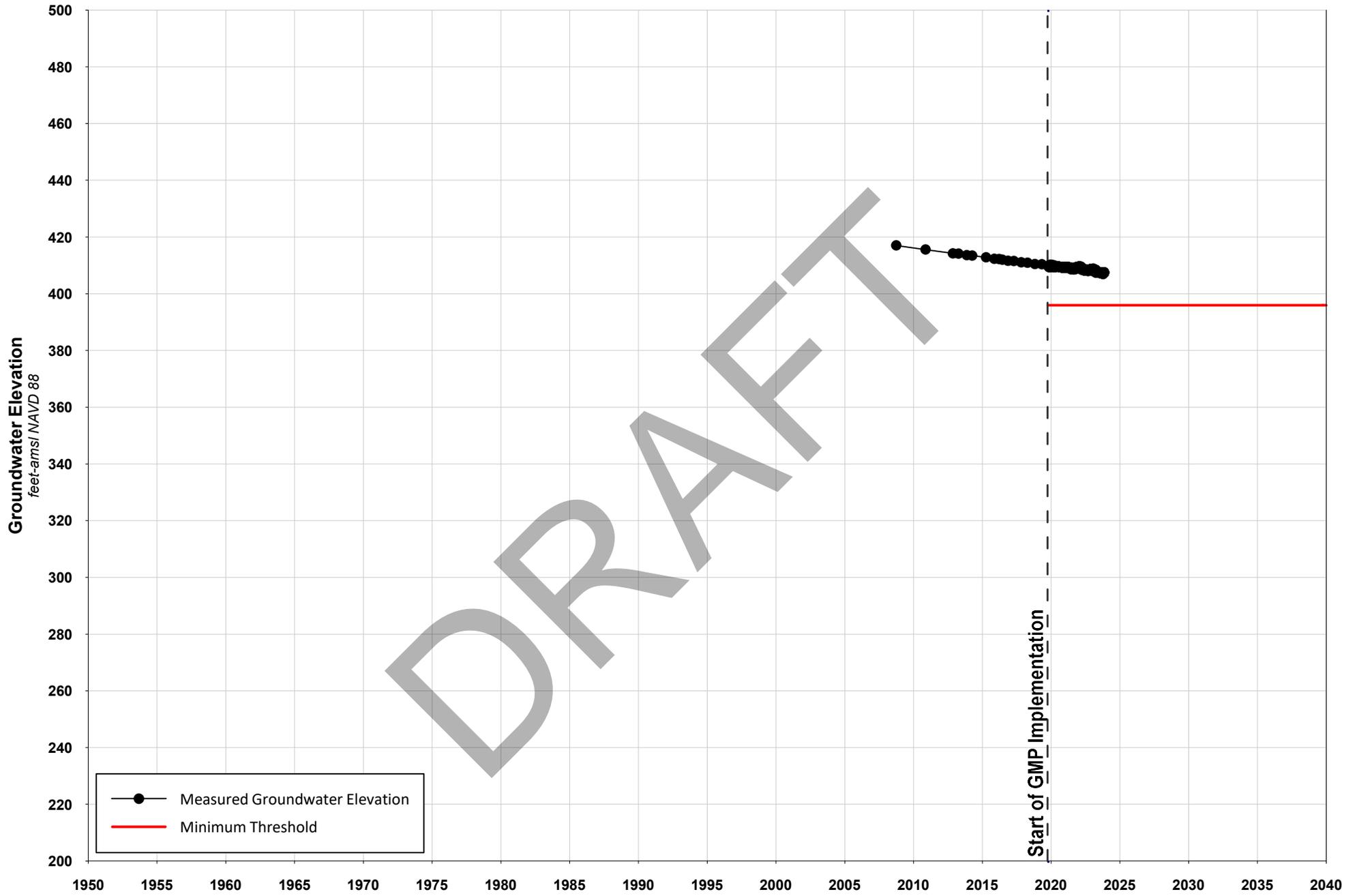
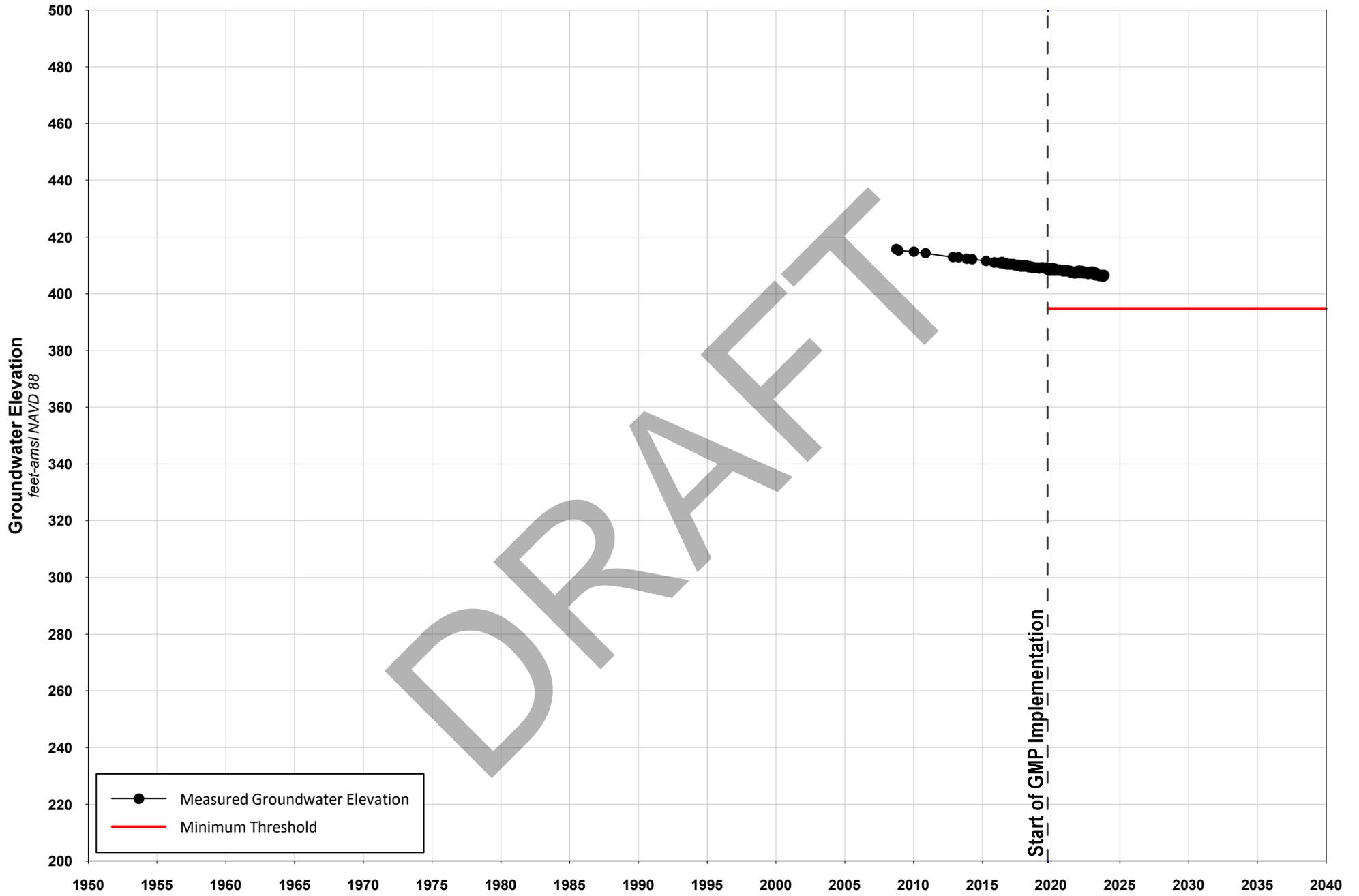


Figure 12I
Groundwater Level and Sustainable Management Criteria
at Representative Monitoring Well ID5-5









**Table 19. Current Groundwater Elevations at Representative Monitoring Wells
Compared to Minimum Threshold**

Local Well Name	State Well ID	Fall 2023 Groundwater Elevation ^(a) (ft-msl)	Minimum Threshold ^(b) (ft-msl)	Fall 2023 Groundwater Elevation minus Minimum Threshold (ft)
		<i>a</i>	<i>b</i>	<i>c = a - b</i>
North Management Area				
MW-1	010S006E21A002S	373.97	336	38.2
ID4-3	010S006E18R001S	374.34	336	38.4
Fortiner	010S006E09N001S	374.99	331	44.2
ID4-18	010S006E18J001S	369.66	330	39.3
ID4-4	010S006E29K002S	363.63	128	236.1
Central Management Area				
ID4-1	010S006E32R001S	389.11	359	30.5
Airport 2	010S006E35N001S	<i>401.96</i>	381	21.4
ID1-16	011S006E16N001S	382.13	355	26.7
ID4-11	010S006E32D001S	374.35	164	210.6
ID1-12	011S006E16A002S	385.14	285	100.5
ID5-5	011S006E09E001S	385.71	176	209.4
South Management Area				
MW-5A	011S007E07R001S	407.46	396	11.5
MW-5B	011S007E07R002S	406.43	395	11.6
MW-3	011S006E23J002S	447.12	438	9.4
Air Ranch	011S007E30L001S	469.55	462	7.7
RH-1	011S006E25A001S	467.38	459	8.5
<p>(a) If a water level was not measured in Fall 2023, an "estimated static" groundwater elevation was selected based on recent trends in groundwater elevation at the well and nearby wells, and knowledge of the influence of nearby pumping. Estimated values are shown in <i>blue italic font</i>. In Fall 2023 is the Airport 2 well; the well casing collapsed prior to the Fall 2023 Semi-Annual Monitoring Event.</p> <p>(b) <i>Italic values</i> are Minimum Thresholds established based on the top of the well screen. All other Minimum Thresholds are based on model results from the Borrego Valley Hydrologic Model (BVHM). All Minimum Thresholds in the GMP have been converted to feet above mean sea level.</p>				

Table 20. Groundwater Level Trends at Representative Monitoring Wells
Fall 2019 to Fall 2023

Local Well Name	State Well ID	Fall 2019 Groundwater Elevation ^(a,b) (ft-msl)	Fall 2023 Groundwater Elevation ^(c) (ft-msl)	Change in Groundwater Elevation since Fall 2019 (ft)	Rate of Change Groundwater Elevation since Fall 2019 (ft/yr)	Historical Rate of Change in Groundwater Elevation ^(d) (ft/yr)
		<i>a</i>	<i>b</i>	$c = b - a$	$d = c / (2023 - 2019)$	
North Management Area						
MW-1	010S006E21A002S	374.76	373.97	-0.8	-0.2	-2.14
ID4-3	010S006E18R001S	377.96	374.34	-3.6	-0.9	-2.09
Fortiner	010S006E09N001S	<i>376.82</i>	374.99	-1.8	-0.5	-2.48
ID4-18	010S006E18J001S	<i>374.36</i>	369.66	-4.7	-1.2	-2.31
ID4-4	010S006E29K002S	<i>375.06</i>	363.63	-11.4	-2.9	-2.73
Central Management Area						
ID4-1	010S006E32R001S	391.66	389.11	-2.6	-0.6	-1.39
Airport 2	010S006E35N001S	405.60	<i>401.96</i>	-3.6	-0.9	-1.67
ID1-16	011S006E16N001S	<i>388.42</i>	382.13	-6.3	-1.6	-0.95
ID4-11	010S006E32D001S	<i>386.44</i>	374.35	-12.1	-3.0	-2.29
ID1-12	011S006E16A002S	<i>385.94</i>	385.14	-0.8	-0.2	-1.51
ID5-5	011S006E09E001S	387.64	385.71	-1.9	-0.5	-0.85
South Management Area						
MW-5A	011S007E07R001S	409.92	407.46	-2.5	-0.6	-0.74
MW-5B	011S007E07R002S	408.80	406.43	-2.4	-0.6	-0.74
MW-3	011S006E23J002S	451.68	447.12	-4.6	-1.1	-5.84
Air Ranch	011S007E30L001S	470.85	469.55	-1.3	-0.3	-0.5
RH-1	011S006E25A001S	467.87	467.38	-0.5	-0.1	-0.94

(a) Fall 2019 is the start of Physical Solution Implementation Period.

(b) If a Fall 2019 water level was not measured, an "estimated static" groundwater elevation was selected based on recent trends in groundwater elevation at the well and nearby wells, and knowledge of the influence of nearby pumping. Estimated values are shown in *blue italic font*.

(c) If a water level was not measured in Fall 2023, an "estimated static" groundwater elevation was selected based on recent trends in groundwater elevation at the well and nearby wells, and knowledge of the influence of nearby pumping. Estimated values are shown in *blue italic font*. In Fall 2023 is the Airport 2 well; the well casing collapsed prior to the Fall 2023 Semi-Annual Monitoring Event.

(d) Historical rate of change in groundwater level is based on pre-fall 2018 groundwater levels as reported in the GMP (Dudek, 2020).

5.5.2 Change in Groundwater Storage

This section describes the historical trends and current changes in groundwater storage in the Basin through WY 2023, the methods used to estimate storage changes, and compares the trends and current conditions to Minimum Threshold in the GMP to evaluate progress towards achieving sustainability.

5.5.2.1 Historical Trends and Current Conditions

The Basin is estimated to have a total storage capacity of approximately 5,500,000 af across all three layers of the aquifer system (upper, middle, and lower aquifers) (USGS, 1982). Since 1945, groundwater pumping in the Basin has exceeded recharge which caused long-term declines in groundwater levels and removal of groundwater in storage (i.e., conditions of overdraft).

Figure 13 is a time-series chart that depicts the estimates of annual and cumulative changes in storage that occurred in the Basin from 1945 to 2023. The chart shows that annual storage changes were both additions to storage and subtractions from storage. Additions to storage occurred infrequently during very wet years. But typically, annual changes in storage were subtractions due to the conditions of overdraft.

The chart is divided into parts to facilitate the comparison of groundwater storage changes to the Minimum Threshold for reductions in groundwater storage:

1. Storage changes that occurred prior to GMP implementation (1945-2019). The total reduction in storage was about -543,000 af over this 75-year period, an average of -7,241 afy.
2. Storage changes that occurred during GMP implementation (2020-2023). The total reduction in storage was about -12,710 af over this four-year period, an average of -3,178 afy.

The subsections below describe: (i) the methods that have been used to estimate storage changes, (ii) the estimate of storage change that occurred from spring 2022 to spring 2023, and (iii) the comparison of the cumulative storage change that occurred during GMP implementation (2020-2023) to the Minimum Threshold for reduction in groundwater storage as defined in the GMP.

5.5.2.2 Methods for Estimating Annual Change in Groundwater Storage

Two methods have been employed to estimate changes in groundwater storage in the Basin:

1. Groundwater-flow models can simulate the water budget of a groundwater basin, including changes in groundwater storage over time. To support the development of the GMP, BVHM runs were used to characterize the historical water budget of the Basin and the storage changes that occurred from 1945-2016 (Dudek, 2019). Figure 13 shows the BVHM estimates of annual storage change as light green bars.
2. Geographic Information System (GIS) methods were used to estimate annual storage changes from 2017-2023 to support the SGMA requirements for annual reporting. This method utilizes estimates of aquifer properties and measured changes in groundwater levels. Figure 13 shows the BVHM estimates of annual storage change as black bars from 2017-2023.

In 2021, the Watermaster convened the TAC to reevaluate the method described in (2.) above and update the method if deemed appropriate. The TAC recognized the importance of employing a methodology that would produce future results that are consistent with past results, would minimize the influence of the method itself on the storage change results, and would include QA/QC steps to check on the reasonableness of the results. The agreed upon methodology was documented in a TM (West Yost, 2022c), available on the Watermaster’s website,⁷⁷ and is summarized below:

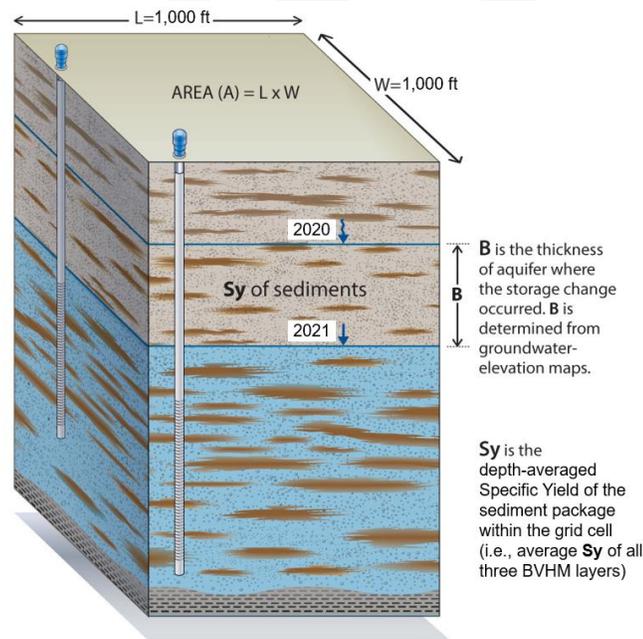
The information required to estimate storage change in the Basin for the current annual report includes:

- A groundwater elevation map for spring 2023 (Figure 10).
- A groundwater elevation map for spring 2022 (Figure 14).
- A uniform grid of 1,000 ft by 1,000 ft cells superimposed over the Basin area to assign groundwater elevations from Figures 10 and 14 and aquifer storage properties (Figure 15). The aquifer storage properties (i.e., specific yield) were derived from the BVHM.

The annual change in storage is calculated at the grid-cell level using the following equation:

$$\text{Change in Storage}_i = (GWE_i^{t1} - GWE_i^{t0}) \times S_{y_i} \times A$$

where, *i* represents a unique cell within the storage change calculation grid, *GWE* is the interpolated groundwater elevation at cell *i*, *S_y* is the specific yield defined at cell *i*, *A* is the area of each cell, and *t1* and *t0* are the two years between which storage change is calculated.

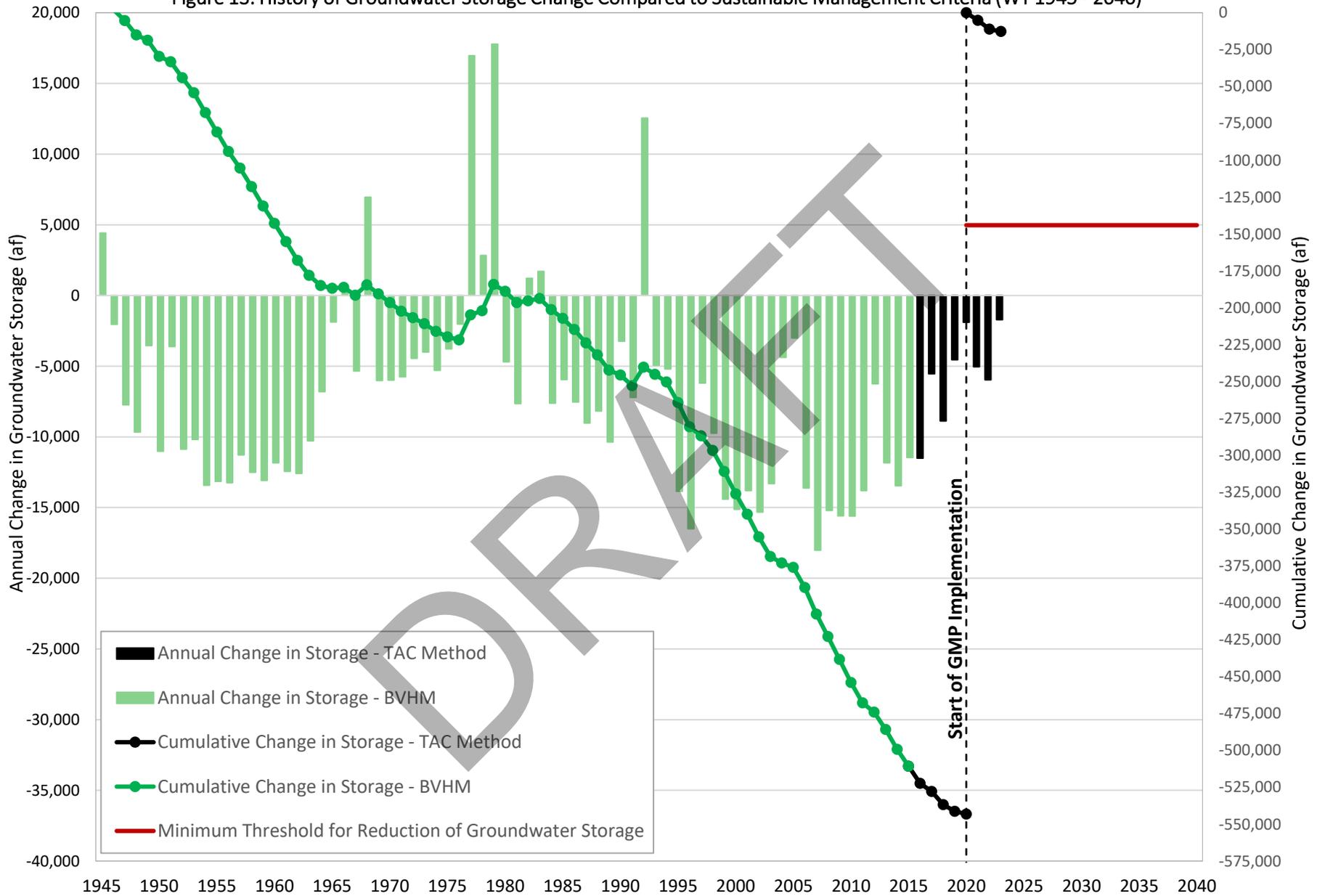


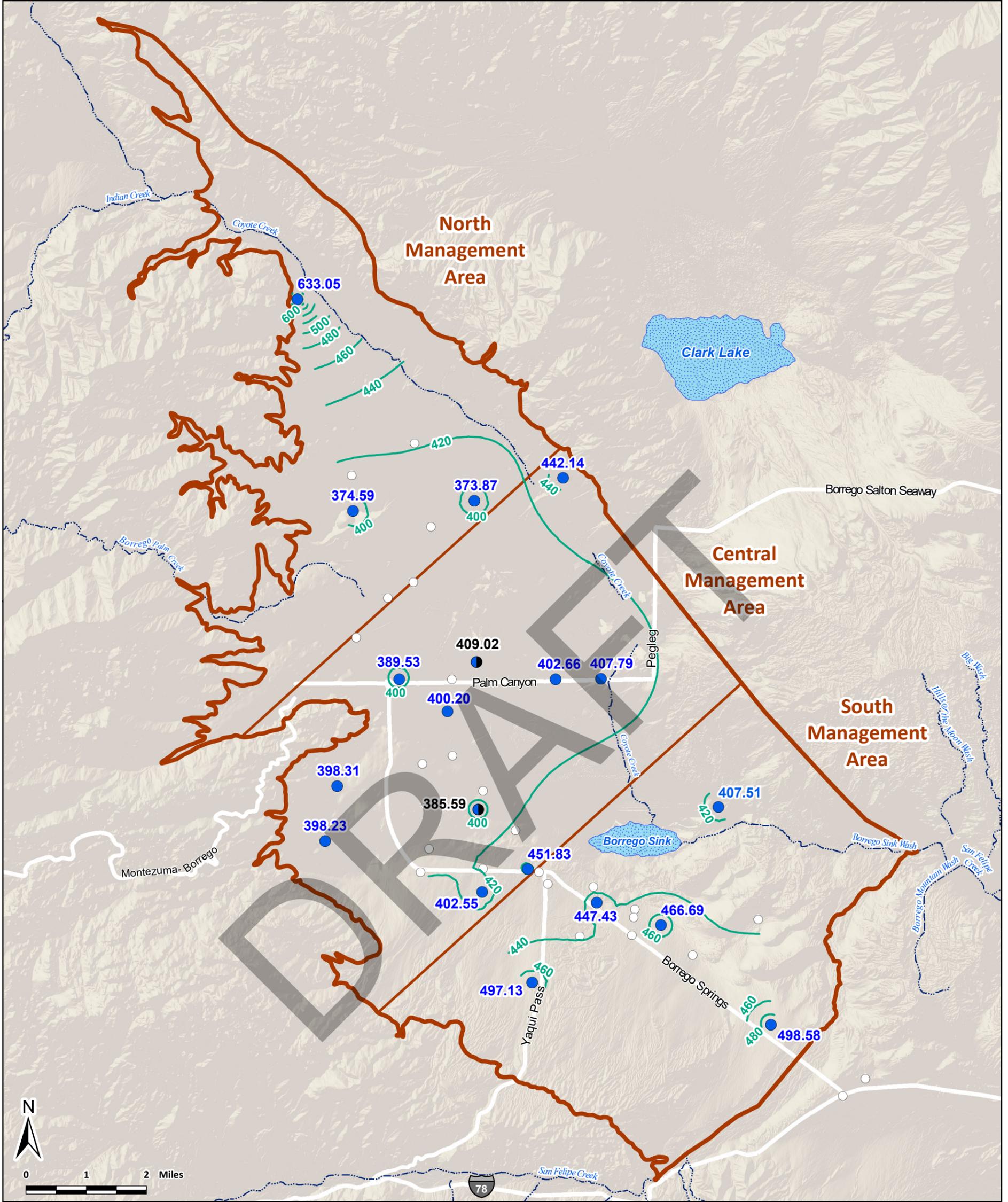
In the **Change in Storage** equation above:
 $B = (GWE_i^{t1} - GWE_i^{t0})$

The sum of the change in storage values by grid cell provides an estimate of the total annual change in groundwater storage in the Basin.

⁷⁷ Available at: https://borregospringswatermaster.com/wp-content/uploads/2023/01/TM_Storage-Change-Methods_final.pdf

Figure 13. History of Groundwater Storage Change Compared to Sustainable Management Criteria (WY 1945 - 2040)



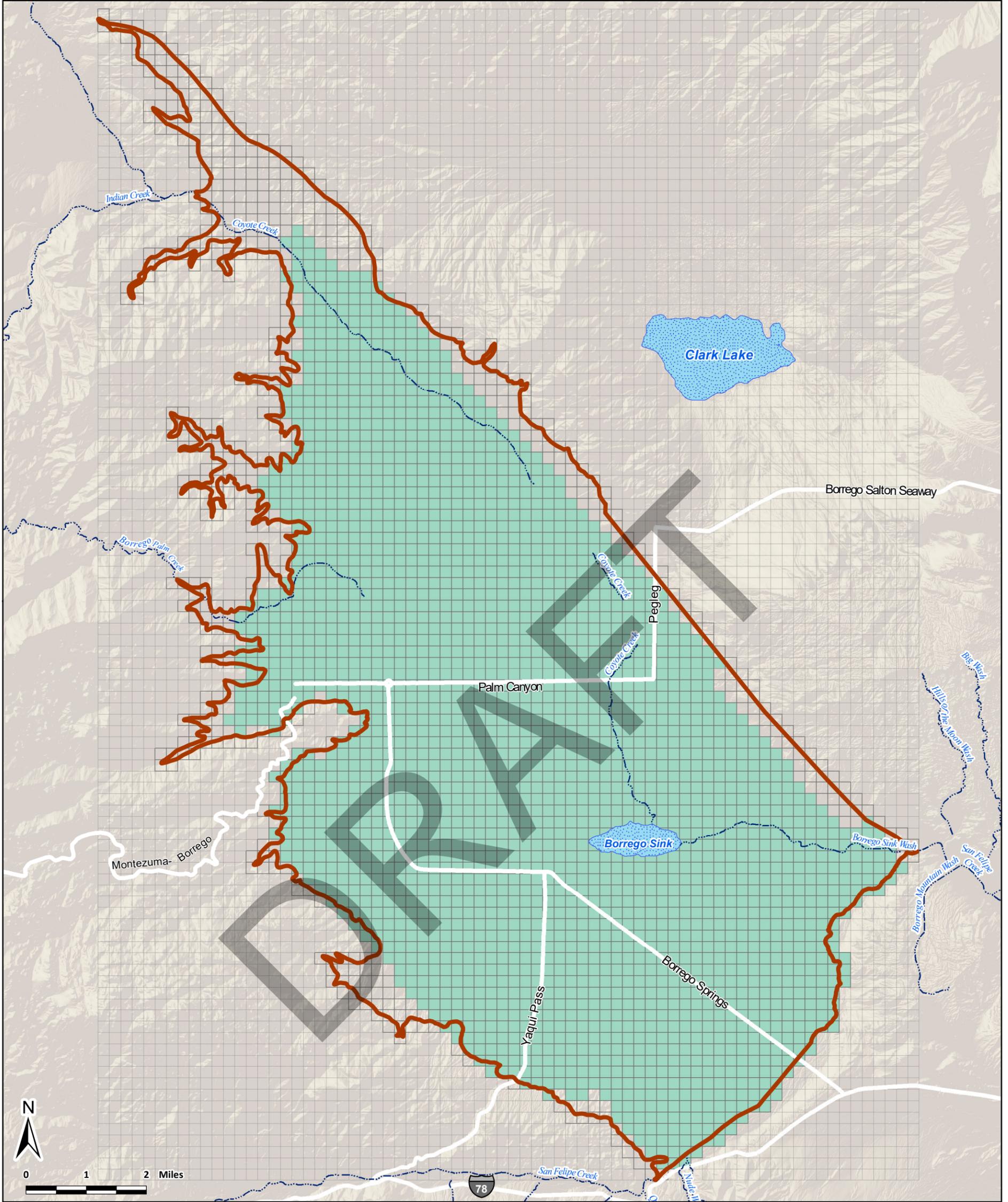


- Groundwater Monitoring Wells Used to Develop Groundwater Elevation Contours for Spring 2022**
- True static groundwater elevation (ft-amsl)
 - Estimated static groundwater elevation (ft-amsl)
- Groundwater Elevation Contours Spring 2022 (ft-amsl)**
- 400—

- Other Features**
- Borrego Springs Subbasin with Management Area Divisions
 - Other Groundwater Monitoring Wells
- Surface Water Features**
- Stream Channel
 - Dry Lake



The groundwater-elevation contours shown on this map were prepared for the specific purpose of estimating groundwater storage change for the Annual Report, and should not be used for other purposes.



-  Storage Change Grid (1000 ft x 1000 ft cell)
-  Grid Cells Used to Compute Storage Change

-  Borrego Springs Groundwater Subbasin (7-024.01)
- Surface Water Features**
-  Stream Channel
-  Dry Lake



Figure 15

Storage Change Grid and Area Used to Compute Storage Change

Borrego Springs Watermaster
Borrego Springs Subbasin
2023 Annual Report

Prepared by:



5.5.2.3 Annual and Cumulative Change in Storage

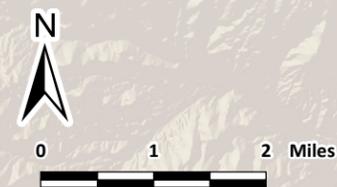
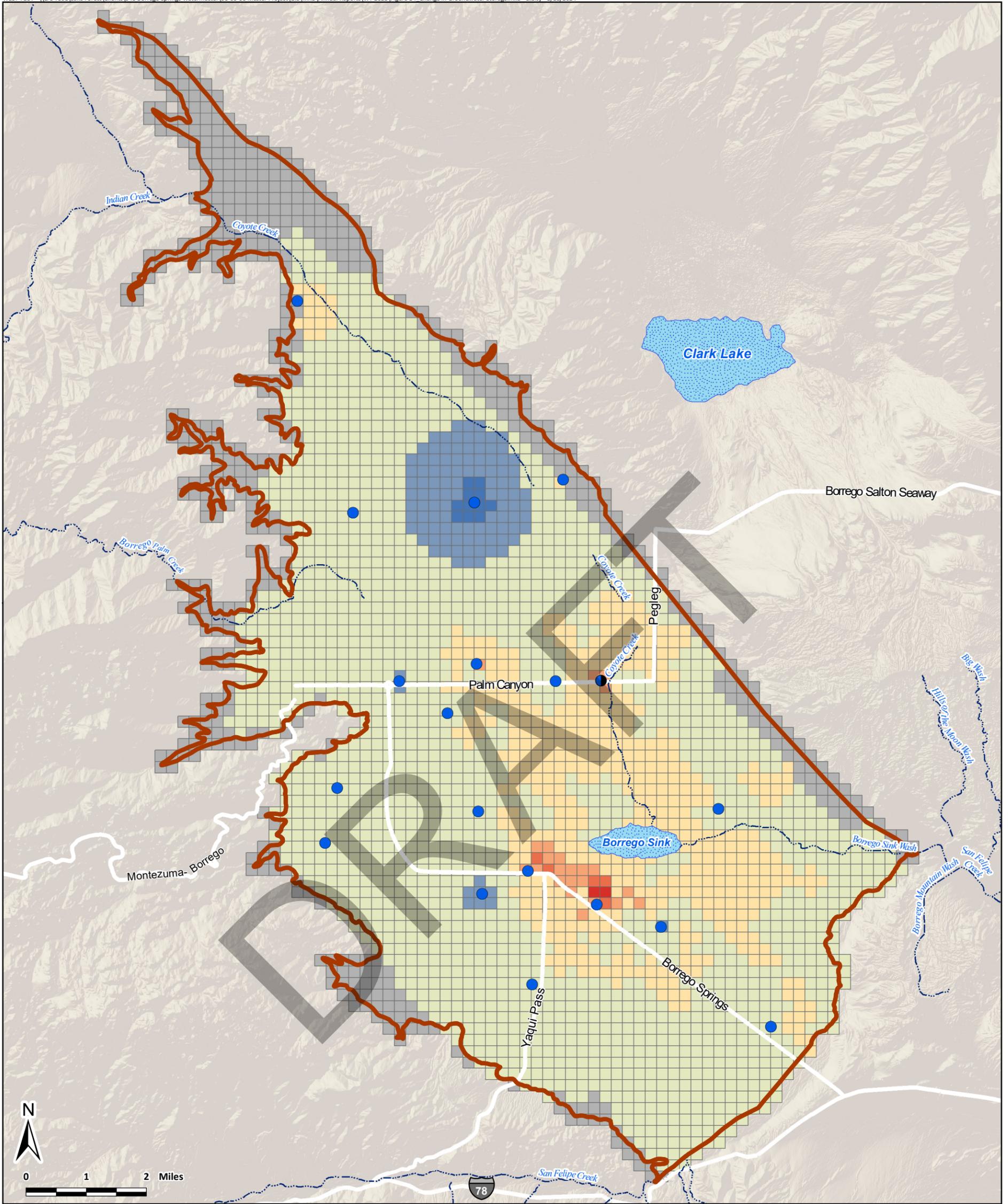
Figure 16 is a map that shows the spatial distribution of the change in groundwater storage from spring 2022 to spring 2023. Also shown on Figure 16 are the wells with representative groundwater elevation data in both spring 2022 and spring 2023 that were used to estimate the change in storage. The total change in storage from spring 2022 and spring 2023 was approximately -1,705 af (a decrease of groundwater in storage). This change in storage is consistent with the observation in Section 5.5.1 that groundwater levels across most of the Basin continued to decline through WY 2023. However, the rate of storage change decreased in spring 2022 to spring 2023 compared to the previous seven-year period. Previously, the rate of storage change had been relatively constant, despite a decline in production, which was likely due to the long-term drought in the southwestern United States (as displayed in the precipitation record on Figure 4). The reduced rate of groundwater storage decline during spring 2022 to spring 2023 was likely due to greater than normal precipitation during WY 2023 and reduced groundwater pumping.

Table 21 summarizes the annual and cumulative change in storage for spring 2015 through spring 2023, as required by the SGMA annual reporting requirements. As shown in Table 21, the total volume of groundwater in storage decreased by approximately 45,082 af over the eight-year period.

Period	Annual Change in Storage	Cumulative Change in Storage
Spring 2015 to Spring 2016	-11,517	-11,517
Spring 2016 to Spring 2017	-5,544	-17,061
Spring 2017 to Spring 2018	-8,876	-25,937
Spring 2018 to Spring 2019	-4,545	-30,482
Spring 2019 to Spring 2020	-2,293 ⁷⁸	-32,775
Spring 2020 to Spring 2021	-5,040	-37,815
Spring 2021 to Spring 2022	-5,965	-43,377
Spring 2022 to Spring 2023	-1,705	-45,082

Figure 17 is a time-series chart that compares the annual and cumulative change in storage with annual groundwater pumping from 2015 through 2023.

⁷⁸ The revised storage change methodology described herein was used to re-compute the change in groundwater storage for spring 2019 to spring 2020. This changed the estimate reported in the 2020 Annual Report from a decline in storage of 1,890 af to a decline in storage of 2,293 af.

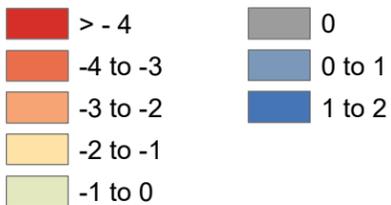


Groundwater Monitoring Wells with Measured Groundwater Elevation in Spring 2022 and Spring 2023

- True static groundwater elevation (ft-amsl)
- Estimated static groundwater elevation (ft-amsl)

Groundwater Storage Change

Spring 2022 to Spring 2023 (af)



Borrego Springs Groundwater Subbasin (7-024.01)

Surface Water Features

- Stream Channel
- Dry Lake



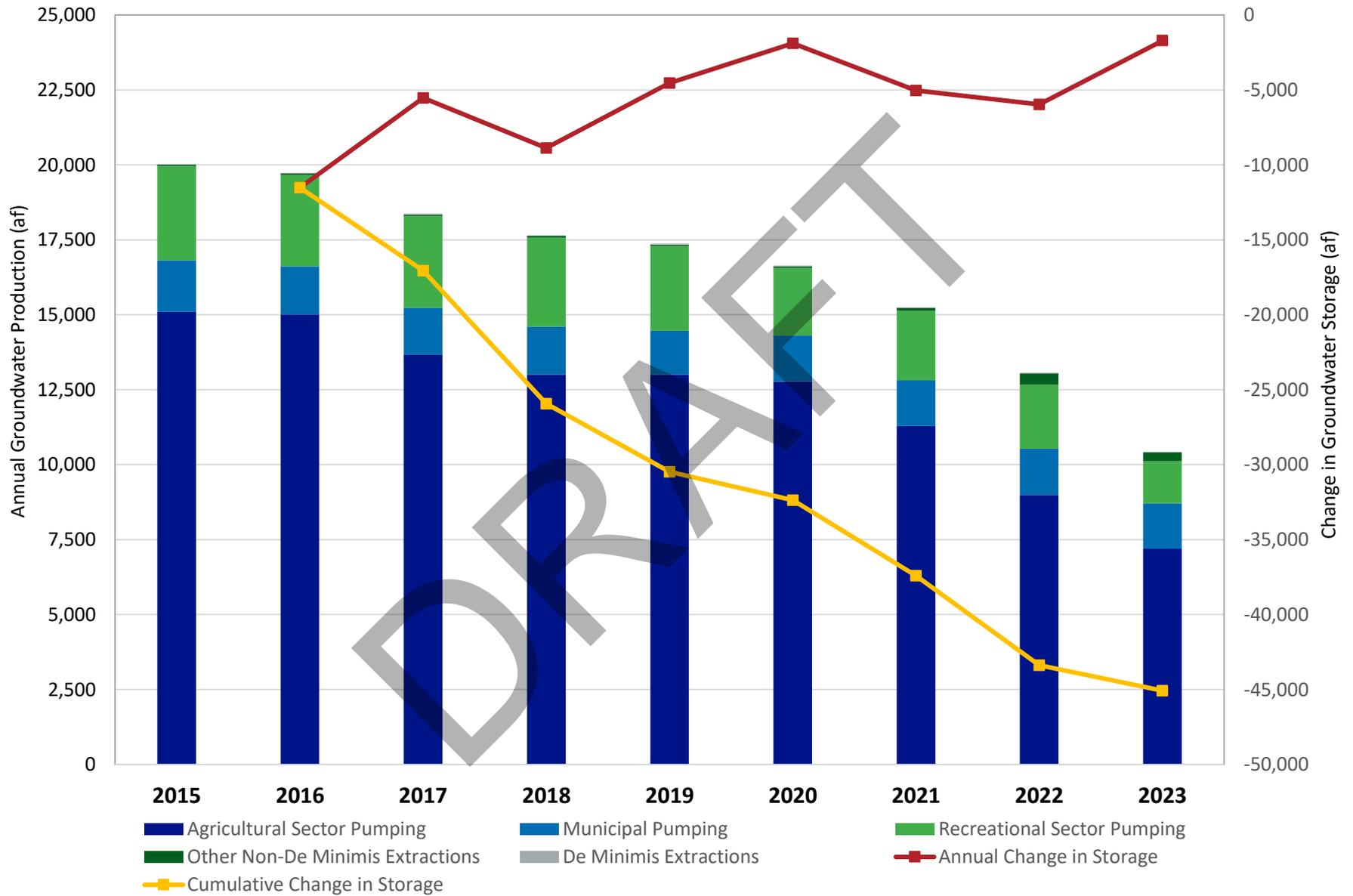
Prepared by:



Figure 16

**Change in Groundwater Storage
Spring 2022 to Spring 2023**

Figure 17. Annual Groundwater Pumping and Change in Groundwater Storage – 2015 to 2023



5.5.2.4 Comparison to Sustainable Management Criteria

Changes in groundwater storage are highly correlated with changes in groundwater levels; hence, the Minimum Threshold for reductions in groundwater storage were established using the same methodology as was used to establish the Minimum Thresholds for groundwater elevations by using the results from the BVHM.⁷⁹

The Minimum Threshold for reduction in groundwater storage is about -144,000 af by 2040. Figure 13 shows the Minimum Threshold compared to the cumulative storage change that occurred during the first four years of GMP implementation (2020-2023), which was a reduction in storage of about -12,700 af (or about 3,175 afy).

5.5.3 Groundwater Quality

This section describes the historical trends and current conditions for groundwater quality for the five contaminants of concern (COC) in the GMP through WY 2023 and compares the trends and current conditions to the relevant primary and secondary maximum contaminant levels (MCL)⁸⁰ for each COC.

Historically, groundwater quality was routinely monitored by the BWD at municipal supply wells, with additional monitoring activities conducted by the DWR and the USGS at various other wells. Based on the monitoring results, the GMP identified five COCs in the Basin: total dissolved solids (TDS), nitrate, arsenic, sulfate, and fluoride. The COCs are sourced from both anthropogenic and natural sources in the Basin. Anthropogenic sources of these COCs include use of pesticides and fertilizers, irrigation practices that result in concentrated return flows to the aquifer system, and septic system return flows (Dudek, 2020a). Natural sources of these COCs are dissolution of aquifer-system sediments which contain evaporites, silicates, fluoride-bearing minerals, and sulfates (Dudek, 2020a). Evaporation and evapotranspiration of shallow groundwater by phreatophytes can also concentrate dissolved constituents in groundwater.

Historical publications on groundwater quality have noted the following observations and trends:

- The highest concentrations of nitrate and TDS are found in the upper aquifer, primarily in the northern portion of the Basin, where most agricultural activities occur (Faunt et al., 2015).
- Increases in TDS and sulfate concentrations were associated with groundwater-elevation declines (Faunt et al., 2015).
- Increases in arsenic concentrations were associated with groundwater-elevation declines in the South Management Area (Dudek, 2020a).
- High concentrations of TDS and sulfate have been observed in groundwater near the Borrego Sink (Dudek, 2020a).
- Fluoride concentrations in the Basin are typically below the MCL (Dudek, 2020a).

Since the implementation of the GMP, the Watermaster has collected and analyzed groundwater-quality samples on a semi-annually frequency from wells in the groundwater-quality monitoring network (see Figure 2). The groundwater-quality data are used to describe current conditions and seasonal and/or long-

⁷⁹ The Minimum Threshold for the depletion of groundwater in storage is presented in Section 3.3.2 of the GMP.

⁸⁰ MCLs are standards for groundwater quality set by the U.S. EPA and the California State Water Resources Control Board. An MCL is the legal threshold limit for the amount of a substance that is allowed in public water systems under the Safe Drinking Water Act (Federal and State).

term trends in groundwater quality for the COCs in the Basin. In WY 2023, groundwater-quality samples were collected in October 2022 and April 2023 (see Table 8). The results from spring semi-annual sampling event are summarized in Figures 18 through 22. These figures characterize groundwater quality in the North, Central, and South Management Areas for the five COCs. Each figure includes:

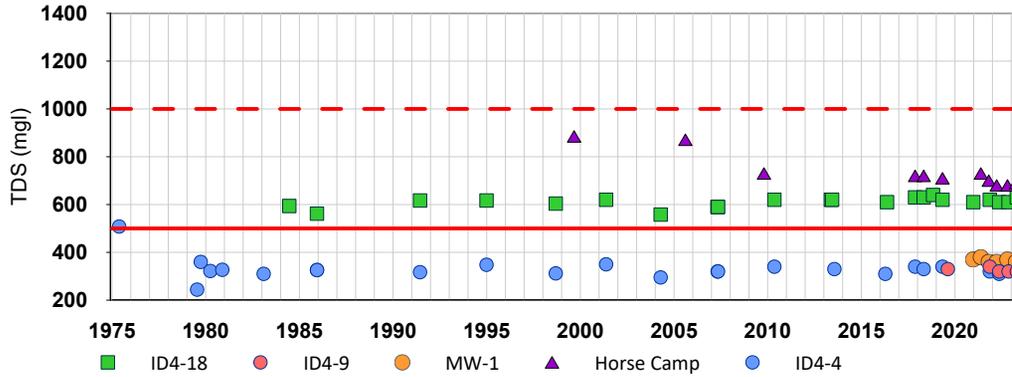
- A map that illustrates the spatial distribution of the COC concentrations at all wells sampled in spring 2023.
- Time-series charts of historical COC concentrations at selected wells in each of the Management Areas. The primary or secondary MCL are also plotted on each time-series chart.

The following observations are made from these figures in spring 2023:

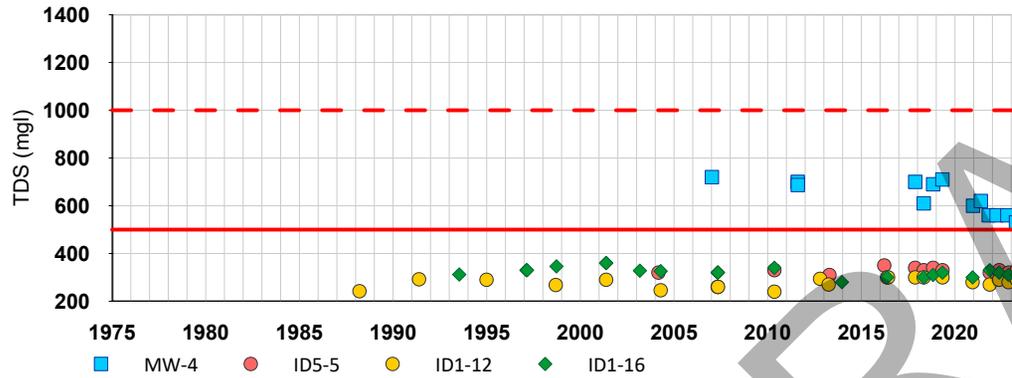
- Figure 18 shows that TDS concentrations are highest in the North and South Management Areas and in groundwater near the Borrego Sink. The “recommended” level for the California secondary MCL of 500 milligrams per liter (mg/L) was exceeded at 15 wells across the Basin. The “upper” level for the California secondary MCL of 1,000 mg/L was exceeded at five wells in the North and South Management Areas.
- Figure 19 shows that the highest concentrations of nitrate (as nitrogen) were measured in the North Management Area. The primary MCL of 10 mg/L was exceeded at two wells, neither of which is used for potable supply.
- Figure 20 shows that the highest concentrations of arsenic were measured in the South Management Area. The primary MCL of 10 micrograms per liter (µg/L) was exceeded at three wells, all of which are non-potable irrigation wells.
- Figure 21 shows that the secondary MCL of 250 mg/L MCL for sulfate was exceeded in wells in nine wells. Most of these wells are in the North Management Area.
- Figure 22 shows that no wells exceeded the primary MCL of 2 mg/L for fluoride.

Appendix G contains time history charts of the historical concentration of the five COCs identified in the GMP for each of the GMP Representative Monitoring Wells for the period of record from 1970 through 2023. The primary and/or secondary MCL for each COC is also plotted on each figure. The figures in Where know, the charts display the well depth and the well screen depth intervals.

North Management Area



Central Management Area



South Management Area

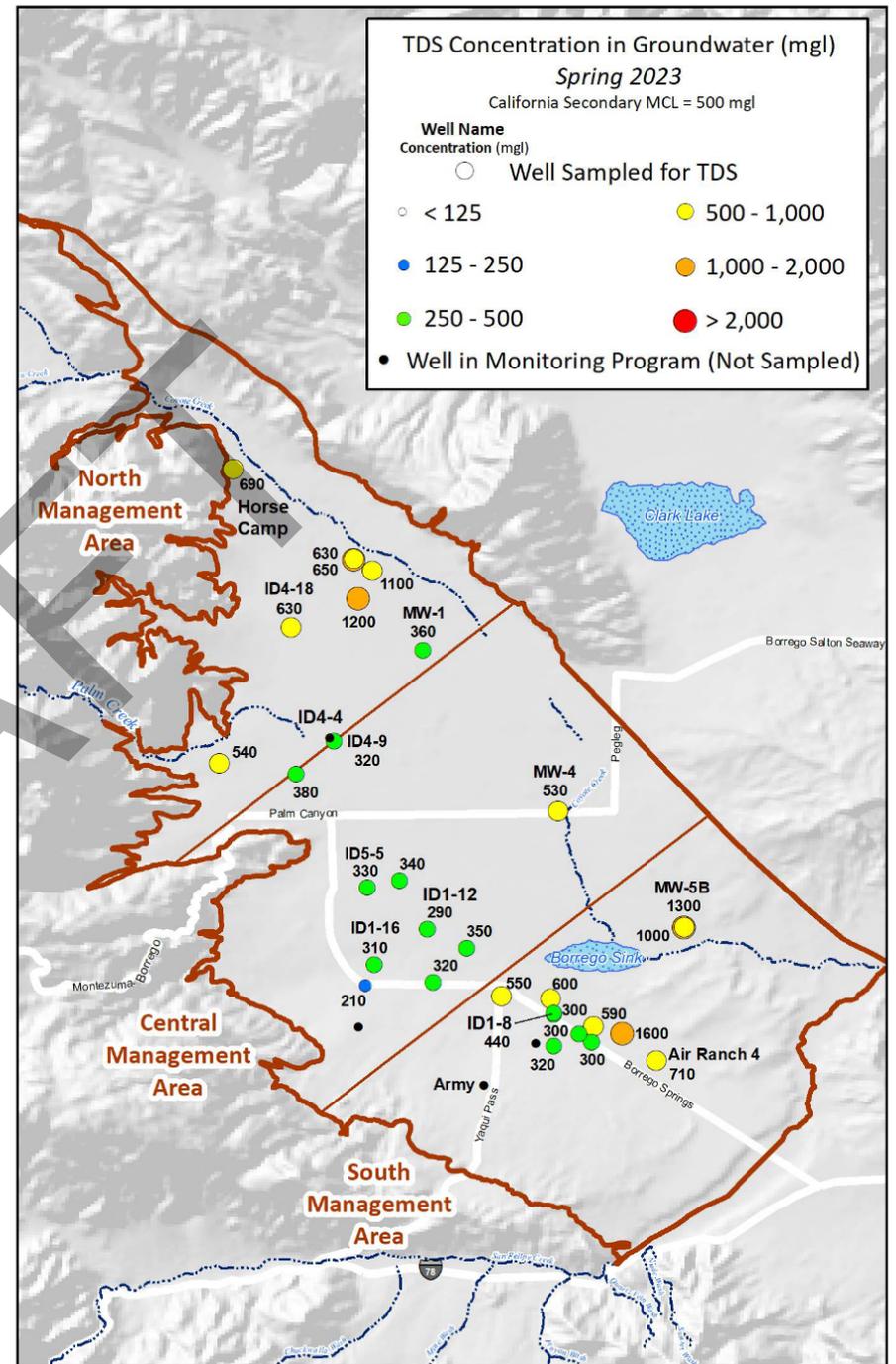
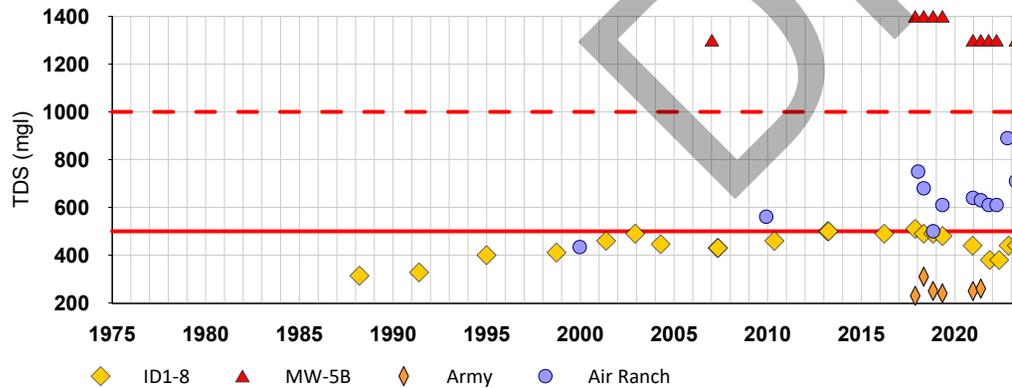
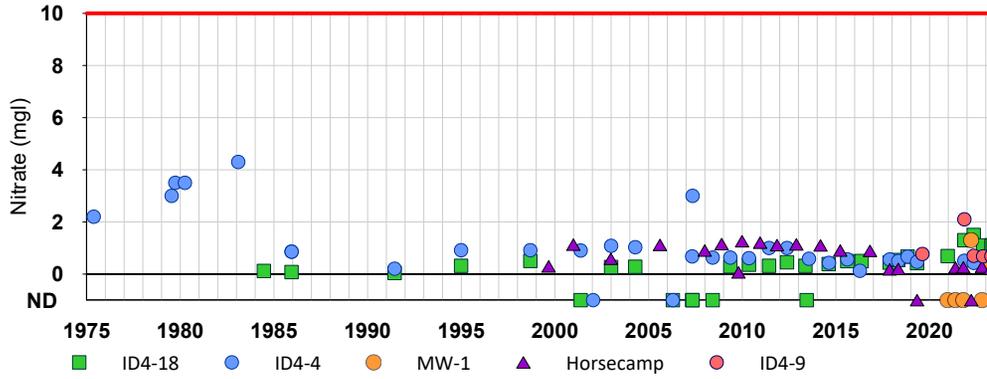


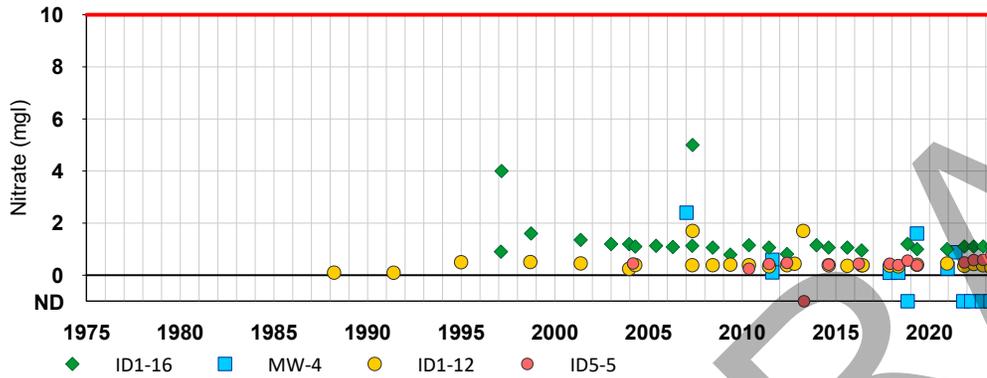
Figure 18

Total Dissolved Solids (TDS) in Groundwater

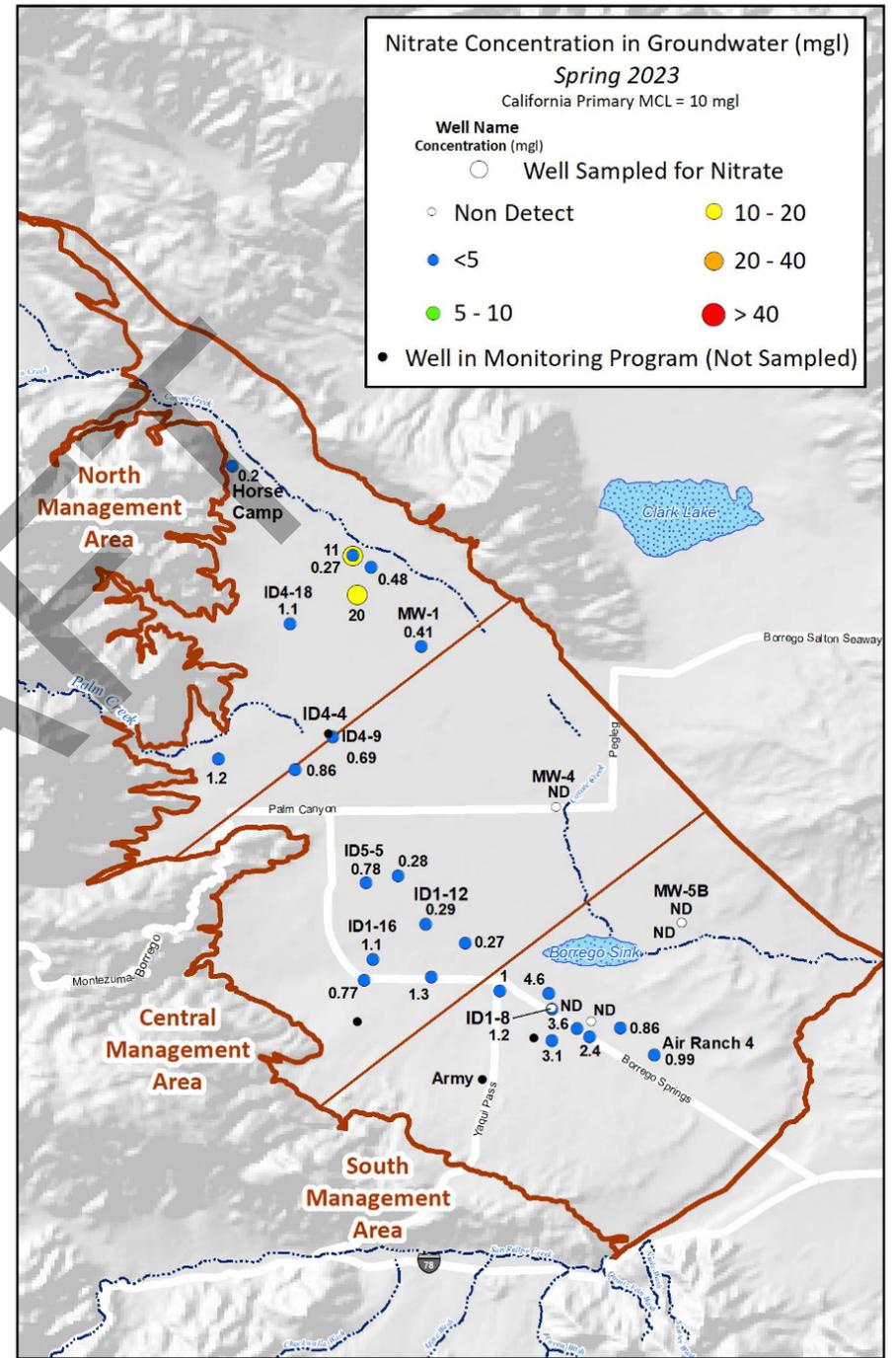
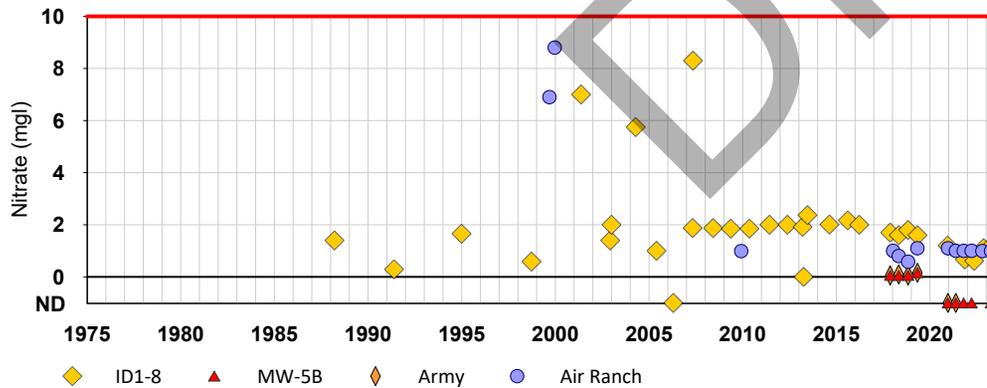
North Management Area



Central Management Area



South Management Area



Wells by Principal Aquifer

- △ Upper
- Upper and Middle
- Middle and Lower
- ◇ Lower
- ◊ Upper, Middle, and Lower

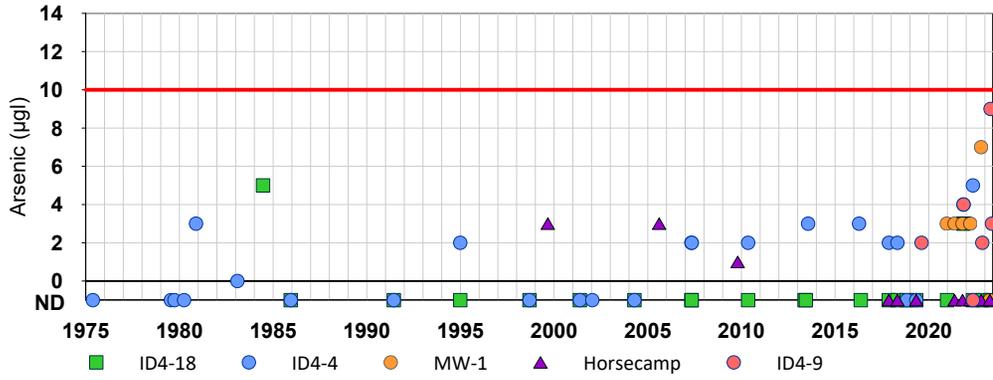
Maximum Contaminant Level

- Primary MCL

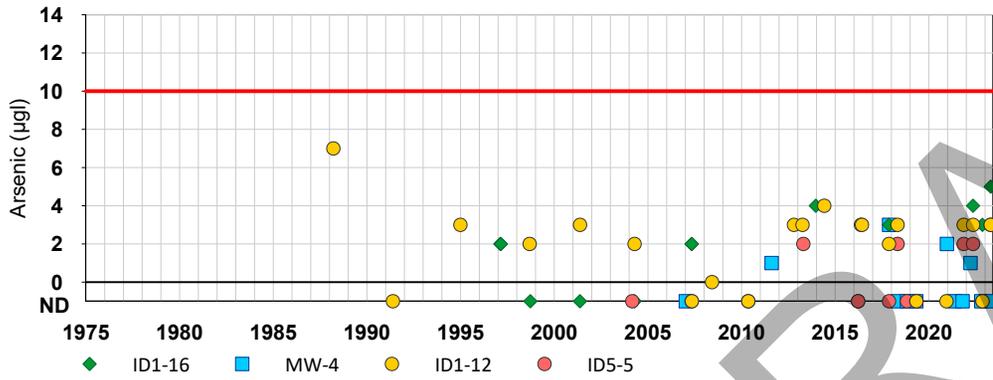
Figure 19

Nitrate (as Nitrogen) in Groundwater

North Management Area



Central Management Area



South Management Area

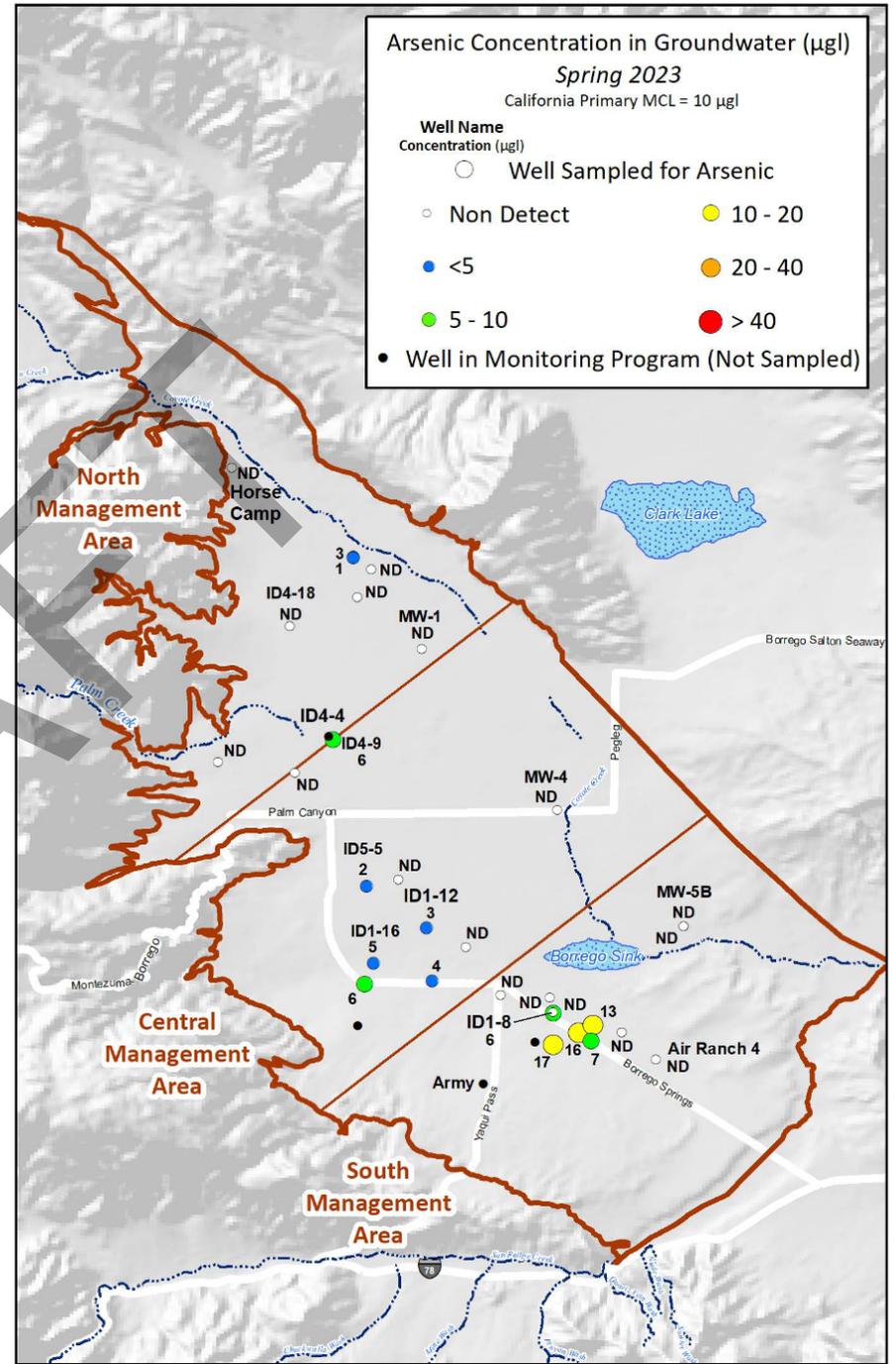
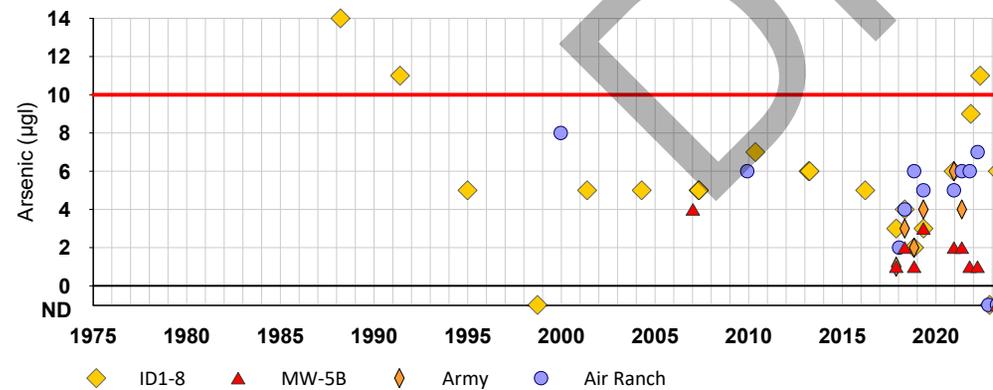
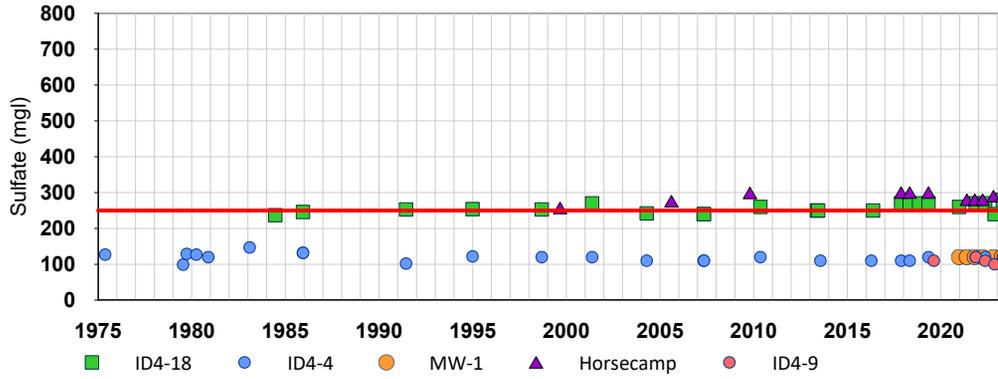


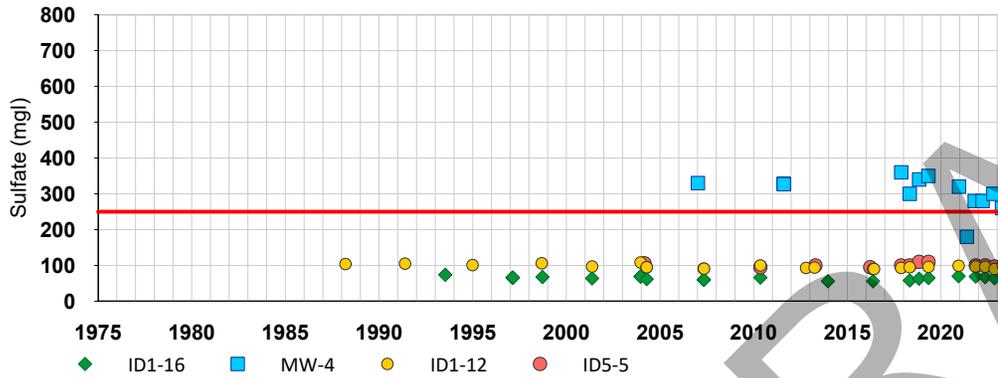
Figure 20

Arsenic in Groundwater

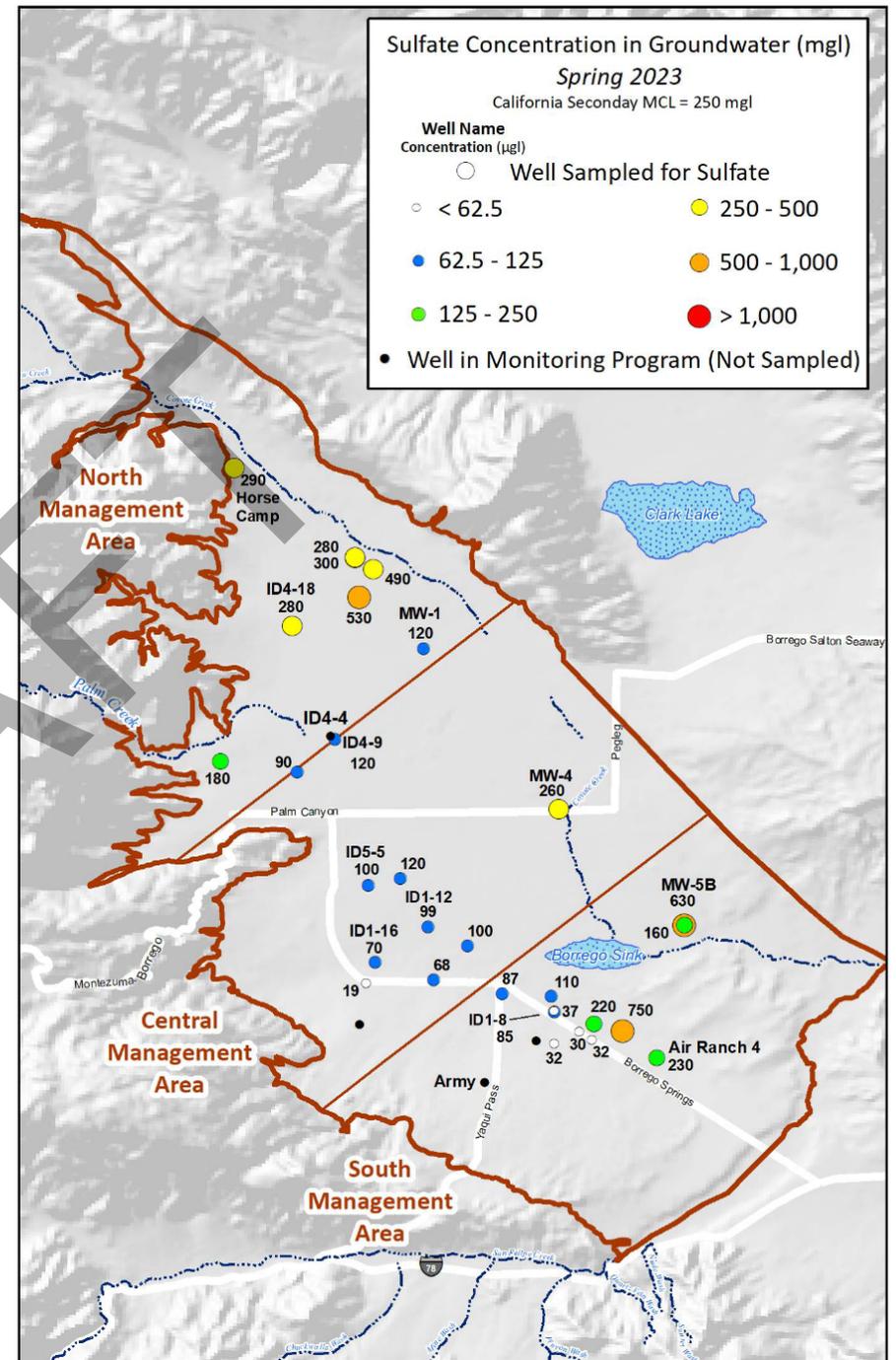
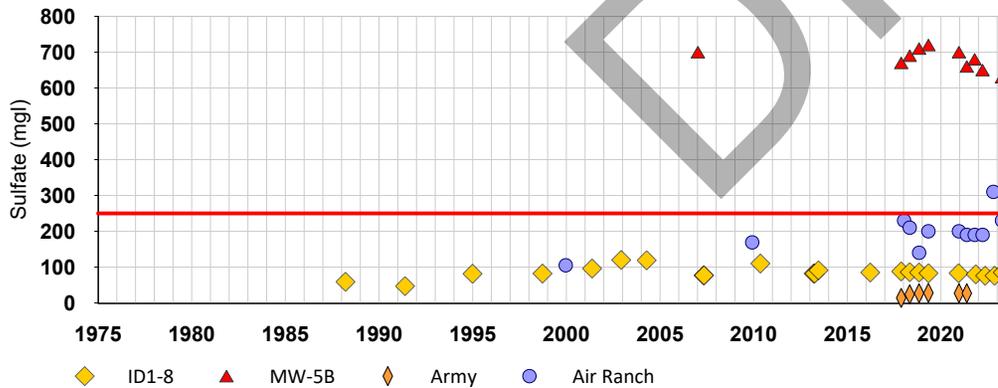
North Management Area



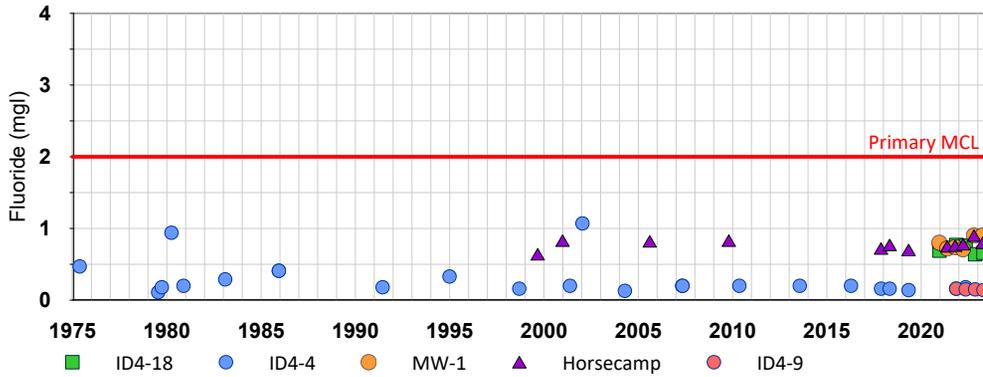
Central Management Area



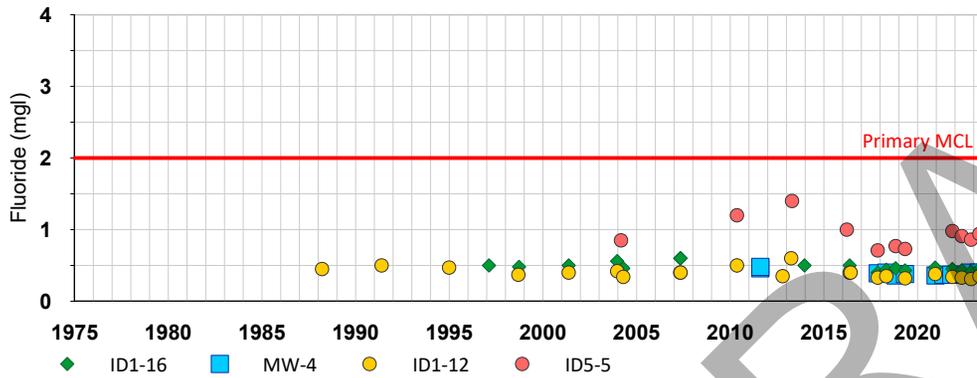
South Management Area



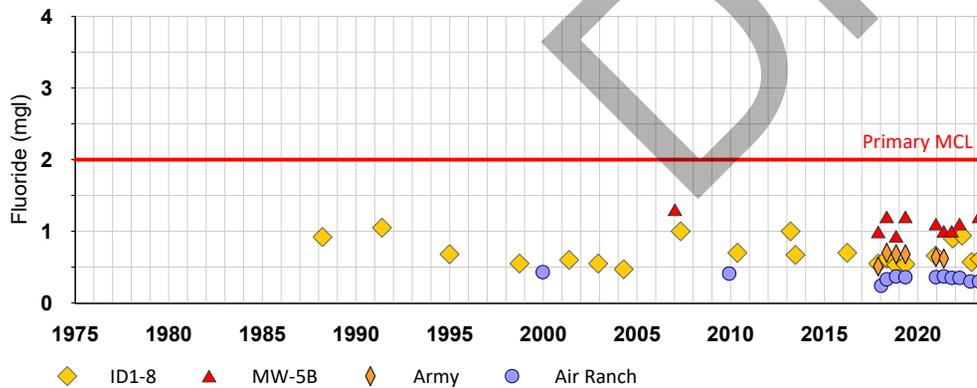
North Management Area



Central Management Area



South Management Area

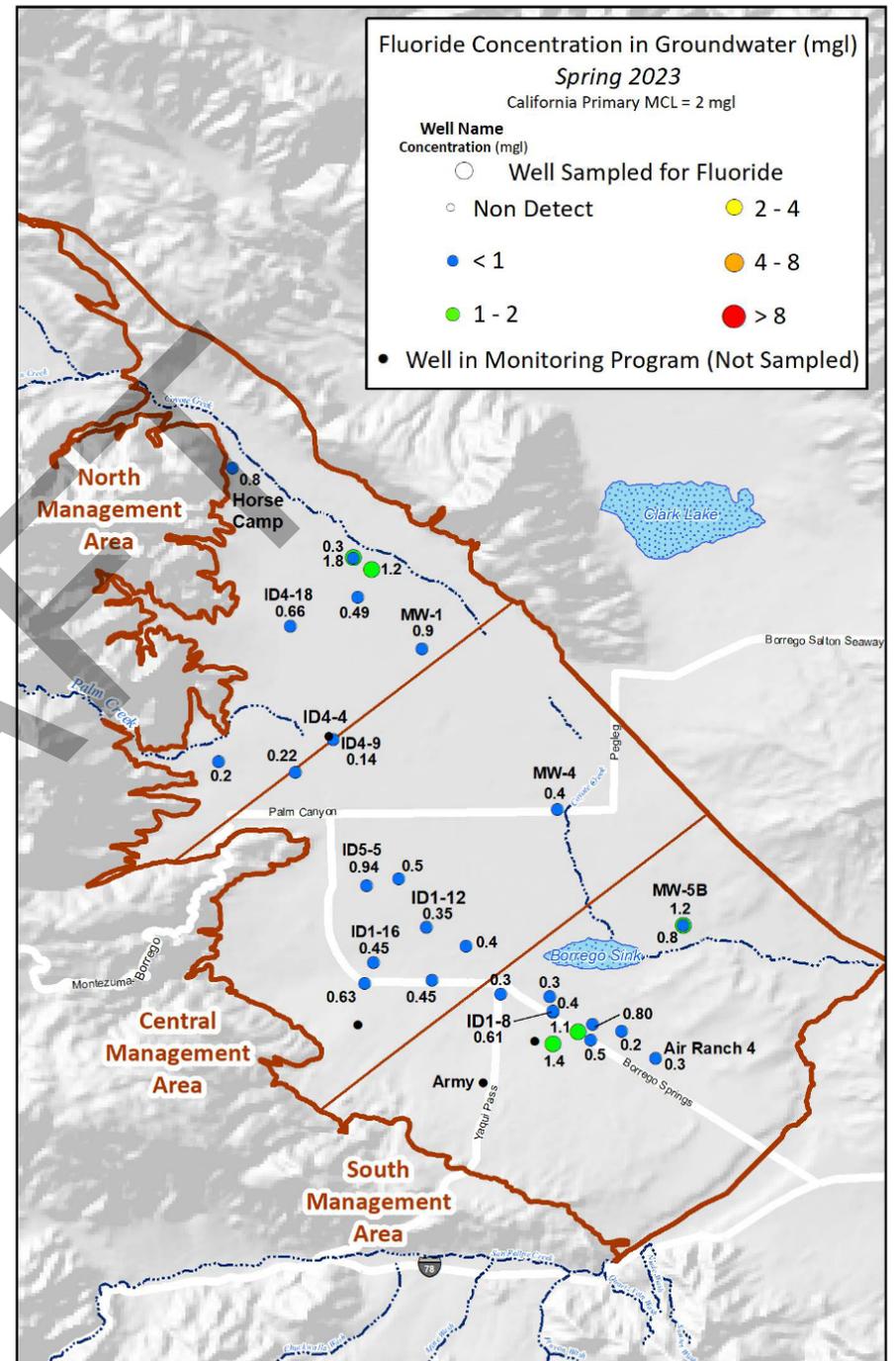


Wells by Principal Aquifer

- △ Upper
- ◇ Lower
- Upper and Middle
- ◇ Upper, Middle, and Lower
- Middle and Lower

Maximum Contaminant Level

- Primary MCL



6.0 SUMMARY OF PHYSICAL SOLUTION IMPLEMENTATION PROGRESS

As described in Section 1, the entry of the Judgment prescribing a Physical Solution for the Basin represents the most important milestone in achieving groundwater sustainability within the Basin by 2040 and the Watermaster has made substantial progress in the initial steps of implementation. The interim Watermaster was formed in March 2020, became the permanent Watermaster on April 8, 2021 and since inception has held 52 regular or special meetings of the Board during the reporting period to advance the implementation of the Judgment.

The following are some of the key milestones accomplished since the formation of the Watermaster through WY 2023:

- Administrative milestones:
 - Hired administrative and technical staff to support the implementation of the Judgment (April through August 2020)
 - Established a bank account and issued pumping assessments to fund the implementation of the Judgment (October to November 2020)
 - Established (November 2020) and maintained a website
 - Established the first Operating Budget in accordance with the Judgment for WY 2022 (July 2021) and set annual operating budgets each year thereafter
 - Convened a Technical Advisory Committee to support the development and implementation of the technical scope of work included in the Judgment (October 2020) and held 11 meetings since convening
 - Convened an Environmental Working Group (February 2021) to address specific environmental issues related to groundwater management in the Basin and held six meetings since convening
 - Completed water rights accounting for the first full WY (2021) of operations (November 2021) and have performed annual accounting each WY since
 - Established an application process in coordination with the County for the review and approval of (1) new De Minimis wells and (2) replacement of existing non-De Minimis wells (December 2021)
 - Submitted an application (February 2022) and were selected to receive funding from the DWR SGMA Implementation Grant (May 2022)
 - Held first in-person Board meeting (December 2022)
 - Held first Open House for interested stakeholders to improve communication of Watermaster activities and technical information (December 2022) and held one Open House since
- Groundwater metering milestones:
 - Published a list of approved meters (March 2020)
 - Approved protocols for meter verification and accuracy testing (August 2020)
 - Approved meter reading protocols for documenting manual meter reads (September 2020)
 - Conducted an initial WY 2020 meter read at 53 of 54 active wells operated by the Settling Parties (September 2020)

- Collected and cataloged meter verification for all 54 active wells operated by the Settling Parties (September to October 2020)
- Adopted additional meter reading protocols for the frequency of meter read data collection and QA/QC of telemetry meter reads (November 2020)
- Collected and cataloged meter verification information for most non-Settling Party wells (May to October 2021)
- Collected and reviewed monthly meter reads in WYs 2021, 2022, and WY 2023
- Collected and cataloged annual meter accuracy tests (WY 2021 through WY 2023)
- Approved Resolution 23-02 to establish a revised comprehensive metering program (March 2023)
- Achieved 98 percent compliance with the meter reading program as of the end of WY 2023 (98 percent of wells are metered)
- Groundwater pumping reduction milestones:
 - Groundwater pumping decreased by 37 percent since the start of the GMP implementation (WY 2020) and by 20 percent relative to WY 2022
- Groundwater level and quality monitoring milestones:
 - Performed the first semi-annual monitoring event (December 2020) and performed six semi-annual monitoring events since (through April 2023)
 - Approved the Groundwater Monitoring Plan for the Borrego Springs Subbasin to comply with the requirement to develop a WQMP within 24 months of entry of the Judgment (April 2023)
 - Developed and implemented a public outreach effort to enhance the groundwater monitoring network and added one new well in WY 2023 as a result of the efforts
- Analysis of Sustainable Yield milestones:
 - The TAC recommended, and the Watermaster Board approved, the technical scope of work and budget for activities related to the recalculation of Sustainable Yield (June 2021 and January 2023)
 - Completed the extension of the BVHM through WY 2021 and identified improvements to be made to the model to support the recalculation of Sustainable Yield (August 2022)
 - Completed the extension of the BVHM through WY 2022 and identified improvements to be made to the model to support the recalculation of Sustainable Yield (May 2023)
- EWG milestones:
 - The EWG recommended, and the Watermaster Board approved, the scope of work and budget for WY 2022 for developing work plans related to biological restoration of fallowed agricultural land and monitoring of GDEs (May 2021)
 - The EWG recommended, and the Watermaster Board approved, the scope of work and budget for studying methods for biological restoration of fallowed agricultural land (February 2022)
 - Began implementing the Biological Restoration of Fallowed Lands study with DWR grant funding (August 2023)
- Reporting milestones

Water Year 2023 Annual Report for the Borrego Springs Subbasin

- Approved the 1st Annual Report of the Borrego Springs Groundwater Subbasin for WY 2019 for submittal to the DWR (March 2020)
- Approved the Annual Report of the Borrego Springs Groundwater Subbasin for WY 2020 for submittal to the DWR (March 2021)
- Submitted the updated GSP Alternative Elements Guide to DWR following entry of the Judgment by the Court (June 2021)
- Approved the first expanded Annual Report of the Borrego Springs Groundwater Subbasin for WY 2021 for submittal to the Court pursuant to the Judgment and to DWR pursuant to SGMA (March 2022); and submitted one combined annual report since (WY 2022)

Additional information about all the activities of the Watermaster can be found on its website at borregospringswatermaster.com.

7.0 REFERENCES

- Borrego Water District (BWD). 2021. Letter to the California Department of Water Resources. *Re: Borrego Water District GSA Withdrawal*. Delivered June 16, 2021.
- [CIMIS](#) (California Irrigation Management Information System). 2023. *Daily Evapotranspiration Data for CIMIS Station 207 - 2008 through 2023*. Compiled December 2023.
- Dudek. 2020a. [Groundwater Management Plan for the Borrego Springs Subbasin](#). 4/8/21 Judgment, Exhibit 1.
- Dudek. 2020b. [Borrego Springs Subbasin Annual Report: Covering Water Years 2016 through 2019](#). Prepared for the Borrego Springs Watermaster. March 2020.
- Dudek. 2019. [Update to United States Geological Survey Borrego Valley Hydrologic Model for the Borrego Valley Sustainability Agency](#). Prepared for the County of San Diego. July 2019.
- DWR (California Department of Water Resources). 2012. [California Irrigation Management Information System Reference Evapotranspiration Zones](#). January 2022.
- Faunt, C.C., C.L. Stamos, L.E. Flint, M.T. Wright, M.K. Burgess, M. Sneed, J. Brandt, P. Martin, and A.L. Coes in cooperation with the Borrego Water District. 2015. [Hydrogeology, Hydrologic Effects of Development, and Simulation of Groundwater Flow in the Borrego Valley, San Diego County, California](#). U.S. Geological Survey Scientific Investigations Report 2015–5150.
- NOAA (National Oceanic and Atmospheric Administration). 2022. [Climate Data Online—Borrego Desert Park, California Daily Summary Observations](#). Network ID – GHCND: USC00040983. Compiled February 2021.
- USGS. 2023a. [National Water Information System Web Interface](#). USGS 10255800 Borrego Palm Creek Near Borrego Springs.
- USGS. 2023b. [National Water Information System Web Interface](#). USGS 10255805 Borrego Palm Creek Near Borrego Springs.
- USGS. 2023c. [National Water Information System Web Interface](#). USGS 10255810 Borrego Palm Creek Near Borrego Springs. Compiled December 2023.
- USGS. 1982. *Water Resources of Borrego Valley and Vicinity, California: Phase 1-Definition of Geologic and Hydrologic Characteristics of Basin*. Open-File Report 82-855. Prepared by W.R. Moyle Jr. in cooperation with the County of San Diego.
- West Yost 2023. [Water Year 2022 Annual Report for the Borrego Springs Subbasin](#). Prepared for the Borrego Springs Watermaster. March 2023.
- West Yost. 2022a. [Start-Up Period and Water Year 2021 Annual Report for the Borrego Springs Subbasin](#). Prepared for the Borrego Springs Watermaster. March 2022.
- West Yost. 2022b. [Extension of the Borrego Valley Hydrologic Model through Water Year 2021](#). Prepared for the Borrego Springs Watermaster and Technical Advisory Committee. September 2022.
- West Yost. 2022c. [Methods to Estimate Annual Storage Change in Borrego Springs Subbasin](#). February 2022.
- West Yost 2021. [Water Year 2020 Annual Report for the Borrego Springs Subbasin](#). Prepared for the Borrego Springs Watermaster. April 2021.



Appendix A

Watermaster Board Motions – Water Year 2023

Appendix A. Borrego Springs Watermaster Water Year 2023 Board Actions

Meeting Date & Motion Number	Action	Motion Vote Count: approved-opposed-abstained
October 13, 2022		
Agenda Item I.D	Approve the Agenda	Motioned by Director Deichler Seconded by Vice Chair Smith Motion carried unanimously (5-0-0)
Agenda Item V.G	Record Watermaster Meetings, post to the Watermaster website, and retain the recordings for one-year	Motioned by Director Bennett Seconded by Director Deichler Motion carried unanimously (5-0-0)
Agenda Item II	Keep the same slate of Board Officers from WY 2022 in WY 2023	Motioned by Director Deichler Seconded by Director Bennett Motion carried unanimously (5-0-0)
Agenda Item IV.	Approve the Consent Calendar: Minutes from the September 8, 2022 Regular Board Meeting, September 2022 Financial Report, July and August 2022 Watermaster Staff Invoices, Transfer of Water Rights: (i) Permanent transfer of BPA from JM Roadrunner to Bilyk and (ii) Transfer of Carryover from T2 Borrego LLC to BSUSD	Motioned by Director Deichler Seconded by Director Bilyk Motion carried unanimously (5-0-0)
Agenda Item V.B	Submit a motion to the Court to permanently extend the Annual Report filing deadline to April 1st to coincide with the DWR reporting deadline	Motioned by Director Bennett Seconded by Director Deichler Motion carried by majority vote (3-2-0). Vice Chair Smith and Director Bilyk voted no.
Agenda Item V.C	Approve the \$8,425 cost to perform the financial audit and engage Lance, Soll & Lunghard, LLP to perform the work	Motioned by Vice Chair Smith Seconded by Director Deichler Motion carried unanimously (5-0-0)
Agenda Item V.D	Approve the agenda for the November 2, 2022 Technical Advisory Committee meeting	Motioned by Director Deichler Seconded by Vice Chair Smith Motion carried unanimously (5-0-0)

Appendix A. Borrego Springs Watermaster Water Year 2023 Board Actions

Meeting Date & Motion Number	Action	Motion Vote Count: approved-opposed-abstained
November 10, 2022		
Agenda Item I.D	Approve the Agenda	Motioned by Vice Chair Smith Seconded by Director Bilyk Motion carried unanimously (5-0-0)
Agenda Item III	Approve the Consent Calendar: Minutes from the October 13, 2022 Regular Board Meeting, October 2022 Financial Report, September 2022 Watermaster Staff Invoice, Transfer of Water Rights: (i) Transfer of Annual Allocation from Roadrunner Club to Springs RV and Golf, (ii) Transfer of Carryover from T2 Borrego LLC to Soli Organic, and (iii) Transfer of Carryover from T2 Borrego LLC to Gamini D. Weerasekera	Motioned by Director Deichler Seconded by Vice Chair Smith Motion carried unanimously (5-0-0)
Agenda Item IV.A	Approve the execution of the <i>Agreement for the Sustainable Groundwater Management Grant Program between Borrego Water District and Borrego Springs Watermaster</i> , pending a review of the final agreement by Legal Counsel to confirm no substantial changes have been made to the agreement	Motioned by Vice Chair Smith Seconded by Director Deichler Motion carried unanimously (5-0-0)
Agenda Item IV.B	Approve Amendment No. 6 to the Borrego Springs Watermaster Professional Services Agreement with West Yost	Motioned by Vice Chair Smith Seconded by Director Deichler Motion carried unanimously (5-0-0)
November 15, 2022		
	none	
December 8, 2022		
Agenda Item I.D	Approve the Agenda	Motioned by Vice Chair Smith Seconded by Director Bennett Motion carried unanimously (5-0-0)
Agenda Item III	Approve the Consent Calendar: Minutes from the November 10, 2022 Regular Board Meeting and November 15, 2022 Special Meeting, November 2022 Financial Report	Motioned by Vice Chair Smith Seconded by Director Bilyk Motion carried unanimously (5-0-0)

Appendix A. Borrego Springs Watermaster Water Year 2023 Board Actions

Meeting Date & Motion Number	Action	Motion Vote Count: approved-opposed-abstained
January 12, 2023		
Agenda Item I.D	Approve the Agenda	Motioned by Vice Chair Smith Seconded by Director Bilyk Motion carried unanimously (5-0-0)
Agenda Item III	Approve the Consent Calendar: Minutes from the December 8, 2022 Regular Board Meeting, December 2022 Financial Report, October 2022 Watermaster Staff Invoices (RWG and West Yost), November 2022 RWG Invoice	Motioned by Director Bilyk Seconded by Vice Chair Smith Motion carried unanimously (5-0-0)
Agenda Item IV.E	(1) Contract directly with Land IQ and Watermaster, assuming there are no financial implications for Land IQ to perform the work and (2) Include a statement in the contract that UCI will utilize separate principal scientists on the two grant-funded projects	Motioned by Director Bilyk Seconded by Vice Chair Smith Motion carried by majority vote (4-1-0). Director Jorgensen voted no.
Agenda Item IV.F	Approve the agendas for the next Technical Advisory Committee meeting and Environmental Working Group meetings	Motioned by Director Jorgensen Seconded by Director Bennett Motion carried unanimously (5-0-0)

Appendix A. Borrego Springs Watermaster Water Year 2023 Board Actions

Meeting Date & Motion Number	Action	Motion Vote Count: approved-opposed-abstained
February 9, 2023		
Agenda Item I.D	Approve the Agenda	Motioned by Director Jorgensen Seconded by Director Bilyk Motion carried unanimously (5-0-0)
Agenda Item III	Approve the Consent Calendar: Minutes from the January 12, 2023 Regular Board Meeting, January 2023 Financial Report, November 2022 West Yost Invoices, and December 2022 Watermaster Staff Invoices (RWG and West Yost)	Motioned by Director Bennett Seconded by Director Jorgensen Motion carried unanimously (5-0-0)
Agenda Item IV.B.1	Approve the TAC-recommended scope-of-work for the redetermination of the Sustainable Yield by 2025	Motioned by Director Bennett Seconded by Vice Chair Smith Motion carried unanimously (5-0-0)
Agenda Item IV.B.2	(1) approve Option 2 for repurposing the SGM grant funds to support the revised redetermination of the Sustainable Yield and establish the first of up to two budget amendments, and (2) request the TAC to perform a review of the streamflow monitoring station project in the SGM grant	Motioned by Vice Chair Smith Seconded by Director Jorgensen Motion carried unanimously (5-0-0)
Agenda Item IV.D	Approve the Assignment Agreement	Moved by Director Jorgensen Seconded by Director Bilyk Motion carried unanimously (5-0-0)
Agenda Item IV.F	Establish a standard practice of holding two in-person Board meetings annually	Moved by Vice Chair Smith Seconded by Director Jorgensen Motion carried unanimously (5-0-0)

Appendix A. Borrego Springs Watermaster Water Year 2023 Board Actions

Meeting Date & Motion Number	Action	Motion Vote Count: approved-opposed-abstained
March 9, 2023		
Agenda Item I.D	Approve the Agenda	Moved by Director Jorgensen Seconded by Vice Chair Smith Motion carried 4-0-0. Director Bilyk was absent.
Agenda Item III	Approve the Consent Calendar: Minutes from the February 9, 2023 Regular Board Meeting, February 2023 Financial Report	Moved by Director Bennett Seconded by Vice Chair Smith Motion carried 5-0-0
Agenda Item IV.A	Approve the <i>Water Year 2022 Financial Audit</i> by LSL and include it with the <i>Water Year 2022 Annual Report for the Borrego Springs Subbasin</i>	Moved by Vice Chair Smith Seconded by Director Jorgensen Motion carried 5-0-0
Agenda Item IV.B	Approve the <i>Water Year 2022 Annual Report for the Borrego Springs Subbasin</i> and file it with the Court and DWR after adding the signature of a California Professional Geologist	Moved by Director Bennett Seconded by Vice Chair Smith Motion carried 5-0-0
Agenda Item IV.E	Approve Resolution No. 23-01 to Establish Guidelines for the Technical Advisory Committee Process, with the noted edits	Moved by Director Bilyk Seconded by Director Jorgensen Motion carried 5-0-0
Agenda Item IV.F	Approve Resolution No. 23-02 Establishing a Revised Comprehensive Metering Program	Moved by Director Bilyk Seconded by Vice Chair Smith Motion carried 5-0-0

Appendix A. Borrego Springs Watermaster Water Year 2023 Board Actions

Meeting Date & Motion Number	Action	Motion Vote Count: approved-opposed-abstained
April 6, 2023		
Agenda Item I.D	Approve the Agenda	Moved by Director Bilyk Seconded by Director Dice Motion carried 5-0-0
Agenda Item III	Approve the Consent Calendar: Minutes from the March 9, 2023 Regular Board Meeting, January 2023 Watermaster Staff Invoices (RWG and West Yost)	Moved by Director Bennett Seconded by Director Jorgensen Motion carried 5-0-0
Agenda Item IV.A	Approve the <i>Groundwater Monitoring Plan for the Borrego Springs Subbasin</i> with the three noted edits	Moved by Director Bilyk Seconded by Director Bennett Motion carried 5-0-0
Agenda Item IV.B	Approve the amendment to the WY 2023 Budget a due date of August 31, 2023 for the supplemental Pumping Assessment	Moved by Director Jorgensen Seconded by Director Bilyk Motion carried 5-0-0
Agenda Item IV.C	Renew the Watermaster insurance policy for WY 2023	Moved by Director Bilyk Seconded by Alternate Director Dice Motion carried 5-0-0
April 17, 2023		
Agenda Item III.A	To contract up to \$3,000 with Tom Dodson & Associates to perform the required CEQA services	Moved by Director Jorgensen Seconded by Director Bennett Motion carried 5-0-0

Appendix A. Borrego Springs Watermaster Water Year 2023 Board Actions

Meeting Date & Motion Number	Action	Motion Vote Count: approved-opposed-abstained
May 11, 2023		
Agenda Item I.D	Approve the Agenda	Moved by Director Bilyk Seconded by Director Jorgensen Motion carried 5-0-0
Agenda Item III	Approve the Consent Calendar: Minutes from the April 6, 2023 Regular Board Meeting, minutes from the April 17, 2023 Special Board Meeting, April 2023 Financial Report	Moved by Vice Chair Smith Seconded by Director Bilyk Motion carried 5-0-0
Agenda Item IV.D.i	Approve the staff recommended agenda with the addition of the UCI groundwater sampling request	Moved by Vice Chair Smith Seconded by Director Bilyk Motion failed roll-call vote 2-3-0. Chair Duncan and Directors Jorgensen and Bennett voted no.
Agenda Item IV.D.ii	Approve the TAC meeting agenda included in the Board package	Moved by Director Jorgensen Seconded by Director Bennett Motion carried 5-0-0
Agenda Item IV.E.i	Adopt the recommended Agenda setting process with the inclusion of a requirement to have two out of five Board members vote in favor of an item for it to be added to the agenda	Moved by Director Jorgensen Seconded by Chair Duncan Motion failed by roll-call vote 2-3-0. Vice Chair Smith and Directors Bennett and Bilyk voted no.
Agenda Item IV.E.ii	Adopt the recommended Agenda setting process with a requirement to have a standard majority vote (three out of five Board members) in favor of agendizing an item(s) for the subsequent Board meeting	Moved by Vice Chair Smith Seconded by Director Bilyk Motion carried 4-1-0. Director Jorgensen voted no.
Agenda Item IV.E.iii	Approve the June 14, 2023 agenda with the additional requested items	Moved by Chair Duncan Seconded by Director Jorgensen Motion carried 5-0-0

Appendix A. Borrego Springs Watermaster Water Year 2023 Board Actions

Meeting Date & Motion Number	Action	Motion Vote Count: approved-opposed-abstained
June 14, 2023		
Agenda Item I.D	Approve the Agenda	Moved by Director Bilyk Seconded by Director Jorgensen Motion carried 5-0-0
Agenda Item III	Approve the Consent Calendar: Minutes from the May 11, 2023 Regular Board Meeting, May 2023 Financial Report; February 2023 Staff Invoices (RWG and West Yost); March 2023 Staff Invoices (RWG and West Yost); Grant Reimbursement Request Report	Moved by Vice Chair Smith Seconded by Director Bilyk Motion carried 5-0-0
Agenda Item V.A	Cooperate with UCI's request for Watermaster assistance with groundwater quality sampling and to get permission from well owners prior to sampling	Moved by Director Jorgensen Seconded by Director Bennett Motion carried 4-1-0. Director Bilyk voted no.
Agenda Item V.B	Approve the WY 2024 Budget as presented by staff	Moved by Vice Chair Smith Seconded by Director Jorgensen Motion carried 5-0-0
Agenda Item V.II.i	Add an agenda item for Board discussion on third-party requests for the utilization of Watermaster resources	Moved by Director Bilyk Seconded by Vice Chair Smith Motion carried 5-0-0
Agenda Item V.II.ii	Add an agenda item for the discussion on the duties of a GSA defined in SGMA Water Code sections to a future agenda, directing Mr. Markman to make a comparison of the code to the Judgment	Moved by Vice Chair Smith Seconded by Chair Duncan Motion carried 5-0-0
Agenda Item V.II.ii	Approve the July 13, 2023 agenda presented	Moved by Director Bilyk Seconded by Vice Chair Smith Motion carried 5-0-0

Appendix A. Borrego Springs Watermaster Water Year 2023 Board Actions

Meeting Date & Motion Number	Action	Motion Vote Count: approved-opposed-abstained
July 13, 2023		
Agenda Item I.D	Approve the Agenda with the recommended modification <i>[to move the Closed Session (Item VII) to follow the Consent Calendar]</i>	Moved by Director Bilyk Seconded by Director Bennett Motion carried 5-0-0
Agenda Item III	Approve the Consent Calendar with the discussed changes to the meeting minutes: Minutes from the June 14, 2023 Regular Board Meeting, June 2023 Financial Report	Moved by Vice Chair Smith Seconded by Director Bilyk Motion carried 5-0-0
Agenda Item IV.B	Approve the EWG meeting agenda included in the Board package	Moved by Director Jorgensen Seconded by Director Bennett Motion carried 5-0-0
Agenda Item IV.C	Approve the TAC meeting agenda included in the Board package	Moved by Director Jorgensen Seconded by Director Bilyk Motion carried 5-0-0
Agenda Item VII.i	Cancel the August 10, 2023 Board meeting	Moved by Director Jorgensen Seconded by Director Bilyk Motion carried 5-0-0
Agenda Item VII.ii	Approve the agenda for the September 14, 2023 Board meeting as presented	Moved by Vice Chair Smith Seconded by Director Bilyk Motion carried 5-0-0

Appendix A. Borrego Springs Watermaster Water Year 2023 Board Actions

Meeting Date & Motion Number	Action	Motion Vote Count: approved-opposed-abstained
September 14, 2023		
Agenda Item I.D	Approve the Agenda	Moved by Director Jorgensen Seconded by Vice Chair Smith Motion carried 5-0-0
Agenda Item III	Approve the Consent Calendar: Minutes from the July 11, 2023 Regular Board Meeting, July 2023 Financial Report, August 2023 Financial Report, April 2023 Watermaster Staff Invoices, May 2023 Watermaster Staff Invoices, June 2023 Watermaster Staff Invoices, 2023 Q2 Grant Reimbursement Request Report, Permanent transfer of BPA rights between W. Bauer and BWD	Moved by Vice Chair Smith Seconded by Director Jorgensen Motion carried 5-0-0
Agenda Item IV.A	Approve Statement of Work No. 6 and Contract Amendment No. 8 for West Yost Administrative and Technical Services in WY 2024 and redact the statement that the “Subconsultant will be billed at actual cost plus 10%”.	Moved by Vice Chair Smith Seconded by Director Bilyk Motion carried 5-0-0
Agenda Item IV.C	Approve the WY 2024 Board meeting dates on the condition that the November 2023 Board Meeting and Open House are scheduled within the next week	Moved by Director Bennett Seconded by Director Jorgensen Motion carried 5-0-0
Agenda Item IV.D	File a motion with the Court to amend the Judgment to allow a community representative on the TAC	Moved by Director Jorgensen Seconded by Director Bennett Motion carried 5-0-0
Agenda Item IV.E	Continue as planned to begin work on the five-year update of the GMP on October 1, 2023	Moved by Director Bennett Seconded by Vice Chair Smith Motion carried 5-0-0

Appendix B

Water Year 2023 Financial Audit

Note: Draft financial audit is not yet available and will be included in the Final Annual Report



Appendix C

Water Year 2024 Budget Memo -
Approved by Board on June 14, 2023

**Borrego Springs Watermaster
Board of Directors Meeting
June 14, 2023
AGENDA ITEM V.B**

To: Board of Directors
From: Samantha Adams, Executive Director
Date: June 13, 2023
Subject: Draft Water Year 2024 Budget (possible adoption)

<input checked="" type="checkbox"/> Recommended Action	<input checked="" type="checkbox"/> Provide Direction to Staff	<input type="checkbox"/> Information and Discussion
<input checked="" type="checkbox"/> Fiscal Impact	<input type="checkbox"/> Cost Estimate: \$	

Recommended Action

Consider approval of the Water Year (WY) 2024 Budget or recommend changes to be brought back for consideration of approval at a Special Board meeting on or before June 30, 2023.

Approval of the WY 2024 Budget includes approval of the following:

- WY 2024 Pumping Assessment of \$458,0000
- An Overproduction Penalty Assessment of \$500 per acre-foot
- Operating expenditures in the amount of \$1,527,952, of which \$1,100,904 is grant-reimbursable work.

Fiscal Impact: The operating budget includes expenditures of \$1,527,952. The expenditures will be funded by pumping assessments (\$458,000), payment on pass-through expenses (\$6,664), and grant reimbursements from DWR (\$1,100,904). During WY 2024, cash reserves will be maintained at or near target levels (7 months of operating expenses) by continuing to utilize the Extended Payment Term agreements executed with West Yost and Land IQ

Background

Section IV.E.3 of the Judgment provides for a process and schedule for developing the Watermaster’s annual budget and collecting assessments to fund it. The Board has reviewed and discussed the process during the May Board meeting and reviewed and refined the scope of work at the April¹ and May Board meetings. Staff has prepared the enclosed draft budget package for WY 2024 based on the feedback from the Board. The purpose of this memo is to present the draft WY 2024 budget.

¹ The scope of work was discussed as part of the WY 2023 Budget amendment, which included revising the budget to defer certain tasks to begin in WY 2024, and as part of the Groundwater Monitoring Program, which included recommendations for new work for WY 2024 and beyond.

Watermaster Financial Planning Model

In 2022, to support the development of the WY 2023 Budget, Watermaster staff developed a financial model to project the monthly revenues, expenditures, vendor invoices, deferred payment balances under extended payment terms, interest charges on deferred payments, and payments to vendors. The model was used to prepare a projection for WY 2024 through WY 2028 to support the development of the WY 2024 Budget. For WY 2024, the financial model assumed the following:

- Staff's best judgement as to the approximate monthly schedule of:
 - accrued expenditures on all Watermaster operations
 - assessment invoicing and reimbursement requests
 - payments on vendor invoices
- DWR will reimburse the BWD six months after receiving each quarterly SGM grant report and BWD will issue the reimbursement to Watermaster within 60 days of receiving funds from DWR.
- For each WY, a monthly and average reserve balance target was established that generally represents a balance that would be needed to support the leading seven months of operating expenses. This amount was used each month to determine how much is paid out to West Yost and Land IQ each month. The model is set to always pay on invoices from any non-West Yost/Land IQ vendors in the month following receipt of the invoice (such as RWG Law, auditors, insurance).
- Payments will generally only be made to West Yost and/or Land IQ when the cash reserve balance exceeds the monthly target amount. If the cash reserve is below the target amount, payments will only be made to West Yost and/or Land IQ if the total deferred payment amount with the vendor is projected to exceed the vendor financing limit of \$550,000 established for each vendor.
- Interest will accrue on past-due invoices (over 31 days) at the Wall Street Journal Prime Rate plus 2%. Prime rates were assumed to be 8% over the grant implementation period.

WY 2024 Budget

Table 1 summarizes the proposed line-item operating budget, including revenues, expenditures, deferred payment liabilities, and reserves for WY 2024 and the projected budgets in these categories for WYs 2025 through 2028. The table also shows the approved WY 2023 Budget and the expected WY 2023 year-end balances for each category.

Attachment A, enclosed with this memo is the line-item cost estimate for the West Yost administrative and technical services assumed in the WY 2024 budget.²

² The WY 2024 Statement of Work and Contract Amendment for West Yost services will be considered by the Board after the Budget is approved and no later than the September 2023 meeting.

Table 1

Detailed Five-Year Projection of Borrego Springs Watermaster Operating Budget: Water Years 2024 through 2028
Assuming Vendor Extended Payment Terms, 8-Month Delay in DWR Grant Request Reimbursements, and Target for 7-month Operating Reserve

Revenues, Expenditures, and Reserves	Amended WY 2023 Budget	Projected Actual WY 2023	WY 2024	Projected Budget ¹			
				WY 2025	WY 2026	WY 2027	WY 2028
Revenues²	\$ 649,281	\$ 1,679,164	\$ 1,561,374	\$ 1,138,324	\$ 256,863	\$ 557,069	\$ 557,281
Pumping Assessments Collected	\$ 658,000	\$ 658,000	\$ 458,000	\$ 250,000	\$ 250,000	\$ 550,000	\$ 550,000
Bad Debt (non-payment on Assessments)	\$ (15,000)	\$ (15,000)	\$ (4,000)	\$ -	\$ -	\$ -	\$ -
Overproduction Penalty Assessments	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Revenues Collected for Pass thru Expenses	\$ 6,281	\$ 6,281	\$ 6,469	\$ 6,664	\$ 6,863	\$ 7,069	\$ 7,281
DWR Prop 68 Grant Reimbursements ³	\$ -	\$ 1,029,883	\$ 1,100,904	\$ 881,661	\$ -	\$ -	\$ -
Total Expenditures⁴	\$ 1,241,730	\$ 1,179,205	\$ 1,527,952	\$ 1,109,903	\$ 561,203	\$ 552,022	\$ 567,308
Administrative Services	\$ 333,973	\$ 318,223	\$ 405,695	\$ 377,630	\$ 245,373	\$ 227,317	\$ 233,461
Watermaster Staff Admin Services	\$ 237,772	\$ 228,035	\$ 280,284	\$ 263,872	\$ 188,242	\$ 193,890	\$ 199,706
Board Meetings	\$ 92,508	\$ 93,858	\$ 101,120	\$ 104,153	\$ 80,000	\$ 82,400	\$ 84,872
Technical Advisory Committee Meetings	\$ 29,590	\$ 29,590	\$ 45,326	\$ 30,000	\$ 23,175	\$ 23,870	\$ 24,586
Court Hearings	\$ 5,668	\$ 2,239	\$ 4,016	\$ 4,136	\$ 4,261	\$ 4,388	\$ 4,520
Stakeholder Outreach/Workshops	\$ 12,206	\$ 12,206	\$ 12,590	\$ 12,954	\$ 6,000	\$ 6,180	\$ 6,365
Administration and Management	\$ 67,800	\$ 62,651	\$ 72,628	\$ 72,628	\$ 74,807	\$ 77,051	\$ 79,363
Prop 68 Project Admin and Grant Reporting	\$ 30,000	\$ 27,491	\$ 44,604	\$ 40,000	\$ -	\$ -	\$ -
Other Administrative or Vendor Services	\$ 93,226	\$ 87,213	\$ 125,411	\$ 113,759	\$ 57,130	\$ 33,427	\$ 33,755
Financial Audit	\$ 8,555	\$ 8,425	\$ 10,000	\$ 10,300	\$ 10,609	\$ 10,927	\$ 11,255
Insurance	\$ 35,651	\$ 33,197	\$ 40,474	\$ 41,688	\$ 42,939	\$ 20,000	\$ 20,000
Misc. Expenses	\$ 5,000	\$ 2,500	\$ 2,500	\$ 2,500	\$ 2,500	\$ 2,500	\$ 2,500
Meter Accuracy Testing Vendors	\$ 13,000	\$ 12,600	\$ 13,500	\$ 14,000	\$ -	\$ -	\$ -
Interest on Vendor Terms During Prop 68 Grant Period ⁵	\$ 31,020	\$ 30,492	\$ 58,937	\$ 45,271	\$ 1,083	\$ -	\$ -
Pass Through Expenses	\$ 2,975	\$ 2,975	\$ -	\$ -	\$ -	\$ -	\$ -
Reimbursement to Settling Parties	\$ 716	\$ 716	\$ -	\$ -	\$ -	\$ -	\$ -
Reimbursement to BWD for GSP	\$ 2,259	\$ 2,259	\$ -	\$ -	\$ -	\$ -	\$ -
Legal Services	\$ 100,000	\$ 100,000	\$ 100,000	\$ 103,000	\$ 106,090	\$ 109,273	\$ 112,551

Table 1

Detailed Five-Year Projection of Borrego Springs Watermaster Operating Budget: Water Years 2024 through 2028
 Assuming Vendor Extended Payment Terms, 8-Month Delay in DWR Grant Request Reimbursements, and Target for 7-month Operating Reserve

Revenues, Expenditures, and Reserves	Amended WY 2023 Budget	Projected Actual WY 2023	WY 2024	Projected Budget ¹			
				WY 2025	WY 2026	WY 2027	WY 2028
Technical/Engineering Services	\$ 417,406	\$ 418,248	\$ 744,298	\$ 457,068	\$ 182,877	\$ 188,363	\$ 194,014
General Technical Consultant Services	\$ 203,762	\$ 204,604	\$ 403,556	\$ 369,923	\$ 172,429	\$ 177,602	\$ 182,930
<i>Coordinate/Implement meter reading program</i>	\$ 30,893	\$ 27,739	\$ 30,388	\$ 31,634	\$ 26,889	\$ 27,696	\$ 28,526
<i>Groundwater Monitoring Program</i>	\$ 87,180	\$ 87,351	\$ 99,151	\$ 101,940	\$ 60,000	\$ 61,800	\$ 63,654
<i>Data Management and Data Reporting</i>	\$ 18,083	\$ 18,083	\$ 19,890	\$ 16,567	\$ 14,910	\$ 15,357	\$ 15,818
<i>Annual Report to the Court and DWR</i>	\$ 52,442	\$ 53,028	\$ 50,936	\$ 52,464	\$ 54,038	\$ 55,659	\$ 57,329
<i>Address Inactive Wells via Abandonment/Conversion</i>	\$ -	\$ 3,239	\$ 187,551	\$ 151,210	\$ -	\$ -	\$ -
<i>As-needed technical support</i>	\$ 15,164	\$ 15,164	\$ 15,640	\$ 16,109	\$ 16,592	\$ 17,090	\$ 17,603
<i>Grant services</i>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Consulting Services with TAC Support/Input	\$ 213,644	\$ 213,644	\$ 340,742	\$ 87,144	\$ 10,448	\$ 10,761	\$ 11,084
<i>Technical Work to Support Sustainable Yield Updates</i>	\$ 146,322	\$ 146,322	\$ 200,240	\$ 17,655	\$ -	\$ -	\$ -
<i>Development of Work Plan for an Expanded Groundwater Quality & Level Monitoring Workplan</i>	\$ 46,392	\$ 46,392	\$ -	\$ -	\$ -	\$ -	\$ -
<i>TSS Grant Implementation (new monitoring well)</i>	\$ 11,000	\$ 11,000	\$ -	\$ -	\$ -	\$ -	\$ -
<i>5-Year Update of the GMP (required by DWR)</i>	\$ -	\$ -	\$ 130,654	\$ 59,346	\$ -	\$ -	\$ -
<i>Address Ad Hoc Requests from the Board</i>	\$ 9,930	\$ 9,930	\$ 9,848	\$ 10,143	\$ 10,448	\$ 10,761	\$ 11,084
Environmental Working Group	\$ 384,070	\$ 336,453	\$ 271,490	\$ 165,541	\$ 20,000	\$ 20,000	\$ 20,000
<i>Biological Restoration of Fallowed Lands</i>	\$ 378,301	\$ 330,684	\$ 265,394	\$ 159,262	\$ -	\$ -	\$ -
<i>Ad Hoc Requests and EWG Meetings</i>	\$ 5,769	\$ 5,769	\$ 6,096	\$ 6,279	\$ 20,000	\$ 20,000	\$ 20,000
Services to Parties with Manual Read Meters	\$ 6,281	\$ 6,281	\$ 6,469	\$ 6,664	\$ 6,863	\$ 7,069	\$ 7,281

Table 1

Detailed Five-Year Projection of Borrego Springs Watermaster Operating Budget: Water Years 2024 through 2028
 Assuming Vendor Extended Payment Terms, 8-Month Delay in DWR Grant Request Reimbursements, and Target for 7-month Operating Reserve

Revenues, Expenditures, and Reserves	Amended WY 2023 Budget	Projected Actual WY 2023	WY 2024	Projected Budget ¹			
				WY 2025	WY 2026	WY 2027	WY 2028
Liabilities on Payment Terms⁶							
Beginning Balance	\$ -	\$ -	\$ 877,108	\$ 305,790	\$ -	\$ -	\$ -
Minimum Monthly Balance	\$ -		\$ 305,790	\$ -	\$ -	\$ -	\$ -
Maximum Monthly Balance	\$ 877,108		\$ 871,840	\$ 633,433	\$ -	\$ -	\$ -
Year-End Balance	\$ 877,108	\$ 803,450	\$ 305,790	\$ 185,580	\$ -	\$ -	\$ -
Cash Reserves⁸							
Beginning Cash Reserves	\$ 523,518	\$ 523,518	\$ 842,513	\$ 619,387	\$ 619,387	\$ 397,911	\$ 404,890
Year-End Cash Reserve Balance	\$ 810,229	\$ 842,513	\$ 619,387	\$ 619,387	\$ 397,911	\$ 404,890	\$ 405,950
Average Reserve Needed During the Year to Maintain Target Operating Expenses (7-9 months)	\$ 723,330	\$ 723,330	\$ 758,197	\$ 619,387	\$ 348,557	\$ 416,883	\$ 425,481
Minimum Month-End Reserve Balance	\$ 581,550		\$ 609,228	\$ 589,838	\$ 335,703	\$ 312,768	\$ 312,768
Average Month-End Reserve Balance	\$ 691,162		\$ 732,374	\$ 610,339	\$ 431,066	\$ 405,765	\$ 409,444
Variance from Desired Reserve	\$ (32,168)	\$ 119,183	\$ (25,822)	\$ (9,048)	\$ 82,509	\$ (11,118)	\$ (16,037)

Notes

- 1-- The projected budget is estimated based on Staff's best professional judgement as to how the cost of each line item will change over time. Some tasks increase at an assumed inflation rate of 3%; some tasks decrease in cost with efficiencies, followed by annual inflation increases; and some tasks fluctuate year to year based on the level of effort for non-routine work such as Sustainable Yield updates. For grant funded work, the projection matches the total allowable grant reimbursement.
- 2 -- Revenues shown are the amounts invoiced by Watermaster to pumpers, or in the case of the DWR grant, they are the amounts that are eligible for reimbursement, during the Water Year. In the case of the DWR Reimbursements, payment on the reimbursement requests are actually delayed by 8 months from request date. This delay in payment is taken into consideration in the financial model to determine when to defer or pay on vendor invoices to maintain the target cash reserves.
- 3 -- A total of \$2,738,590 was awarded for Watermaster projects. See also Note 2.
- 4 -- Expenditures highlighted in green will be **partially reimbursed** by the Prop 68 grant. Expenditures highlighted in blue will be **fully reimbursed** by the Prop 68 grant. Expenditures shown in bold, purple text are **costs that would not have been incurred (in part or in full)** absent the Prop 68 grant.
- 5 -- Combined interest to West Yost and Land IQ under proposed Payment Terms allowing an outstanding balance of up to \$550,000 per vendor in any 30-day period.
- 6 -- Reflects the balance owed to West Yost and Land IQ under Payment Terms allowing outstanding balance of up to \$550,000 each in any 30-day period.
- 7 -- The cash reserve projections are based on the monthly financial model prepared by Watermaster Staff to support extended payment terms with West Yost and Land IQ, based on expected timing of receipt of payment on Watermaster assessments and reimbursement requests and deferred payments to West Yost and Land IQ.

The information presented in Table 1 is described below:

Revenues³. Total WY 2024 revenue is **\$1,561,374**. Revenues will be derived from four sources:

- **Pumping Assessments: \$458,000**. Due to the grant, the Pumping Assessments for WY 2025 and WY 2026 are projected to be lower and likely around \$250,000.
- **Bad Debt: -\$4,000**. It is assumed that up to \$4,000 in pumping assessments will be written off as bad debt.
- **Overproduction Penalty Assessments: \$0**. This is revenue received from any Pumpers who exceed their pumping limits defined in the Judgment. It is not yet know the amount of Overproduction, if any, that will incur penalty assessments in WY 2024. The amount will not be known until the start of WY 2024 when the Water Rights Accounting for WY 2023 is completed. The Overproduction Penalty Assessment Rate is assumed to be \$500 per acre-foot. The budget assumes that any Overproduction will be cured by Pumpers to avoid the penalty assessment.
- **Revenues for Pass-thru Expenses: \$6,469**. In WY 2024 pass thru revenues will include collection of fees from Parties with manual-read meters for Watermaster services related to reading the meters.
- **DWR Prop 68 Grant Funds: \$1,100,904**. The grant-related revenue is based on Watermaster staff's best estimate of the amount of reimbursable work that will be performed each year.⁴

Expenditures. Total expenditures are **\$1,527,952**. The expenditures include the following categories. Tasks that are grant-reimbursable (partial or full) are annotated as bold text.

- **Administrative Services: \$405,695**. The services include:
 - Watermaster Staff administrative services provided by West Yost: Board meetings, **TAC meetings**, Court hearings, **stakeholder outreach meetings**, administration and management (budget development, financial services, management of records, **website**, support to BPA parties, as-needed support for implementation of the Judgment, project management), and **grant management and reporting**.
 - Other administrative expenses: financial audit, liability insurance, miscellaneous expenses, and **meter accuracy testing**.
 - Interest expenses on Payment Terms with West Yost and Land IQ

³ Revenues shown are the amounts invoiced by Watermaster to pumpers, or in the case of the DWR grant, they are the expenditure amounts that are eligible for reimbursement, during the Water Year.

⁴ Note that due to the assumed 8-month lag between submittal of quarterly reimbursement requests and receipt of the funds from BWD, the actual payments received from DWR in WY 2024 is projected to be \$1,346,295. . This is taken into consideration in the financial model to determine when to defer or pay on vendor invoices to maintain the target cash reserves.

- Legal Services: \$100,000. This is for all as-needed legal services from RWG Law, which includes at a minimum attending and support of all Watermaster Board meetings and Court hearings. There are no anticipated changes to the level of service for WY 2024.
- Technical and Engineering Services: \$744,298. New technical work tasks not performed in prior water years is denoted with an asterisk (*). The technical and engineering services include:
 - General Technical Consultant services (\$406,556):
 - **Coordinate and implement meter reading/verification program**
 - **Implement the Groundwater Monitoring Plan***. Additional work compared to WY 2023 is included to implement the *Final Groundwater Monitoring Plan for the Borrego Springs Subbasin*, including performing public outreach efforts, canvassing and sampling additional monitoring locations added through public outreach efforts, additional time to support improving monitoring protocols and data documentation with cooperators (BWD), re-assessing the distribution of groundwater level monitoring probes (transducers that continuously record water level data).
 - **Data management and reporting to the DWR Monitoring Network Module (MNM)**
 - **WY 2023 Water Rights Accounting Report and Annual Report to the Court/DWR**
 - **Address inactive wells via proper abandonment or conversion to monitoring wells***
 - As-needed technical services
 - TAC-supported technical work (\$340,742):
 - **Redetermination of the Sustainable Yield**
 - **Five-year review and update of the Groundwater Management Plan***
 - Address ad-hoc requests from the Board
- Environmental Working Group: \$271,490. This includes the **Biological Restoration of Fallowed Lands project** and as-requested EWG meetings. Consulting services for the EWG work are provided by Land IQ and West Yost.
- Services to Parties with Manual-Read Meters: \$6,469. This work includes Watermaster staff services (provided by West Yost) and contract services by the BWD to perform the manual meter reading in the field. This work is funded solely by Parties with manual-read meters (see matching revenue line-item).

Liabilities on Payment Terms. This section summarizes the estimated balance of payments owed to West Yost under the proposed payment terms. It shows the beginning balance, minimum and maximum monthly balance, and year-end balance. The total liability on Payment Terms with West Yost and Land IQ will be \$877,108 at the beginning of WY 2024 and \$306,597 at the end of WY 2024. The actual balances will vary based on actual monthly spending and timing of DWR reimbursements.

Cash Reserves. This section of Table 1 summarizes the projected reserve balances and targets based on the monthly financial model. The reserve targets represent the average reserve needed during the year to maintain a balance that would be needed to support the next seven months of spending. The table shows the beginning cash reserves, the average reserve target, the minimum month-end reserve balance during the year, the average month-end reserve balance, and the variance of the average month-end reserve balance from the desired average reserve balance. From WYs 2024 through 2028, the average month-end reserves range from about \$26,000 less than the average monthly reserve target to 81,000 greater than the target. Overall, although the minimum monthly reserve occasionally dips below the target during this period, the year-end reserve balances are sufficient to support future work in the subsequent fiscal year, under the assumed pumping assessments for the five-year projection.

Next Steps

Based on review and discussion of the draft WY 2024 Budget, they Board may consider approval or request staff to refine the budget for approval at a Special Meeting to occur on or before June 30, 2023.

As a reminder, approval of the WY 2024 Budget includes approval of the following:

- WY 2024 Pumping Assessment of \$458,0000
- An Overproduction Penalty Assessment of \$500 per acre-foot
- Operating expenditures in the amount of \$1,527,952, of which \$1,100,904 is grant-reimbursable work.

Table 2 below summarizes the next steps and schedule for implementing Watermaster’s annual budget and collecting assessments to fund it pursuant to Section IV.E.3 of the Judgment, following approval of the WY 2024 Budget.

Table 2 Milestones and Schedule to Publish the WY 2023 Budget and Collect Assessments to Fund the Budget		
Judgment Defined Due Dates	WY Action Dates	Milestones
June 30	Jun 30, 2023	Watermaster publishes Budget for ensuing Water Year
July 31	Jul 31, 2023	Any challenge to the budget by a Party must be initiated by notice to the Watermaster
August 30	Aug 30, 2023	Mediation of any challenge to the budget is completed pursuant to Section VII.A(1) of Judgment
October 15	Oct. 16, 2023	Any challenge to the budget by a Party unresolved by mediation will be heard by the Court

<p align="center">Table 2 Milestones and Schedule to Publish the WY 2023 Budget and Collect Assessments to Fund the Budget</p>		
Judgment Defined Due Dates	WY Action Dates	Milestones
October 15	Oct. 16, 2023	Watermaster issues notice to each Party of: prior year pumping allocation and pumping, max amount eligible for carryover, estimate of the pumping assessment.
October 31	Oct. 31, 2023	Court order is entered on any Party’s challenge to budget heard by the Court
October 31	Oct. 31, 2023	Each Party informs Watermaster of its elections for: carryover, foregoing pumping, or resuming pumping
November	Nov. 22, 2023	Watermaster provides Pumping Assessment invoice to each Party for first installment of Pumping Assessment
December	Dec. 22, 2023	First installment of Pumping Assessment due
May 31	May 31, 2024	Watermaster provides Pumping Assessment invoice to each Party for second installment of Pumping Assessment
June 30	June 30, 2024	Second installment of Pumping Assessment due

Following Board approval of the entire budget package (ether on June 14 or a Special Meeting), Staff will:

- Publish the WY 2024 budget to the Watermaster website.
- Report to the Board if any challenges to the Budget are noticed to Watermaster by July 31, 2023.
- Prepare “Statement of Work” (Number 6) based on the proposed scope of services to be provided by West Yost during WY 2024. The Statement of Work No. 6 will be presented to the Board for consideration of approval as an amendment to the existing West Yost Professional Services Agreement (expected August or September 2023).

Enclosures

Attachment A - West Yost Labor Hours and Fee Estimate to Provide Professional Services to the Borrego Springs Watermaster: Executive Director and Technical Consultant Services for Water Year 2024

Attachment A: West Yost Labor Hours and Fee Estimate to Provide Professional Services to the Borrego Springs Watermaster: Executive Director and Technical Consultant Services for Water Year 2024

Task and Subtask Descriptions	Labor Hours and Cost												Other Direct Costs				Total Project Costs		Reimbursable Costs Included in Prop 68 Grant Award				
	Executive Director	Lead Technical Consultant	Principal Sci/Eng II	Principal Sci/Eng I	Senior Sci/Geo/Eng II	Associate Sci/Geo/Eng I	Staff Sci/Geo/Eng II	Staff Sci/Geo/Eng I	Field Technician	Administrative III/IV	Task Repetition Multiplier	Total Person Hours	West Yost Labor Cost		Travel	Field Equipment Rental or Purchase	Laboratory	Sub-contractor		Total Direct Costs		Sub-Task	Task
													Sub-Task	Task						Sub-Task	Task		
Task 1 - Meetings and Court Hearings													\$161,174						\$1,878		\$163,052		\$57,916
1.1 Watermaster Board meetings													\$99,322						\$1,798				\$0
Prepare for and attend 10 Regular Board meetings (Virtual)	12	5				10			1	10	280		\$77,610						\$0	\$77,610			
Prepare for and attend 2 Regular Board meetings (In Person)	16	8				14			1	2	78		\$21,712	\$1,798					\$1,798	\$23,510			
1.2 Technical Advisory Committee meetings													\$45,326						\$0				\$45,326
Prepare for and attend 5 TAC meetings (Virtual)	2.5	10	3			8			1	5	122.5		\$34,235						\$0	\$34,235			
Prepare TAC Recommendation Reports and Memos	2	8				8		1.5	2	2	43		\$11,091						\$0	\$11,091			
1.3 Court Hearings													\$3,936						\$80				\$0
As-needed attendance at Court hearings	3									4	12		\$3,936	\$80					\$80	\$4,016			
1.4 Stakeholder Outreach (Prop 68 Grant)													\$12,590						\$0				\$12,590
Stakeholder Open House	7	7				8				2	44		\$12,590						\$0	\$12,590			
Task 2 - Watermaster Administration and Management													\$117,232						\$0		\$117,232		\$51,684
2.1 Prepare the draft and final Watermaster budget for WY 2023 (including collaboration with the TAC)	20	8				8	4			1	40		\$11,716						\$0	\$11,716			
2.2 Insurance, accounting, and financial services	12					8				90	1	110	\$19,244						\$0	\$19,244			
2.3 Management of Records, Documents, and Website	0.3					1.8				0.8	12	33	\$7,080						\$0	\$7,080			
2.4 Track/respond to public communications and requests	0.3					0.3				0.3	12	9	\$2,112						\$0	\$2,112			
2.5 As-needed support to the BPA Parties	2					1					12	36	\$10,584						\$0	\$10,584			
2.6 As-requested admin. of the Judgment, Rules & Regs, and GMP	24					10				4	1	38	\$10,732						\$0	\$10,732			
2.7 General administration and project managements tasks	1					2				1	12	48	\$11,160						\$0	\$11,160			
2.8 Prop 68 Grant project management and reporting	4					5				8.5	12	210	\$44,604						\$0	\$44,604			

Attachment A: West Yost Labor Hours and Fee Estimate to Provide Professional Services to the Borrego Springs Watermaster: Executive Director and Technical Consultant Services for Water Year 2024

Task and Subtask Descriptions	Labor Hours and Cost											Other Direct Costs				Total Project Costs		Reimbursable Costs Included in Prop 68 Grant Award						
	Executive Director	Lead Technical Consultant	Principal Sci/Eng II	Principal Sci/Eng I	Senior Sci/Geo/Eng II	Associate Sci/Geo/Eng I	Staff Sci/Geo/Eng II	Staff Sci/Geo/Eng I	Field Technician	Administrative III/IV	Task Repetition Multiplier	Total Person Hours	West Yost Labor Cost		Travel	Field Equipment Rental or Purchase	Laboratory		Sub-contractor	Total Direct Costs		Sub-Task	Task	
													Sub-Task	Task						Sub-Task	Task			
Task 3 - Engineering and Technical Services												\$554,637					\$189,661	\$744,298	\$712,410					
3.1 Coordinate and implement meter program						24					1	28	\$6,346						\$0		\$6,346	\$30,388	\$30,388	
a Collect and review annual meter calibration/accuracy reports	2	2																		\$0	\$6,346			
b Collect, catalog monthly meter reads and calculate pumping	0.5					7.5					12	120	\$24,042							\$0	\$24,042			
3.2 Implement Groundwater Monitoring Program																			\$27,900		\$76,200	\$99,151	\$93,751	
a Semi-annual field collection of groundwater level and quality, including inspections of new sites	4	8			5	14		130			2	322	\$48,300	\$5,400	\$1,000	\$7,500	\$14,000	\$27,900		\$76,200				
b Review, QA/QC, and upload of field/lab data to HydroDaVE	1	3.5			8	4		40			2	113	\$22,951					\$0		\$22,951				
3.3 Data Management and Data Reporting																			\$0		\$19,890	\$19,890	\$19,890	
a Annual collection, process, and upload of other hydrologic and water quality data	1	2			4			40			1	47	\$9,462						\$0		\$9,462			
b Improve DMS (develop custom reports, upload newly identified legacy data from parties, build out library)	2	4	8			10					1	24	\$6,762						\$0		\$6,762			
c MNW Compliance (fall and spring reporting) and other reporting to					6			12			1	18	\$3,666						\$0		\$3,666			
3.4 Combined Annual Report to the Court and DWR (including water rights accounting)	48	28	6		70	30			16	1	198	\$50,936							\$0		\$50,936	\$50,936	\$50,936	
3.5 Address inactive wells via proper abandonment or conversion to monitoring well (outreach and cost estimating)	12	30			12	32		24			1	110	\$25,790	\$1,000			\$160,761		\$161,761		\$187,551	\$186,551		
3.6 As-needed support for implementation of the Judgment, Rules & Regs, and GMP	10	24			4	10		8			1	56	\$15,640						\$0		\$15,640	\$15,640	\$0	
TAC Recommended Scope of Work WY 2022																								
3.7 Technical Work to Support Update of Sustainable Yield	60	110	90	90		100	200	120	30	1	800	\$200,240								\$0		\$200,240	\$200,240	
3.80 5-Year Update of the GMP	90	120	38		20		140	80	12	1	500	\$130,654								\$0		\$130,654	\$130,654	
3.90 Address Ad Hoc Requests from the Board	2	16			8	6		6			1	38	\$9,848							\$0		\$9,848	\$0	
Task 4 - Environmental Working Group												\$24,017					\$185	\$24,202	\$18,106					
4.1 Biological Restoration of Fallowed Lands	6	30			18			6	12	1	72	\$17,921	\$185						\$185		\$18,106	\$18,106		
4.2 Ad Hoc Requests or EWG Meetings	3	12			6						1	21	\$6,096						\$0		\$6,096	\$0		
Task 5 - Services Reimbursed by Parties with Manual-read Meters												\$2,916					\$0	\$2,916	\$0					
5.1 Consulting services to Parties with manual-read meters					0.5			0.5	0.3	12	15	\$2,916							\$0		\$2,916	\$0		
Task Totals	593	555	157	90	28	514	600	445	290	314	2,991	\$859,976	\$8,463	\$1,000	\$7,500	\$174,761	\$191,724	\$1,051,700	\$840,116					

Appendix D

Baseline Pumping Allocations, Revised Exhibit “4” as of October 1, 2023

Exhibit “4”
BASELINE PUMPING ALLOCATIONS
UPDATED AS OF October 1, 2023

Owner(s)	Common Property Name	BPA¹ Acre Feet	APN(s)²	Well Number(s)²
Agri-Empire ³		574	140-290-10 140-320-19	010S006E23M001S
Rick and Joan Anson, co-trustees of the Anson Family Trust 08-18-08 ⁴		2	Unassigned	Unassigned
Alan & Tracy Asche	B&J Landscaping	5	199-020-04	DEH1980-LWELL-8027
Gary D. & Darlis A. Bailey		7	140-130-42	Unassigned
David and Juli Bauer, co-trustees of the D&J Bauer Family Trust 11-18-04		1,411	140-070-24 140-070-27 140-110-14 140-070-17 140-010-11	WM ID 1245994 WM ID 1245995 WM ID 1245996 WM ID 1245998 WM ID 1245999
Borrego Water District (purchase from D & J Bauer) ⁵		415	140-070-18	WM ID 1245997
Borrego Water District (purchase from W. Bauer) ⁶		670	140-010-08	DEH2016-LWELL-001642

¹ Parties to the Judgment without BPA rights are not listed. Allocations to the Anza-Borrego Desert State Park and Borrego Unified School District (Borrego Elementary) are separate from BPA, per the terms of the Judgment.

² Except for BPA allocated to BWD and mutual water companies, BPA must be assigned to APN(s) and Well Number(s) to be effective per Section III.A of the Judgment. If state well number(s) are not found following a Party’s good faith review of DWR’s well completion report database, County well files and the Party’s available records, the Party shall provide the Watermaster Executive Director with a written summary of such good faith efforts to locate the state well number(s), and the Watermaster Executive Director shall assign local well number(s) (WM ID) in order to account for the Party’s exercise of its BPA.

³ APN Number corrected due to error in original Exhibit 4.

⁴ Full amount is water credit to BPA conversion.

⁵ In WY 2023, BWD purchased a portion of BPA, including the associated BPA parcel, from David and Juli Bauer, co-trustees of the D&J Bauer Family Trust 11-18-04. The BWD intends to fallow the land in accordance with the Judgment fallowing standards and transfer the BPA rights to its primary BPA rights. Until the land is fallowed, the BPA purchased by BWD remains attached to the BPA Parcel and can only be pumped for use on the subject Parcel. Thus, the BPA assigned to BWD is shown as a stand-alone entry.

⁶ In WY 2023, BWD purchased the entirety of BPA, including the associated BPA parcel, from William M. Bauer. The BWD intends to fallow the land in accordance with the Judgment fallowing standards and transfer the BPA rights to its primary BPA rights. Until the land is fallowed, the BPA purchased by BWD remains attached to the BPA Parcel and can only be pumped for use on the subject Parcel. Thus, the BPA assigned to BWD is shown as a stand-alone entry.

Owner(s)	Common Property Name	BPA¹ Acre Feet	APN(s)²	Well Number(s)²
Roy Brisbois, trustee of the Conzelman Family Trust A 11-22-83; Steven Mohler, trustee of the Conzelman Family Trust C 11-22-83; Roland J. Jensen, trustee of the Jensen Family Trust 8-05-83; James Sommerville, trustee of the Sommerville Trust 11-22-83 ⁹	Cogan Ranch	686	140-130-24-00 140-130-40-00 140-130-43-00	DEH2012-LWELL-21118 ¹⁰ WM ID 1245990
Roy Brisbois, trustee of the Conzelman Family Trust A 11-22-83; Steven Mohler, trustee of the Conzelman Family Trust C 11-22-83; Roland J. Jensen, trustee of the Jensen Family Trust 8-05-83; James Sommerville, trustee of the Sommerville Trust 11-22-83	Gable House [served by well located on Cogan Ranch]	486	140-130-01-00	DEH2012-LWELL-21118
Roy Brisbois, trustee of the Conzelman Family Trust A 11-22-83; Steven Mohler, trustee of the Conzelman Family Trust C 11-22-83;	Gigi Ranch	878	140-130-06-00 140-130-07-00 140-130-08-00 140-130-09-00 140-130-10-00 140-130-11-00 140-130-12-00 140-130-13-00	DEH2007-LWELL-18244 ¹¹

⁹ All six of the jointly owned and operated Conzelman/Jensen/Sommerville Trust properties are interconnected, with wells on some of the ranches serving other ranches, as noted.

¹⁰ Does not serve Cogan Ranch; serves Gable House Ranch.

¹¹ Currently inactive. Owner in process of providing replacement well on the same parcel.

Owner(s)	Common Property Name	BPA¹ Acre Feet	APN(s)²	Well Number(s)²
Roland J. Jensen, trustee of the Jensen Family Trust 8-05-83; James Sommerville, trustee of the Sommerville Trust 11-22-83			140-130-14-00 140-130-15-00 140-130-16-00 140-130-17-00 140-130-18-00 140-130-21-00 140-130-22-00 140-130-25-00 140-130-26-00 140-130-27-00 140-130-41-00	
Roy Brisbois, trustee of the Conzelman Family Trust A 11-22-83; Steven Mohler, trustee of the Conzelman Family Trust C 11-22-83; Roland J. Jensen, trustee of the Jensen Family Trust 8-05-83; James Sommerville, trustee of the Sommerville Trust 11-22-83	Peg Leg Ranch	676	140-110-15-00 140-110-16-00	DEH1990-LWELL-10048

Owner(s)	Common Property Name	BPA¹ Acre Feet	APN(s)²	Well Number(s)²
Roy Brisbois, trustee of the Conzelman Family Trust A 11-22-83; Steven Mohler, trustee of the Conzelman Family Trust C 11-22-83; Roland J. Jensen, trustee of the Jensen Family Trust 8-05-83; James Sommerville, trustee of the Sommerville Trust 11-22-83	Rancho Caterina	1,379	140-010-03-00 140-010-06-00 140-010-09-00	DEH1993-LWELL-9977 ¹² DEH2004-LWELL-15891 ¹³ DEH2020-LWELL-002643 ¹⁴ DEH1995-LWELL-3866 ¹⁵
Roy Brisbois, trustee of the Conzelman Family Trust A 11-22-83; Steven Mohler, trustee of the Conzelman Family Trust C 11-22-83; Roland J. Jensen, trustee of the Jensen Family Trust 8-05-83; James Sommerville, trustee of the Sommerville Trust 11-22-83	De Anza Ranch	636	140-070-22-00	010S006E07A001S ¹⁶
Desert Farm LLC Scott M. Crumrine and Stacey L. Crumrine, co-trustees of the Crumrine Family Trust 04-19-06		21	141-210-61	DEH2015-LWELL-001073

¹² Rancho Caterina Well 1, currently inactive and being replaced by Caterina Well 4 DEH2020-LWELL-002643.

¹³ Rancho Caterina Well 3, same as DEH2004-LWELL-15890 [well number changed to correct the APN].

¹⁴ Rancho Caterina Well 4, currently replacing Rancho Caterina Well 1.

¹⁵ Rancho Caterina Well 2.

¹⁶ This well is located on an adjacent property owned by Jensen/Conzelman/Sommerville (APN 1400606400) and operated pursuant to an appurtenant easement.

Owner(s)	Common Property Name	BPA¹ Acre Feet	APN(s)²	Well Number(s)²
CWC Casa Del Zorro, LLC	La Casa del Zoro Desert Resort and Spa	22	200-030-28-00 200-030-29-00 200-090-05-00 200-090-11-00 200-090-19-00 200-090-20-00 200-090-21-00 200-090-22-00 200-090-23-00 200-090-24-00 200-090-25-00 200-090-27-00 200-090-29-00 200-090-30-00 200-090-31-00 200-090-32-00 200-090-33-00 200-090-34-00 200-090-35-00 200-090-36-00 200-090-37-00 200-090-38-00 200-090-45-00 200-090-47-00 200-090-48-00 200-090-50-00 200-090-63-00 200-090-64-00 200-090-65-00	011S006E23E001S
De Anza Desert Country Club	De Anza Desert Country Club	957	140-185-19 140-242-62 140-261-01 140-264-08 140-242-57-00	010S006E20N001
John B. & Silvia H. Hogan	Desert Flora Nursery	8	199-01-112	Unassigned
John Doljanin ¹⁷	West Coast Trees	887	140-110-19 140-110-20 140-110-24	DEH1979-LWELL-4103 DEH1979-LWELL-4104 DEH1984-LWELL-4102

¹⁷ In WY 2023, T2 Palms, LLC acquired the BPA parcel assigned to John Doljanin through foreclosure. The BPA permanently transfers to T2 Palms, LLC. To exercise the BPA rights, T2 Palms must intervene into the Judgment. A motion to intervene will be heard by the Court in December 2023.

Owner(s)	Common Property Name	BPA¹ Acre Feet	APN(s)²	Well Number(s)²
			140-290-05 140-290-08	
Genus, L.P. ¹⁸		112	141-030-35-00	Unassigned
John McGrory; JM Roadrunner, LLC	Cogan	536.87	140-130-44 140-130-45 140-029-11 141-030-60	010S006E15D003S ¹⁹ 010S006E15D004S
JM Roadrunner, LLC	Road Runner I	671	140-130-28 140-130-34 140-130-35 140-130-36 140-130-38	010S006E15D003S 010S006E15D004S
JM RoadRunner, LLC	Road Runner II	387	141-030-26 141-030-27	WM ID 1245980 WM ID 1245981 010S006E15D003S 010S006E15D004S
Robert Larkins ²⁰		2	Unassigned	Unassigned
Michael Maiter and John Savittieri ²¹		1	200-253-02-00 140-060-54-00 140-060-55-00	Unassigned
Gamini D. Weerasekera	Mountain Springs Organics	103	140-110-21	010S006E17J003S 010S006E17J001S
Manuel & Araceli C. Navarro		14	141-210-16	010S006E34M001S DEH1982-LWELL-1076
Doug & Patricia Munson ²²		1	Unassigned	Unassigned
Ronald Pecoff		114	141-030-14	010S006E29N002S 010S006E29N001S
The Roadrunner Club at Borrego, LP ²³	Roadrunner Golf and Country Club	520	141-210-64-00	WM ID 1245946

¹⁸ Full amount is water credit to BPA conversion.

¹⁹ Each of the three ranches owned by JM Roadrunner, LLC, with John McGrory as its principal, are interconnected, with water produced from some ranches used to serve other ranches.

²⁰ Full amount is water credit to BPA conversion.

²¹ Full amount is water credit to BPA conversion.

²² Full amount is water credit to BPA conversion.

²³ Includes water credit to BPA conversion of 171 AF of BPA.

Owner(s)	Common Property Name	BPA¹ Acre Feet	APN(s)²	Well Number(s)²
RTA Borrego, LLC ²⁴		12	Unassigned	Unassigned
Jose G. & Maria E. Sanchez		4	199-130-03	Unassigned
Seley Ranches, L.P.		2,226	140-070-14 140-070-16 140-090-04	010S006E09G001S 010S006E09Q001S 010S006E09J002S
Soli Organic Inc.		61	141-160-47	DEH2006-LWELL-17726
Max Siefker ²⁵		2	Unassigned	Unassigned
Brian Siefker, trustee of the Brian Siefker Trust 12-18-01 ²⁶		3	141-271-07-00	Unassigned
Kent R. Smith, trustee of the Smith Kent R. Revocable Living Trust 01-04-90 ²⁷		50	141-080-05-00	Unassigned
The Springs RV and Golf Resort, LP	The Springs at Borrego RV Resort and Golf Club	261.7	141-210-62-00 141-210-65-00	WM ID 1245948
T2 Borrego LLC		965	140-010-10 140-070-02	010S006E05F001S 010S006E08B001S
T2 Borrego LLC ²⁸	Ram's Hill Golf Club	2,536	200-120-20 200-160-26 200-160-27 200-160-28 200-273-03 200-273-08 200-120-29 200-120-30 200-120-31 200-120-39 200-120-41 200-120-48 200-120-51 200-120-52 200-120-53	011S006E24Q002S 011S006E25A001S 011S006E25C002S 011S006E25C001S 011S006E26H001S 011S006E26B001S

²⁴Full amount is water credit to BPA conversion.

²⁵Full amount is water credit to BPA conversion.

²⁶ Full amount is water credit to BPA conversion.

²⁷ Includes water credit to BPA conversion of 32 AF of BPA.

²⁸ Includes water credit to BPA conversion of 1,523 AF of BPA.

Owner(s)	Common Property Name	BPA¹ Acre Feet	APN(s)²	Well Number(s)²
			200-140-12	
			200-160-30	
			200-210-21	
			200-210-22	
			200-271-03	
			200-271-04	
			200-271-06	
			200-271-07	
			200-271-15	
			200-271-16	
			200-271-21	
			200-271-22	
			200-271-23	
			200-271-24	
			200-271-29	
			200-271-32	
			200-271-35	
			200-271-36	
			200-271-37	
			200-271-38	
			200-272-08	
			200-273-02	
			200-273-04	
			200-273-05	
			200-273-06	
			200-273-07	
			200-274-02	
			200-275-08	
			200-275-09	
			200-275-10	
			200-275-11	
			200-311-12	
			200-311-13	
			200-311-14	
			200-311-15	
			200-311-16	
			200-311-17	
			200-311-18	
			200-340-49	
			200-340-50	
			200-340-51	
			200-340-91	
			200-340-92	

Owner(s)	Common Property Name	BPA ¹ Acre Feet	APN(s) ²	Well Number(s) ²
			200-340-93 200-340-94 200-340-95 200-350-01 200-350-24 200-360-17 200-360-18 200-370-37 200-370-38 200-380-29 200-400-02 200-400-03 200-400-04 200-400-05 200-400-06 200-400-07 200-400-08 200-400-09 200-400-10 200-401-07 201-240-01	
T2 Farms LLC		485	140-070-31	010S006E09C001S (DEH1990-LWELL-6865)
Bagdasarian Farms, LLC ²⁹		1,142	140-070-15 140-070-20 140-070-28	DEH1990-LWELL-3907 DEH1981-LWELL-10728 ³⁰ DEH2011-LWELL-21069
Joel Vanasdlen		36	199-160-04 199-160-40	Unassigned
Michael C. Ward		82	141-030-28	DEH1991-LWELL-10402
Wisdom Gabriel B&Weis-Wisdom Diana Family 2008 Trust 08-01-08 ³¹		1	198-251-07-00 198-251-08-00	Unassigned
William D. Wright and Edna J. Wright, co- trustees of the Wright Family Living Trust 06-19-89		158	141-21-067	010S006E33C002S

²⁹ Successor-in-interest to Trojan Citrus, LLC.

³⁰ Currently inactive.

³¹ Full amount is water credit to BPA conversion.

Owner(s)	Common Property Name	BPA¹ Acre Feet	APN(s)²	Well Number(s)²
Ashley Bilyk and Tyler Bilyk		18.13	140-130-44 ³²	010S006E15D003S ³³
TOTAL BPA		24,293		

³² Interconnected parcel with John McGrory and JM Roadrunner, LLC.

³³ Each of the three ranches owned by JM Roadrunner, LLC, with John McGrory as its principal, are interconnected, with water produced from some ranches used to serve other ranches. 140-130-44 is only served by one JM Roadrunner well. This well is also used across the JM Roadrunner properties.

Appendix E

Amendments to Prior Water Rights Accounting

Appendix E. Record of Amendments to Water Rights Accounting

Water Year	Description of Change(s) to Water Rights Accounting ¹	Date Changes made to Water Rights Accounting	Attachment
2021	<p>The WY 2021 accounting was amended to account for the over-estimation of WY 2021 pumping for two Parties. Sufficiently detailed meter data was provided in WY 2022 to reasonably re-estimate pumping for WY 2021. Due to the over-estimation , the Parties over-paid assessments in WY 2022. The Parties chose to use the overpayment credit to elect the eligible Carryover that would have been available from WY 2021 had pumping been correctly estimated at the time. The two Parties with amended records are:</p> <ul style="list-style-type: none"> • John Doljanin - Based on metered pumping data, the WY 2021 pumping was adjusted from an estimated 820 acre-feet (af) to a metered value of 384.02 af. • William M. Bauer - Based on metered pumping data, the WY 2021 pumping was adjusted from an estimated 670.16 acre-feet (af) to a metered value of 372.96 af. 	October 2022	E-1
2022	None	na	na

1) Changes to Water Rights Accounting are highlighted in yellow in the associated attachment.

Table 11 - WY 2021 Water Rights Accounting Summary for the Borrego Springs Subbasin - (all values in acre-feet unless otherwise noted)

BPA Party or Party with Other Non-De Minimis Water Rights	BPA or Other Non-De Minimis Rights as of Oct. 1, 2020 ¹	Permanent Transfer of BPA ^{1,2} in WY 2021	BPA or Other Non-De Minimis Rights as of Sept. 30, 2021	WY 2021 Annual Allocation: 95% of BPA ³ , 100% of non-BPA rights ^{4,5}	Carryover Account Balance as of October 1, 2020 ^{3,1}	Carryover Account Limit ^{3,1}	Leased or Transferred Annual Allocation in WY 2021 ²	Total Allowable Pumping for WY 2021	Cumulative Max Over Production Limit for WYs 2021-2023 ⁶	Total Pumping in WY 2021	WY 2021 Pumping was Metered or Estimated ⁷	% of WY 2021 Annual Allocation Pumped	Carryover Pumped in WY 2021 ⁸	Over-Production in WY 2021 ⁸	Pumping Allocation Eligible for Carryover ⁹	Carryover Election by Party	WY 2021 Adjusted Pumping Calculation	
	(a)	(b)	(c) = (a) + (b)	For BPA Parties: (d) = 0.95 x (c) For other Parties: (d) = (c)	(e)	(f) = 2 x (c)	(g)	(h) = (d)+(e)+(g)	(i) = 20% of Annual Allocation in WYs 21, 22, 23	(j)	(k)	(l) = (j)/(d)	(m) ⁸	(n) = (j) - (h)	(o) ⁹	(p)	(q) = (j)-(g)-(m)+(p)	
BPA Parties																		
BPA Party Subtotal	24,293		24,293	23,080.00	0.00	48,586.00		23,080.00	13,118.22	14,433.52		63%	0.00	111.61	8,758.09	7,626.68	22,060.20	
Agri-Empire	574	0	574	545.00	0	1,148	0.00	545.00	309.96	0.00	na	0%	0.00	0.00	545.00	0.00	0.00	
Rick and Joan Anson, co-trustees of the Anson Family Trust 08-1 8-08	2	0	2	2.00	0	4	0.00	2.00	1.08	0.00	na	0%	0.00	0.00	2.00	0.00	0.00	
Alan & Tracy Asche	5	0	5	5.00	0	10	0.00	5.00	2.70	0.85	Estimated (P)	17%	0.00	0.00	4.15	4.15	5.00	
Gary D. & Darlis A. Bailey	7	0	7	7.00	0	14	0.00	7.00	3.78	4.26	Estimated	61%	0.00	0.00	2.74	2.74	7.00	
David and Juli Bauer, co-trustees of the D&J Bauer Family Trust 11-18-04	1,826	0	1,826	1,735.00	0	3,652	0.00	1,735.00	986.04	1,516.62	Metered	87%	0.00	0.00	218.38	218.38	1,735.00	
William M. Bauer	670	0	670	637.00	0	1,340	0.00	637.00	361.80	372.96	Estimated (P)	105%	0.00	0.00	264.04	264.04	637.00	
Borrego Air Ranch Mutual Water & Improvement Co.	12	0	12	11.00	0	24	0.00	11.00	6.48	9.42	Metered	86%	0.00	0.00	1.58	1.58	11.00	
Borrego Nazareth LLC	1,462	0	1,462	1,389.00	0	2,924	0.00	1,389.00	789.48	58.35	Metered	4%	0.00	0.00	1,330.65	1,330.65	1,389.00	
Borrego Water District	2,581	0	2,581	2,452.00	0	5,162	0.00	2,452.00	1,393.74	1,528.84	Metered	62%	0.00	0.00	923.16	923.16	2,452.00	
Carpenter Family Trust 12-11-07	6	0	6	6.00	0	12	0.00	6.00	3.24	4.33	Estimated	72%	0.00	0.00	1.67	1.67	6.00	
Conzelman/Jensen/Sommerville Family Trusts	4,741	0	4,741	4,504.00	0	9,482	0.00	4,504.00	2,560.14	3,953.81	Metered	88%	0.00	0.00	550.19	550.19	4,504.00	
Desert Farm LLC	21	0	21	20.00	0	42	0.00	20.00	11.34	26.90	Estimated	135%	0.00	6.90	0.00	0.00	26.90	
Crumrine Family Trust 04-19-06	22	0	22	21.00	0	44	0.00	21.00	11.88	19.59	Metered	93%	0.00	0.00	1.41	1.41	21.00	
CWC Casa Del Zorro LLC	957	0	957	909.00	0	1,914	0.00	909.00	516.78	828.58	Metered	91%	0.00	0.00	80.42	80.42	909.00	
De Anza Desert Country Club	8	0	8	8.00	0	16	0.00	8.00	4.32	6.07	Estimated (P)	76%	0.00	0.00	1.93	1.93	8.00	
John B. & Silvia H. Hogan	887	0	887	843.00	0	1,774	0.00	843.00	478.98	384.02	Estimated (P)	97%	0.00	0.00	458.98	25.98	410.00	
John Doljanin	112	0	112	106.00	0	224	0.00	106.00	60.48	0.00	na	0%	0.00	0.00	106.00	0.00	0.00	
Genus L.P.	1,613	0	1,613	1,532.00	0	3,226	0.00	1,532.00	871.02	923.33	Metered	60%	0.00	0.00	608.67	608.67	1,532.00	
JM Roadrunner, LLC	2	0	2	2.00	0	4	0.00	2.00	1.08	0.00	na	0%	0.00	0.00	2.00	0.00	0.00	
Robert Larkins	1	0	1	1.00	0	2	0.00	1.00	0.54	0.00	na	0%	0.00	0.00	1.00	1.00	1.00	
Michael Malter & John Savittieri	103	0	103	98.00	0	206	0.00	98.00	55.62	161.64	Metered	165%	0.00	63.64	0.00	0.00	161.64	
Gamini D. Weerasekera	14	0	14	13.00	0	28	0.00	13.00	7.56	13.58	Estimated	104%	0.00	0.58	0.00	0.00	13.58	
Manuel & Araceli C. Navarro	18	-18	0	0.00	na	0	na	na	9.72	na	na	na	na	0.00	na	na	na	
Monica Real Estate Holdings, LP	1	0	1	1.00	0	2	0.00	1.00	0.54	0.00	na	0%	0.00	0.00	1.00	0.00	0.00	
Doug & Patricia Munson	114	0	114	108.00	0	228	0.00	108.00	61.56	84.36	Estimated	78%	0.00	0.00	23.64	0.00	84.36	
Ronald Pecoff	520	0	520	494.00	0	1,040	0.00	494.00	280.80	386.28	Metered	78%	0.00	0.00	107.72	107.75	494.03	
The Roadrunner Club at Borrego, LP	12	0	12	11.00	0	24	0.00	11.00	6.48	0.00	na	0%	0.00	0.00	11.00	0.00	0.00	
RTA Borrego, LLC	4	0	4	4.00	0	8	0.00	4.00	2.16	1.20	Estimated	30%	0.00	0.00	2.80	0.00	1.20	
Jose G. & Maria E. Sanchez	2,226	0	2,226	2,115.00	0	4,452	0.00	2,115.00	1,202.04	1,569.44	Metered	74%	0.00	0.00	545.56	545.56	2,115.00	
Seley Ranches, L.P.	61	0	61	58.00	0	122	0.00	58.00	32.94	90.06	Metered	155%	0.00	32.06	0.00	0.00	90.06	
Shenandoah Growers, Inc.	2	0	2	2.00	0	4	0.00	2.00	1.08	0.00	na	0%	0.00	0.00	2.00	0.00	0.00	
Max Siefker	3	0	3	3.00	0	6	0.00	3.00	1.62	0.00	na	0%	0.00	0.00	3.00	0.00	0.00	
Brian Siefker Trust 12-18-01	32	0	32	30.00	0	64	0.00	30.00	17.28	0.00	na	0%	0.00	0.00	30.00	30.00	30.00	
Smith Kent R. Revocable Living Trust 01-04-90	287	0	287	273.00	0	574	0.00	273.00	154.98	248.40	Metered	91%	0.00	0.00	24.60	24.60	273.00	
The Springs RV and Golf Resort, LP	965	0	965	917.00	0	1,930	0.00	917.00	521.10	0.00	na	0%	0.00	0.00	917.00	917.00	917.00	
T2 Borrego, LLC	2,518	18	2,536	2,409.00	0	5,072	0.00	2,409.00	1,359.72	796.23	Metered	33%	0.00	0.00	1,612.77	1,612.77	2,409.00	
T2 Borrego, LLC - Ram's Hill	485	0	485	461.00	0	970	0.00	461.00	261.90	367.55	Metered	80%	0.00	0.00	93.45	93.45	461.00	
T2 Farms LLC	1,142	0	1,142	1,085.00	0	2,284	0.00	1,085.00	616.68	892.73	Metered	82%	0.00	0.00	192.27	192.27	1,085.00	
Bagdasarian Farms, LLC	36	0	36	34.00	0	72	0.00	34.00	19.44	0.00	na	0%	0.00	0.00	34.00	34.00	34.00	
Joel Vanasdien	82	0	82	78.00	0	164	0.00	78.00	44.28	25.69	Metered	33%	0.00	0.00	52.31	52.31	78.00	
Michael C. Ward, Sr. Revocable Trust 10-05-17	1	0	1	1.00	0	2	0.00	1.00	0.54	0.00	na	0%	0.00	0.00	1.00	1.00	1.00	
Wisdom Gabriel B & Weiss-Wisdom Diana Family 2008 Trust 08-01-08	158	0	158	150.00	0	316	0.00	150.00	85.32	158.43	Estimated	106%	0.00	8.43	0.00	0.00	158.43	
Wright Family Living Trust 06-19-89	Parties with Other Non-De Minimis Water Rights																	
Other Party Subtotal	42		42	42.00	na	na		42.00	22.68	54.76		130%	na	22.66	na	na	54.76	
Borrego Springs Unified School District	22	na	22	22.00	na	na	0.00	22.00	11.88	44.66	Metered	203%	na	22.66	na	na	44.66	
Anza Borrego Desert State Park	20	na	20	20.00	na	na	0.00	20.00	10.80	10.10	Metered	51%	na	0.00	na	na	10.10	
TOTALS	24,335		24,335	23,122	0	48,586	0	23,122	13,140.90	14,488.28		63%	0	134.27	8,758.09	7,626.68	22,114.96	

(1) The Judgment establishes separate, non-BPA pumping rights for two entities—the Anza Borrego Desert State Park (ABDSP) and the Borrego Springs Unified School District (BSUSD)—that are not subject to pumping Rampdown, Carryover, or transfer provisions, but are subject to all other substantive provisions of the Judgment, including paying pumping assessments based on pumping.

(2) A negative value indicates BPA rights transferred to another Party. A positive value indicates BPA rights transferred from another Party. Non-BPA rights cannot be transferred.

(3) The Annual Allocation in each WY is determined by multiplying the Party's BPA by the Pumping Percentage in effect for that WY, based on the pumping Rampdown percentage then in effect. For example, in WY 2021 the Pumping Percentage is 95 percent, which is a 5 percent pumping rampdown from BPA. Annual Allocation is rounded to the nearest whole af. The subtotal is the sum of each Party's rounded Annual Allocation value.

(4) The rampdown applies only to BPA Parties. For BPA Parties the WY 2021 pumping allocation is 95% of BPA, rounded to the nearest whole number. For BSUSD and ABDSP, the rights are not subject to rampdown and annual allocation is always equal to the pumping right defined in the Judgment.

(5) All BPA Parties have a zero Carryover account balance in WY 2021. The maximum Carryover balance is two times the BPA (=2 x BPA). Carryover only applies to BPA rights; non-BPA rights are not eligible for Carryover.

(6) The Judgment provides that in the first three years of operation, a Party can pump in excess of its Annual Allocation without incurring an immediate Overproduction penalty, so long as the total cumulative Overproduction in those three years does not exceed the cumulative Maximum Overproduction Limit for the three-year period. Parties have until September 30, 2025 to remedy Overproduction in WYs 2021 through 2023. If a Party produces in excess of the three-year cumulative Maximum Overproduction Limit, then the Overproduction over the maximum limit is subject to Overproduction assessments if not remedied by September 30, 2022. For each Pumper, the Maximum Overproduction Limit for WYs 2021 to 2023 is calculated as follows: = (20% x WY 2021 Annual Allocation) + (20% x WY 2022 Annual Allocation) + (20% x WY 2023 Annual Allocation). The WY 2022 Annual Allocation is based on a 10 percent Rampdown Rate (e.g. Pumping Percentage of 90 percent). The WY 2022 Annual Allocation is based on a 15 percent Rampdown Rate (e.g. Pumping Percentage of 85 percent). "na" is entered if Party did not have Overproduction.

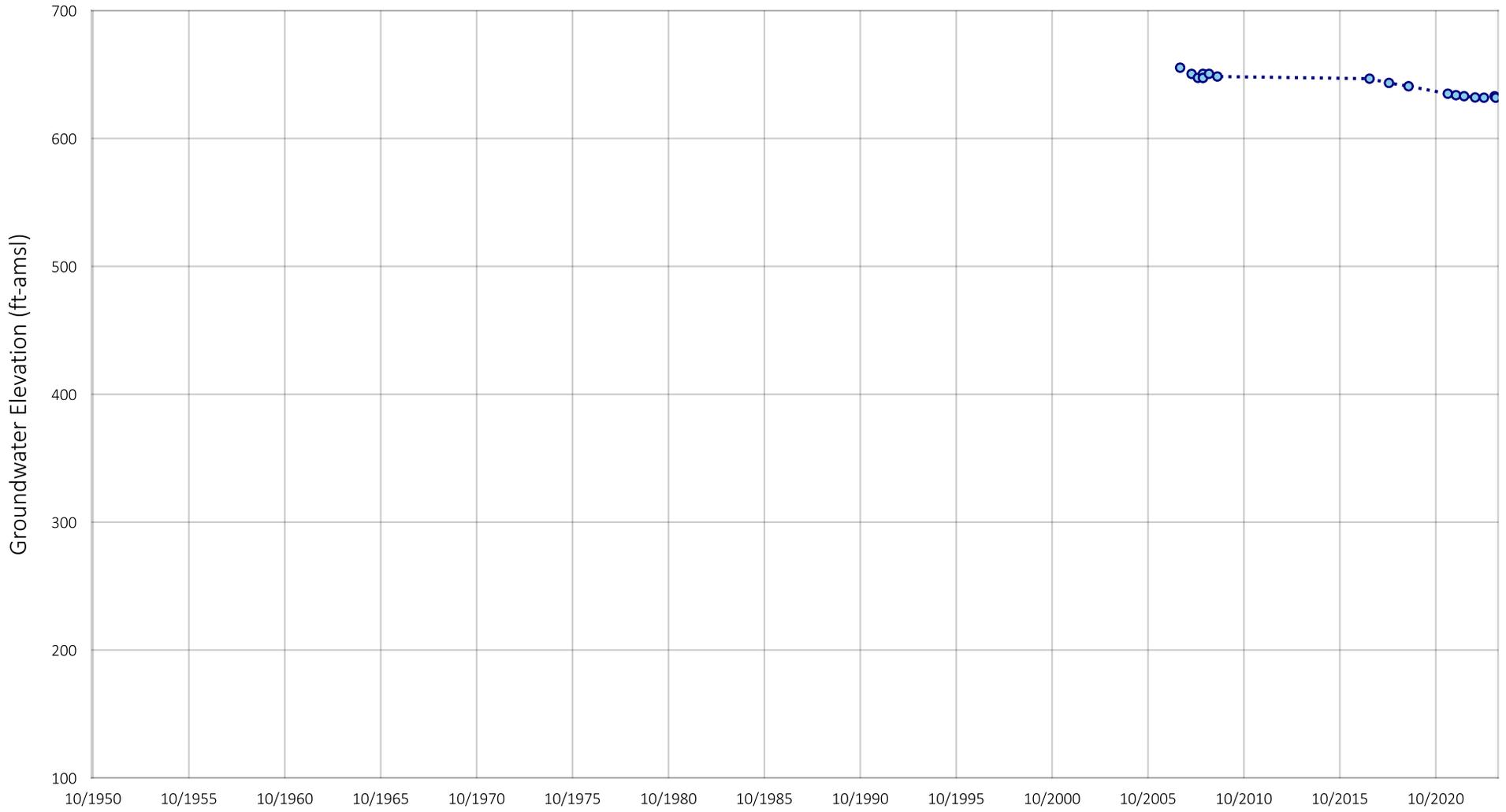
(7) Not all parties were metered by October 1, 2020. "Estimated (P)" values were estimated for parties with partial year metered data (the available data was used to estimate pumping for the WY based on the data available). "Estimated" values are for Parties with no meter data available in which case the pumping was estimated based on the method used in the GMP. "na" values represent parties who are not actively pumping and have no operable wells.

(8) If j > e then m = e; if j < e, then m = j. The first water pumped each year is Carryover, thus there was no Carryover Pumping in WY 2021 because the Carryover Balance was 0.

(9) If a Party has no Overproduction, (o) = (d) - (j) + (g) + (m)

Appendix F

Groundwater Level Time Histories – 1950 to 2023



Location of Well in Borrego Springs

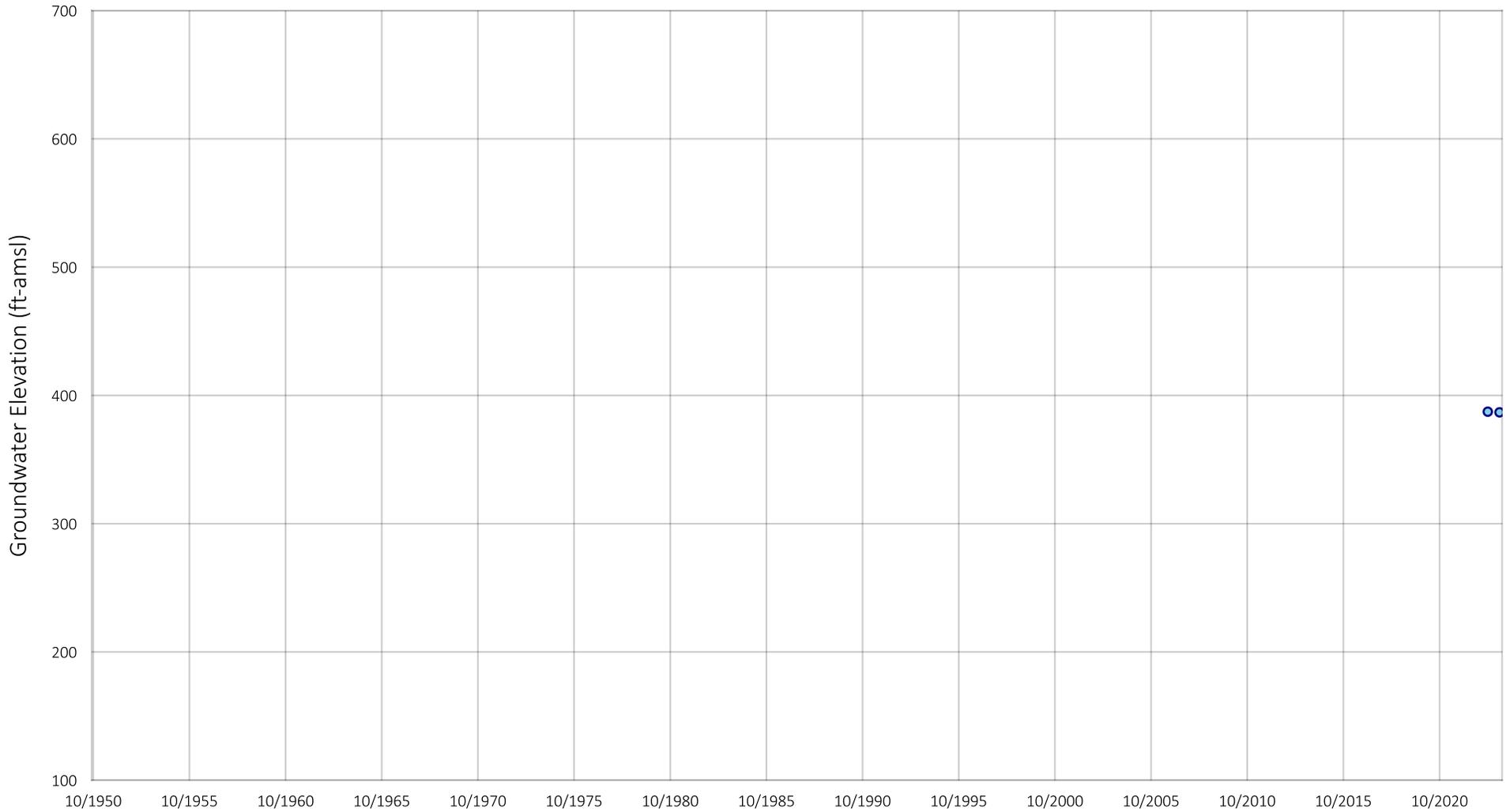


Prepared by:



Historical Groundwater Level Elevation
 BSWM ID: 1245876
 Well Name: Horse Camp
 State Well ID: 009S006E31E003S

Figure F-1



Location of Well in Borrego Springs

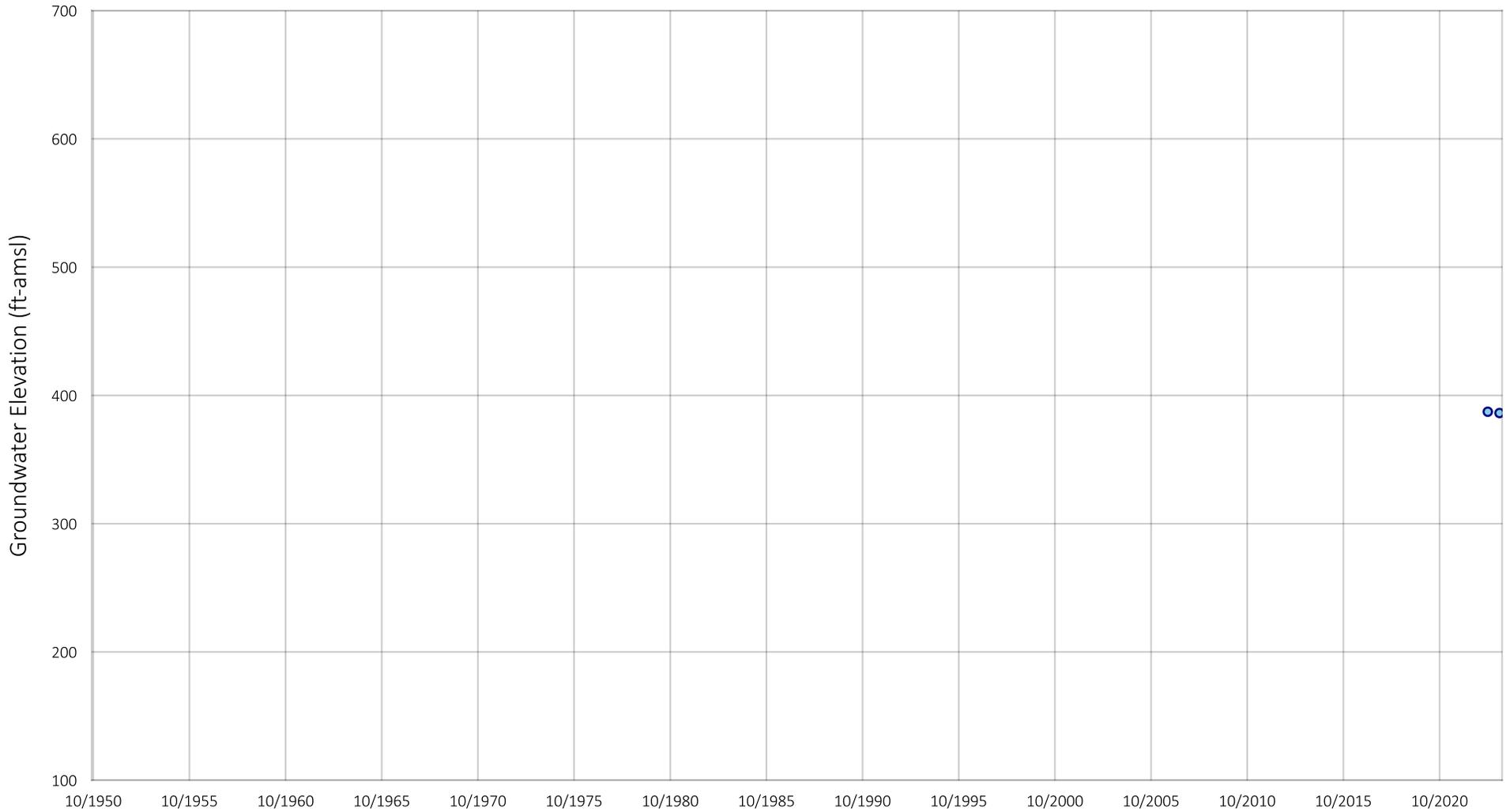


Prepared by:

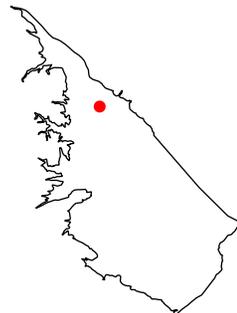


Historical Groundwater Level Elevation
 BSWM ID: 1246758
 Well Name: MW-6D
 State Well ID: nan

Figure F-2



Location of Well in Borrego Springs

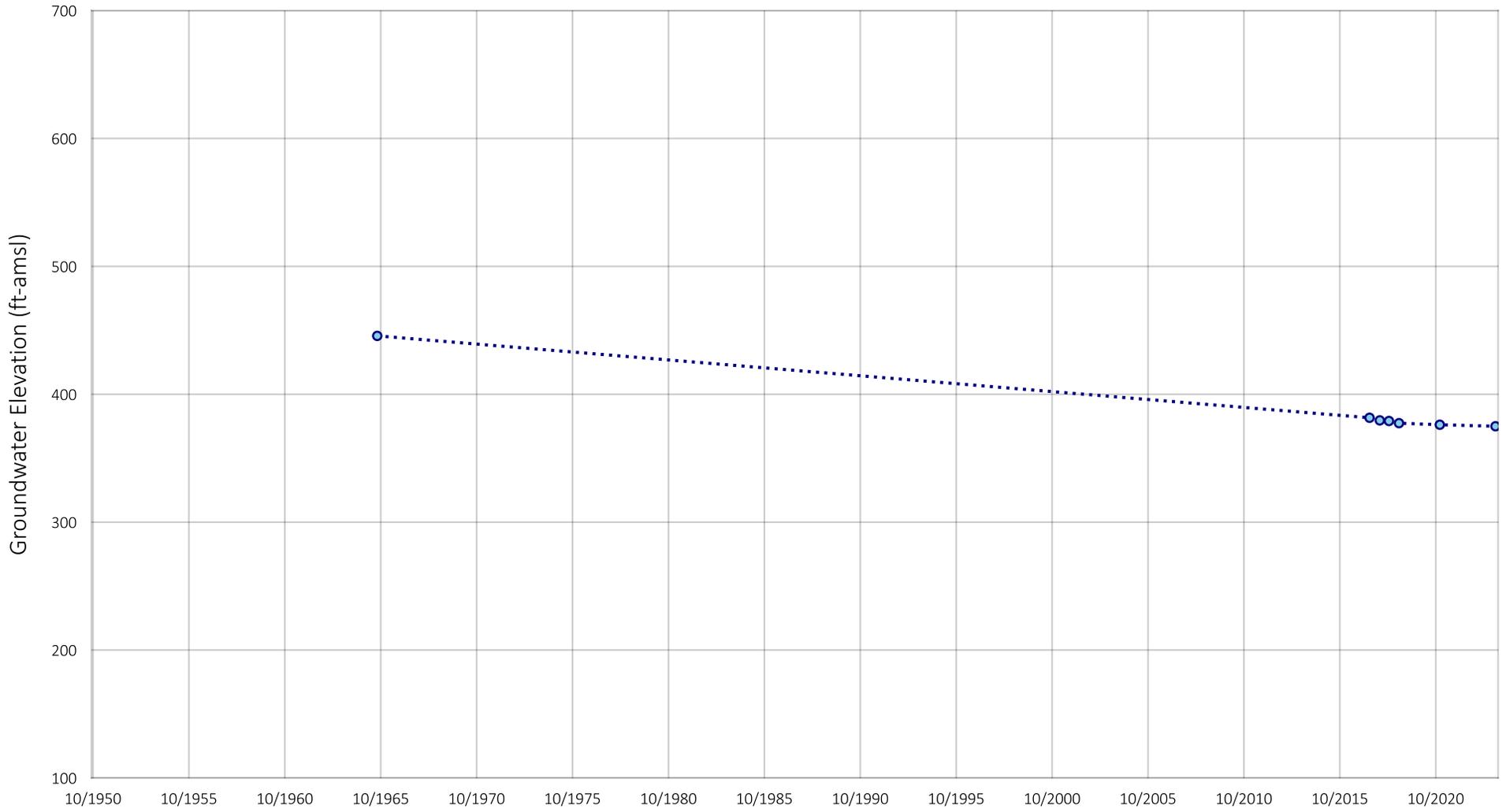


Prepared by:



Historical Groundwater Level Elevation
 BSWM ID: 1246759
 Well Name: MW-6S
 State Well ID: nan

Figure F-3



Location of Well in Borrego Springs

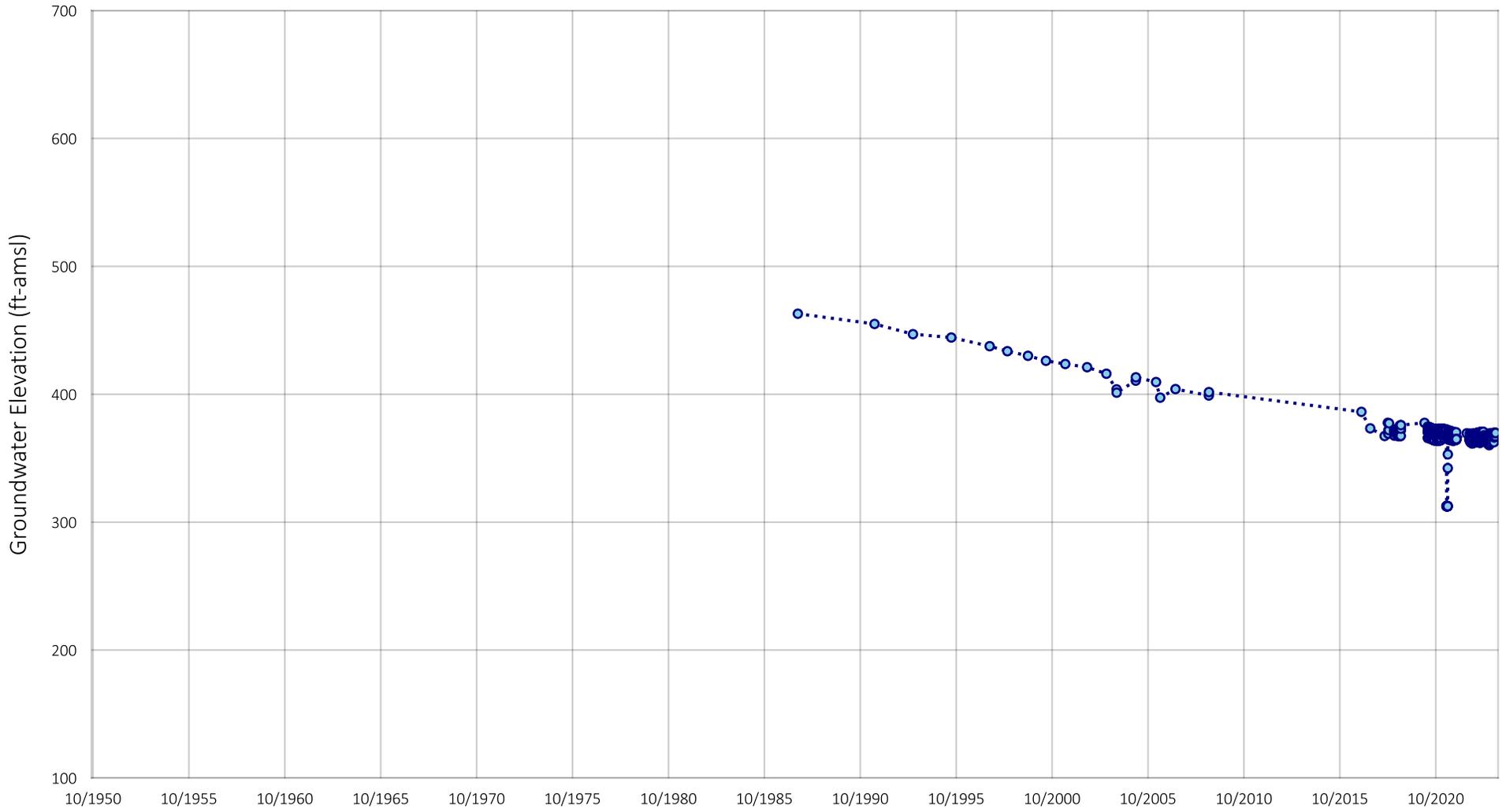


Prepared by:



Historical Groundwater Level Elevation
 BSWM ID: 1245869
 Well Name: Fortiner #1 (Allegre 1)
 State Well ID: 010S006E09N001S

Figure F-4



Location of Well in Borrego Springs

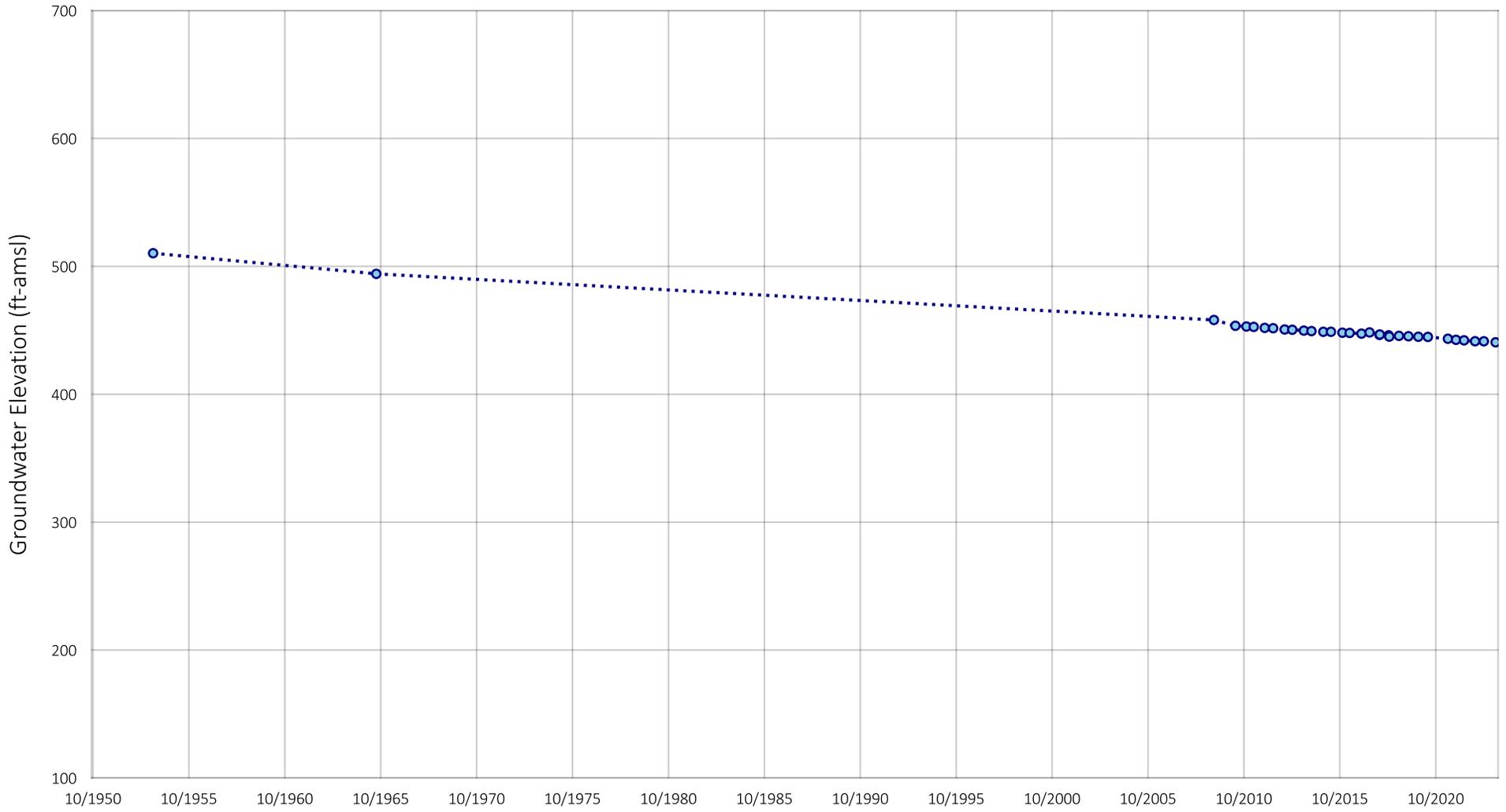


Prepared by:

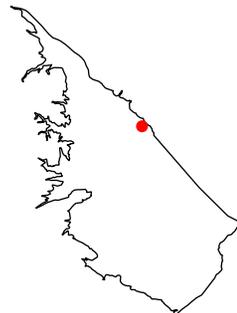


Historical Groundwater Level Elevation
 BSWM ID: 1245886
 Well Name: ID4-18
 State Well ID: 010S006E18J001S

Figure F-5



Location of Well in Borrego Springs

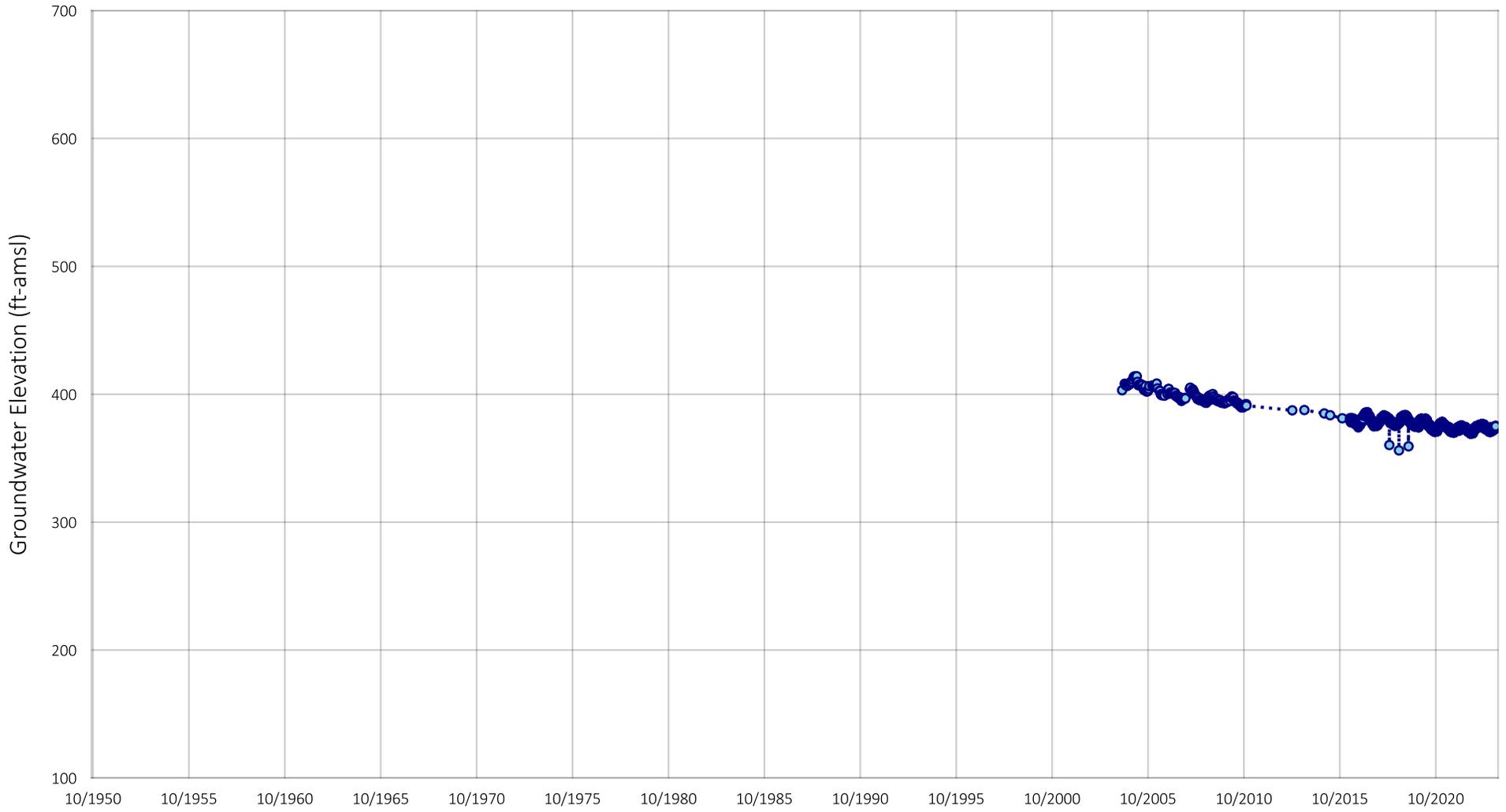


Prepared by:



Historical Groundwater Level Elevation
 BSWM ID: 1245873
 Well Name: Hanna (Flowers)
 State Well ID: 010S006E14G001S

Figure F-6



Location of Well in Borrego Springs

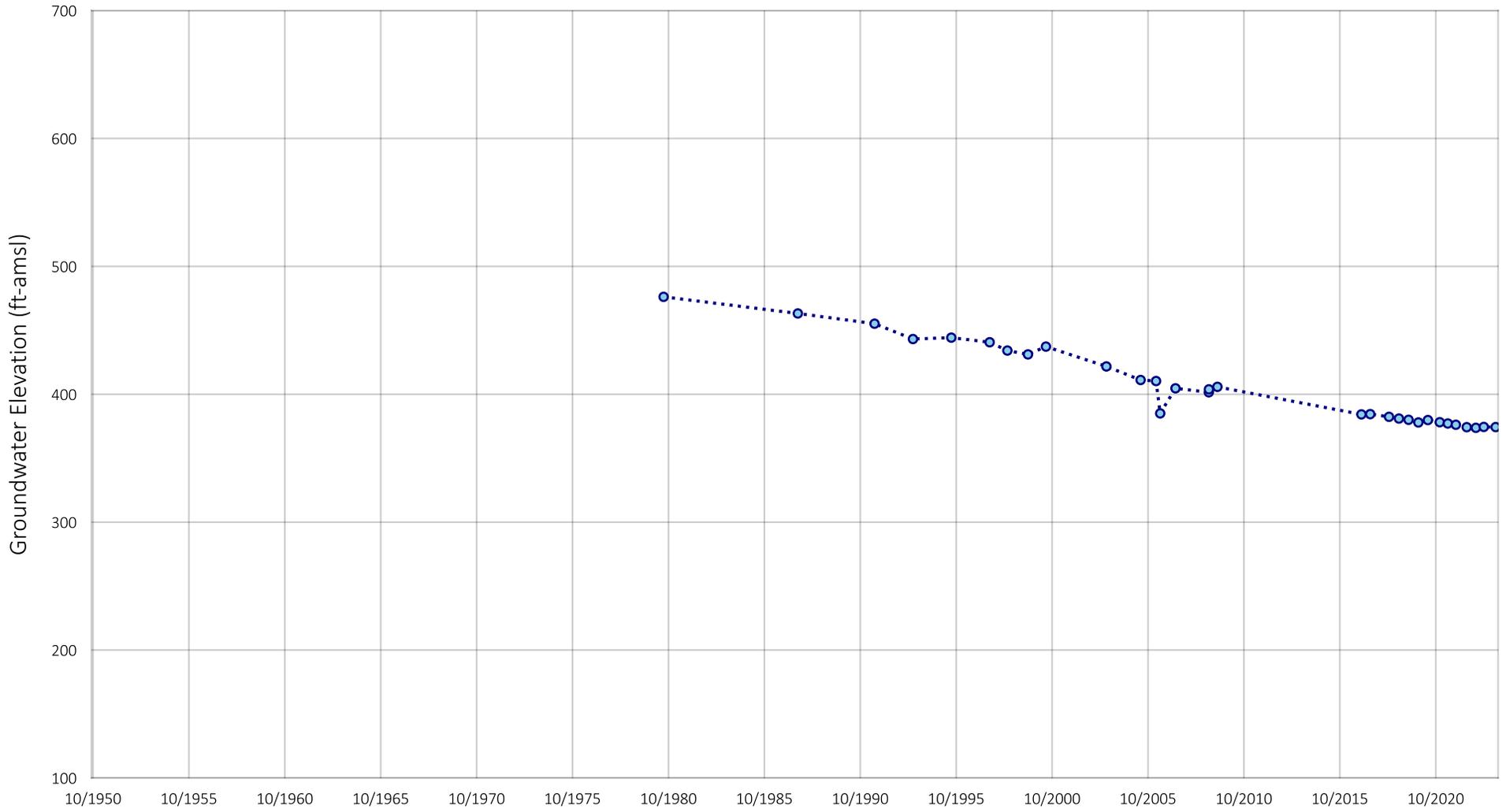


Prepared by:



Historical Groundwater Level Elevation
 BSWM ID: 1245897
 Well Name: MW-1
 State Well ID: 010S006E21A002S

Figure F-7



Location of Well in Borrego Springs

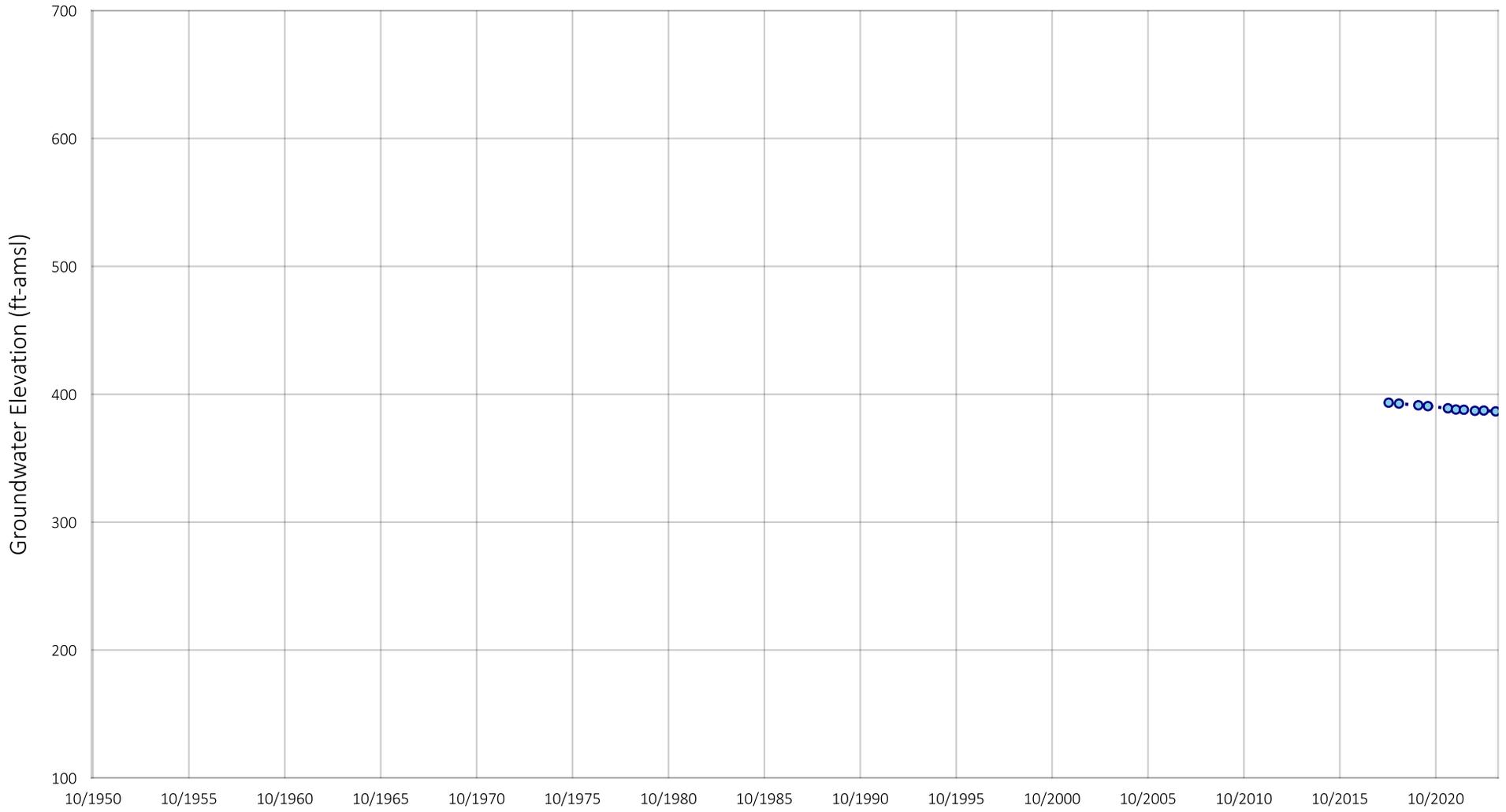


Prepared by:



Historical Groundwater Level Elevation
 BSWM ID: 1245888
 Well Name: ID4-3
 State Well ID: 010S006E18R001S

Figure F-8



Location of Well in Borrego Springs

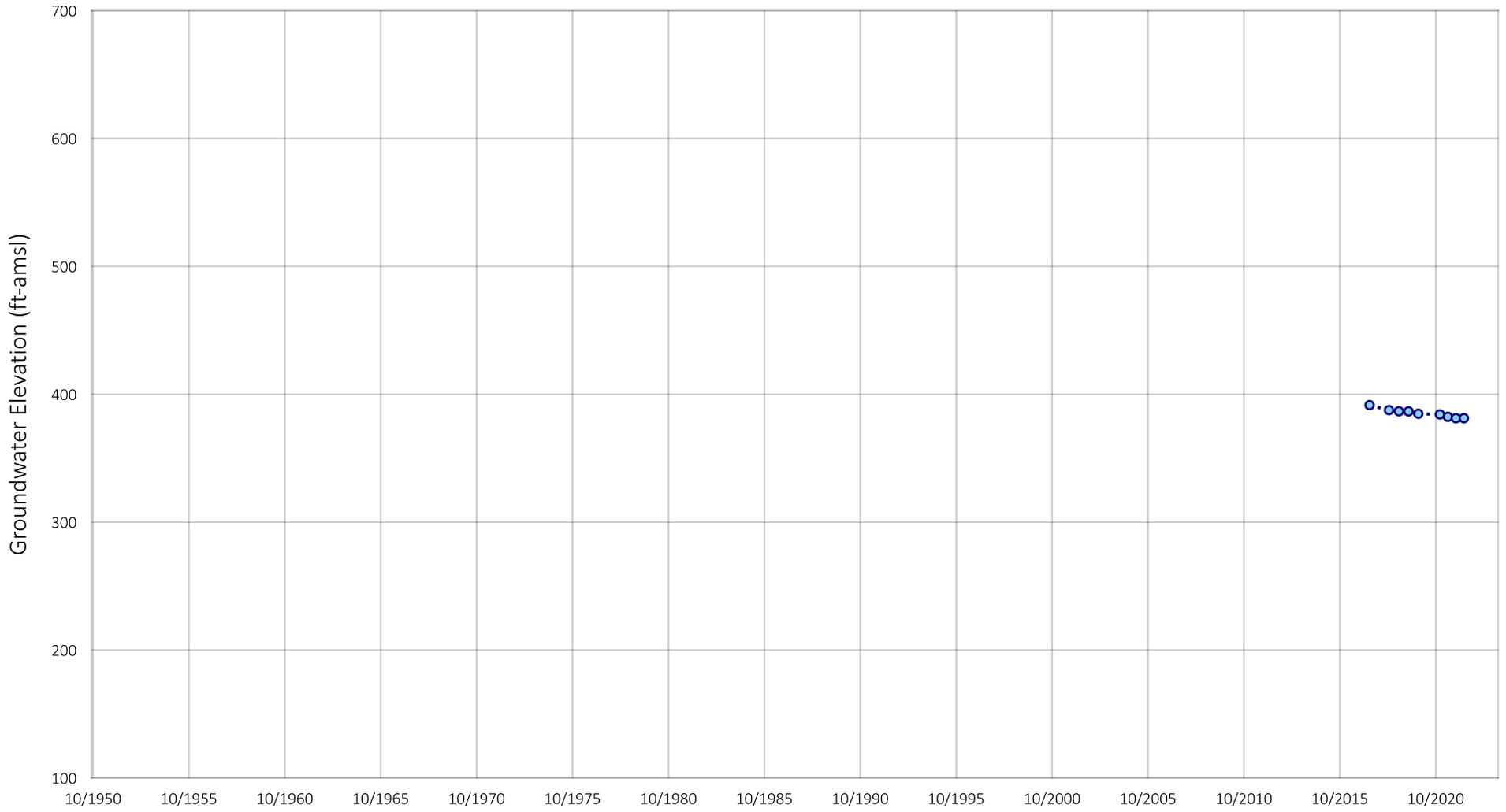


Prepared by:



Historical Groundwater Level Elevation
 BSWM ID: 1245868
 Well Name: Evans
 State Well ID: 010S006E21E001S

Figure F-9



Location of Well in Borrego Springs

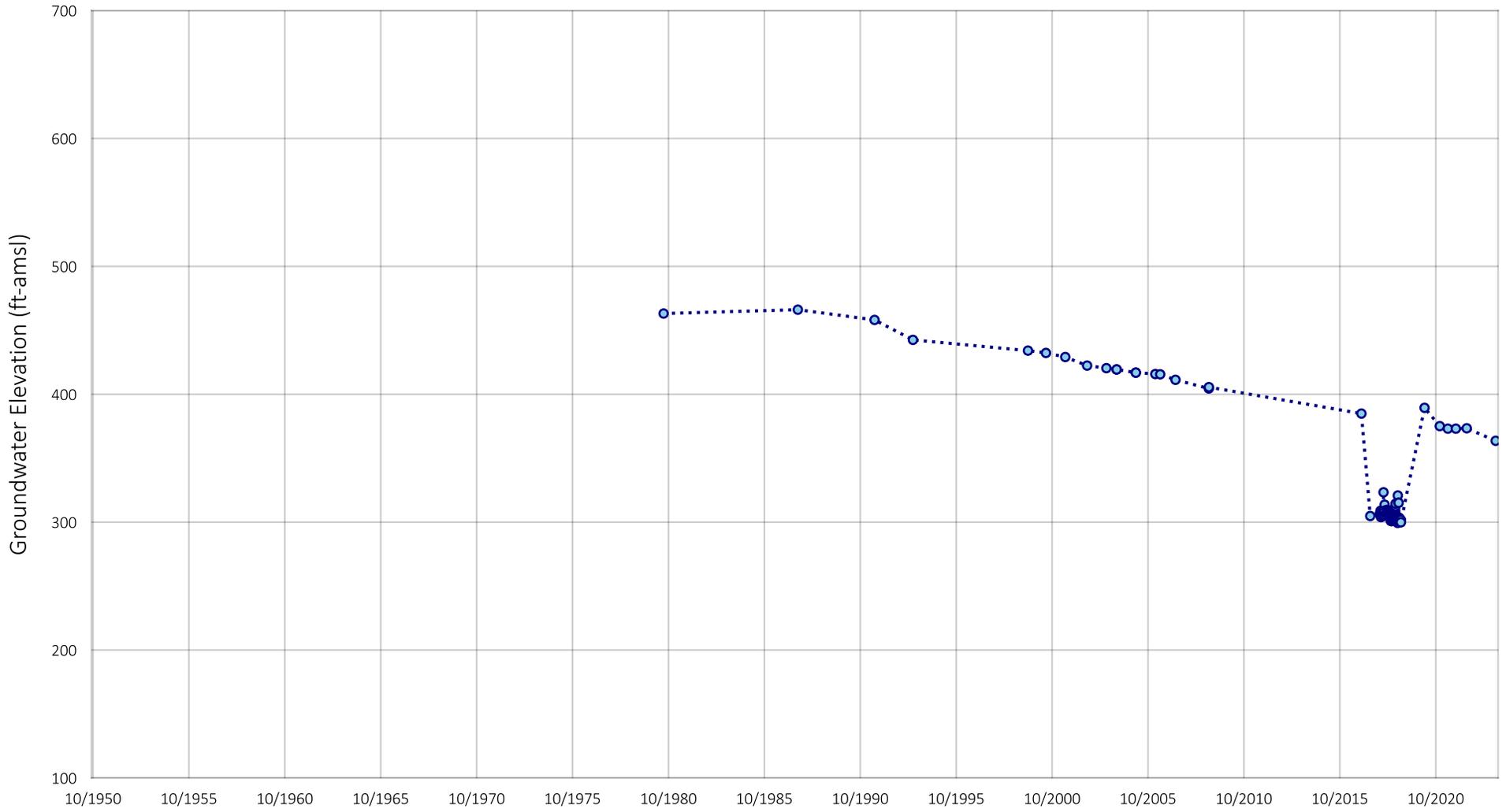


Prepared by:



Historical Groundwater Level Elevation
 BSWM ID: 1245930
 Well Name: White Well
 State Well ID: 010S006E29A001S

Figure F-10



Location of Well in Borrego Springs

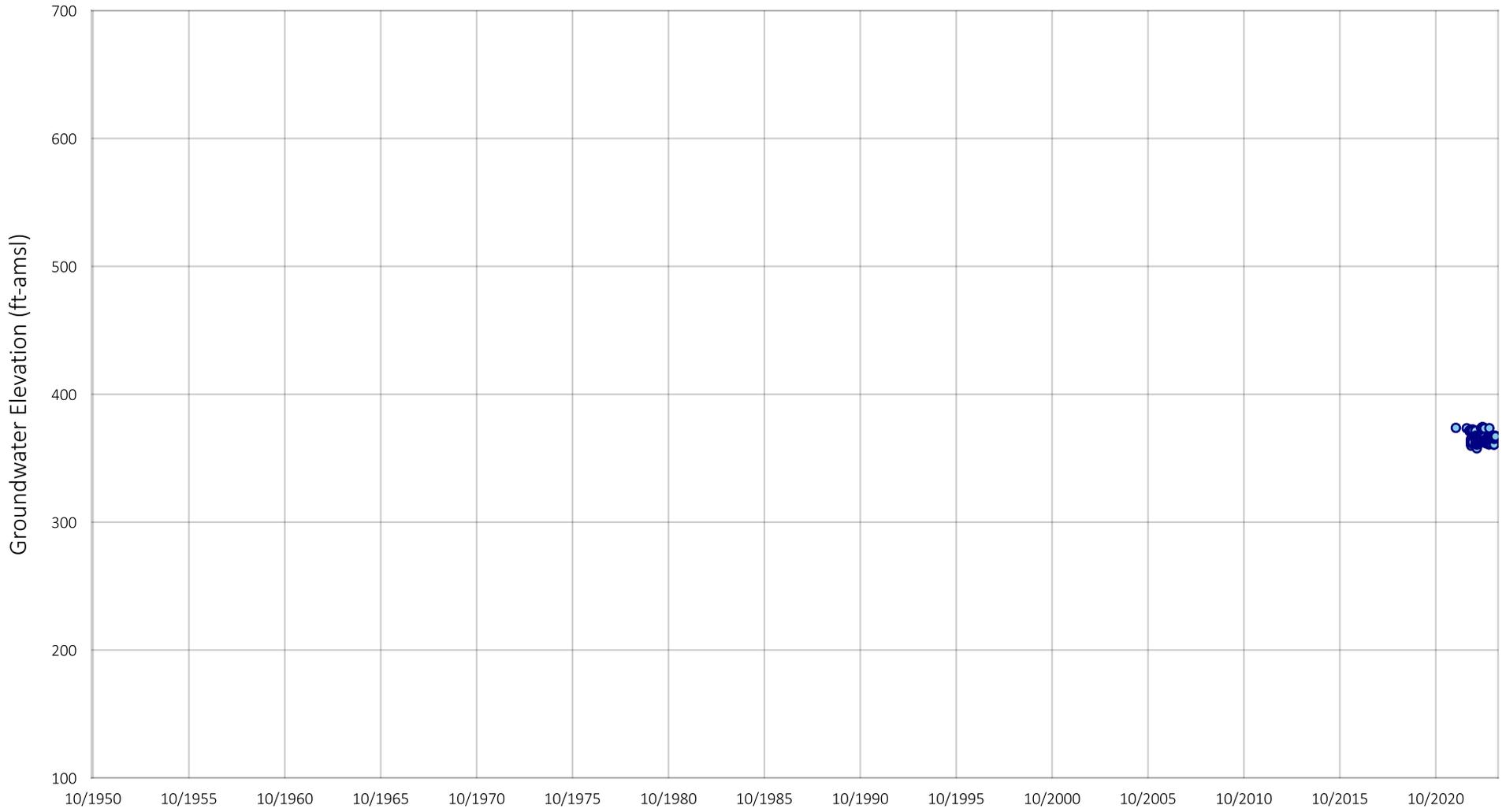


Prepared by:



Historical Groundwater Level Elevation
 BSWM ID: 1245889
 Well Name: ID4-4
 State Well ID: 010S006E29K002S

Figure F-11



Location of Well in Borrego Springs



Prepared by:



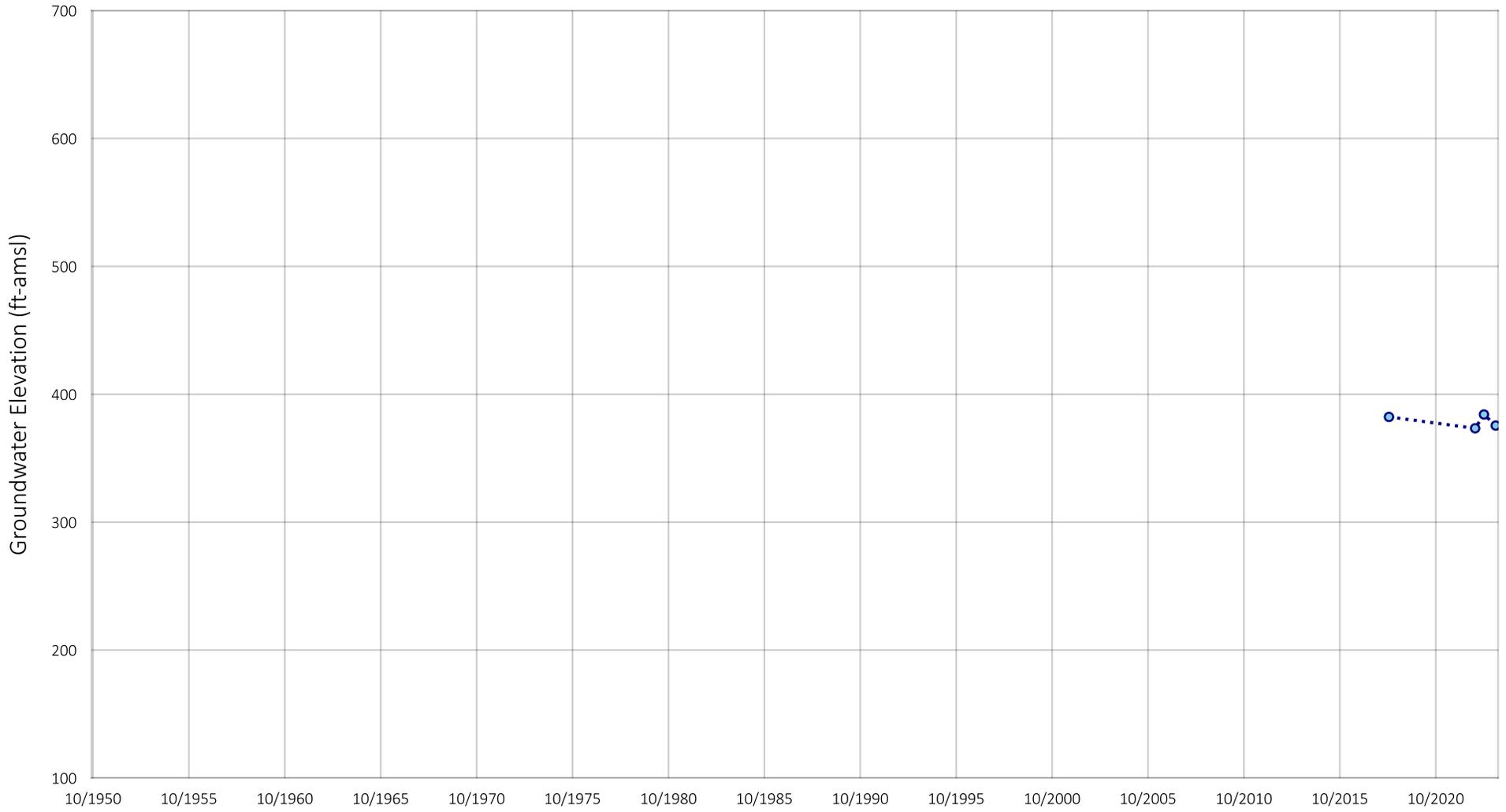
Historical Groundwater Level Elevation

BSWM ID: 1245891

Well Name: ID4-9

State Well ID: 10S006E29K003S

Figure F-12



Location of Well in Borrego Springs

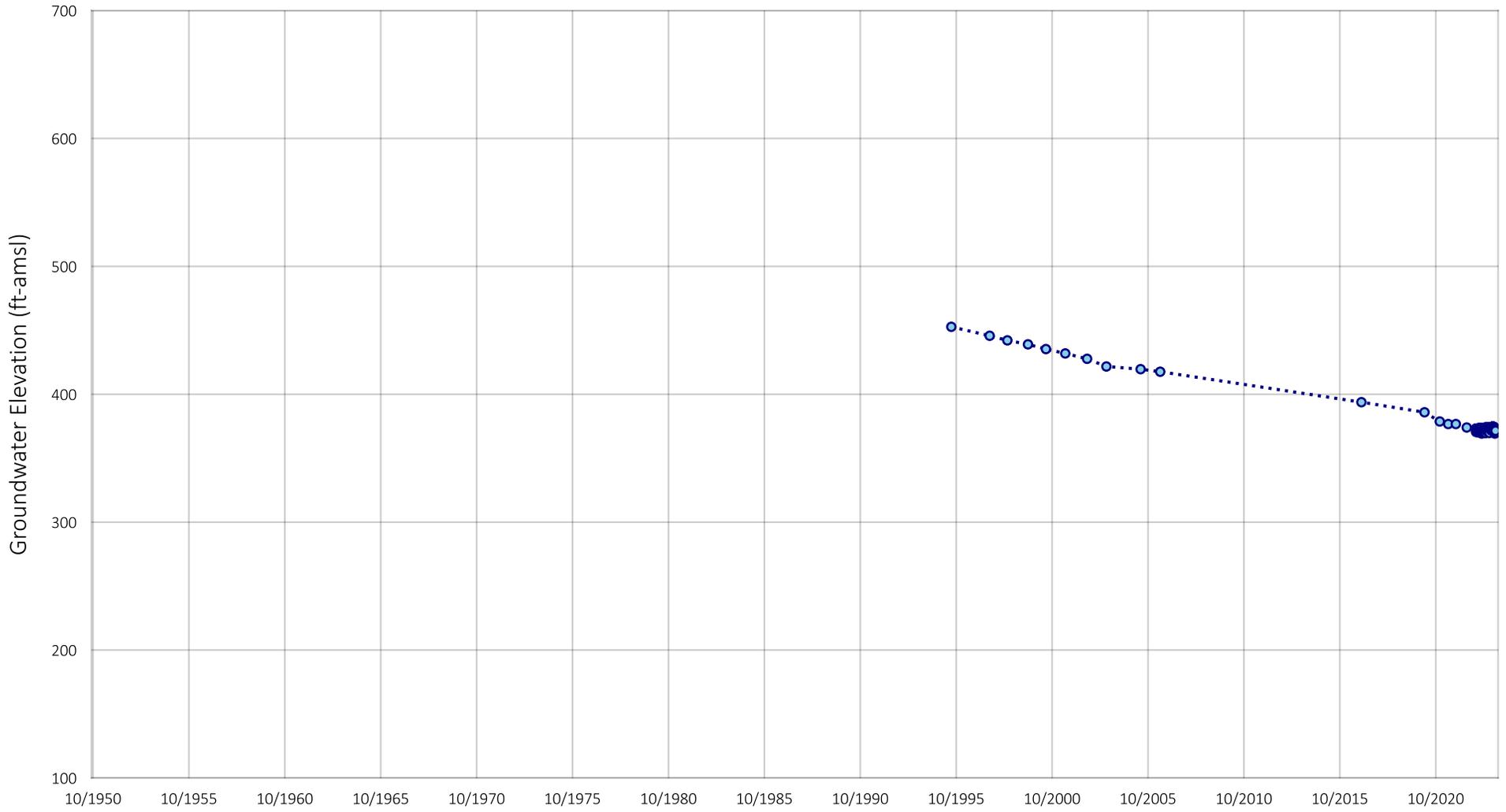


Prepared by:



Historical Groundwater Level Elevation
 BSWM ID: 1245924
 Well Name: Auxiliary 3
 State Well ID: 010S005E25R002S

Figure F-13



Location of Well in Borrego Springs

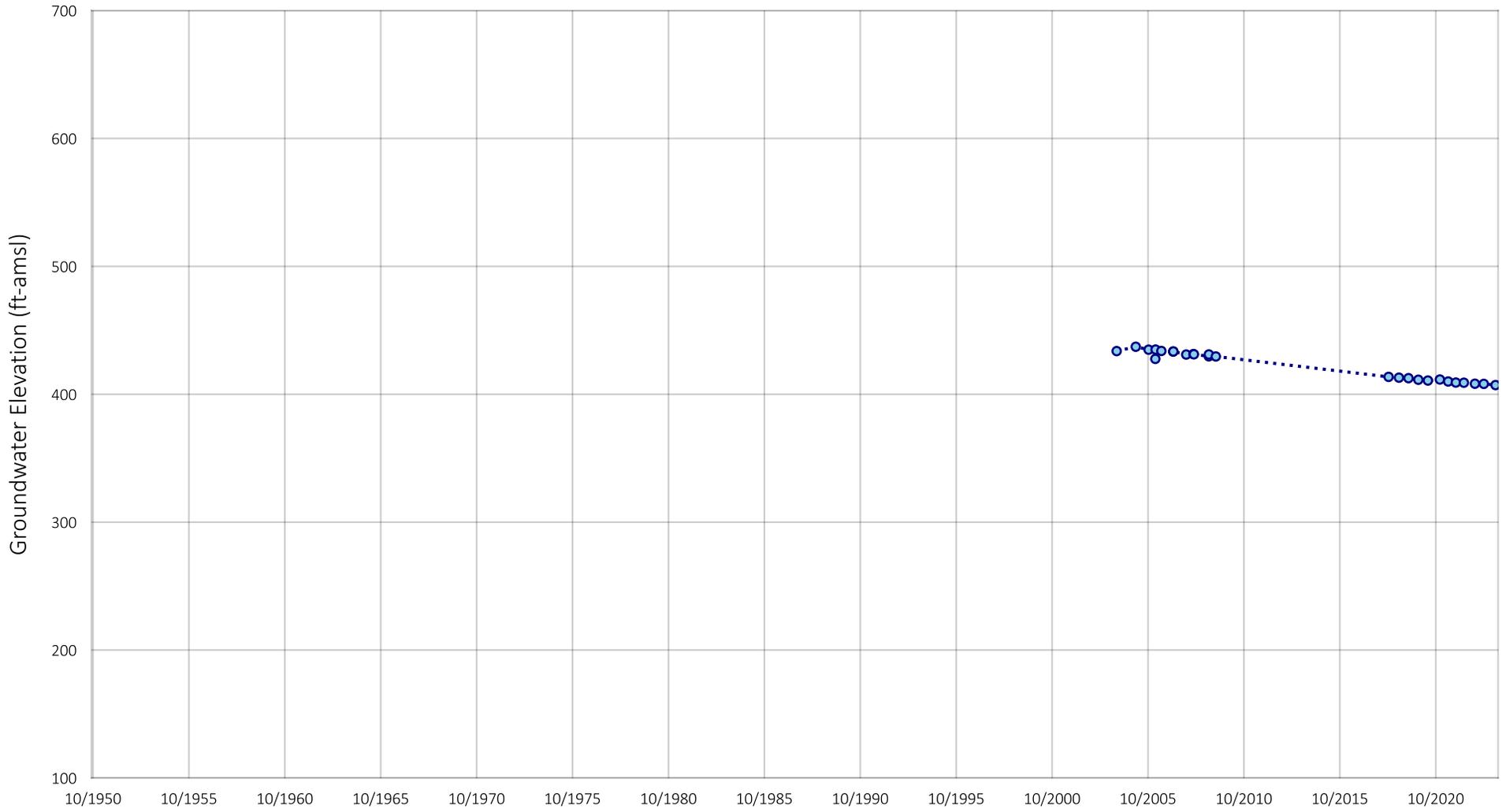


Prepared by:



Historical Groundwater Level Elevation
 BSWM ID: 1245885
 Well Name: ID4-11
 State Well ID: 010S006E32D001S

Figure F-14



Location of Well in Borrego Springs

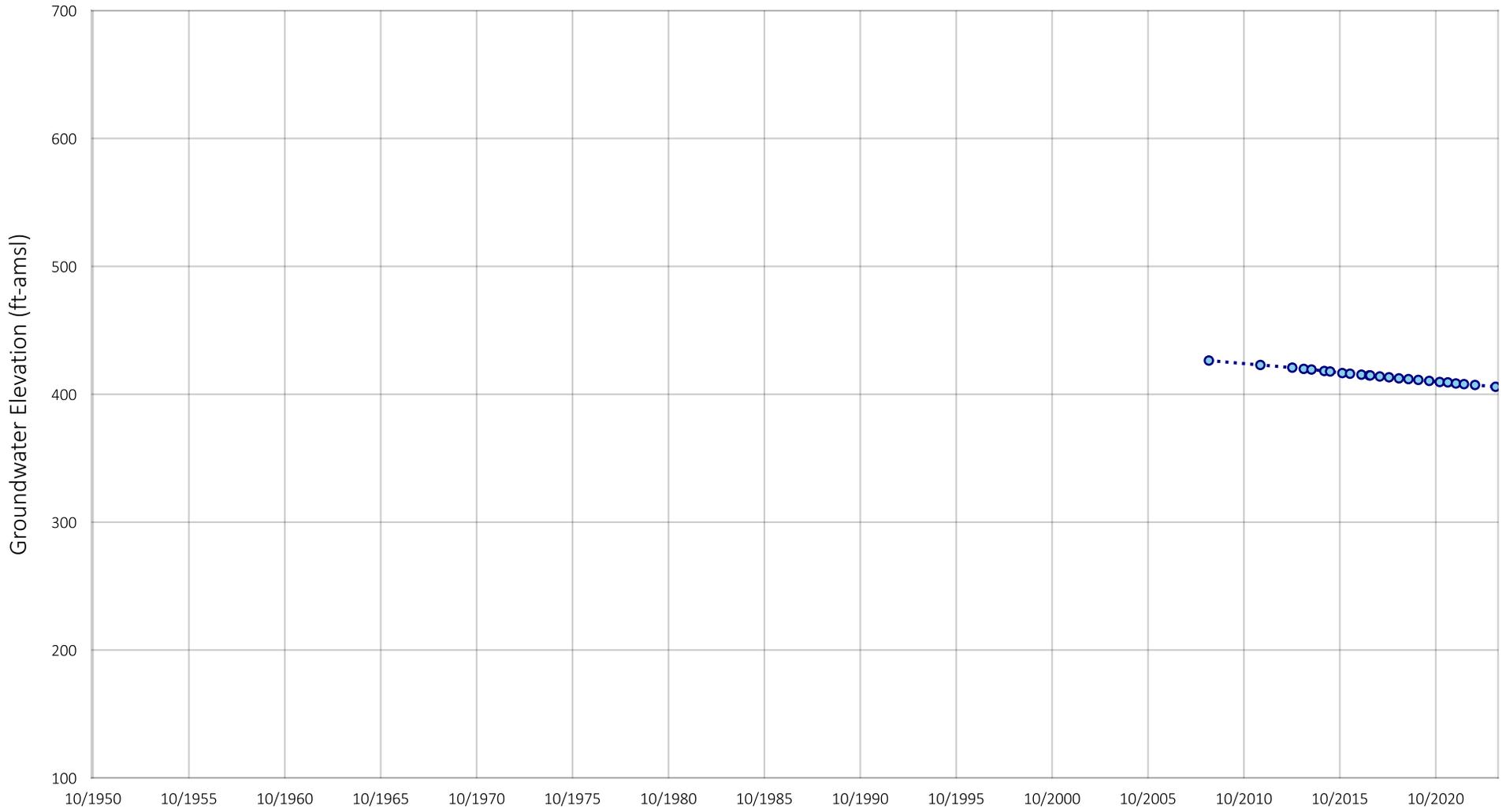


Prepared by:



Historical Groundwater Level Elevation
 BSWM ID: 1245904
 Well Name: Palleeson
 State Well ID: 010S006E33J001S

Figure F-15



Location of Well in Borrego Springs

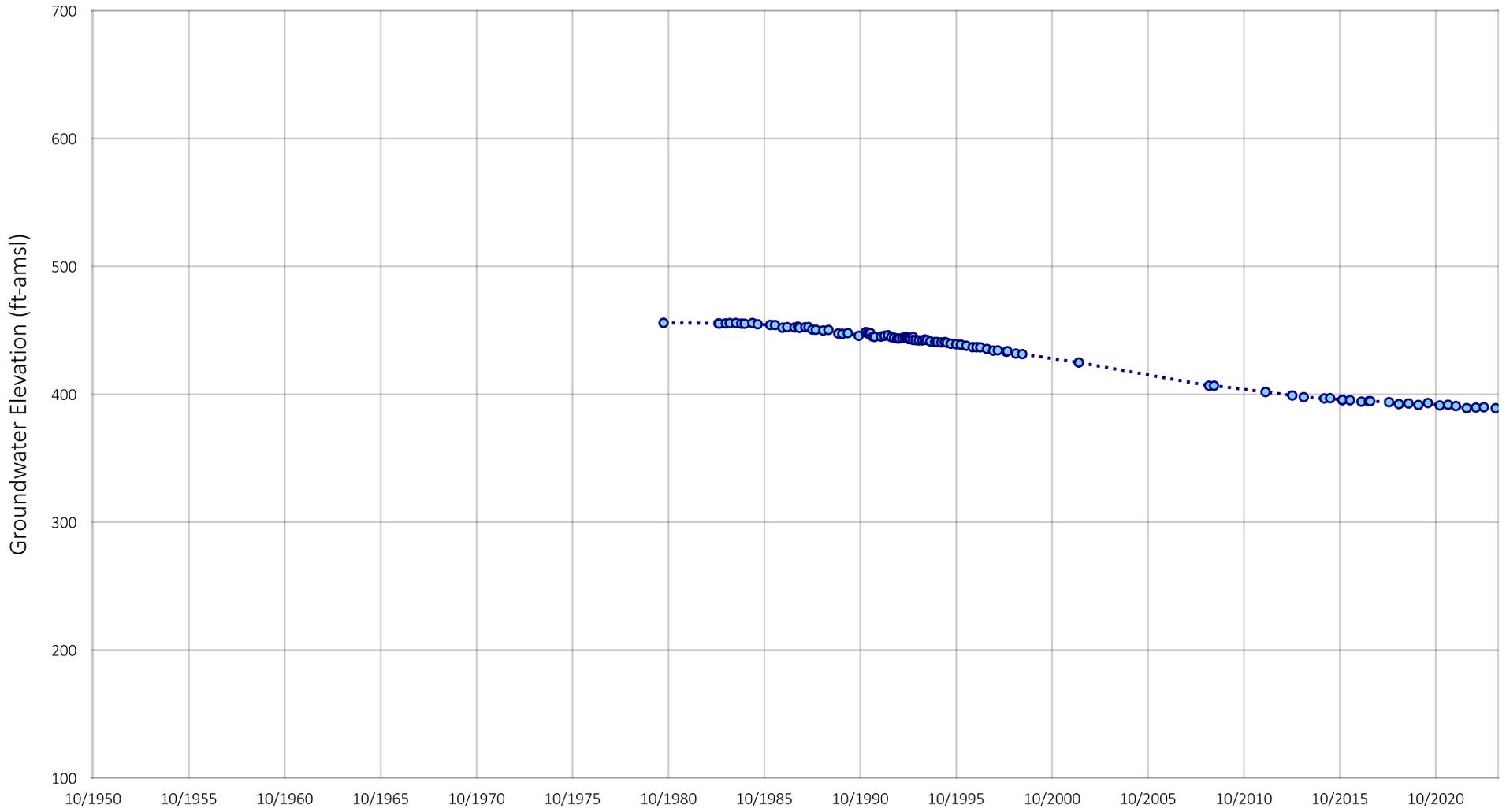


Prepared by:

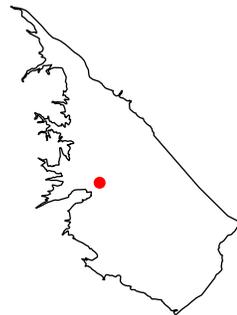


Historical Groundwater Level Elevation
 BSWM ID: 1245899
 Well Name: MW-4
 State Well ID: 010S006E35Q001S

Figure F-16



Location of Well in Borrego Springs

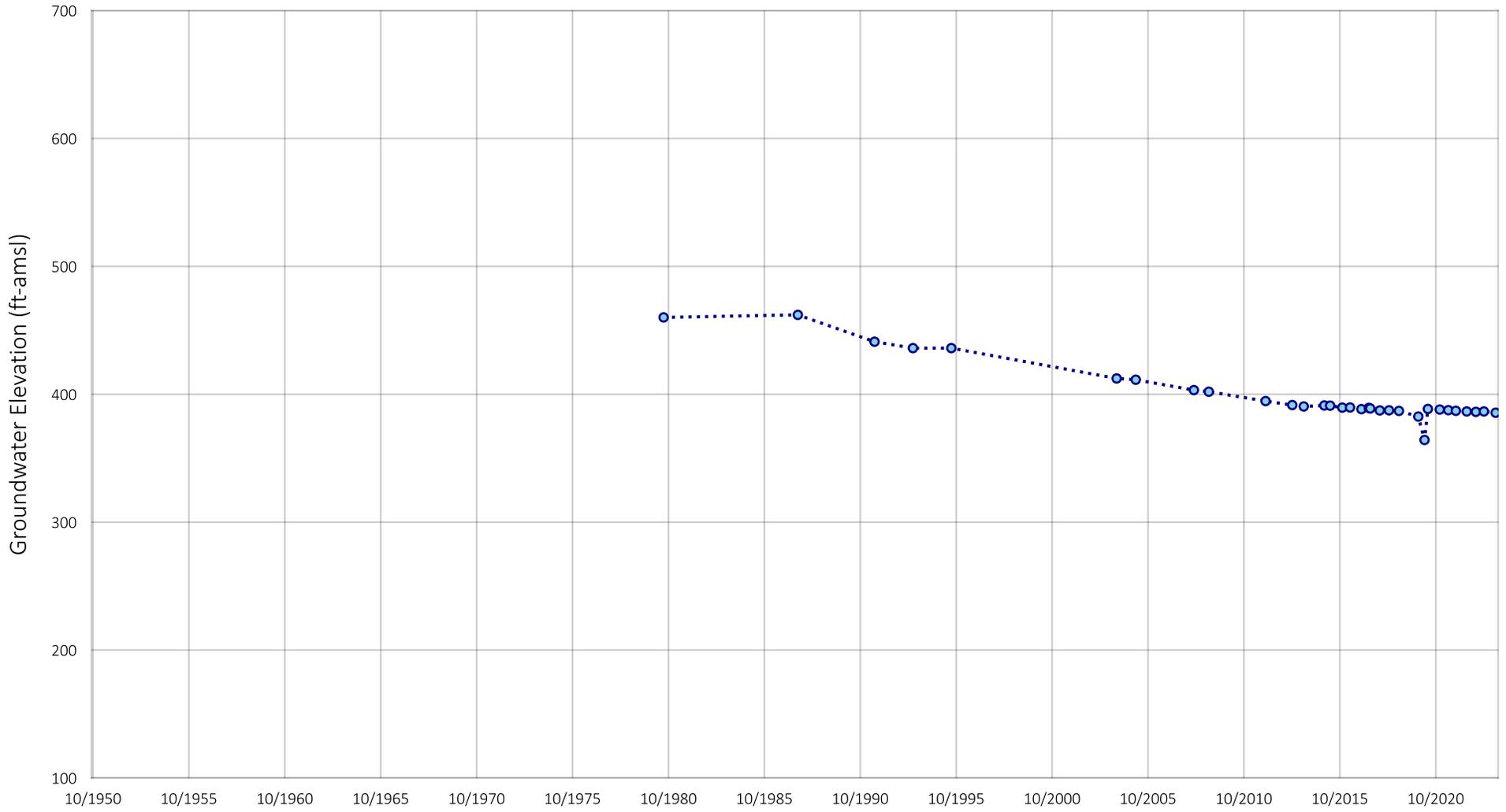


Prepared by:



Historical Groundwater Level Elevation
 BSWM ID: 1245883
 Well Name: ID4-1
 State Well ID: 010S006E32R001S

Figure F-17



Location of Well in Borrego Springs

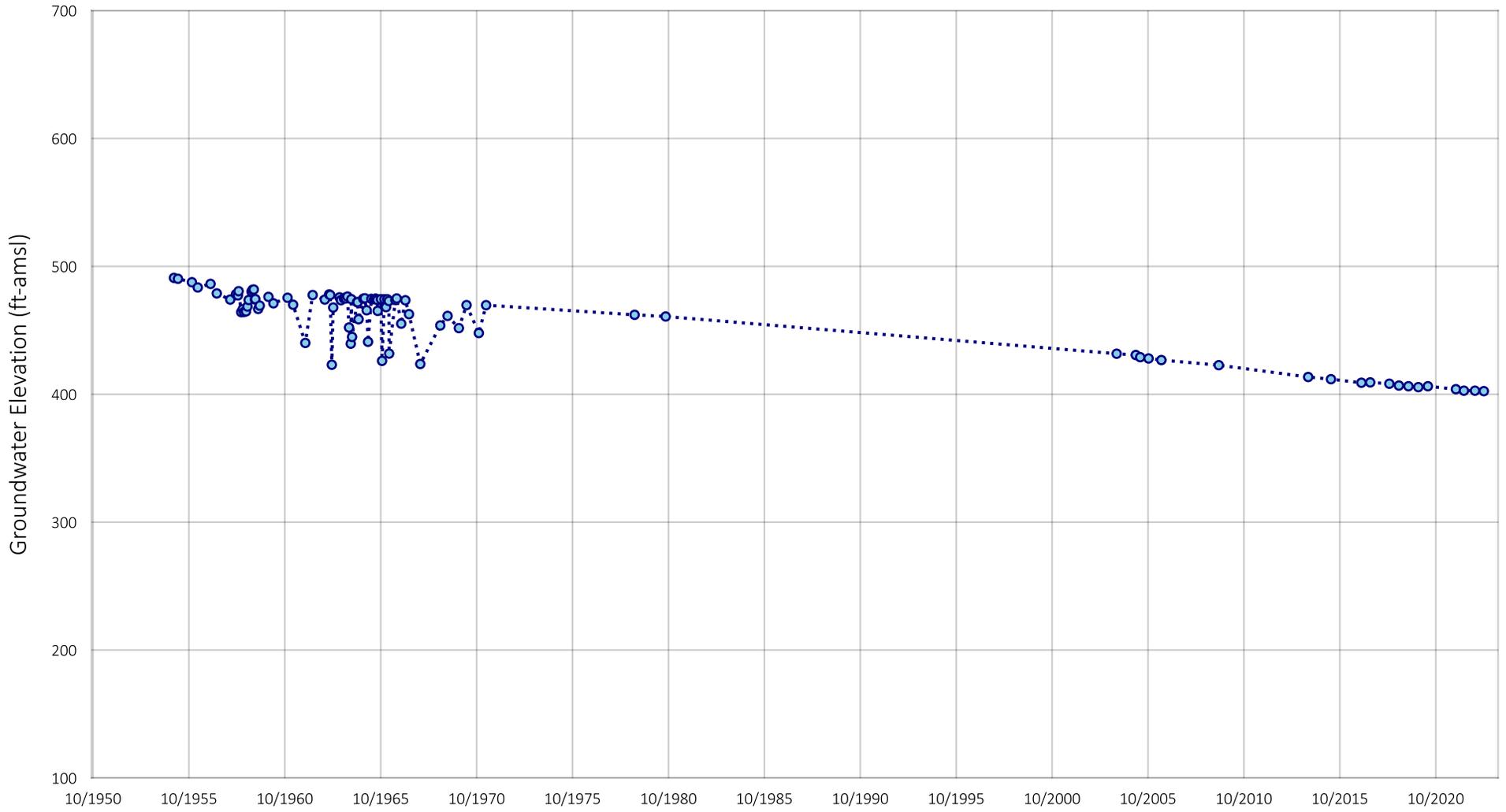


Prepared by:



Historical Groundwater Level Elevation
 BSWM ID: 1245890
 Well Name: ID4-5
 State Well ID: 010S006E33Q001S

Figure F-18



Location of Well in Borrego Springs

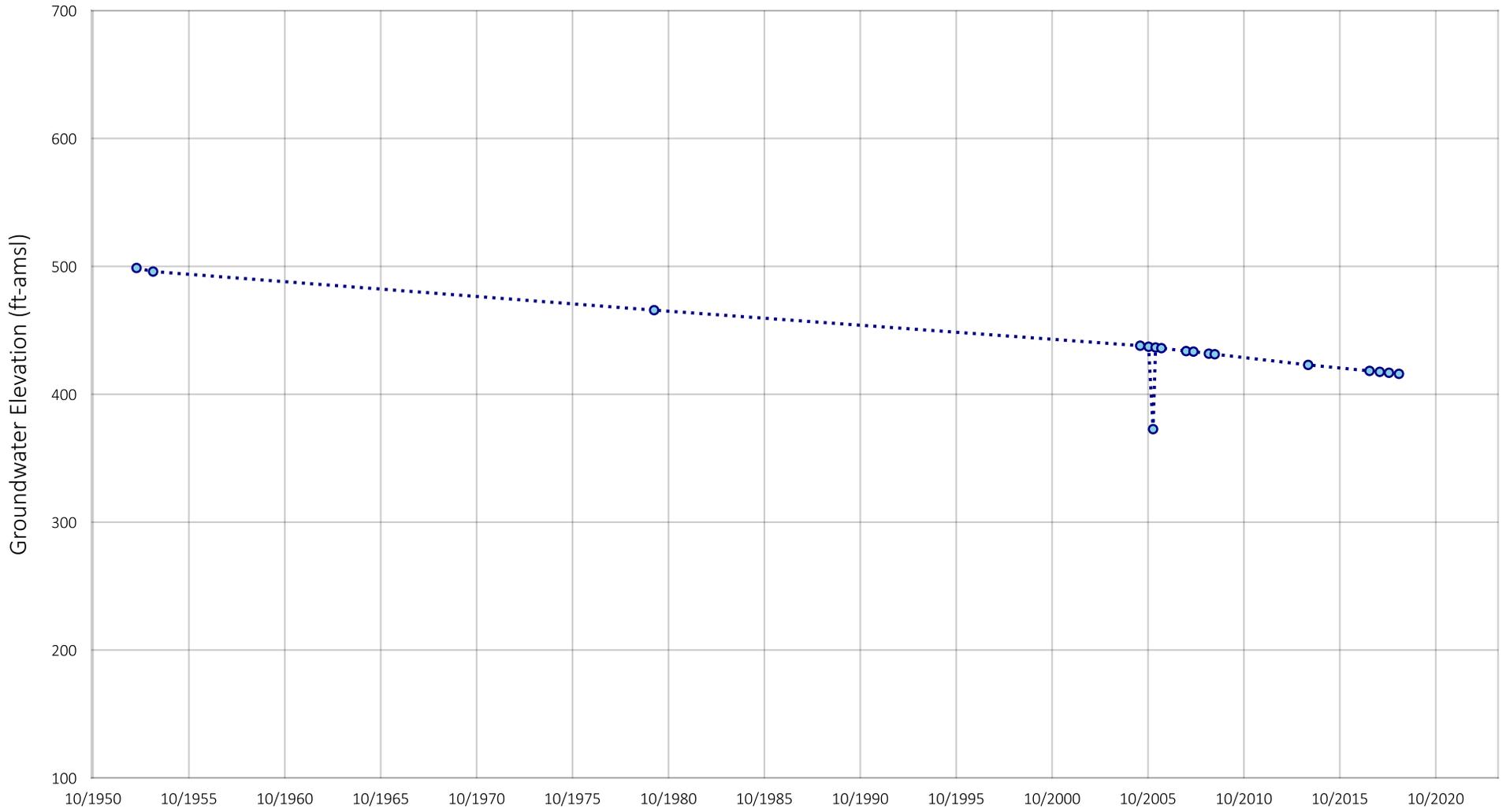


Prepared by:



Historical Groundwater Level Elevation
 BSWM ID: 1245851
 Well Name: Airport 2
 State Well ID: 010S006E35N001S

Figure F-19



Location of Well in Borrego Springs

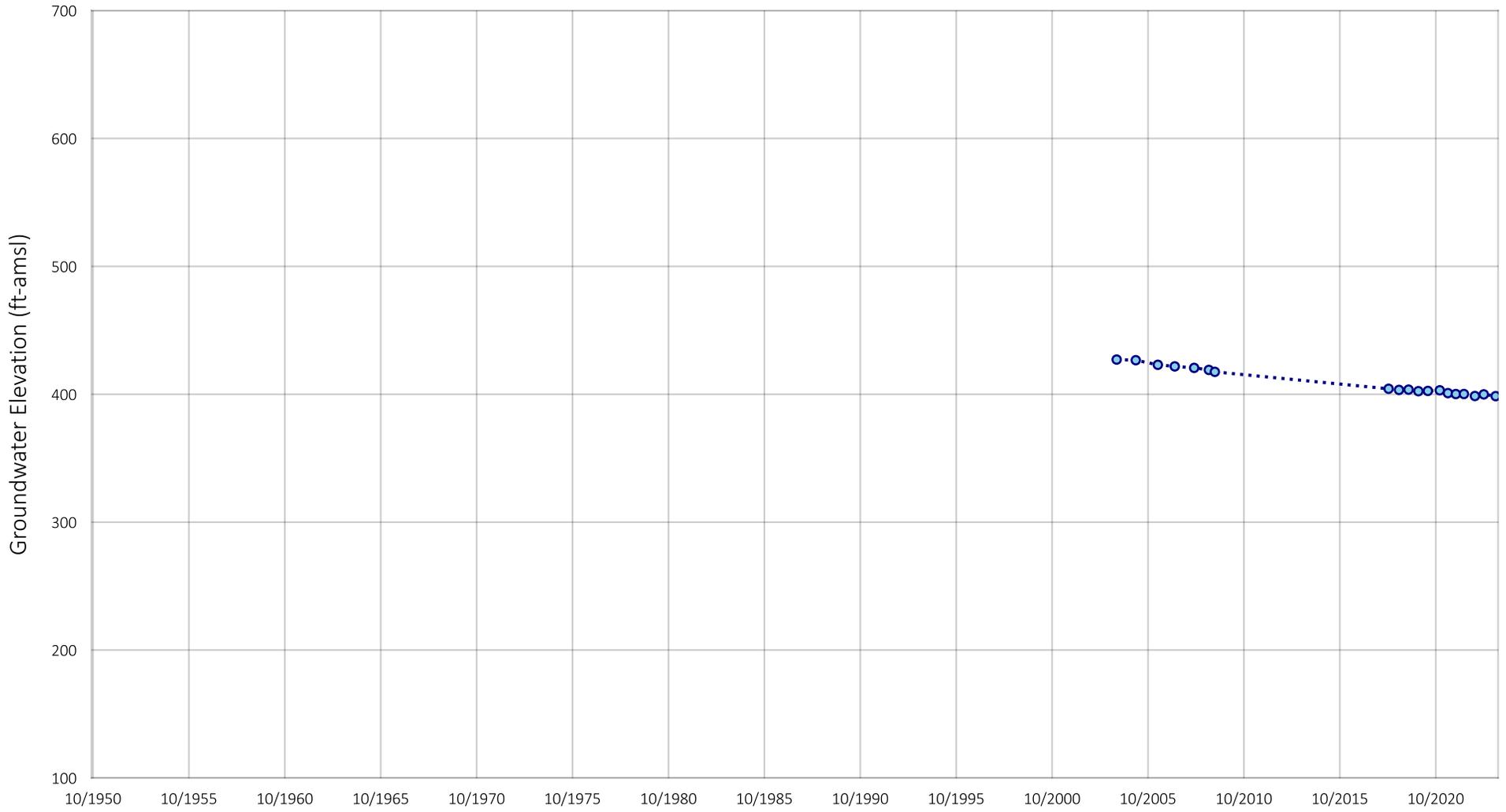


Prepared by:



Historical Groundwater Level Elevation
 BSWM ID: 1245870
 Well Name: Gabrych #2
 State Well ID: 011S006E01C001S

Figure F-20



Location of Well in Borrego Springs

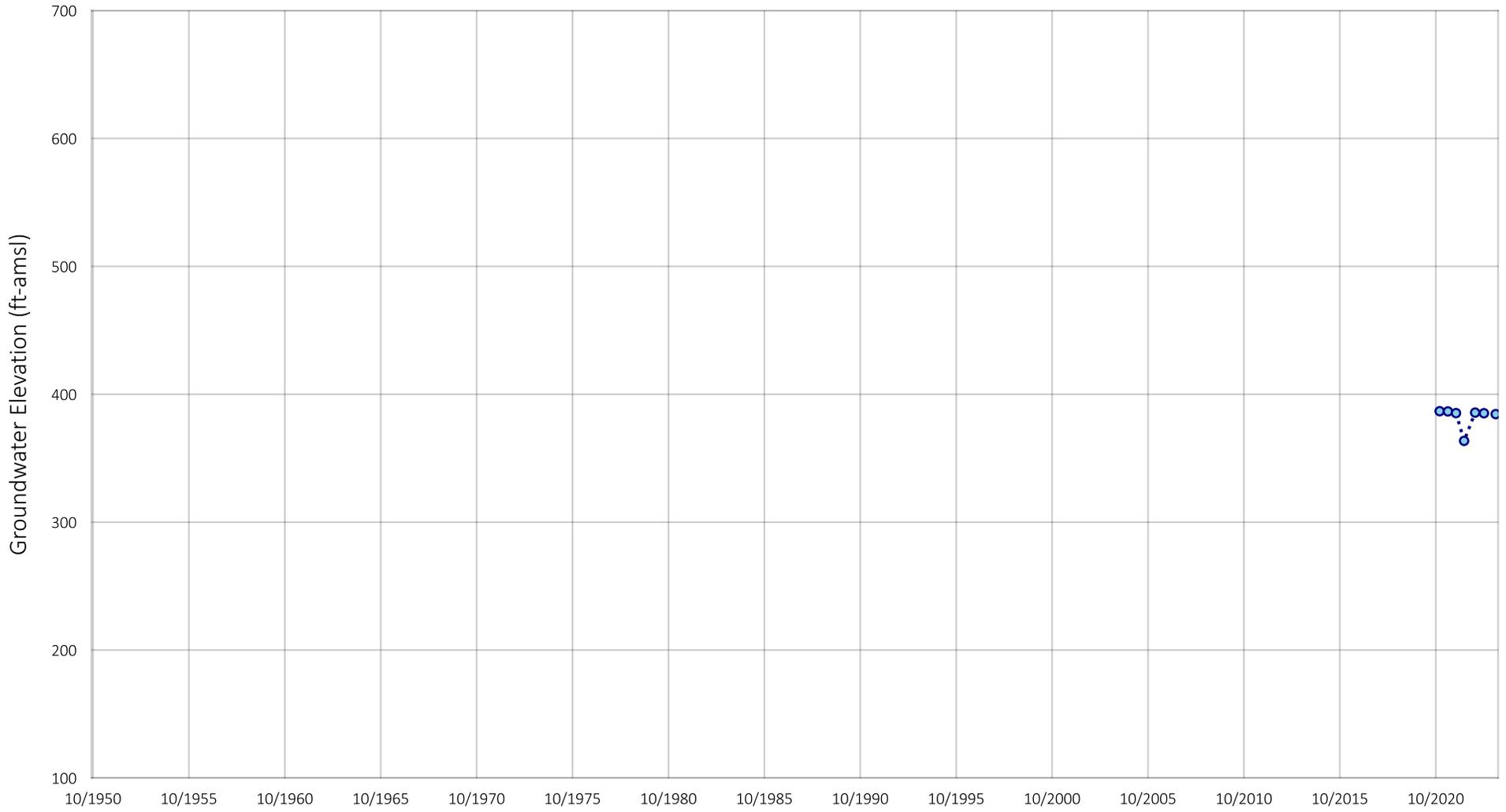


Prepared by:



Historical Groundwater Level Elevation
 BSWM ID: 1245862
 Well Name: Cameron 2
 State Well ID: 011S006E04F001S

Figure F-21



Location of Well in Borrego Springs

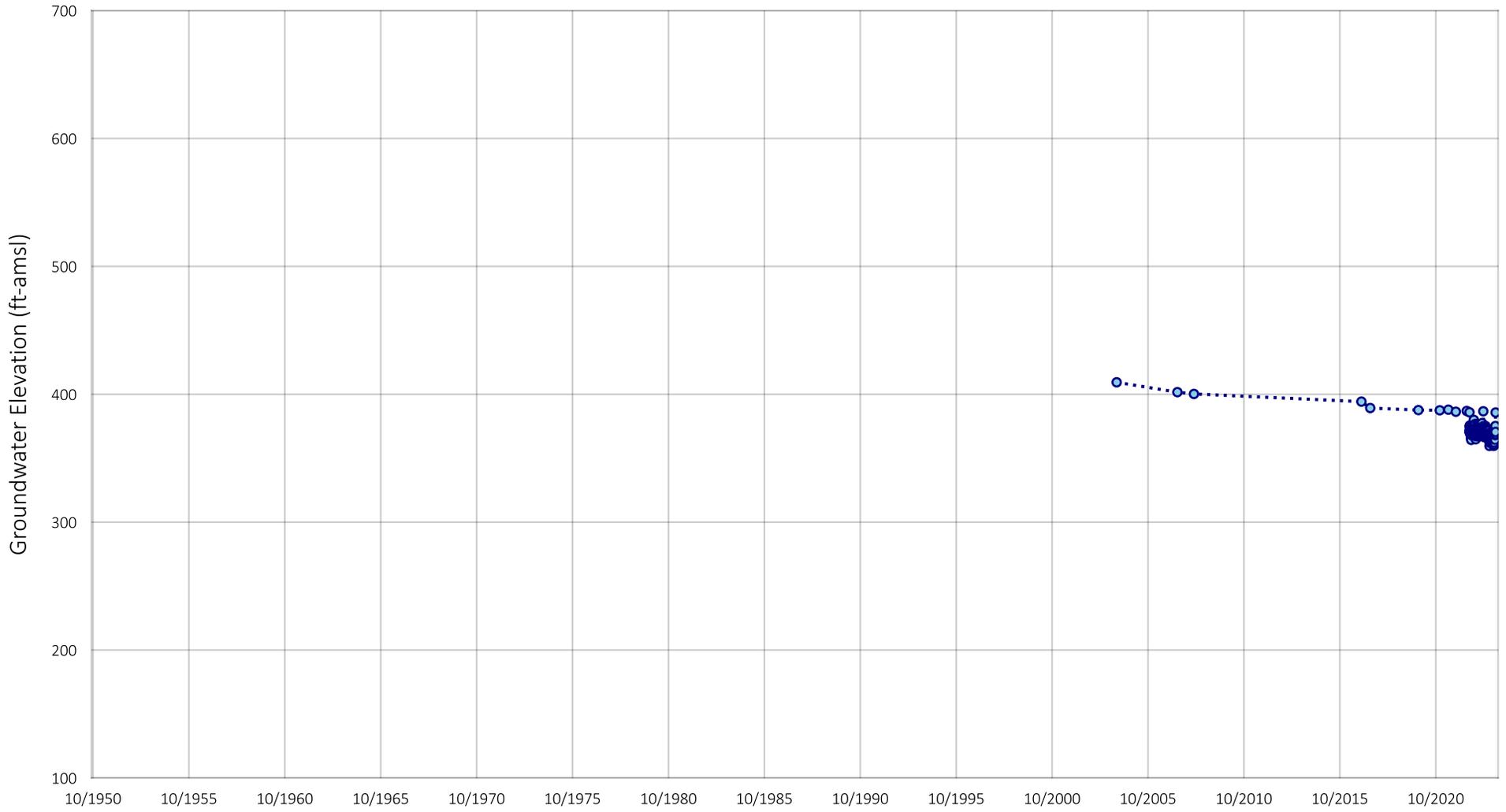


Prepared by:



Historical Groundwater Level Elevation
 BSWM ID: 1245860
 Well Name: BSR Well 6
 State Well ID: 011S006E09B002S

Figure F-22



Location of Well in Borrego Springs

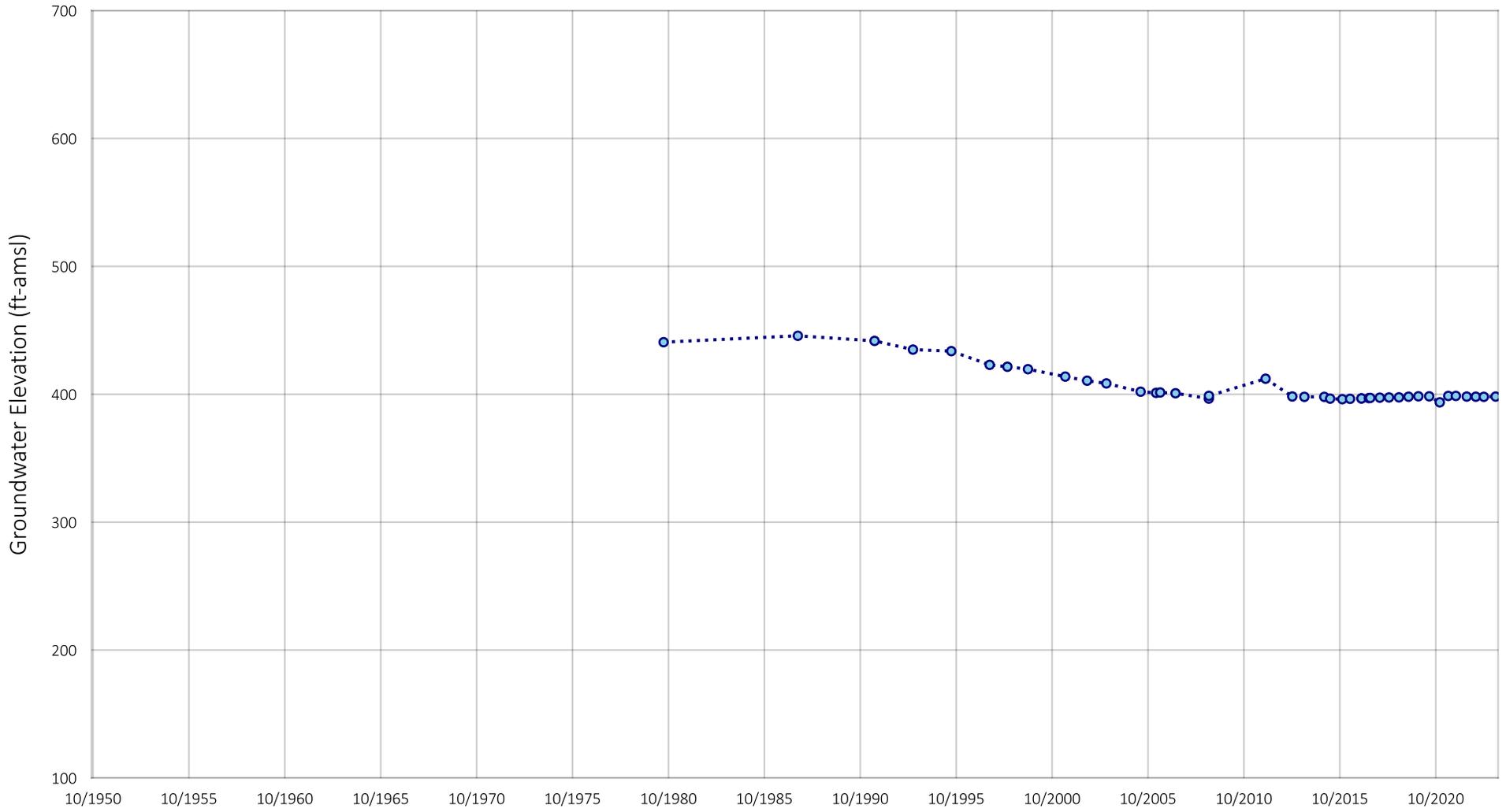


Prepared by:

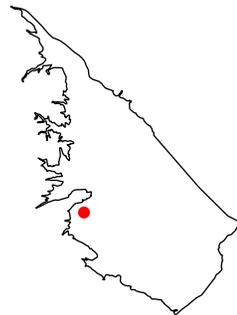


Historical Groundwater Level Elevation
 BSWM ID: 1245893
 Well Name: ID5-5
 State Well ID: 011S006E09E001S

Figure F-23



Location of Well in Borrego Springs

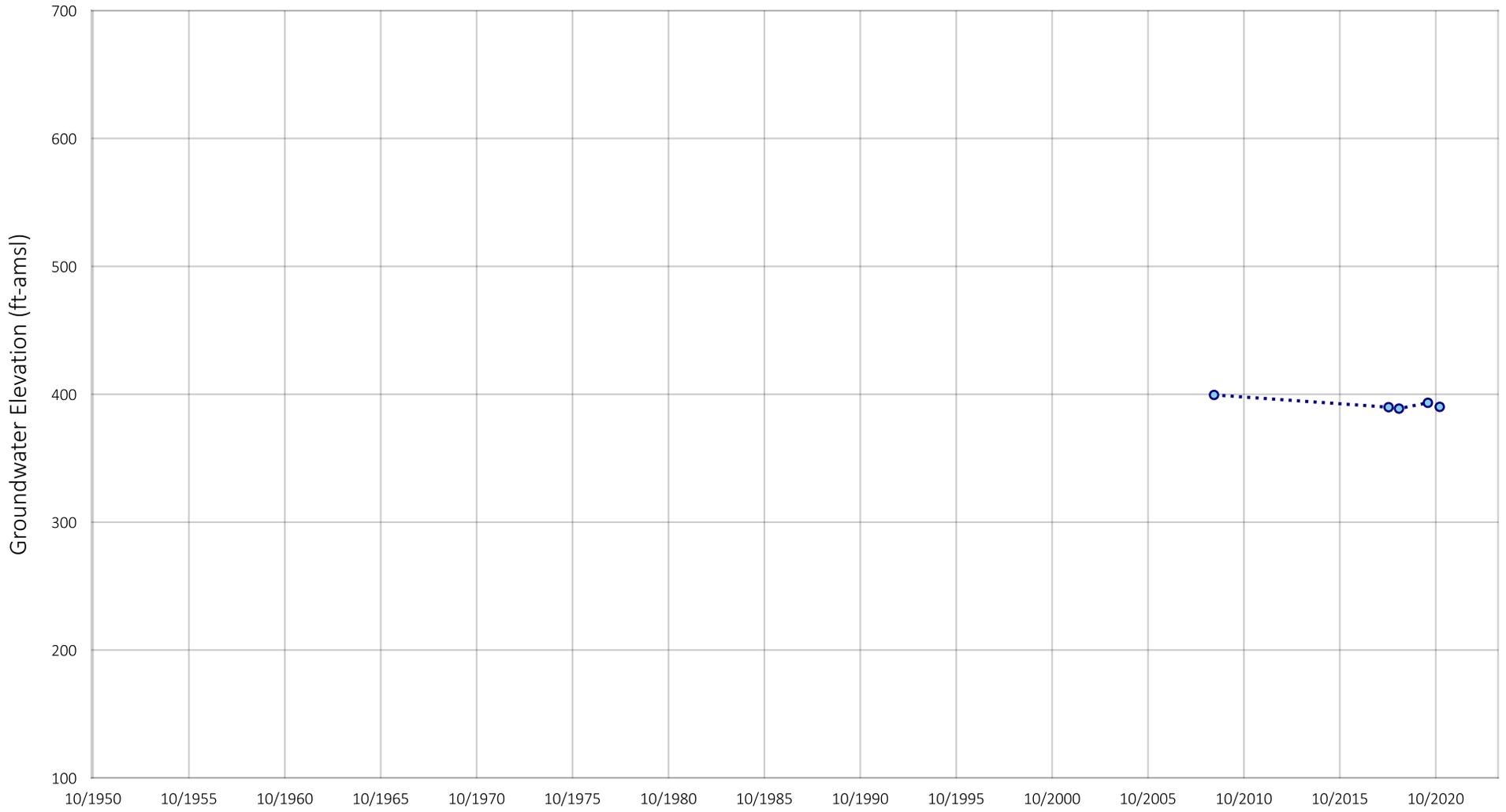


Prepared by:



Historical Groundwater Level Elevation
 BSWM ID: 1245887
 Well Name: ID4-2
 State Well ID: 011S006E07K003S

Figure F-24



Location of Well in Borrego Springs

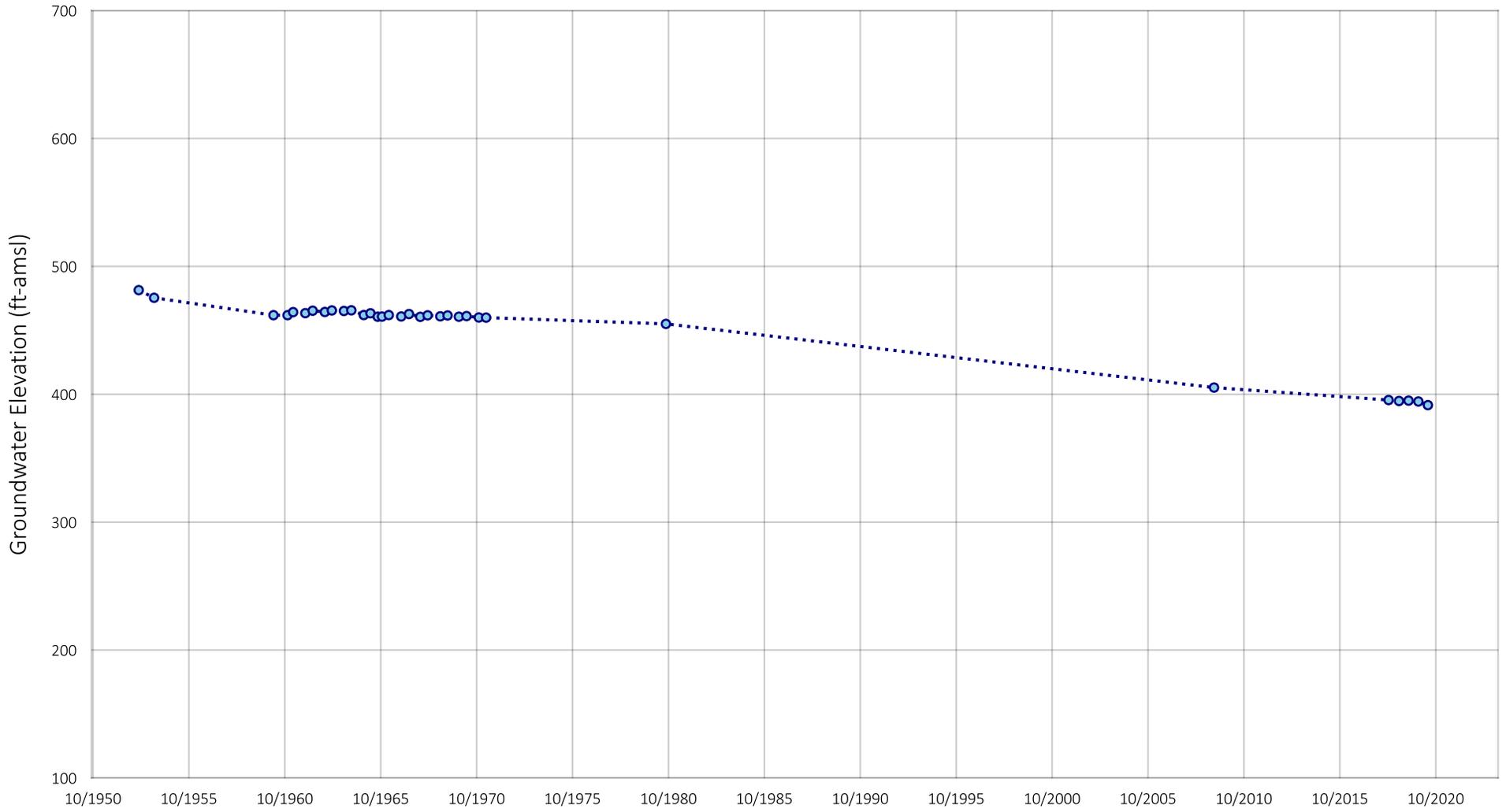


Prepared by:



Historical Groundwater Level Elevation
 BSWM ID: 1245850
 Well Name: Abandoned Motel-2
 State Well ID: 011S006E10N004S

Figure F-25



Location of Well in Borrego Springs

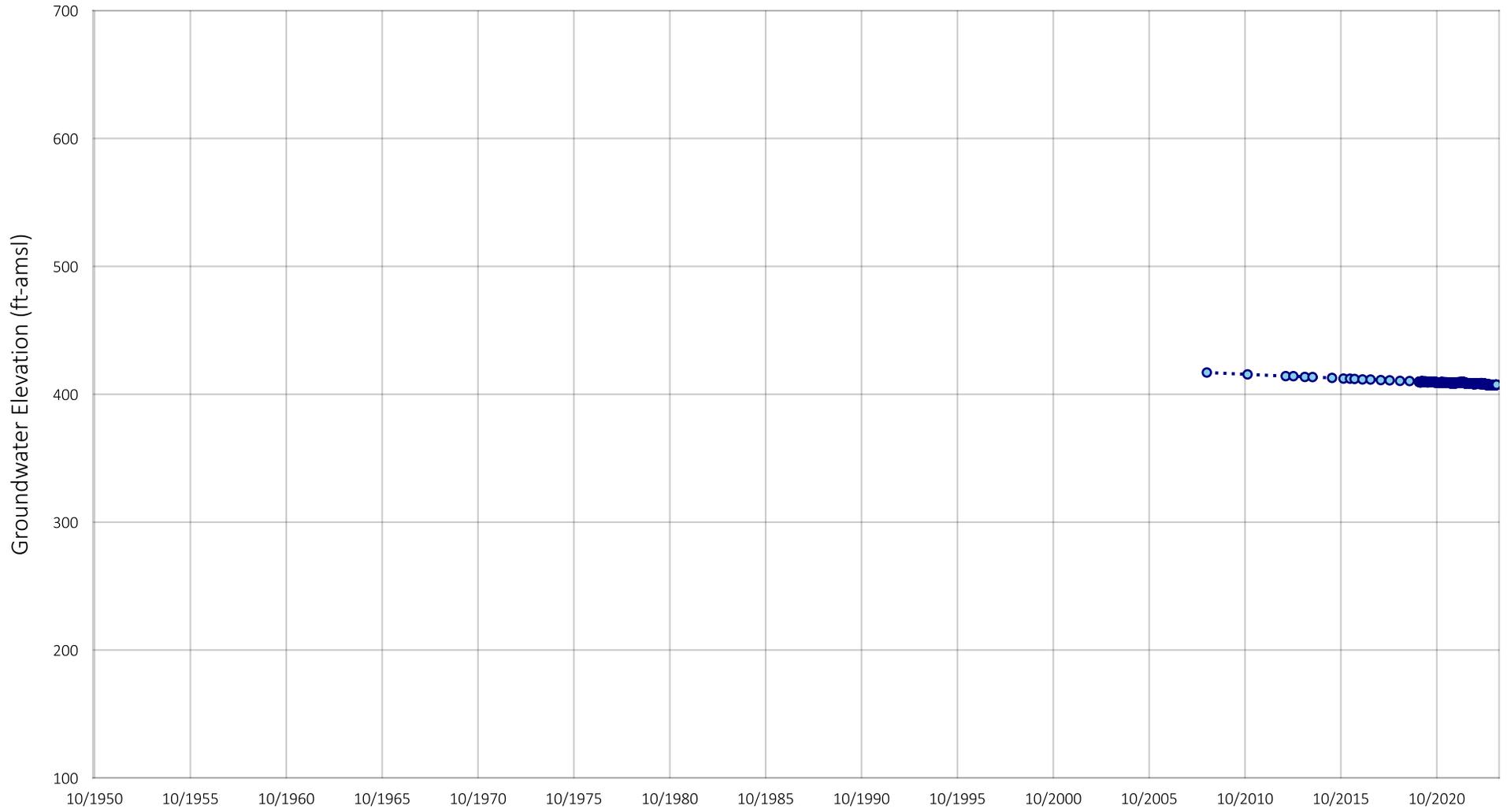


Prepared by:



Historical Groundwater Level Elevation
 BSWM ID: 1245849
 Well Name: Abandoned Motel-1
 State Well ID: 011S006E10N001S

Figure F-26



Location of Well in Borrego Springs

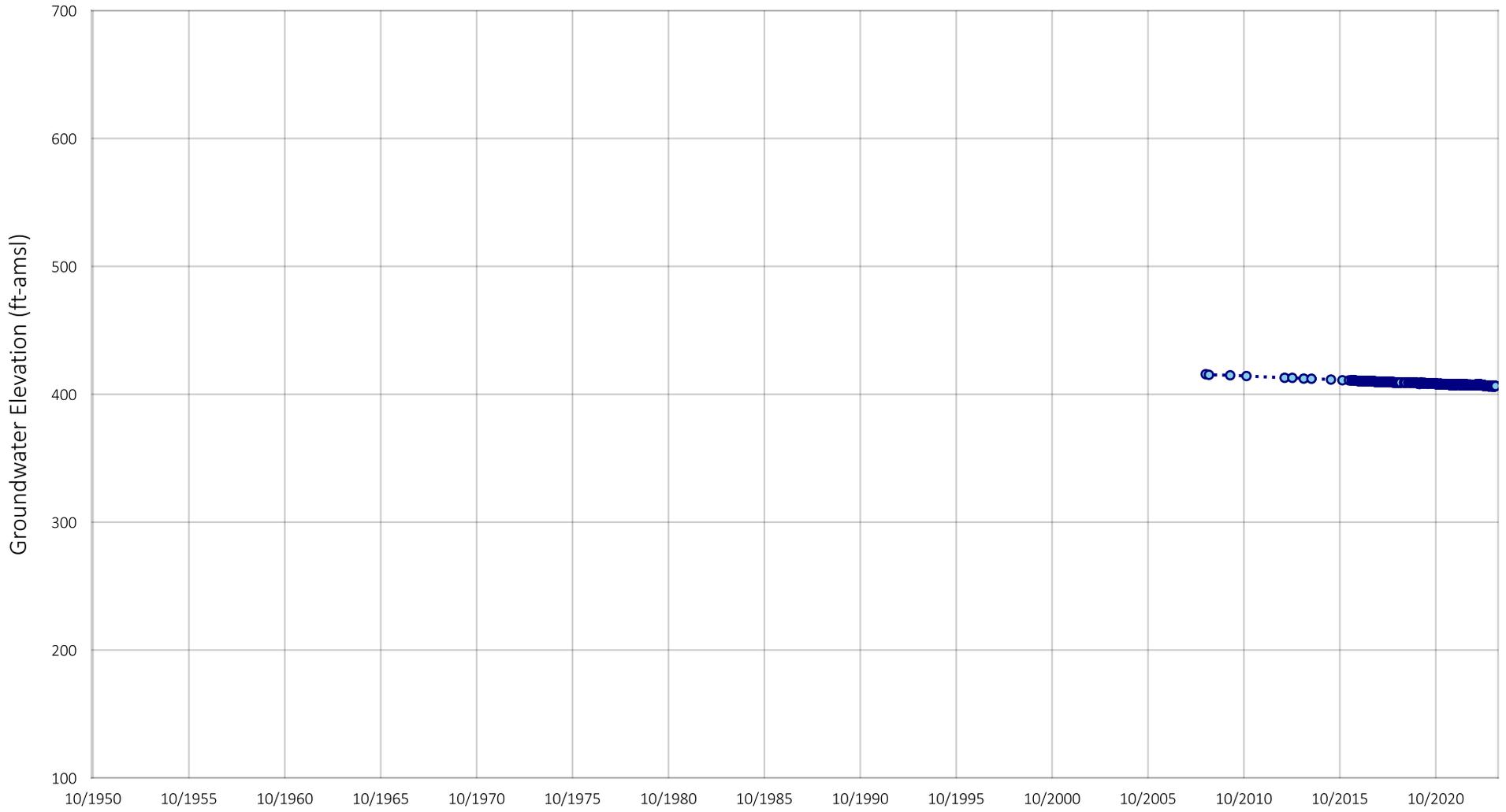


Prepared by:



Historical Groundwater Level Elevation
 BSWM ID: 1245900
 Well Name: MW-5A (East-Lower)
 State Well ID: 011S007E07R001S

Figure F-27



Location of Well in Borrego Springs

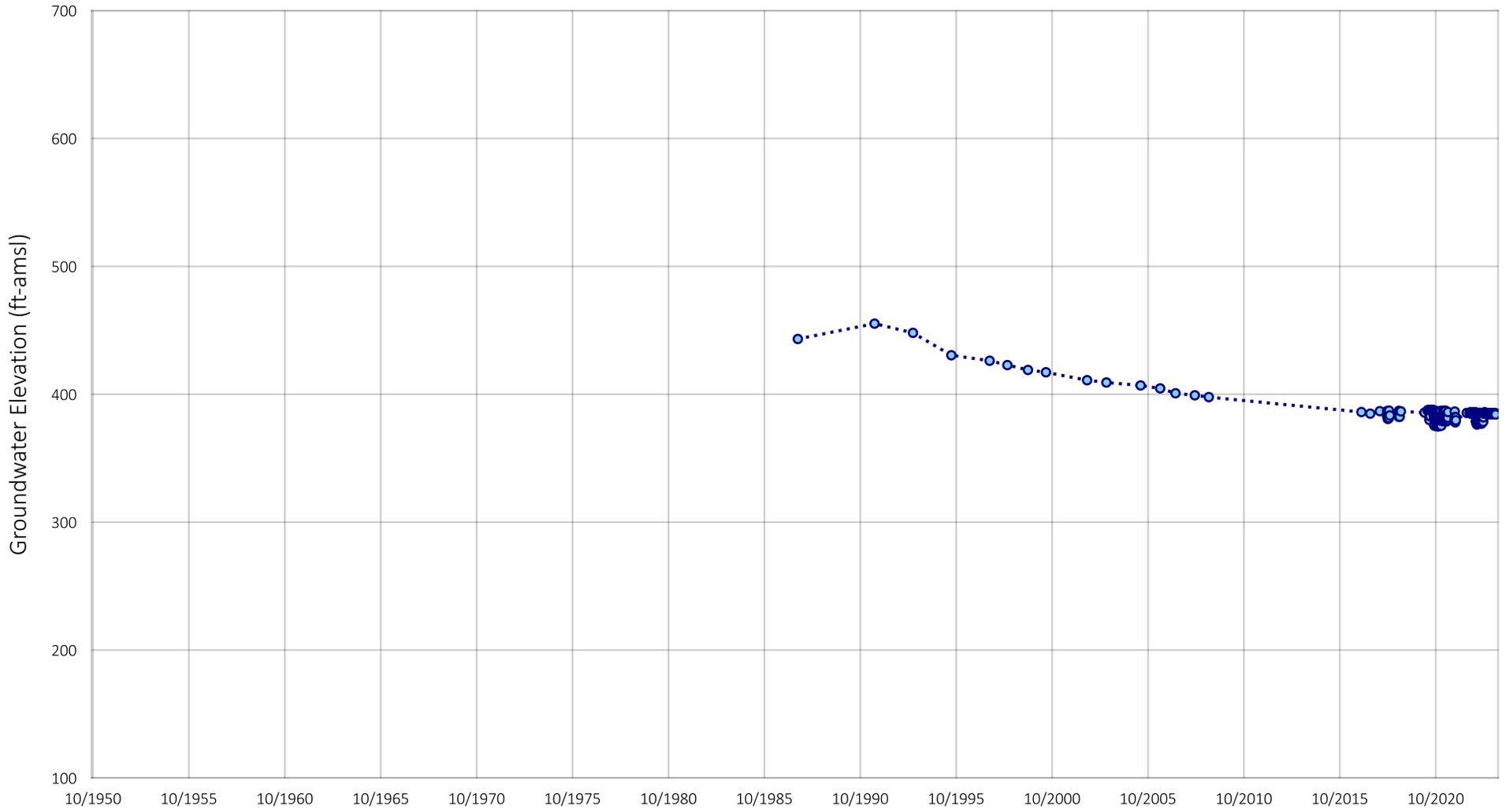


Prepared by:



Historical Groundwater Level Elevation
 BSWM ID: 1245901
 Well Name: MW-5B (West-Upper)
 State Well ID: 011S007E07R002S

Figure F-28



Location of Well in Borrego Springs

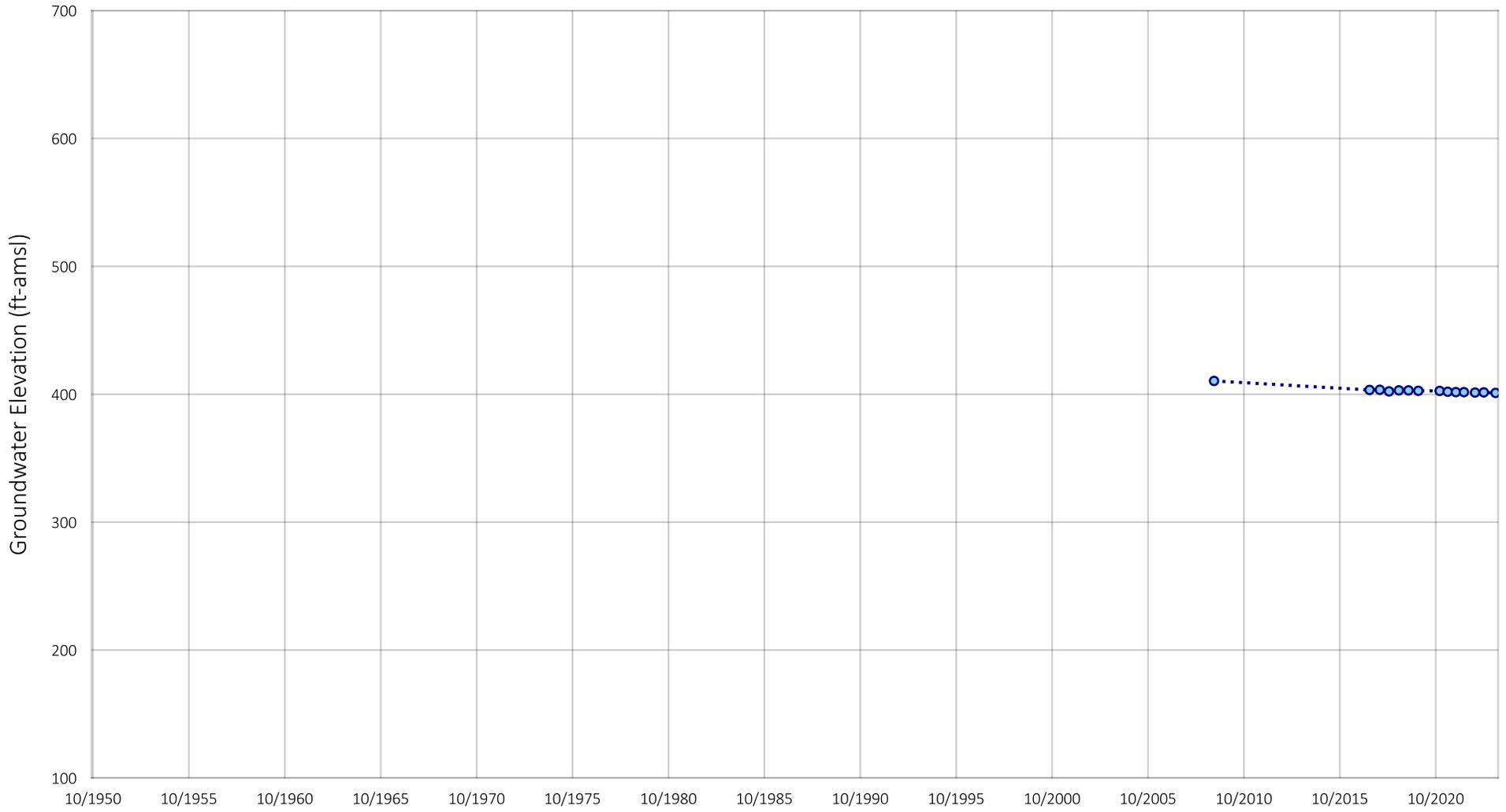


Prepared by:



Historical Groundwater Level Elevation
 BSWM ID: 1245879
 Well Name: ID1-12
 State Well ID: 011S006E16A002S

Figure F-29



Location of Well in Borrego Springs

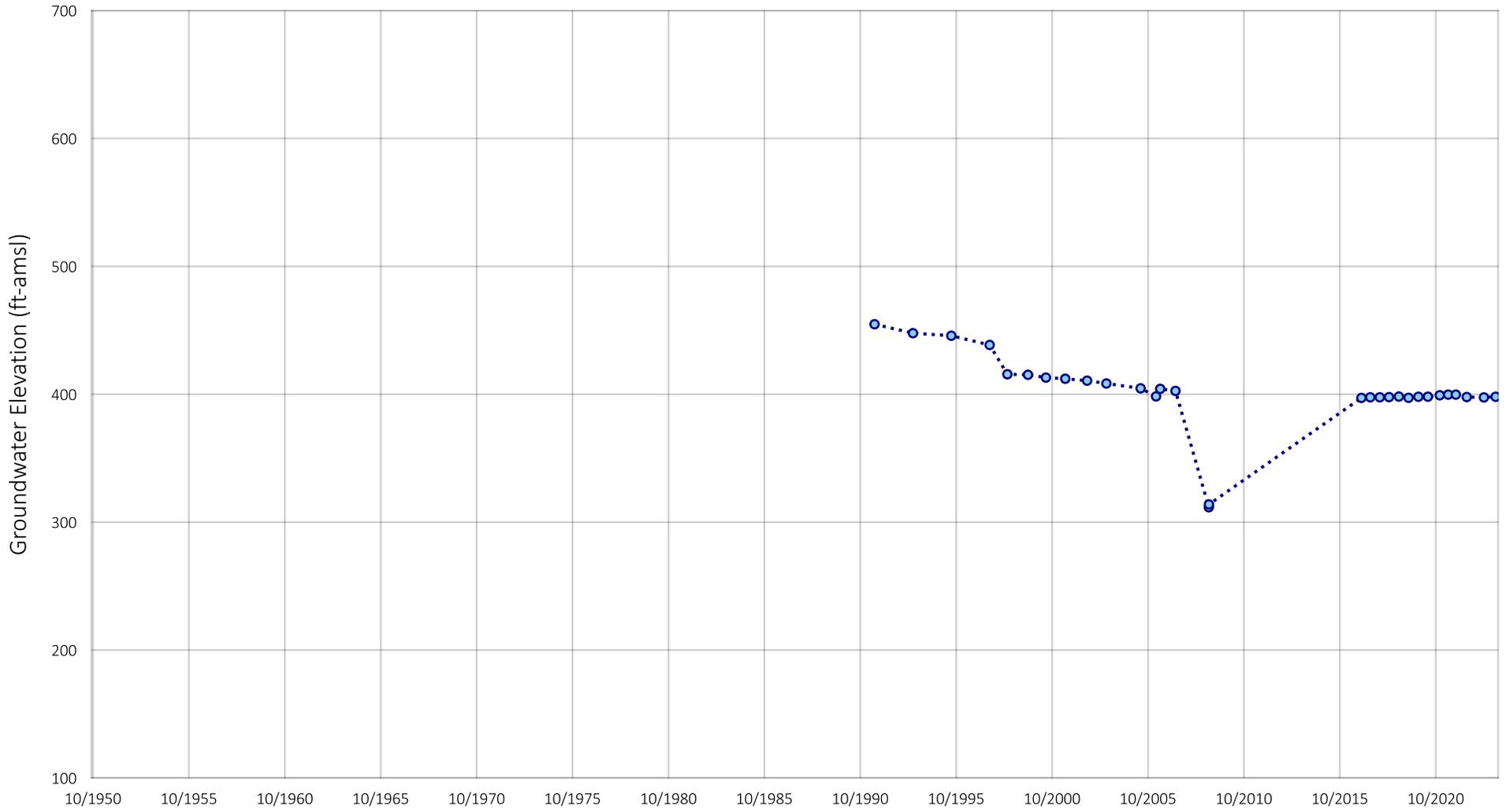


Prepared by:



Historical Groundwater Level Elevation
 BSWM ID: 1245865
 Well Name: County Yard (SD DOT)
 State Well ID: 011S006E15G001S

Figure F-30



Location of Well in Borrego Springs

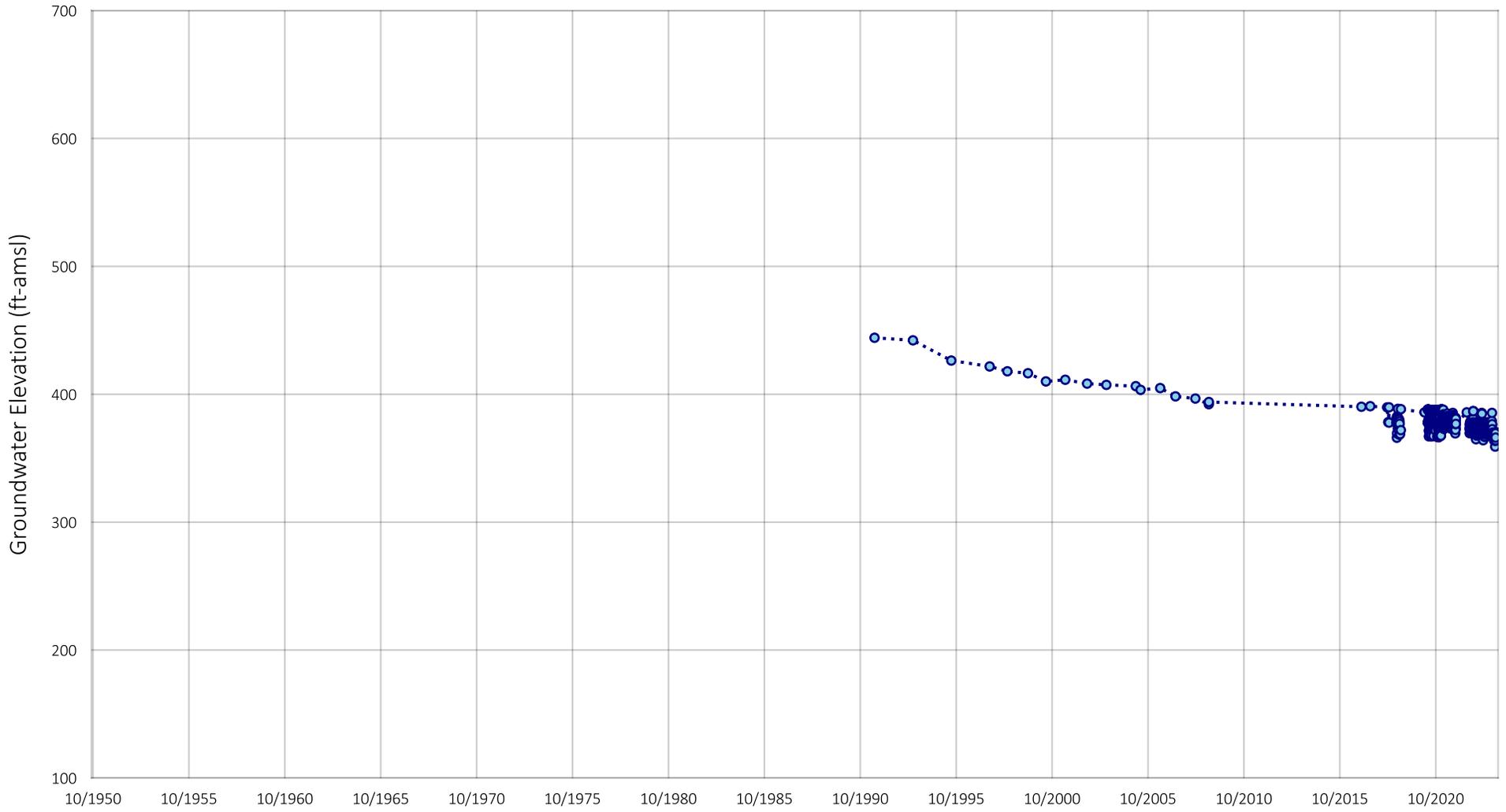


Prepared by:



Historical Groundwater Level Elevation
 BSWM ID: 1245884
 Well Name: ID4-10
 State Well ID: 011S006E18L001S

Figure F-31



Location of Well in Borrego Springs

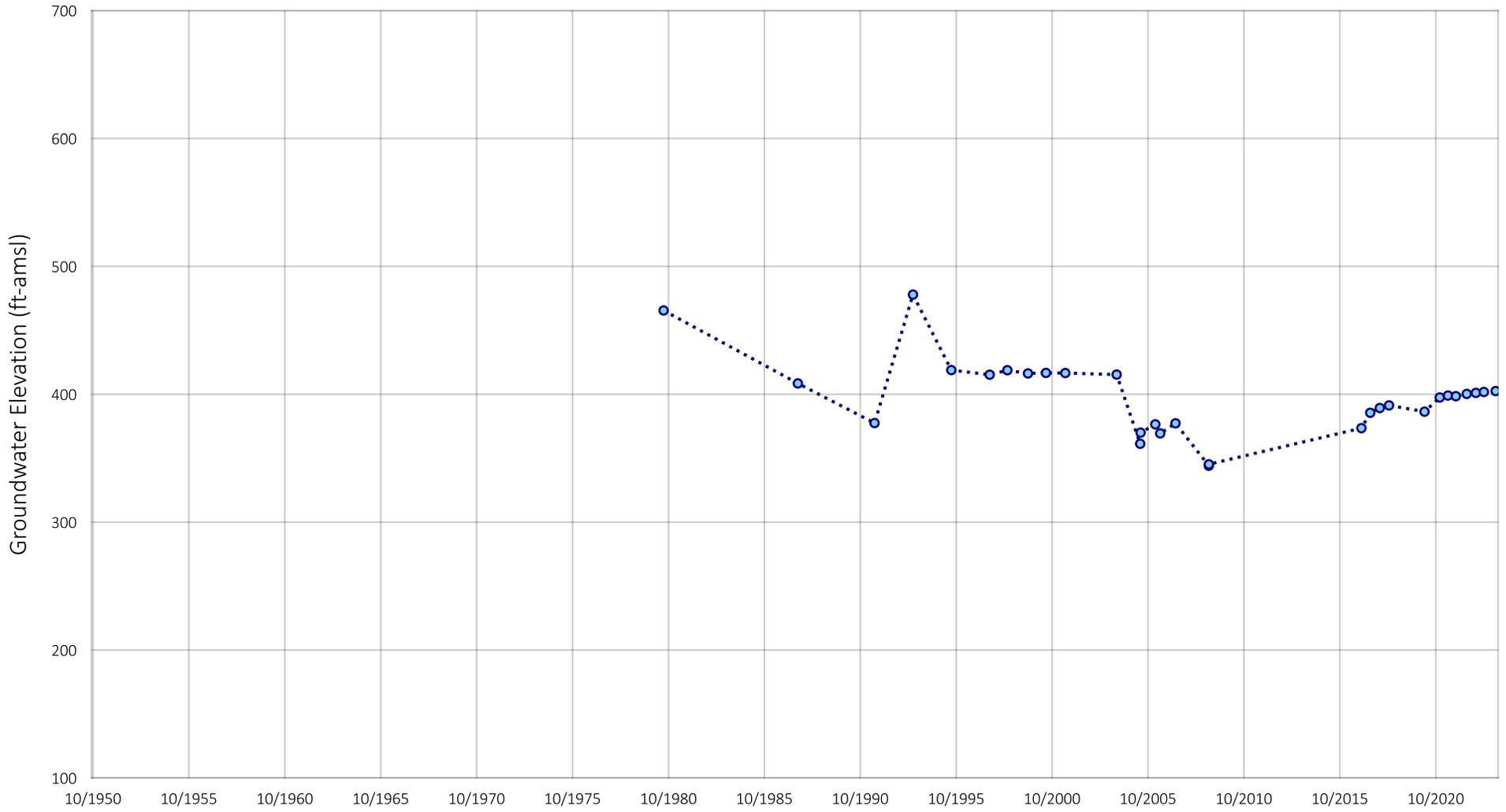


Prepared by:



Historical Groundwater Level Elevation
 BSWM ID: 1245880
 Well Name: ID1-16
 State Well ID: 011S006E16N001S

Figure F-32



Location of Well in Borrego Springs

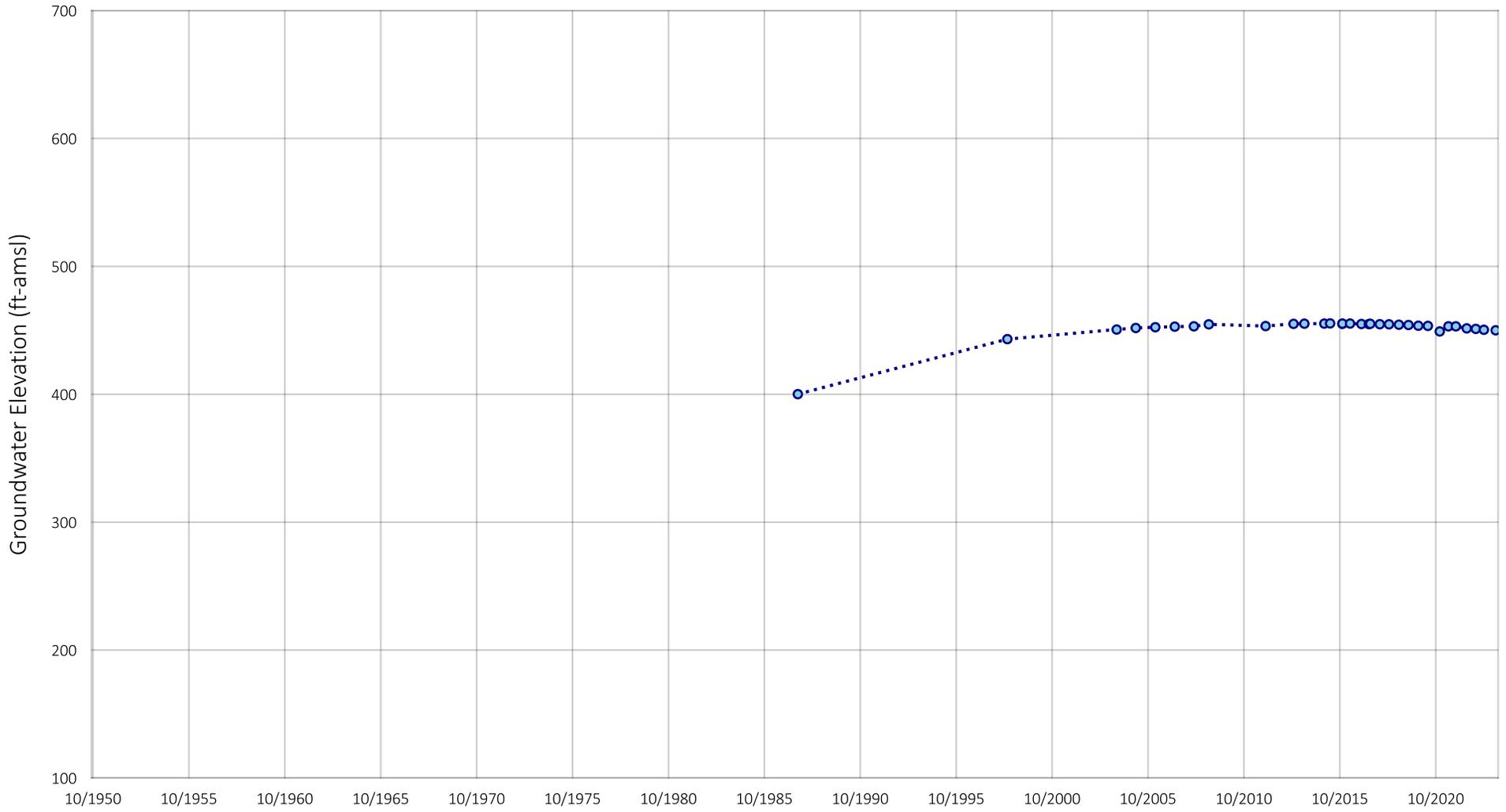


Prepared by:



Historical Groundwater Level Elevation
 BSWM ID: 1245878
 Well Name: ID1-10
 State Well ID: 011S006E22D001S

Figure F-33



Location of Well in Borrego Springs

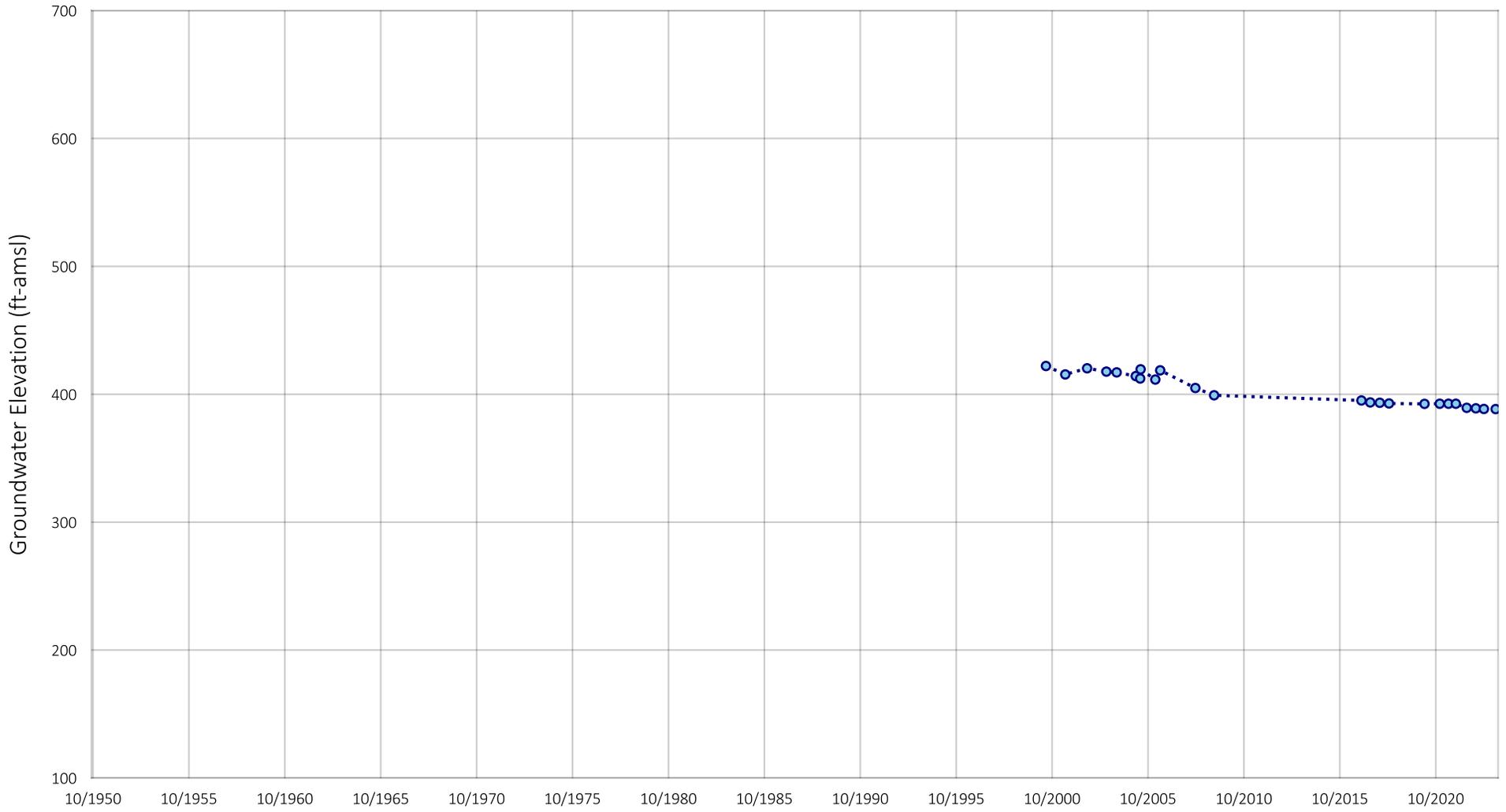


Prepared by:



Historical Groundwater Level Elevation
BSWM ID: 1245903
Well Name: Paddock
State Well ID: 011S006E22B001S

Figure F-34



Location of Well in Borrego Springs

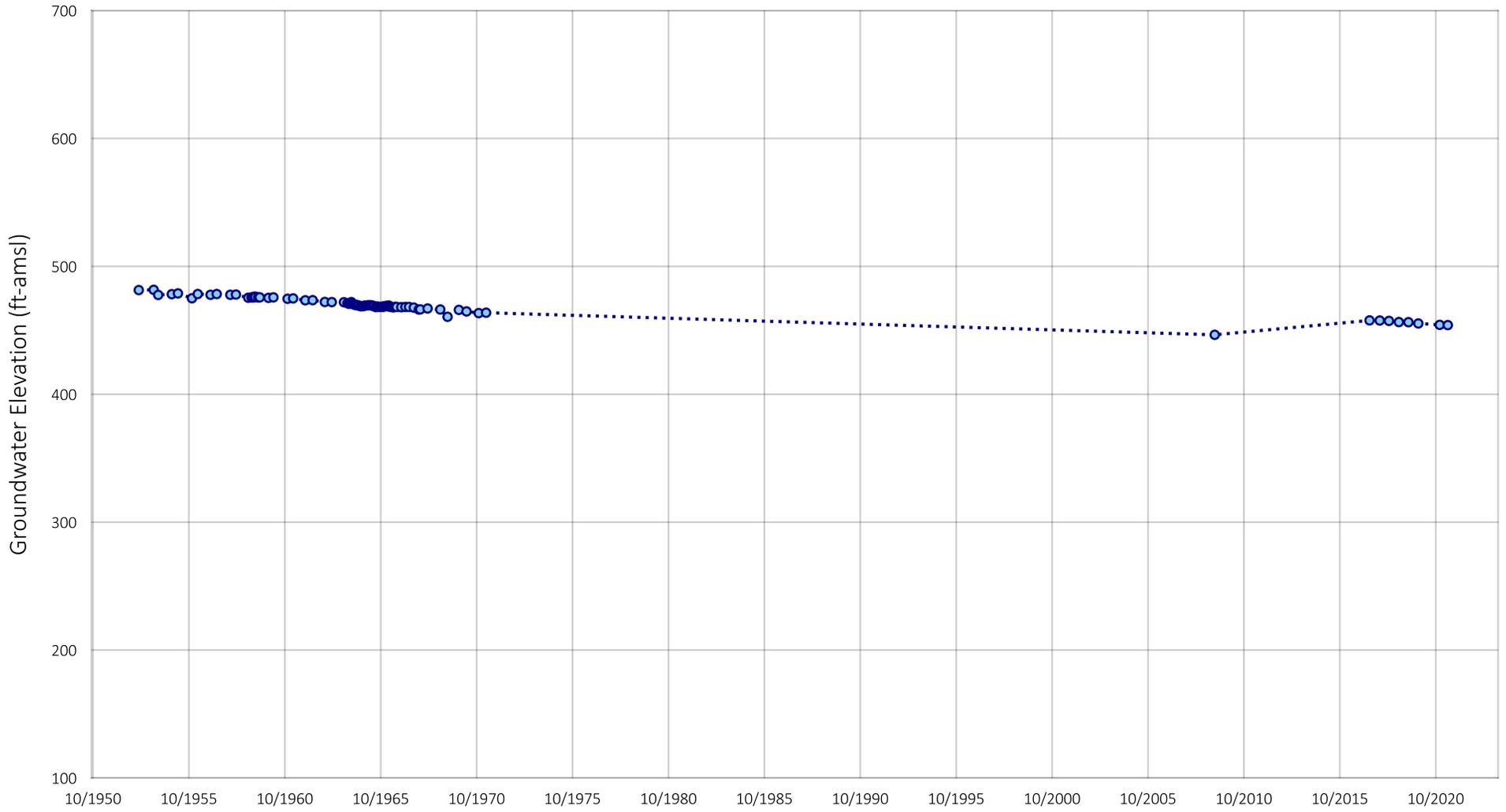


Prepared by:



Historical Groundwater Level Elevation
 BSWM ID: 1245931
 Well Name: ID4-20 (Wilcox)
 State Well ID: 011S006E20A001S

Figure F-35



Location of Well in Borrego Springs

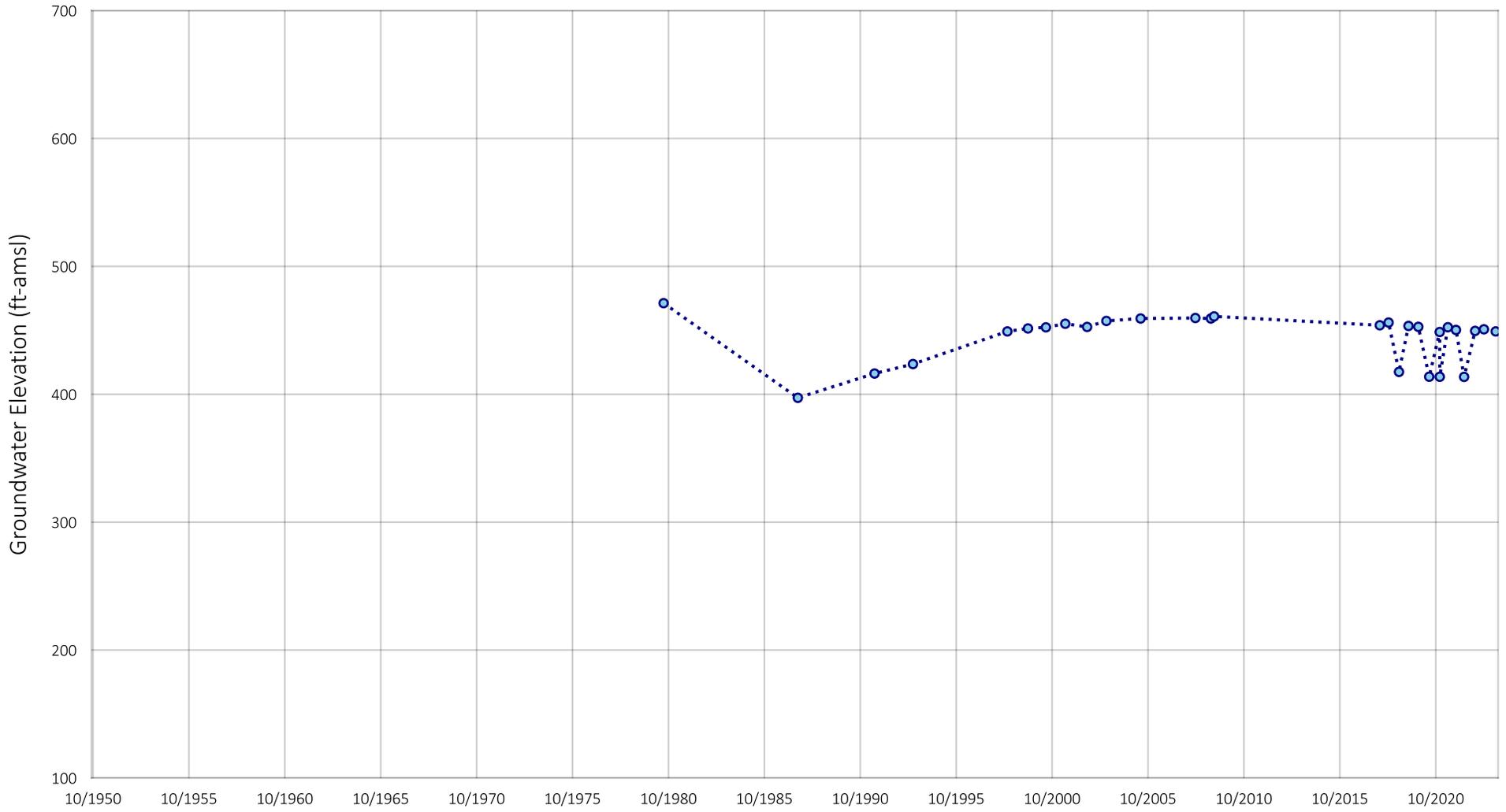


Prepared by:



Historical Groundwater Level Elevation
 BSWM ID: 1245856
 Well Name: Bakko
 State Well ID: 011S006E22A001S

Figure F-36



Location of Well in Borrego Springs

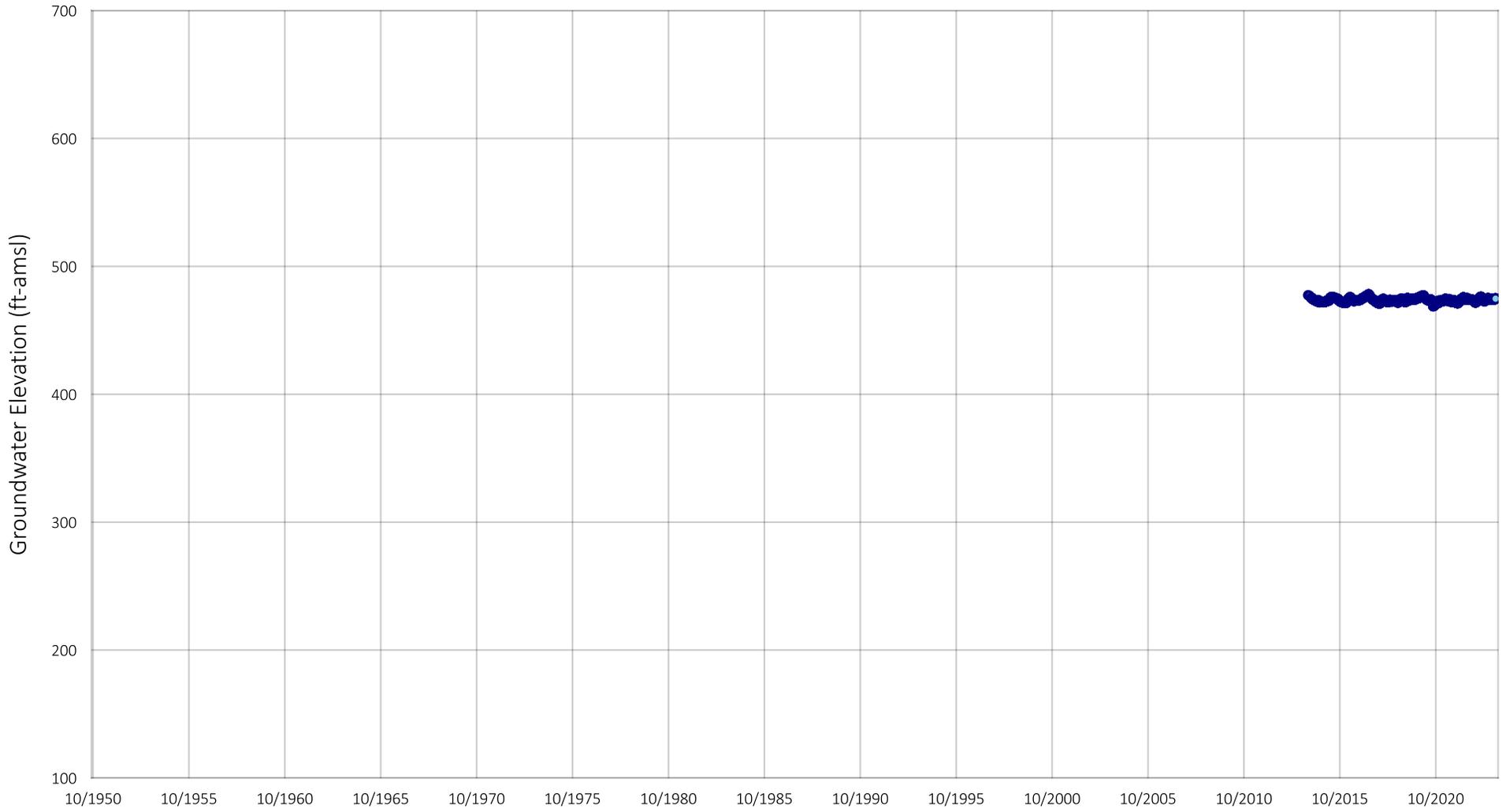


Prepared by:



Historical Groundwater Level Elevation
 BSWM ID: 1245895
 Well Name: La Casa
 State Well ID: 011S006E23E001S

Figure F-37



Location of Well in Borrego Springs

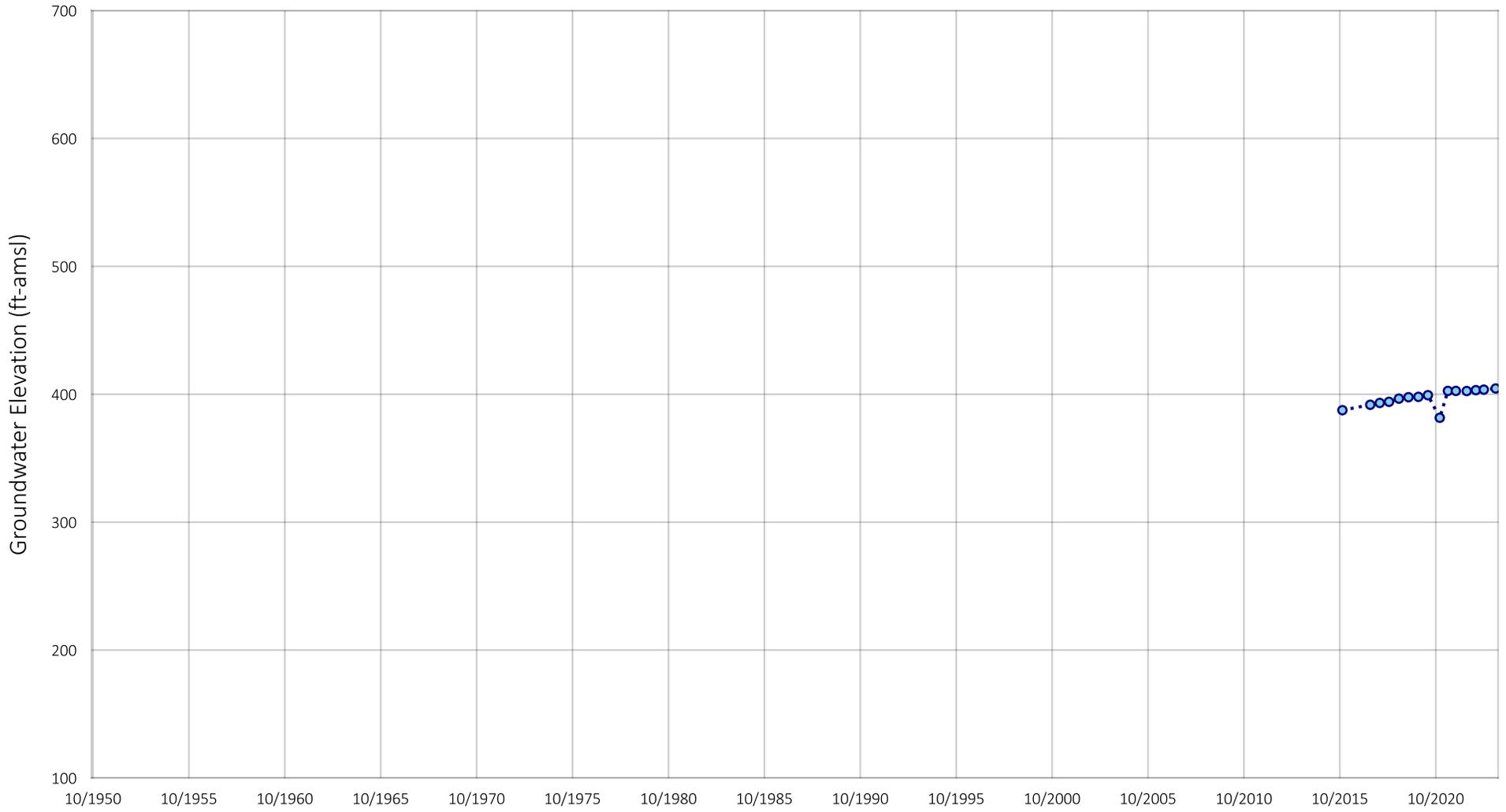


Prepared by:



Historical Groundwater Level Elevation
BSWM ID: 1245932
Well Name: WWTP-1
State Well ID: 011S006E23H001S

Figure F-38



Location of Well in Borrego Springs

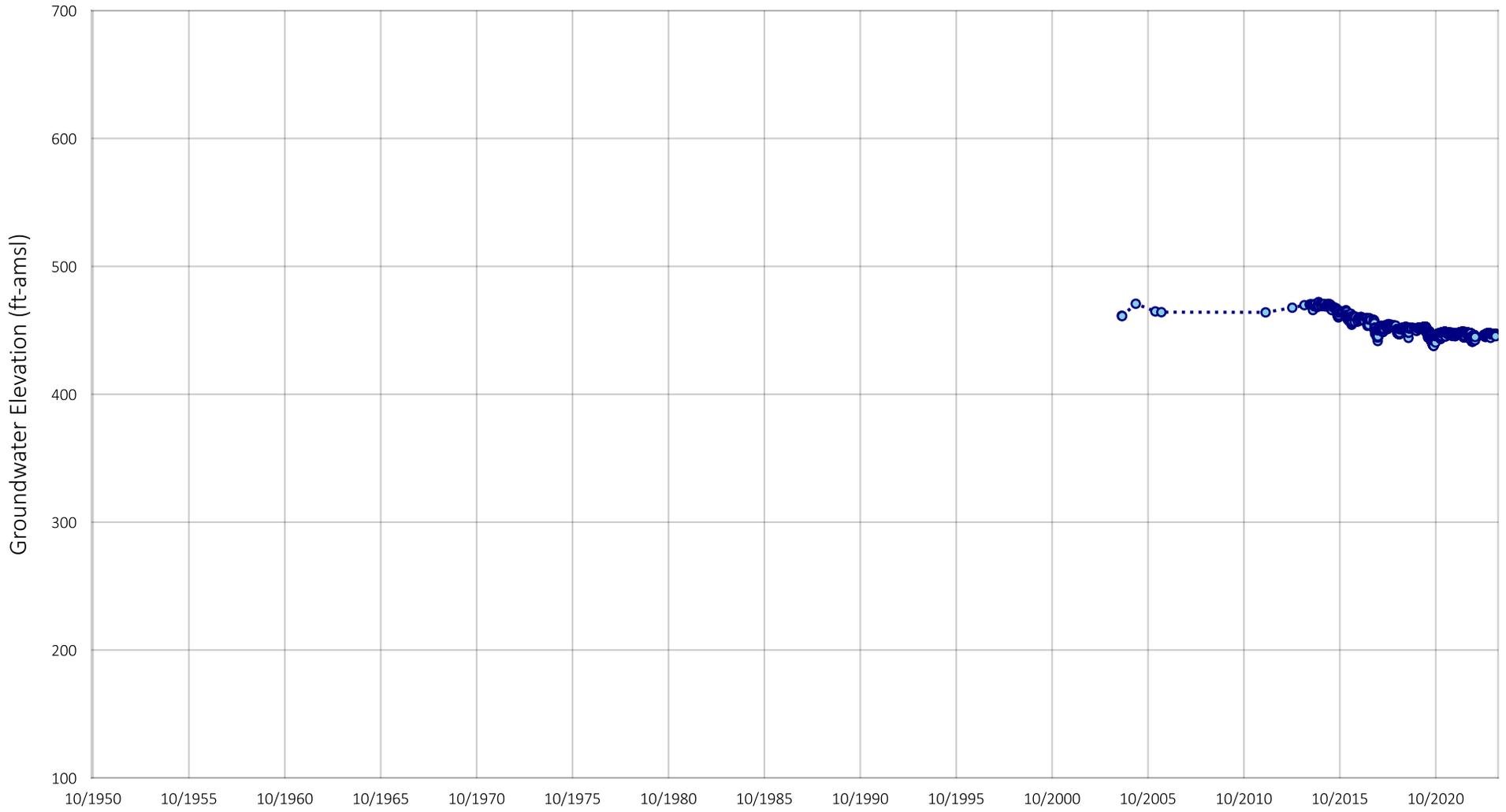


Prepared by:



Historical Groundwater Level Elevation
 BSWM ID: 1245853
 Well Name: Anzio/Yaqui Pass
 State Well ID: 011S006E22E001S

Figure F-39



Location of Well in Borrego Springs

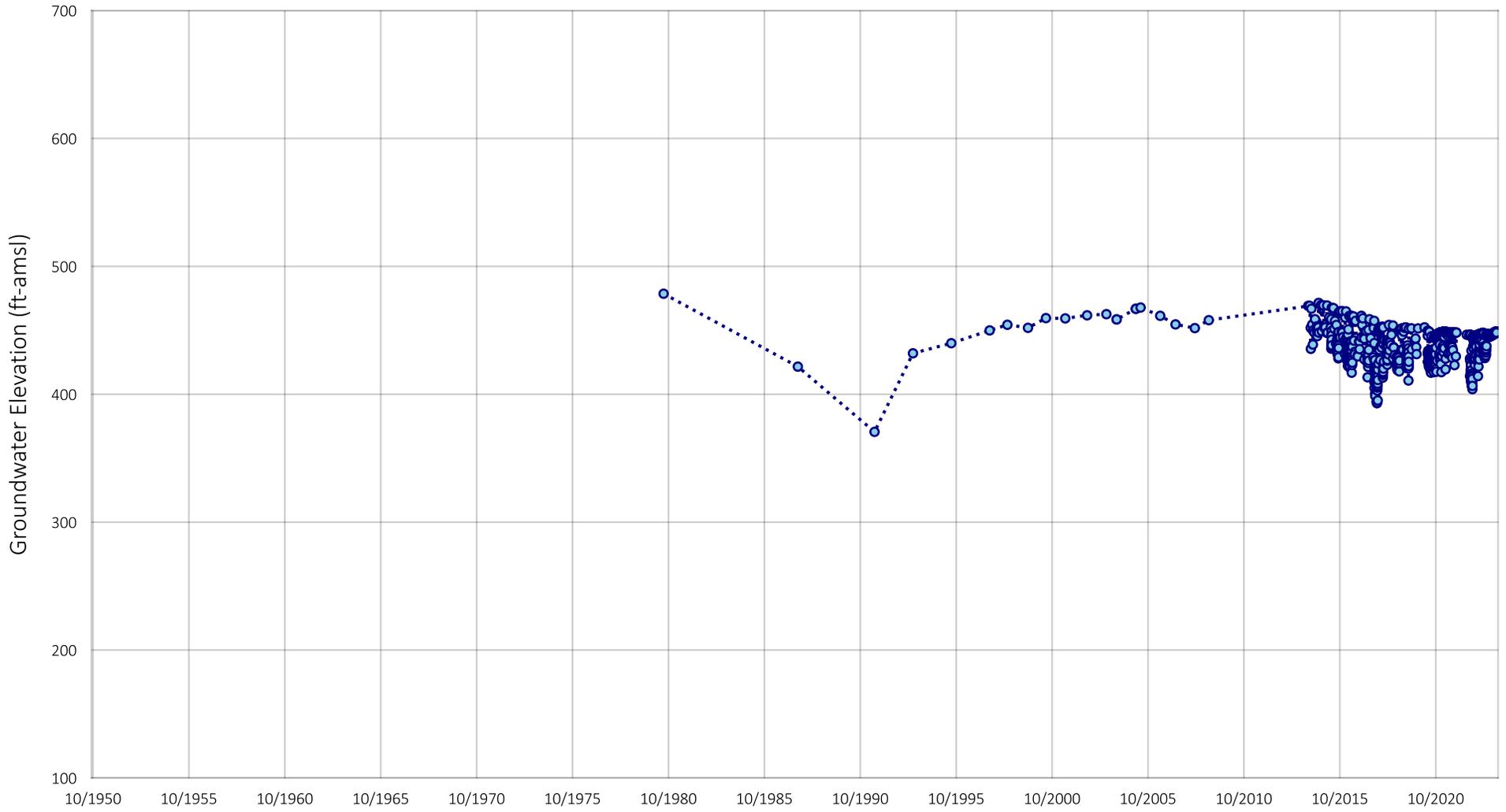


Prepared by:



Historical Groundwater Level Elevation
 BSWM ID: 1245898
 Well Name: MW-3
 State Well ID: 011S006E23J002S

Figure F-40



Location of Well in Borrego Springs

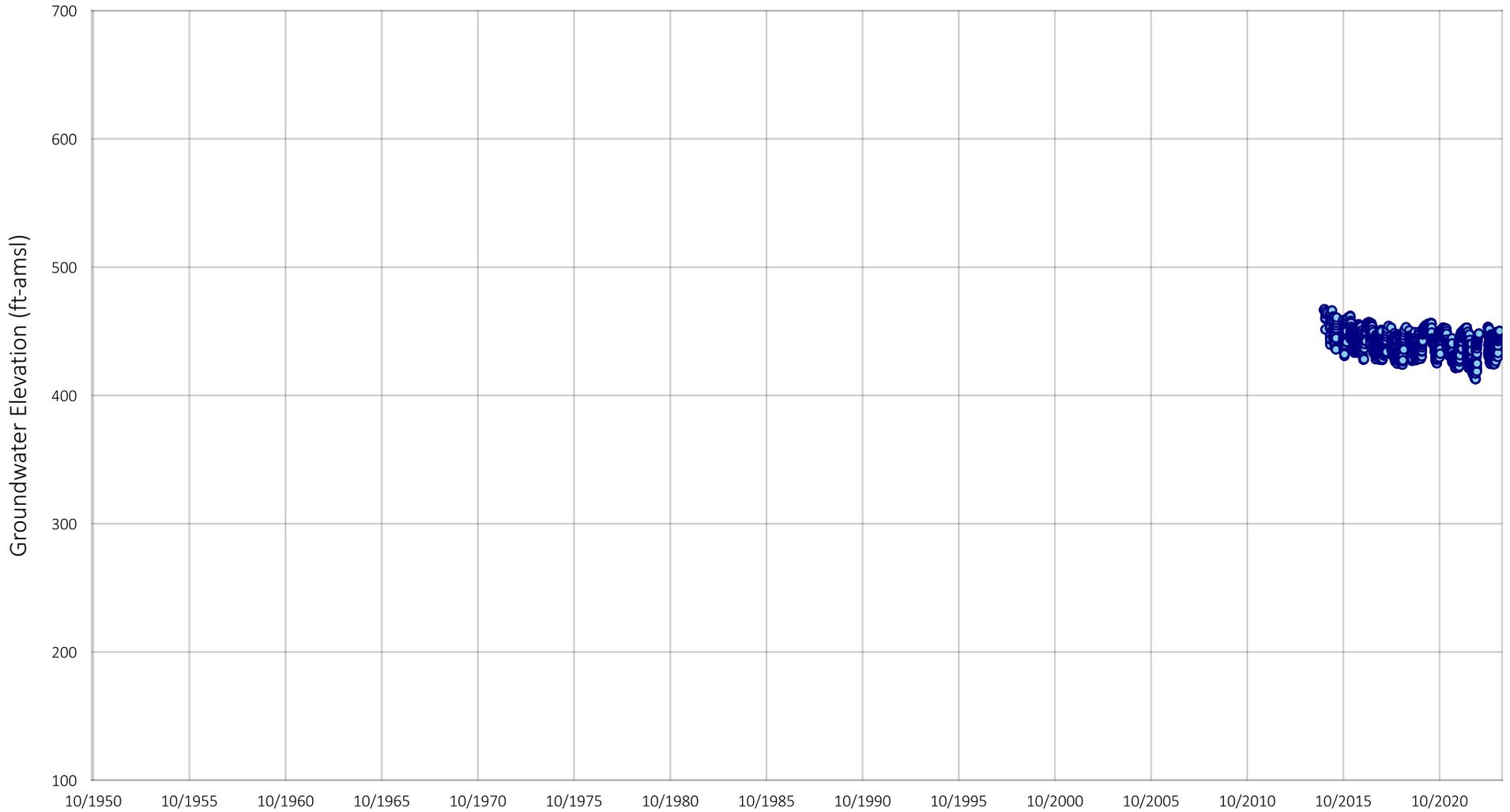


Prepared by:



Historical Groundwater Level Elevation
 BSWM ID: 1245882
 Well Name: ID1-8
 State Well ID: 011S006E23J001S

Figure F-41



Location of Well in Borrego Springs

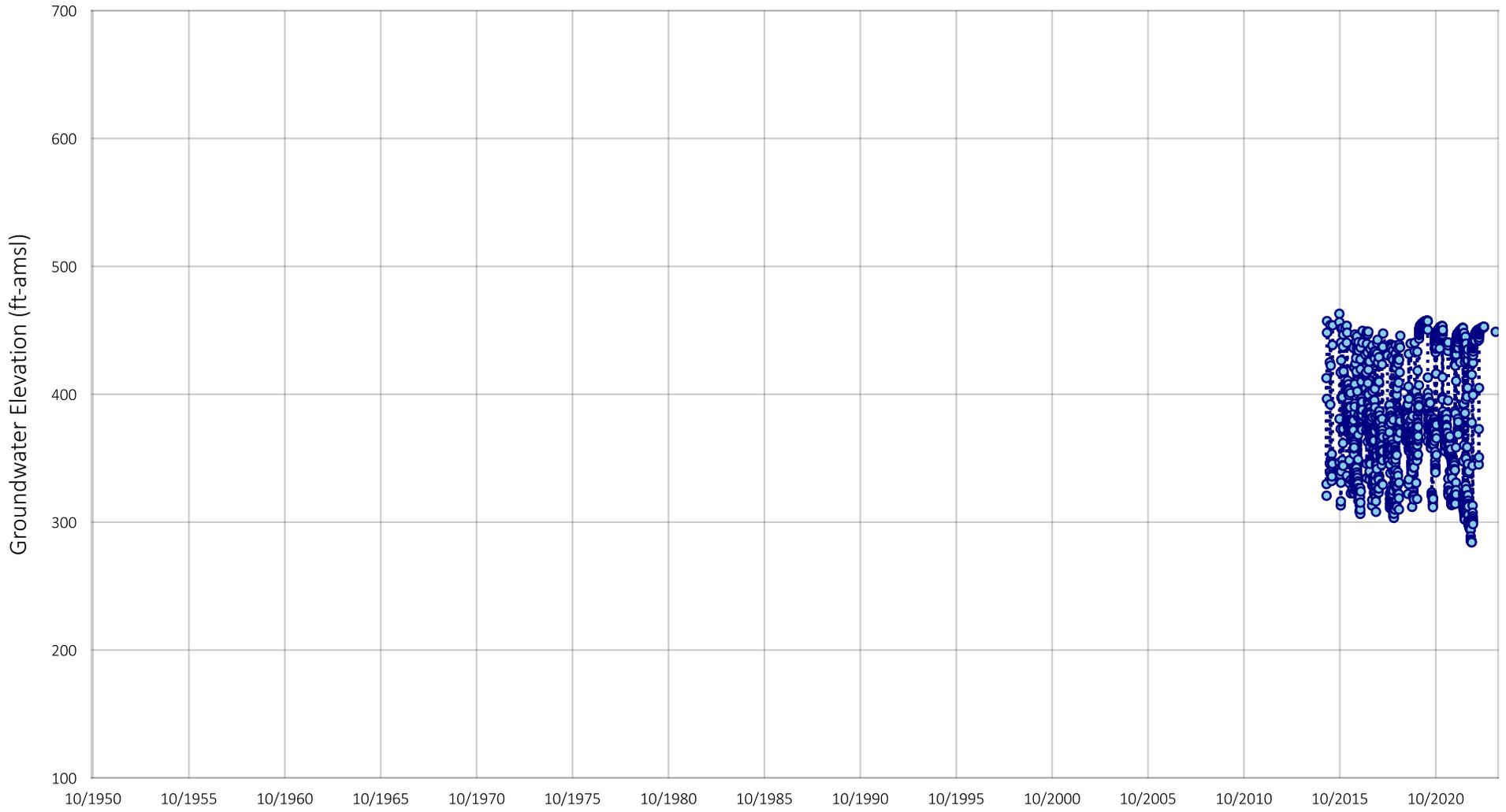


Prepared by:



Historical Groundwater Level Elevation
 BSWM ID: 1245894
 Well Name: JC Well
 State Well ID: 011S006E24Q001S

Figure F-42



Location of Well in Borrego Springs

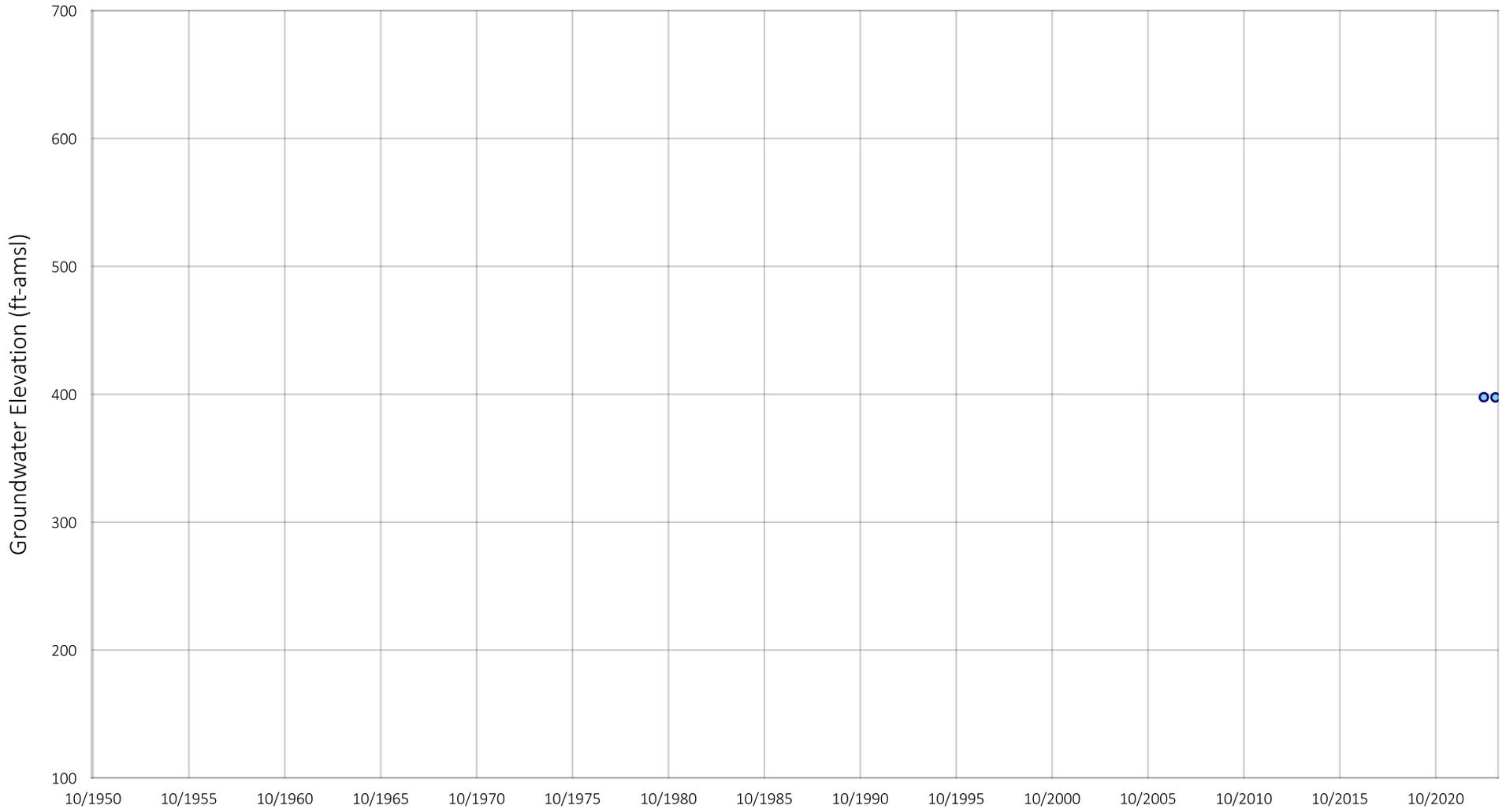


Prepared by:



Historical Groundwater Level Elevation
BSWM ID: 1245910
Well Name: RH-4
State Well ID: 011S006E24Q002S

Figure F-43



Location of Well in Borrego Springs

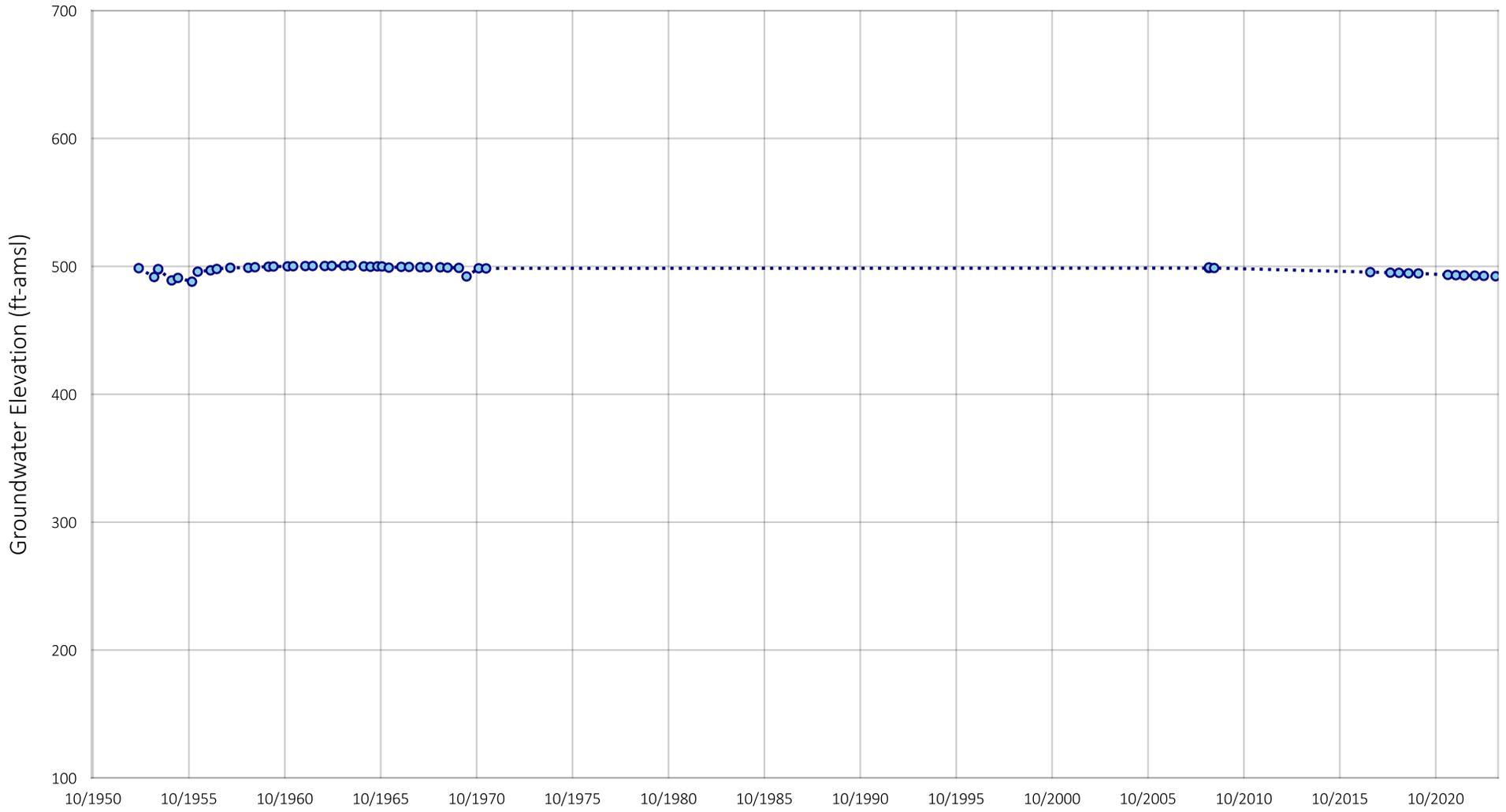


Prepared by:



Historical Groundwater Level Elevation
 BSWM ID: 1245836
 Well Name: Terry Well (011S006E20R001S)
 State Well ID: 011S006E20R001S

Figure F-44



Location of Well in Borrego Springs

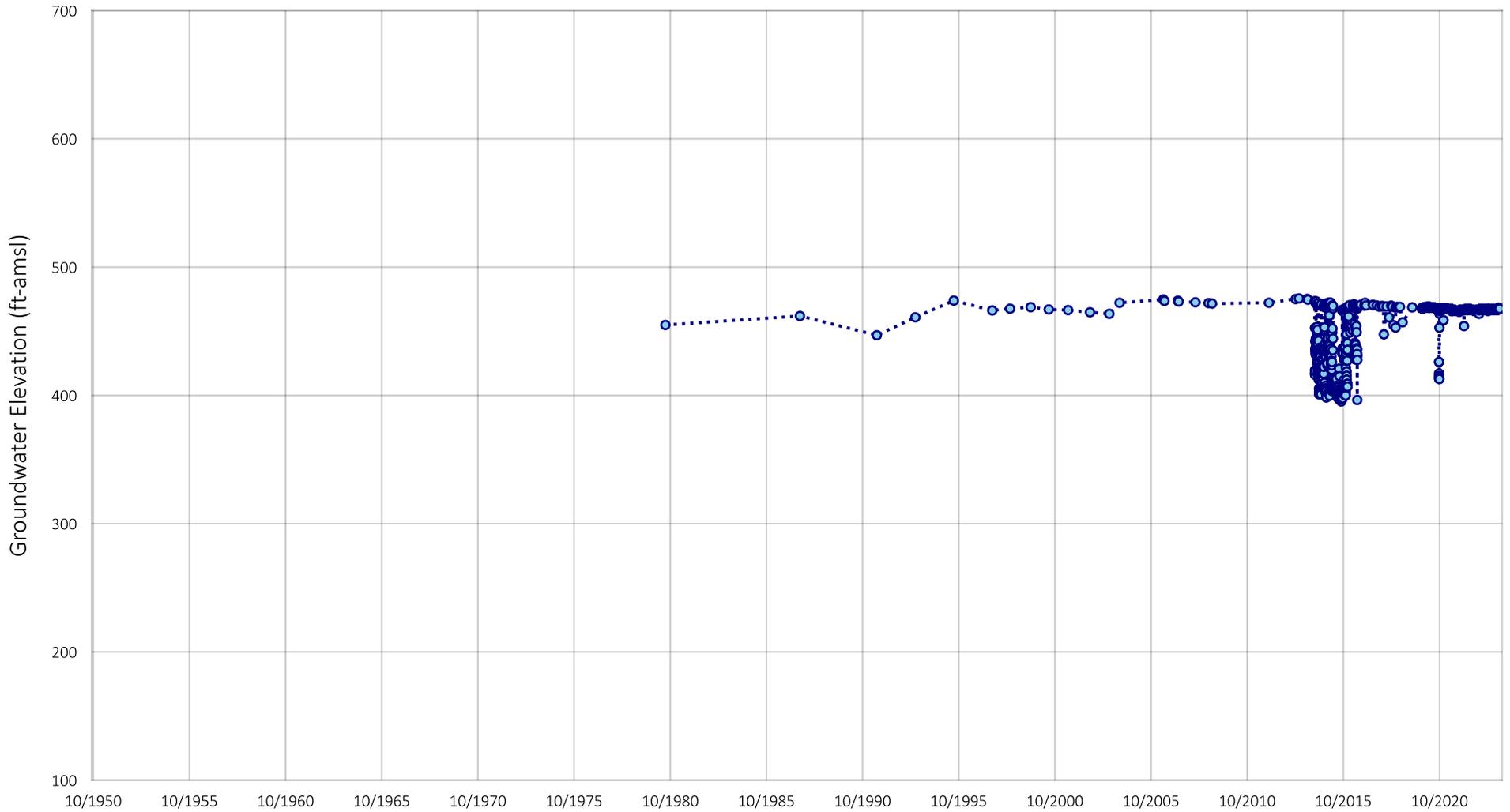


Prepared by:



Historical Groundwater Level Elevation
 BSWM ID: 1245859
 Well Name: Bing Crosby Well (Sky Ranch)
 State Well ID: 011S007E20P001S

Figure F-45



Location of Well in Borrego Springs

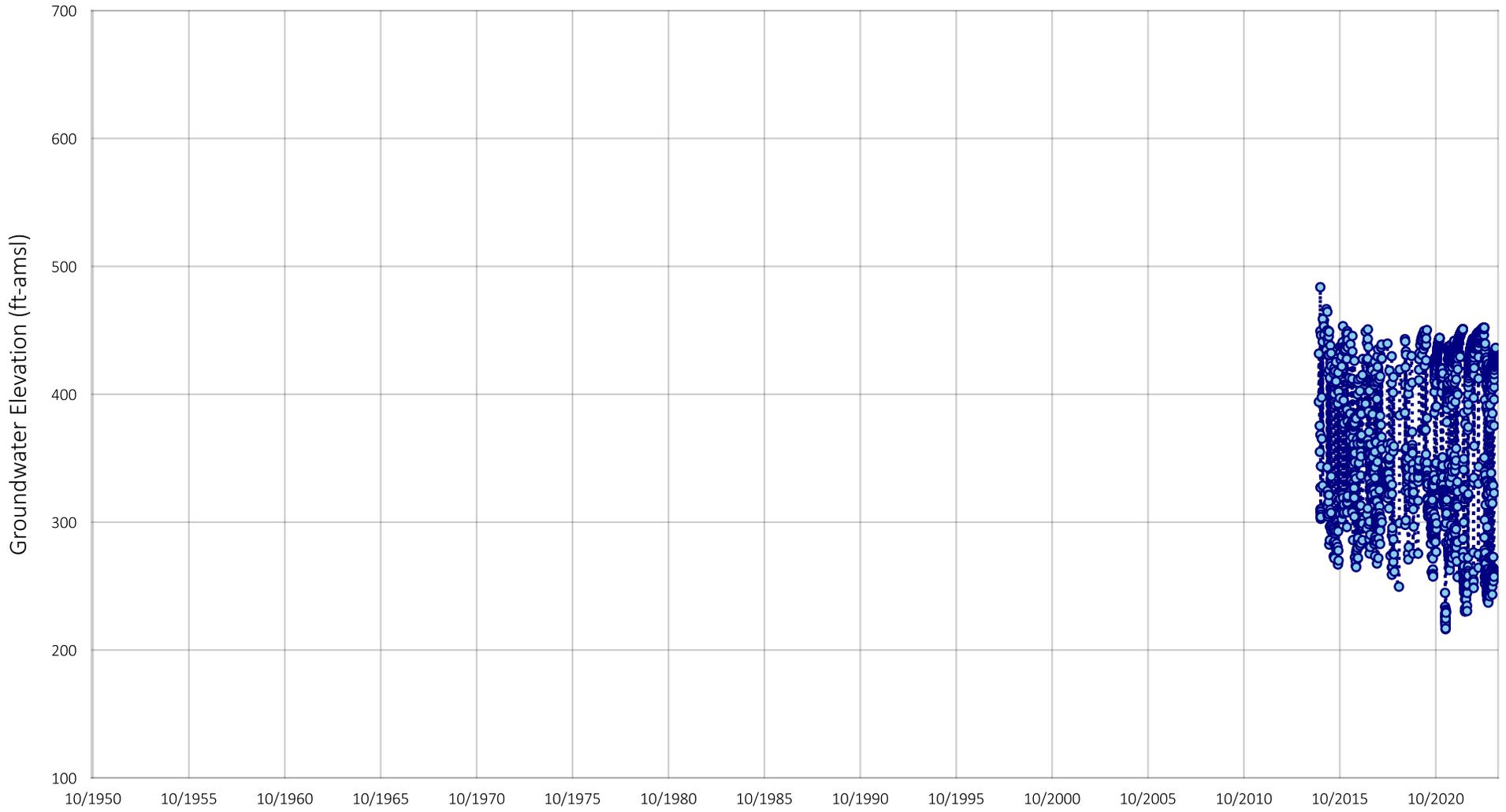


Prepared by:



Historical Groundwater Level Elevation
 BSWM ID: 1245877
 Well Name: RH-1 (ID1-1)
 State Well ID: 011S006E25A001S

Figure F-46



Location of Well in Borrego Springs

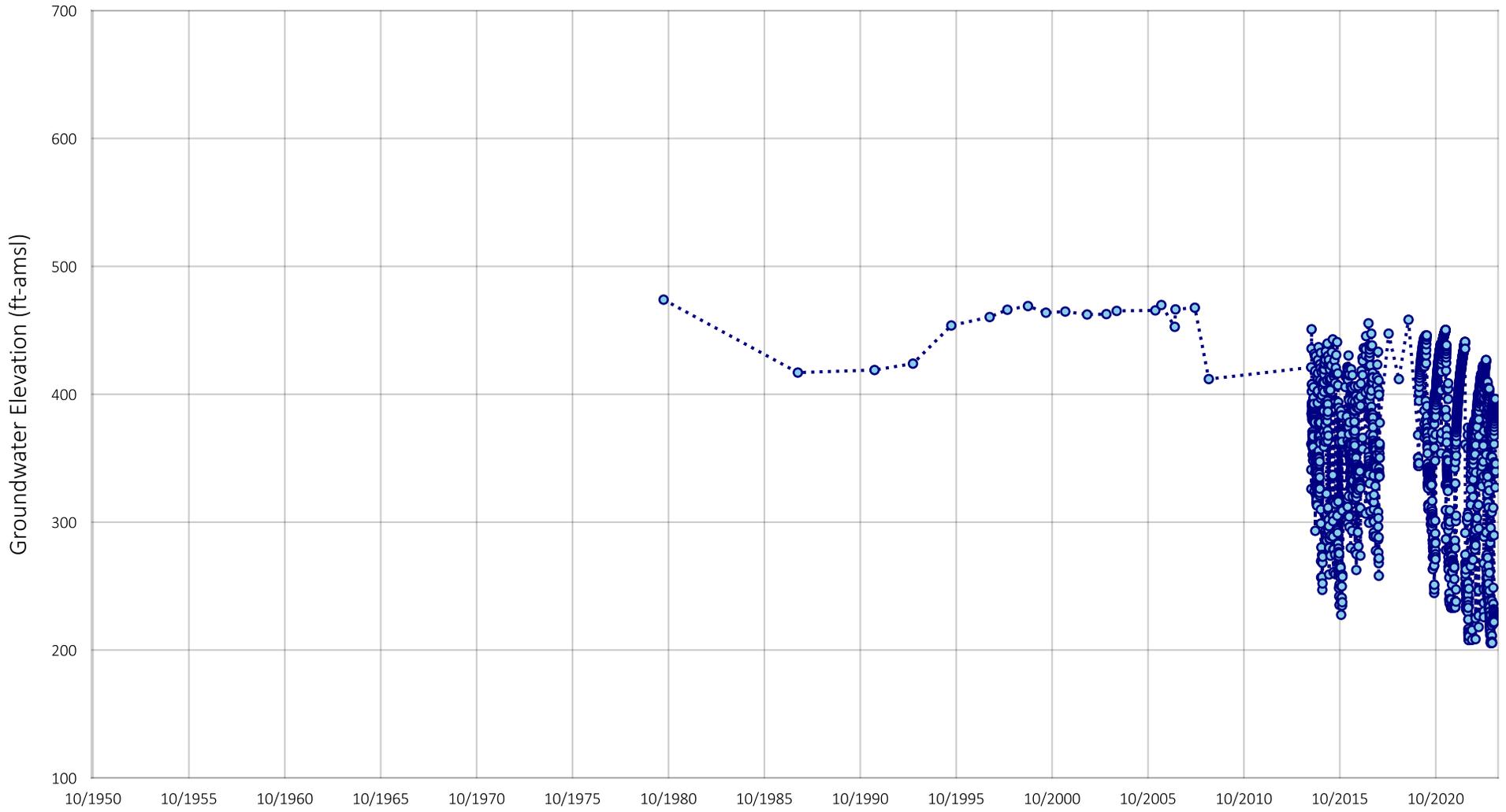


Prepared by:



Historical Groundwater Level Elevation
 BSWM ID: 1245909
 Well Name: RH-3
 State Well ID: 011S006E25C002S

Figure F-47



Location of Well in Borrego Springs

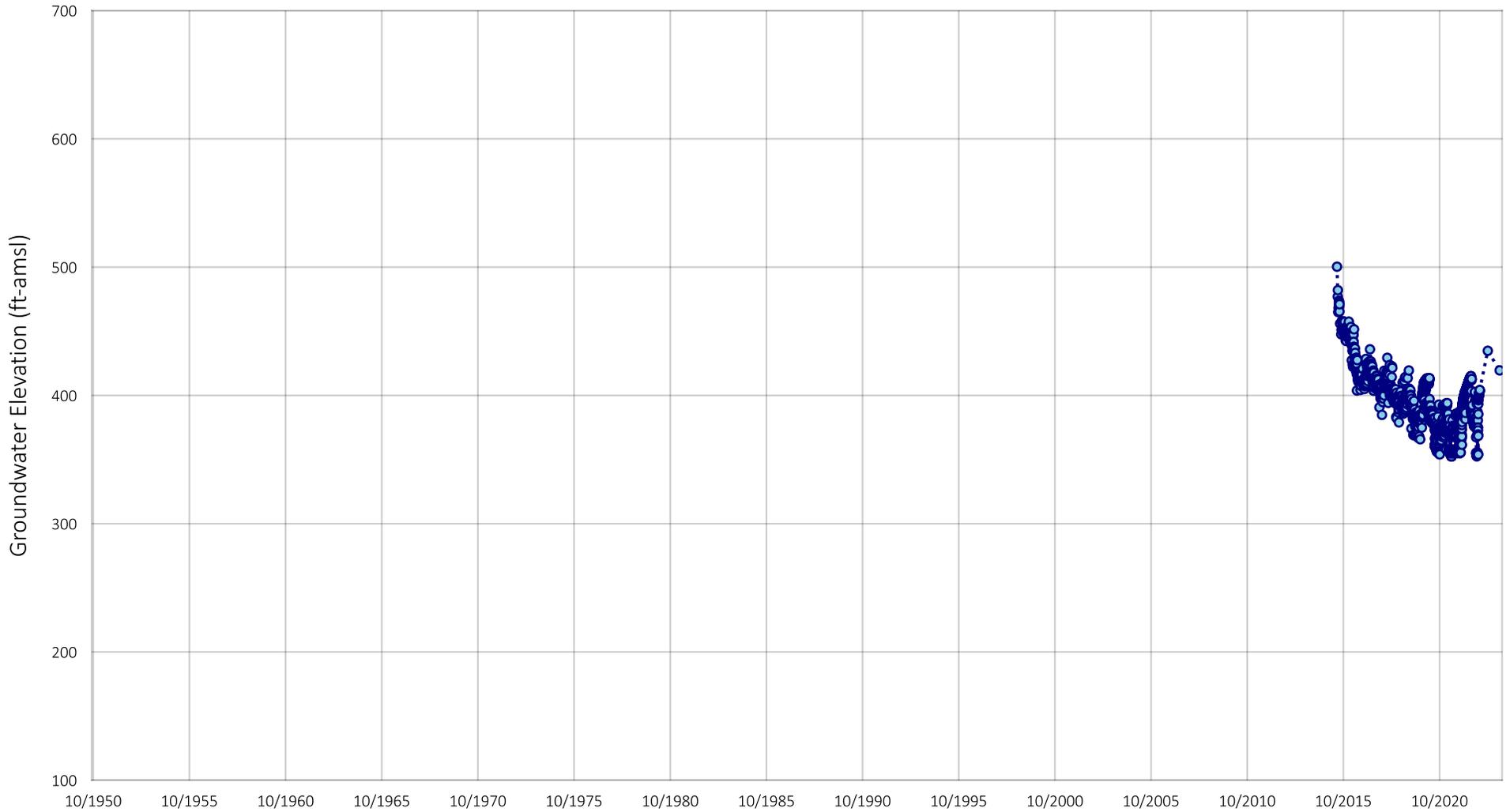


Prepared by:



Historical Groundwater Level Elevation
 BSWM ID: 1245881
 Well Name: RH-2 (ID1-2)
 State Well ID: 011S006E25C001S

Figure F-48



Location of Well in Borrego Springs

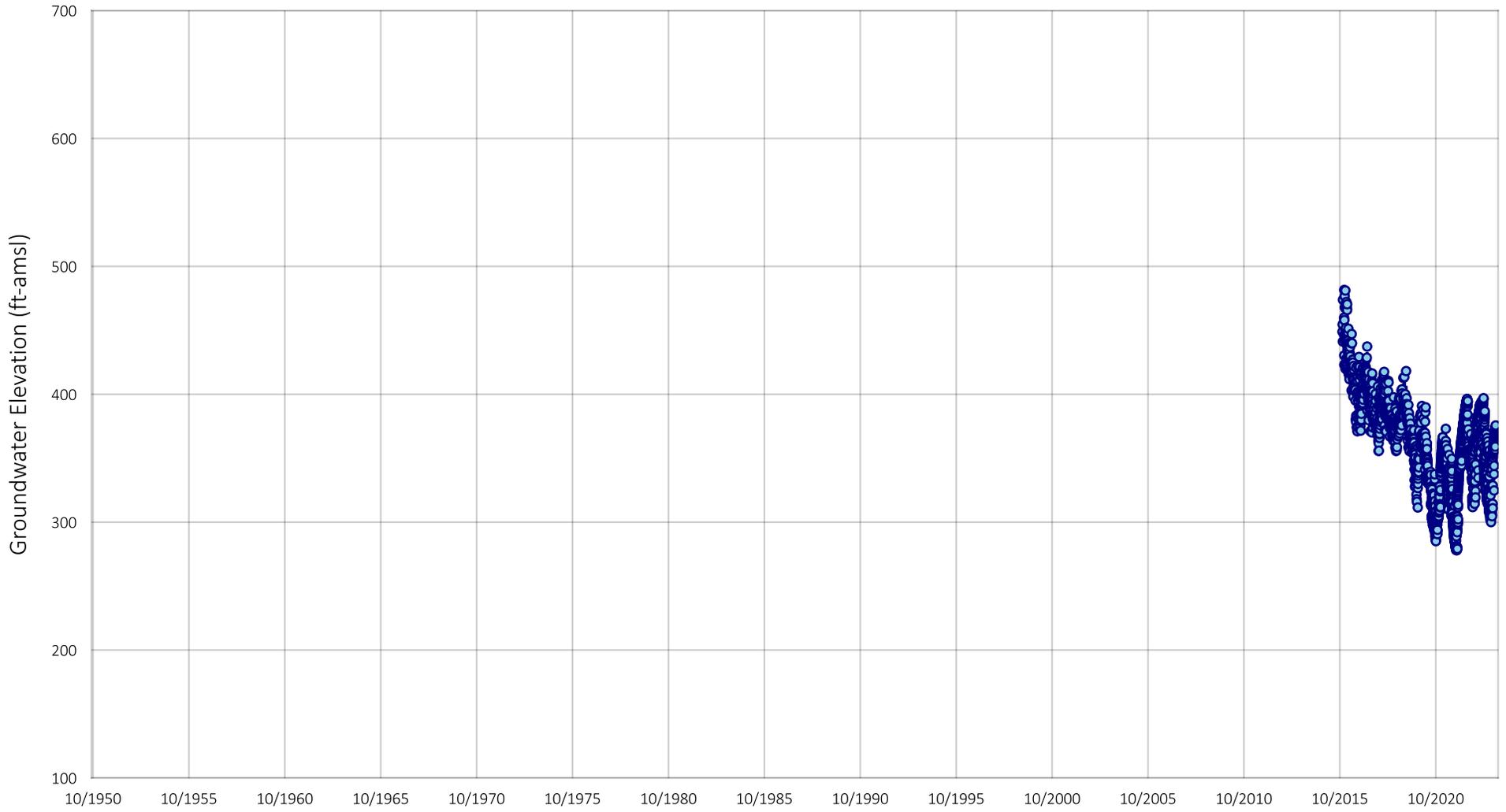


Prepared by:



Historical Groundwater Level Elevation
 BSWM ID: 1245911
 Well Name: RH-5
 State Well ID: 011S006E26B001S

Figure F-49



Location of Well in Borrego Springs

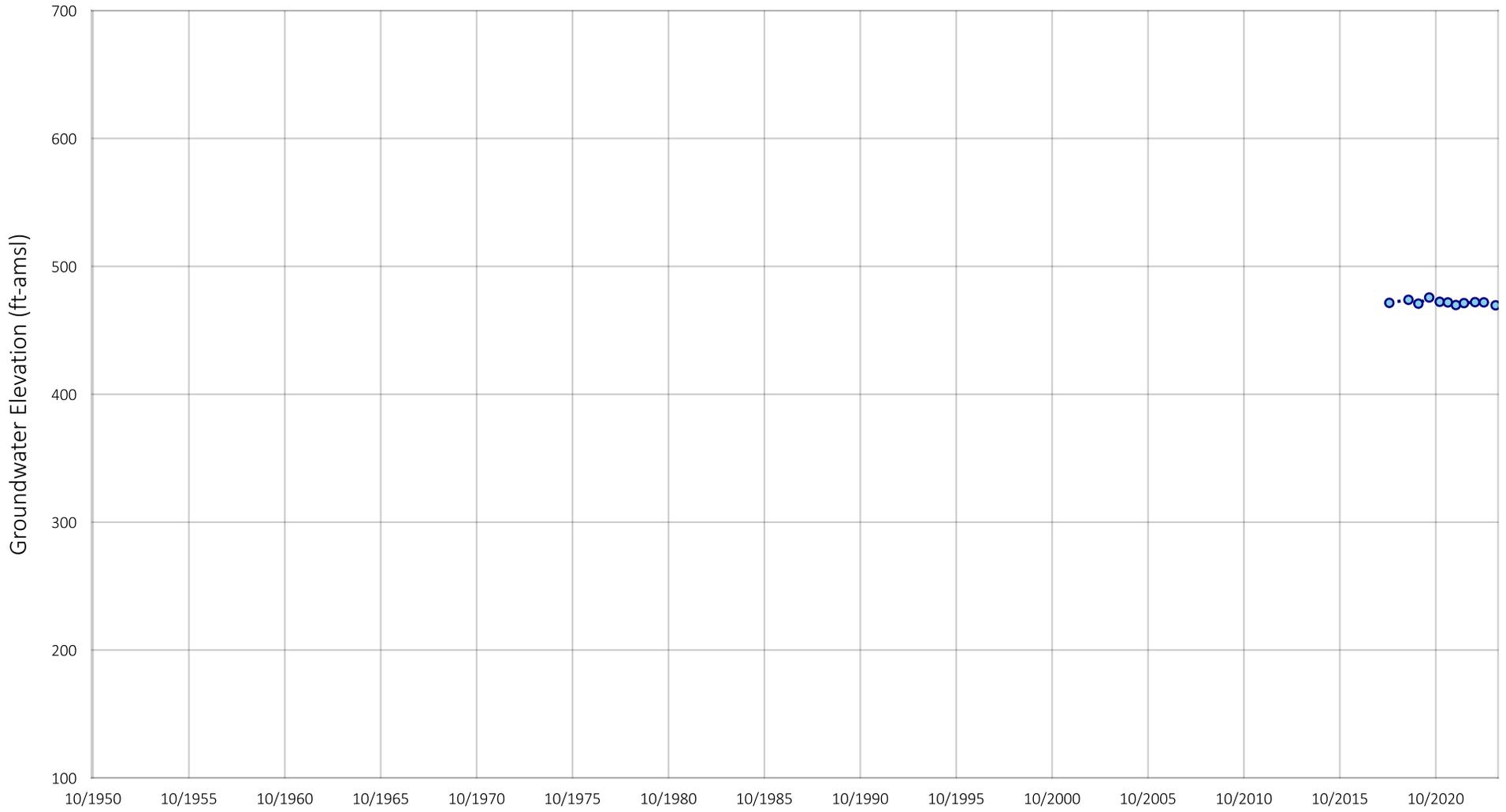


Prepared by:



Historical Groundwater Level Elevation
 BSWM ID: 1245912
 Well Name: RH-6
 State Well ID: 011S006E26H001S

Figure F-50



Location of Well in Borrego Springs

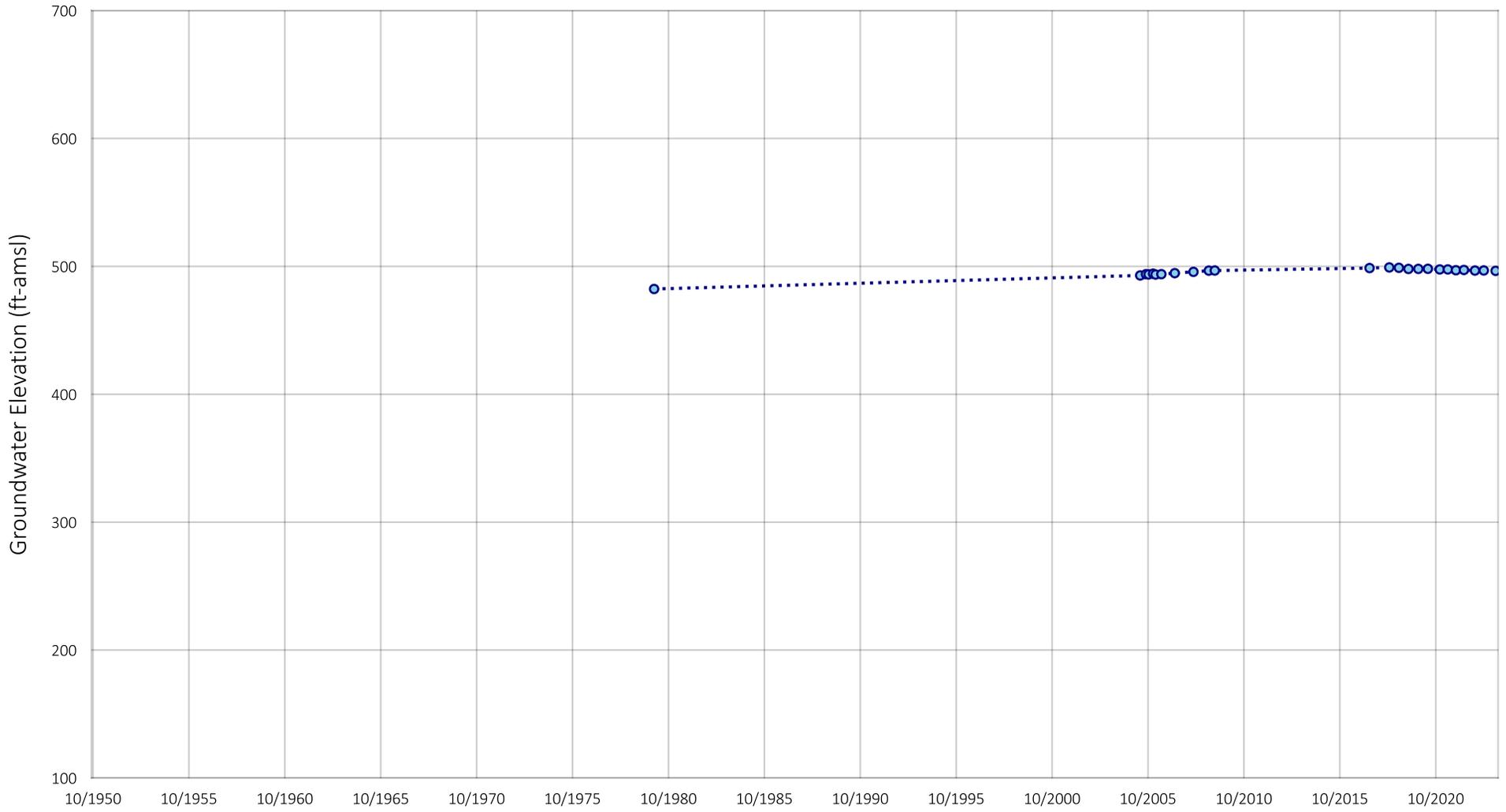


Prepared by:

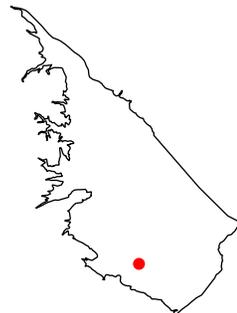


Historical Groundwater Level Elevation
 BSWM ID: 1245852
 Well Name: Air Ranch Well 4
 State Well ID: 011S007E30L001S

Figure F-51



Location of Well in Borrego Springs

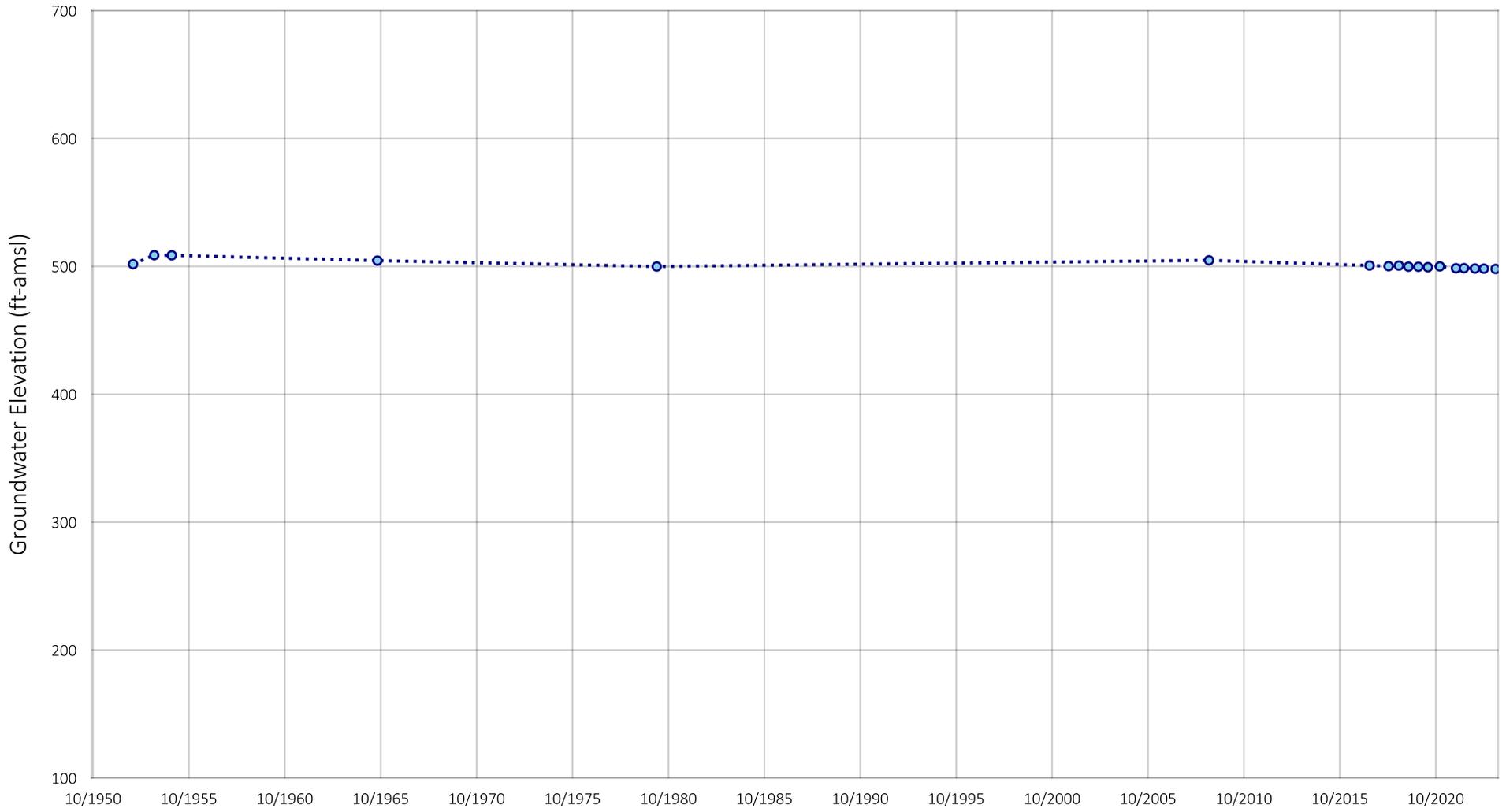


Prepared by:

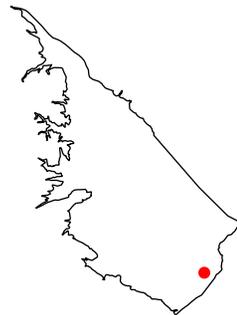


Historical Groundwater Level Elevation
 BSWM ID: 1245854
 Well Name: Army Well
 State Well ID: 011S006E34A001S

Figure F-52



Location of Well in Borrego Springs

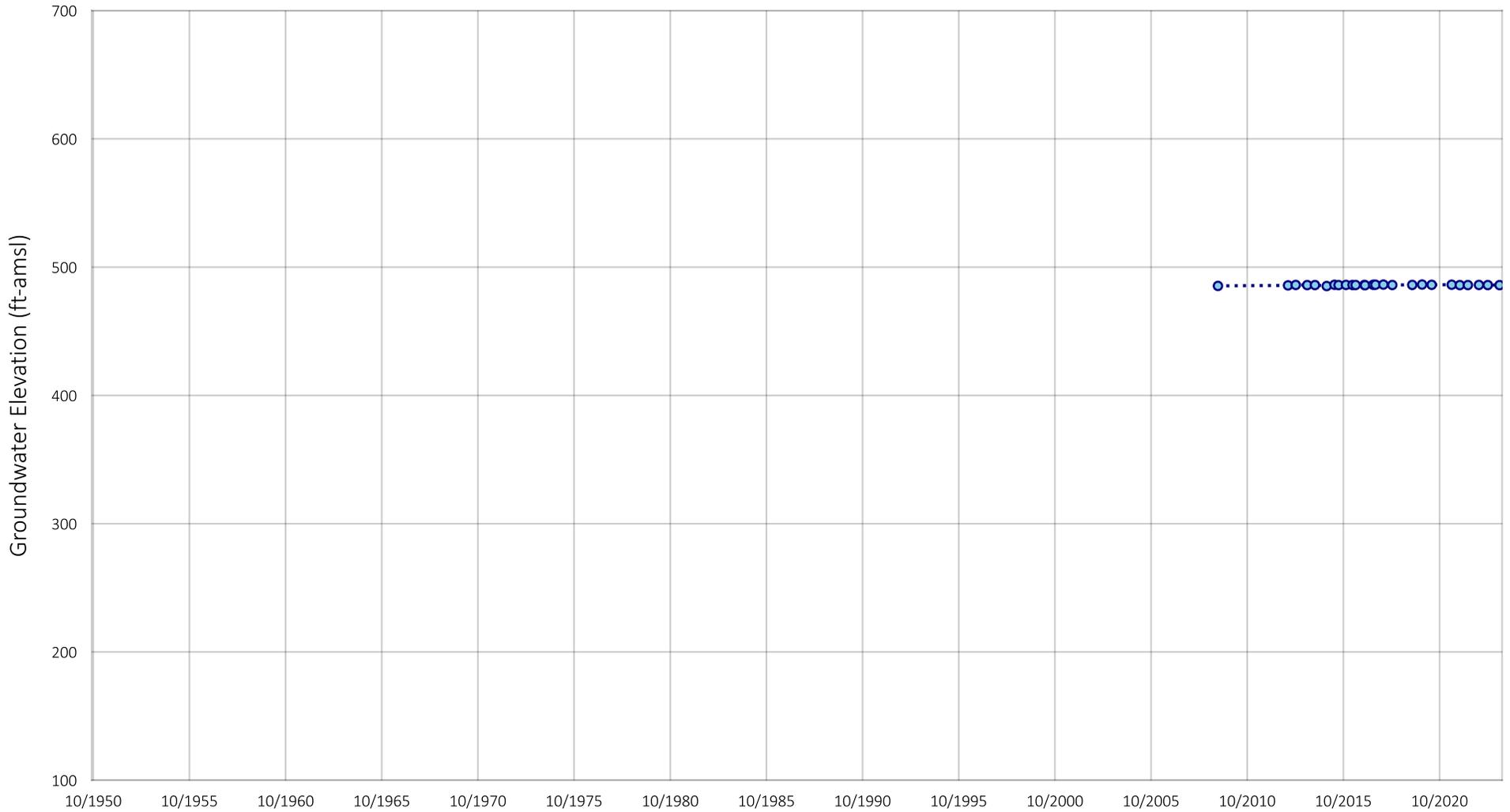


Prepared by:



Historical Groundwater Level Elevation
 BSWM ID: 1245875
 Well Name: Hayden (32Q1)
 State Well ID: 011S007E32Q001S

Figure F-53



Location of Well in Borrego Springs

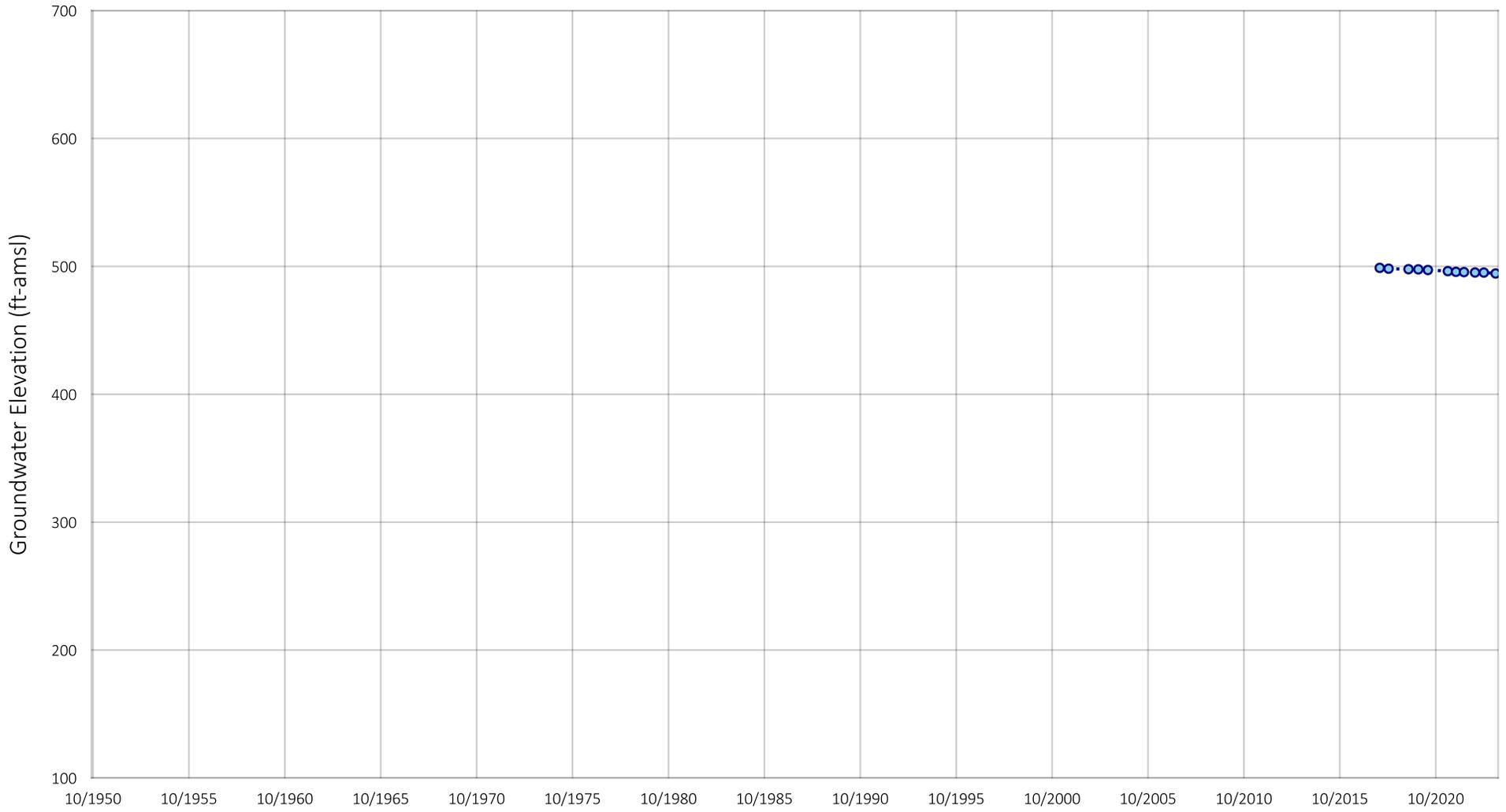


Prepared by:



Historical Groundwater Level Elevation
 BSWM ID: 1245902
 Well Name: Nel Well (Dr Peter Nels)
 State Well ID: 012S007E03L001S

Figure F-54



Location of Well in Borrego Springs



Prepared by:

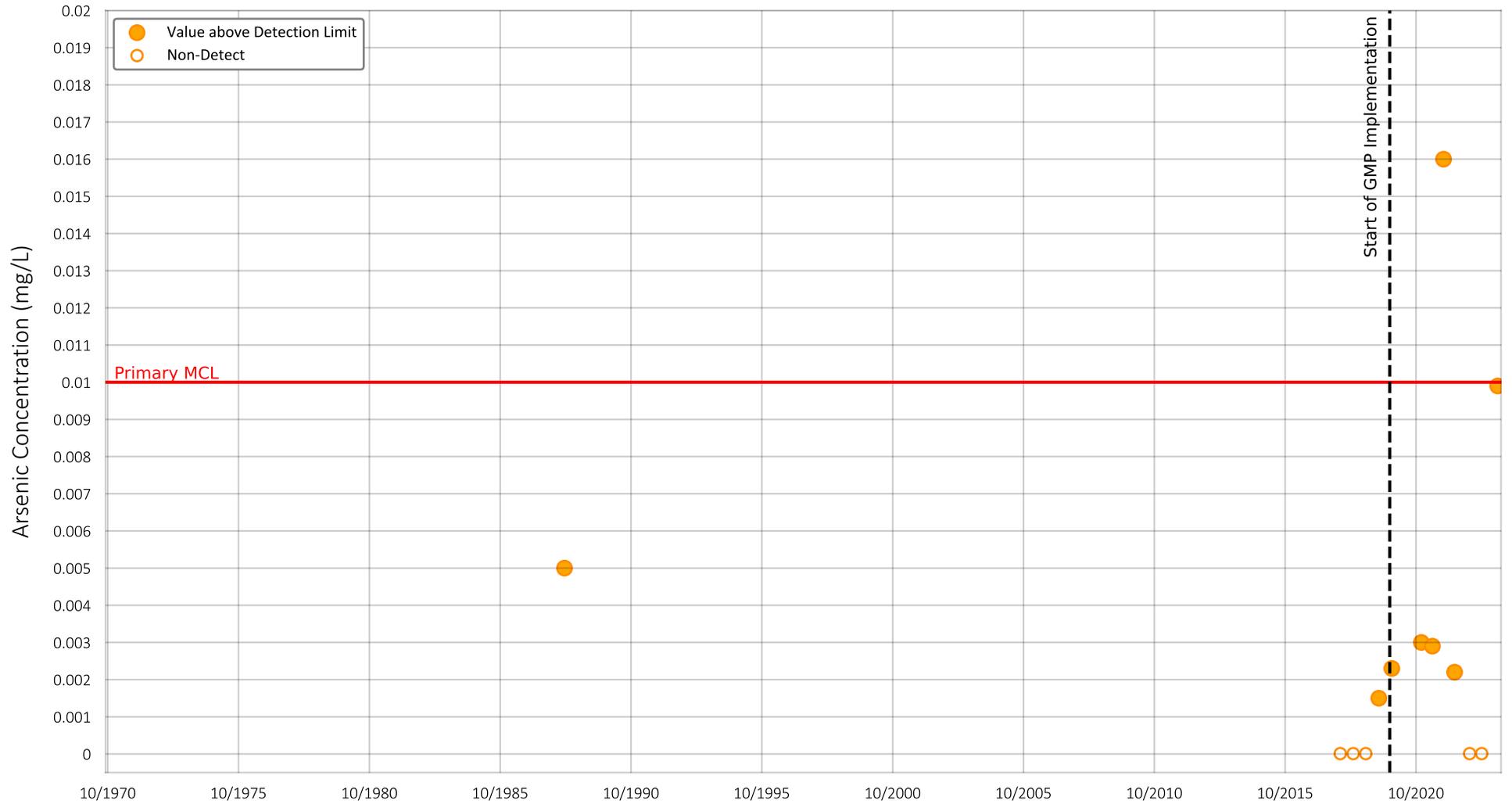


Historical Groundwater Level Elevation
 BSWM ID: 1245925
 Well Name: State Well
 State Well ID: 012S007E04R001S

Figure F-55

Appendix G

Groundwater Quality Time Histories – 1970 to 2023



Location of Well in Borrego Springs

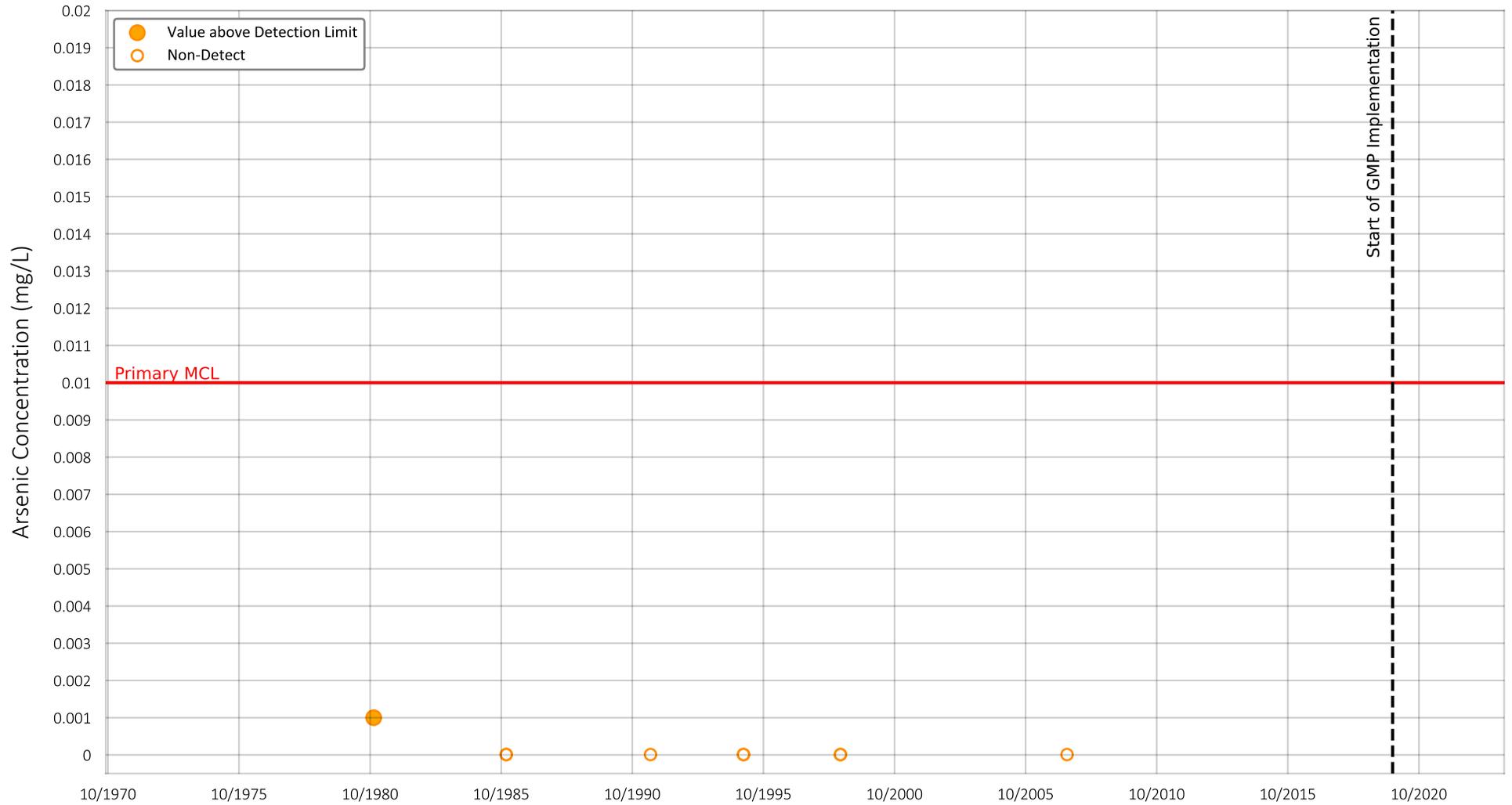


Prepared by:



Arsenic Concentration
 Well Name: RH-1 (ID1-1)
 State Well ID: 011S006E25A001S
 Well Depth (ft): 600
 Perforated Interval (ft): 180 - 580

Figure G-1



Location of Well in Borrego Springs

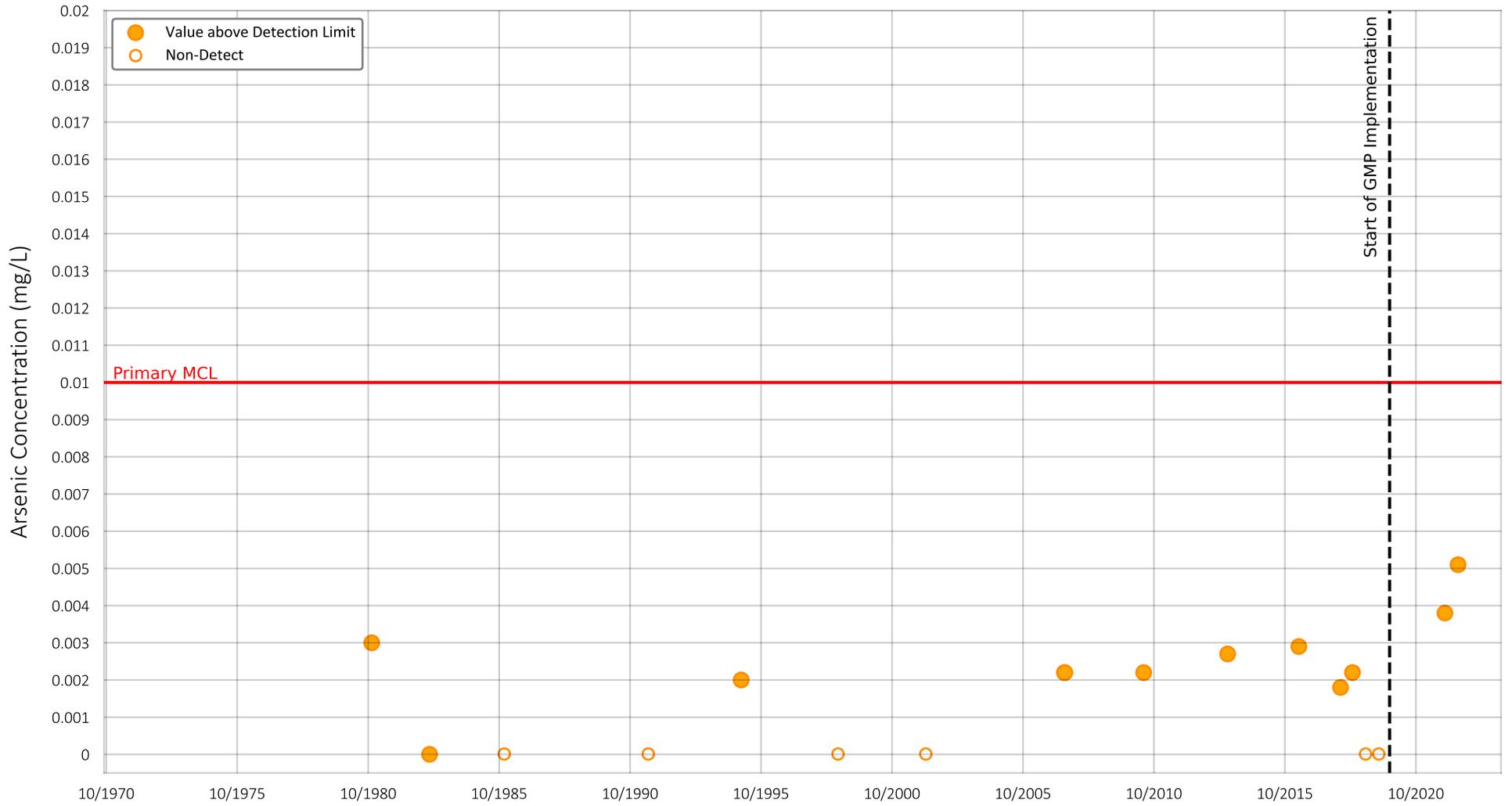


Prepared by:



Arsenic Concentration
 Well Name: ID4-3
 State Well ID: 010S006E18R001S
 Well Depth (ft): 621
 Perforated Interval (ft): no data - no data

Figure G-2



Location of Well in Borrego Springs

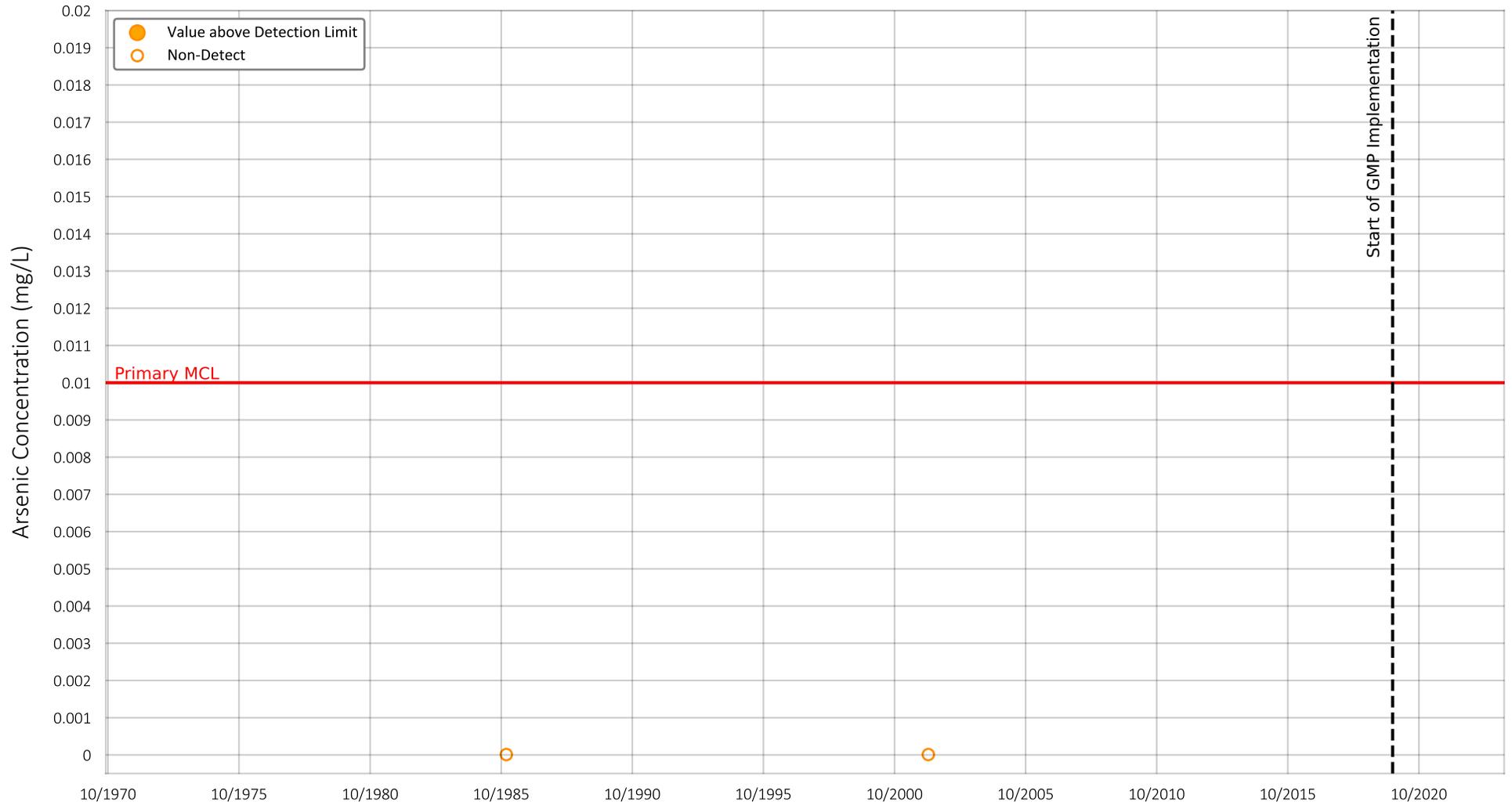


Prepared by:



Arsenic Concentration
 Well Name: ID4-4
 State Well ID: 010S006E29K002S
 Well Depth (ft): 802
 Perforated Interval (ft): 470 - 786

Figure G-3



Location of Well in Borrego Springs

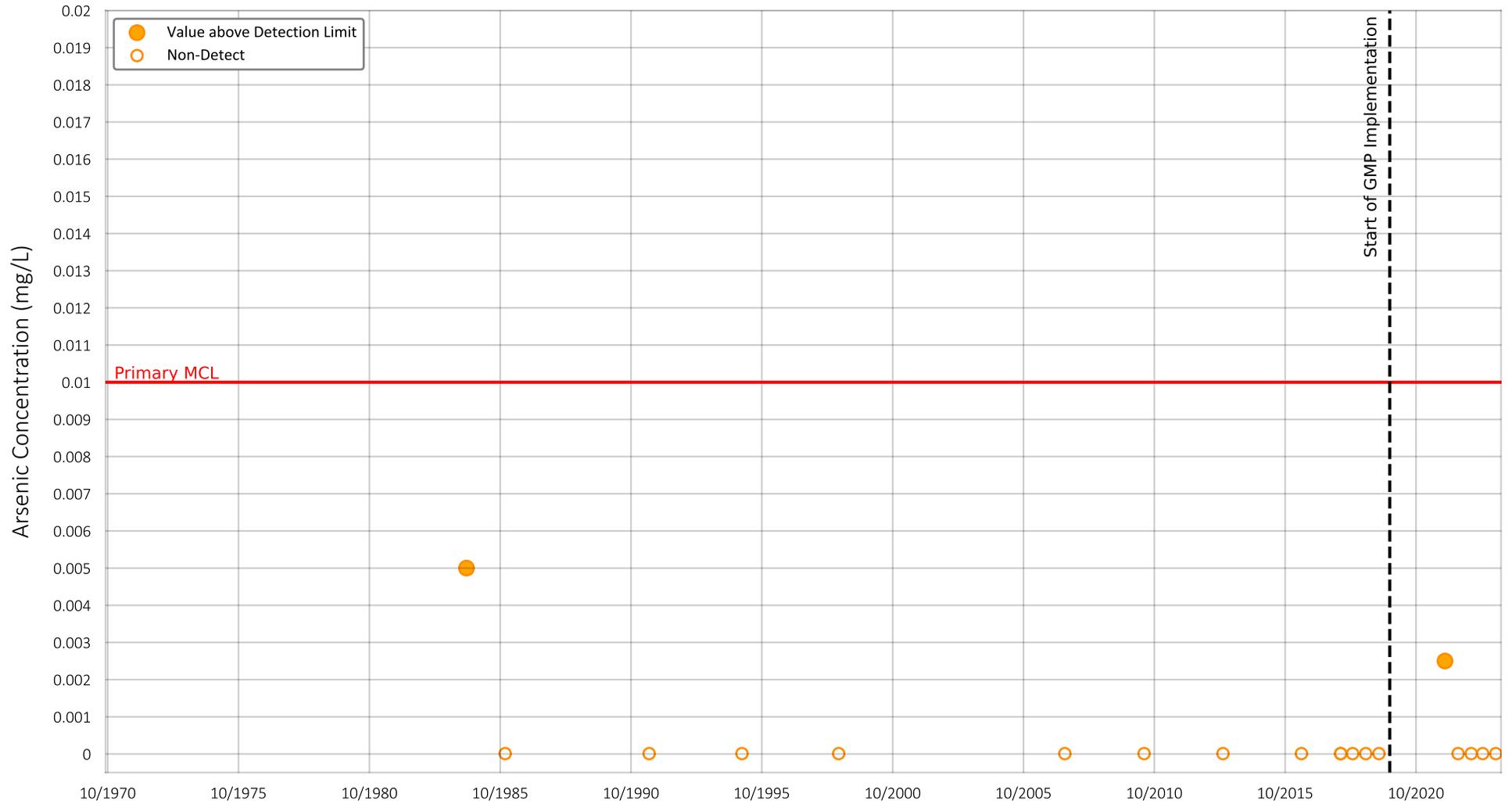


Prepared by:



Arsenic Concentration
 Well Name: ID4-1
 State Well ID: 010S006E32R001S
 Well Depth (ft): no data
 Perforated Interval (ft): no data - no data

Figure G-4



Location of Well in Borrego Springs

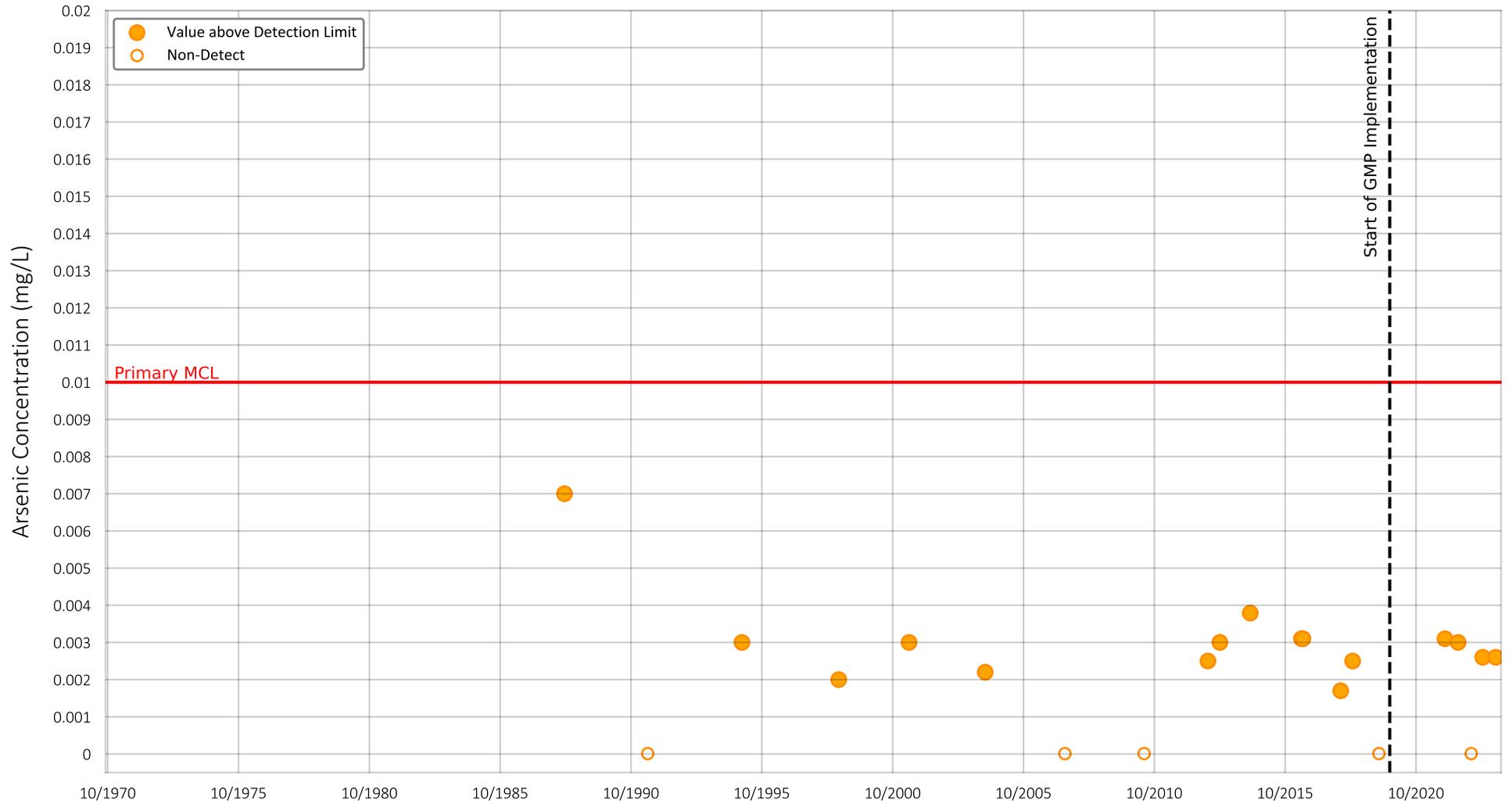


Prepared by:



Arsenic Concentration
 Well Name: ID4-18
 State Well ID: 010S006E18J001S
 Well Depth (ft): 570
 Perforated Interval (ft): 240 - 560

Figure G-5



Location of Well in Borrego Springs

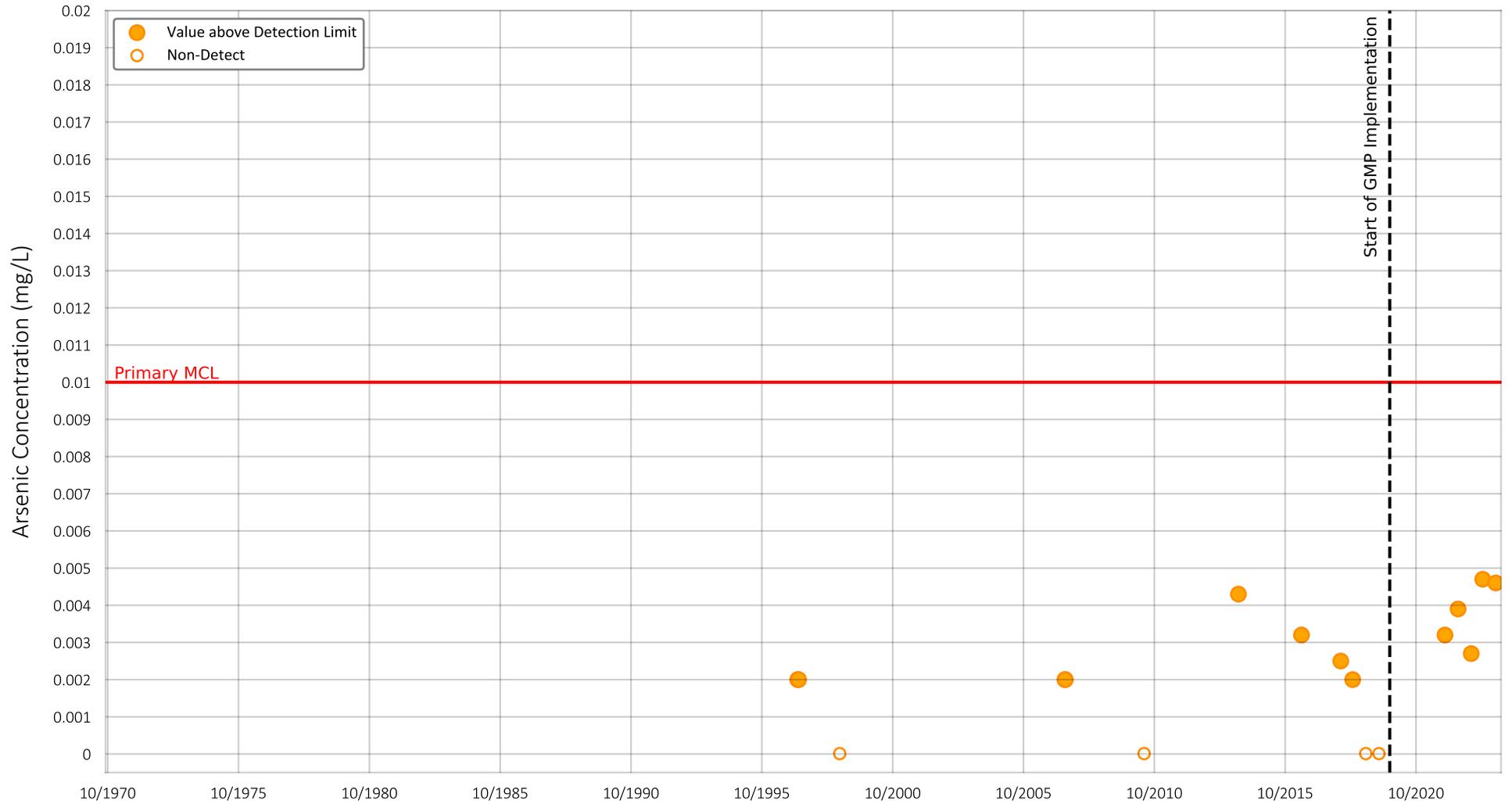


Prepared by:



Arsenic Concentration
 Well Name: ID1-12
 State Well ID: 011S006E16A002S
 Well Depth (ft): 580
 Perforated Interval (ft): 248 - 568

Figure G-6



Location of Well in Borrego Springs

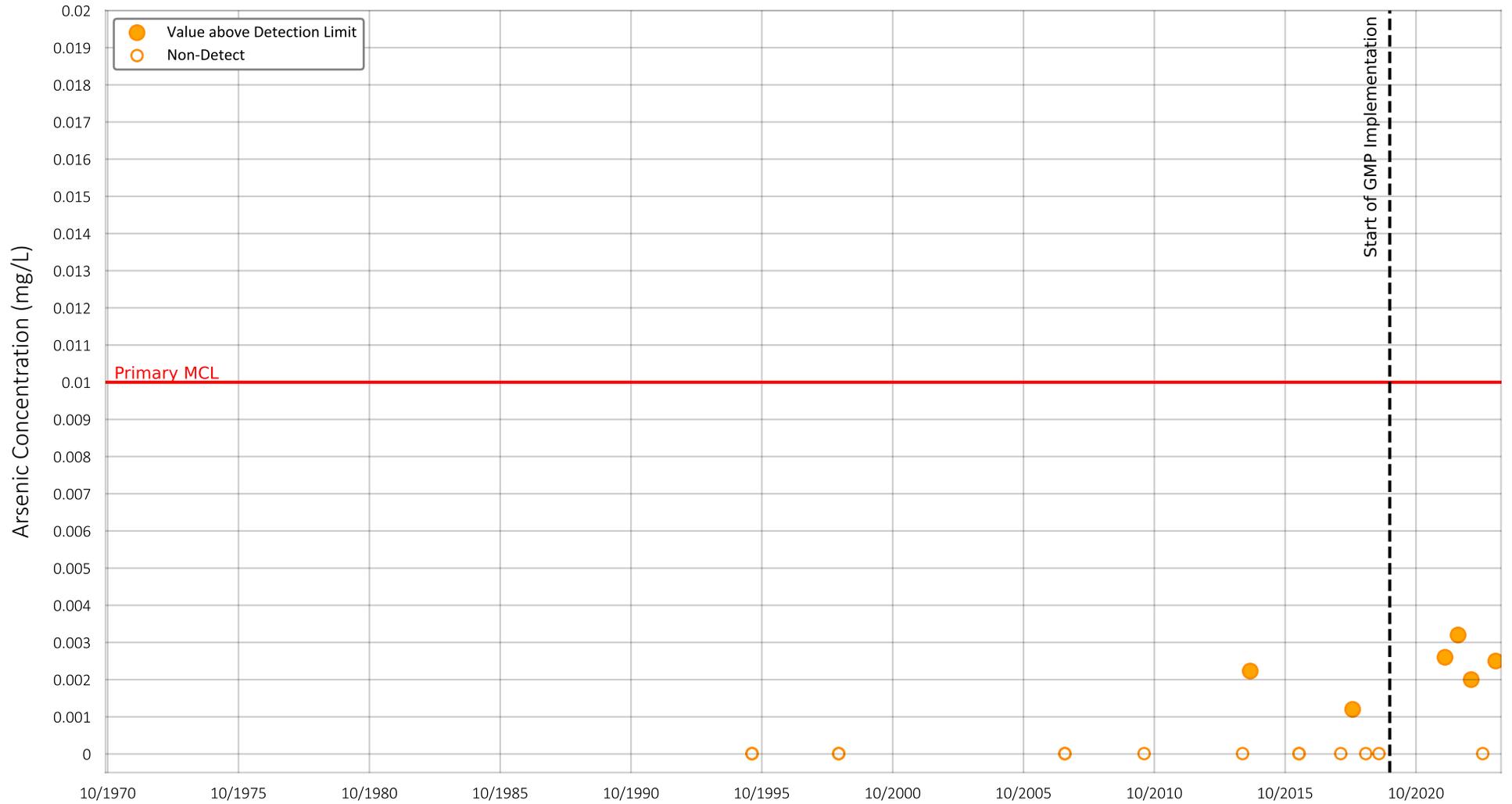


Prepared by:



Arsenic Concentration
 Well Name: ID1-16
 State Well ID: 011S006E16N001S
 Well Depth (ft): 705
 Perforated Interval (ft): 160 - 549

Figure G-7



Location of Well in Borrego Springs

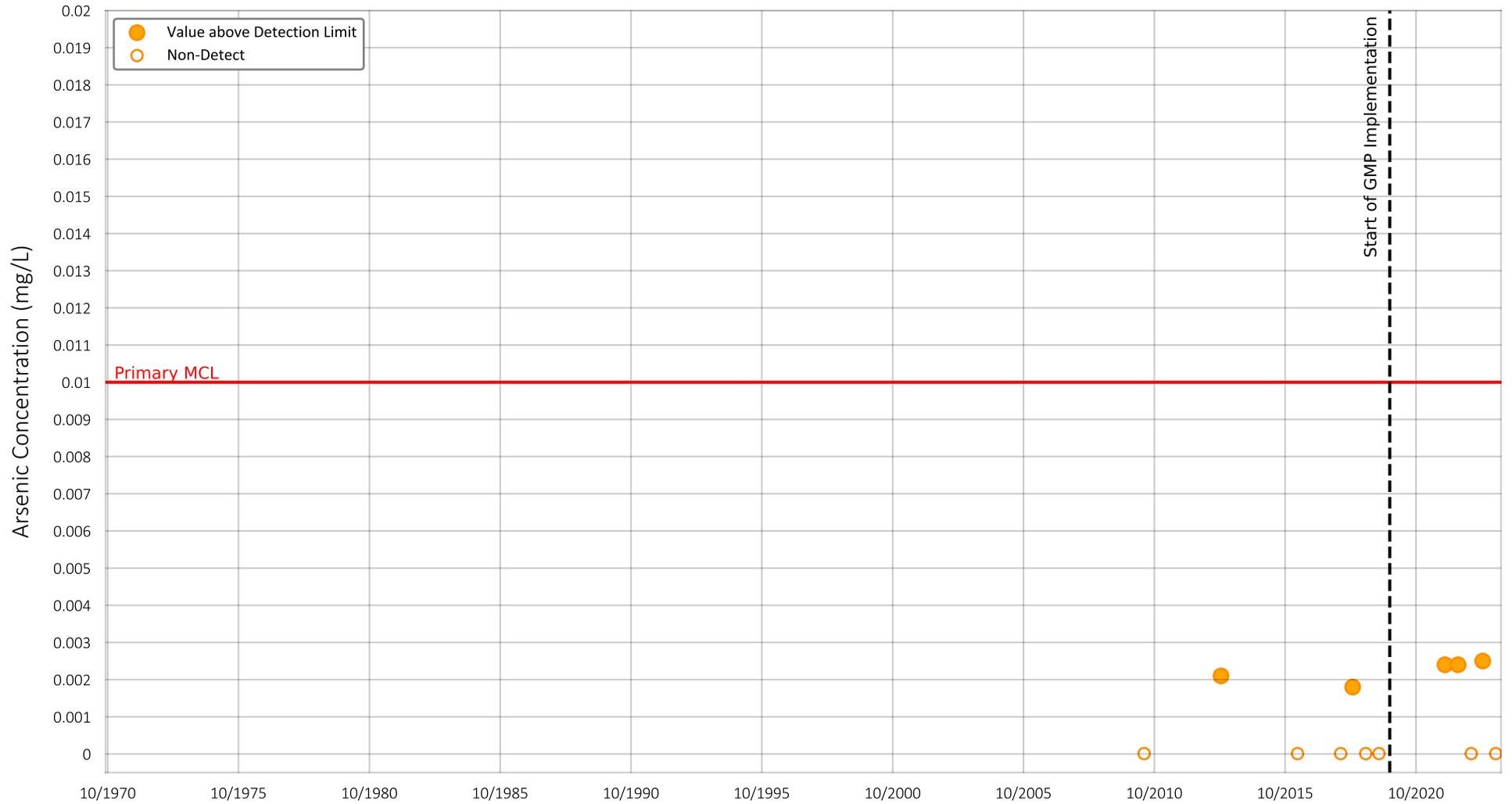


Prepared by:



Arsenic Concentration
 Well Name: ID4-11
 State Well ID: 010S006E32D001S
 Well Depth (ft): 770
 Perforated Interval (ft): 450 - 760

Figure G-8



Location of Well in Borrego Springs

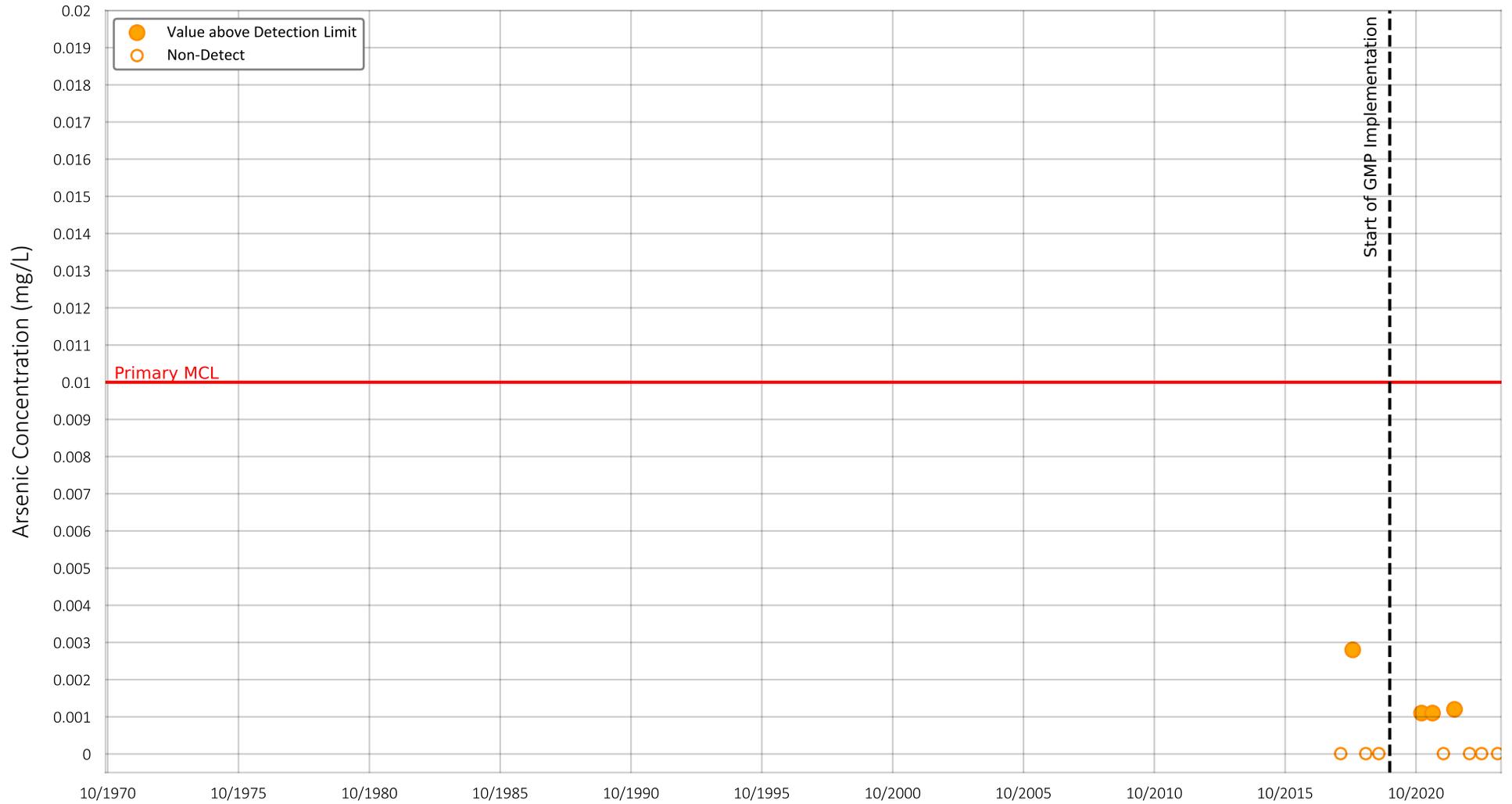


Prepared by:



Arsenic Concentration
 Well Name: ID5-5
 State Well ID: 011S006E09E001S
 Well Depth (ft): 700
 Perforated Interval (ft): 400 - 700

Figure G-9



Location of Well in Borrego Springs

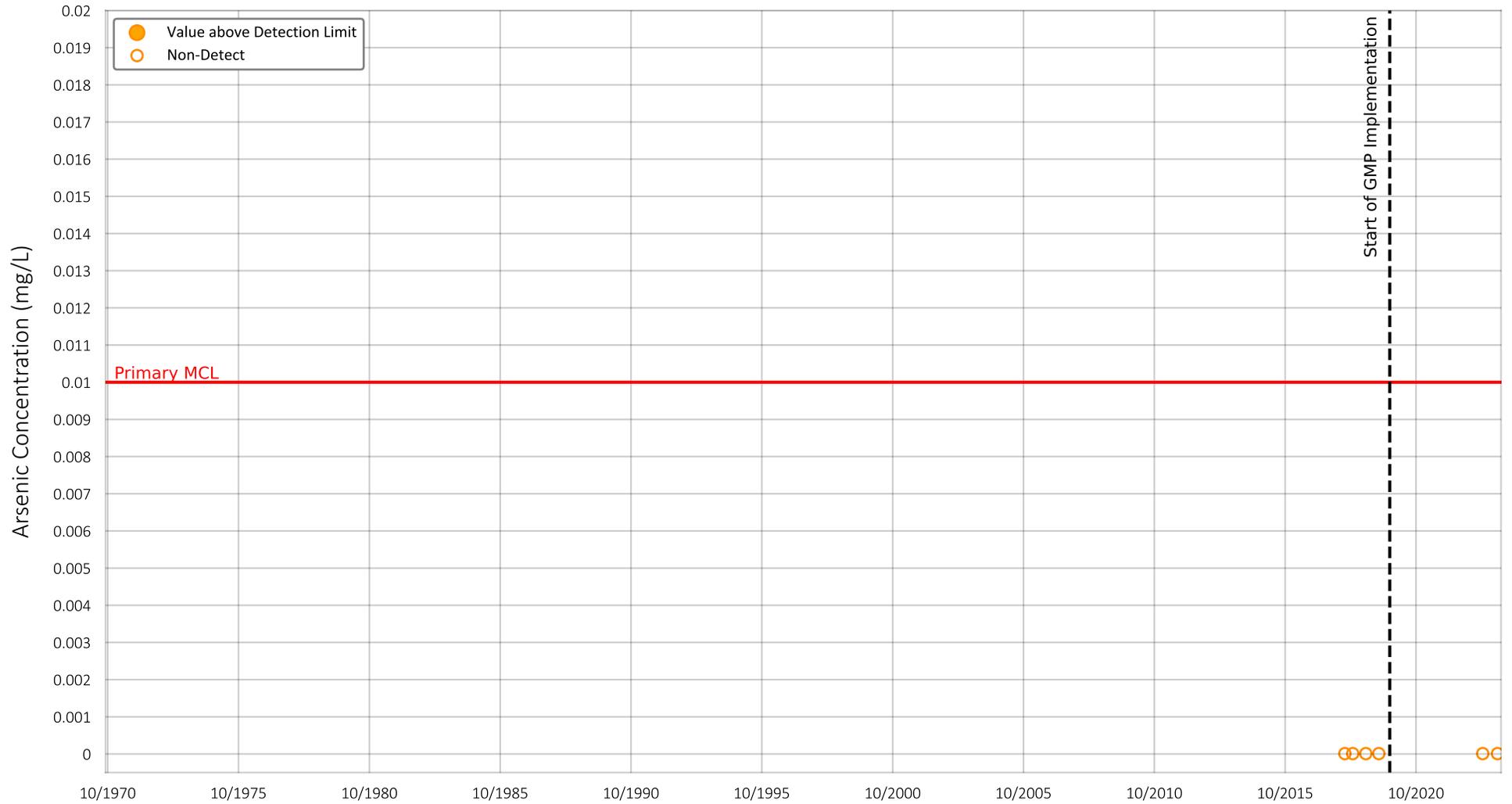


Prepared by:



Arsenic Concentration
 Well Name: MW-3
 State Well ID: 011S006E23J002S
 Well Depth (ft): 325
 Perforated Interval (ft): 175 - 331

Figure G-10



Location of Well in Borrego Springs

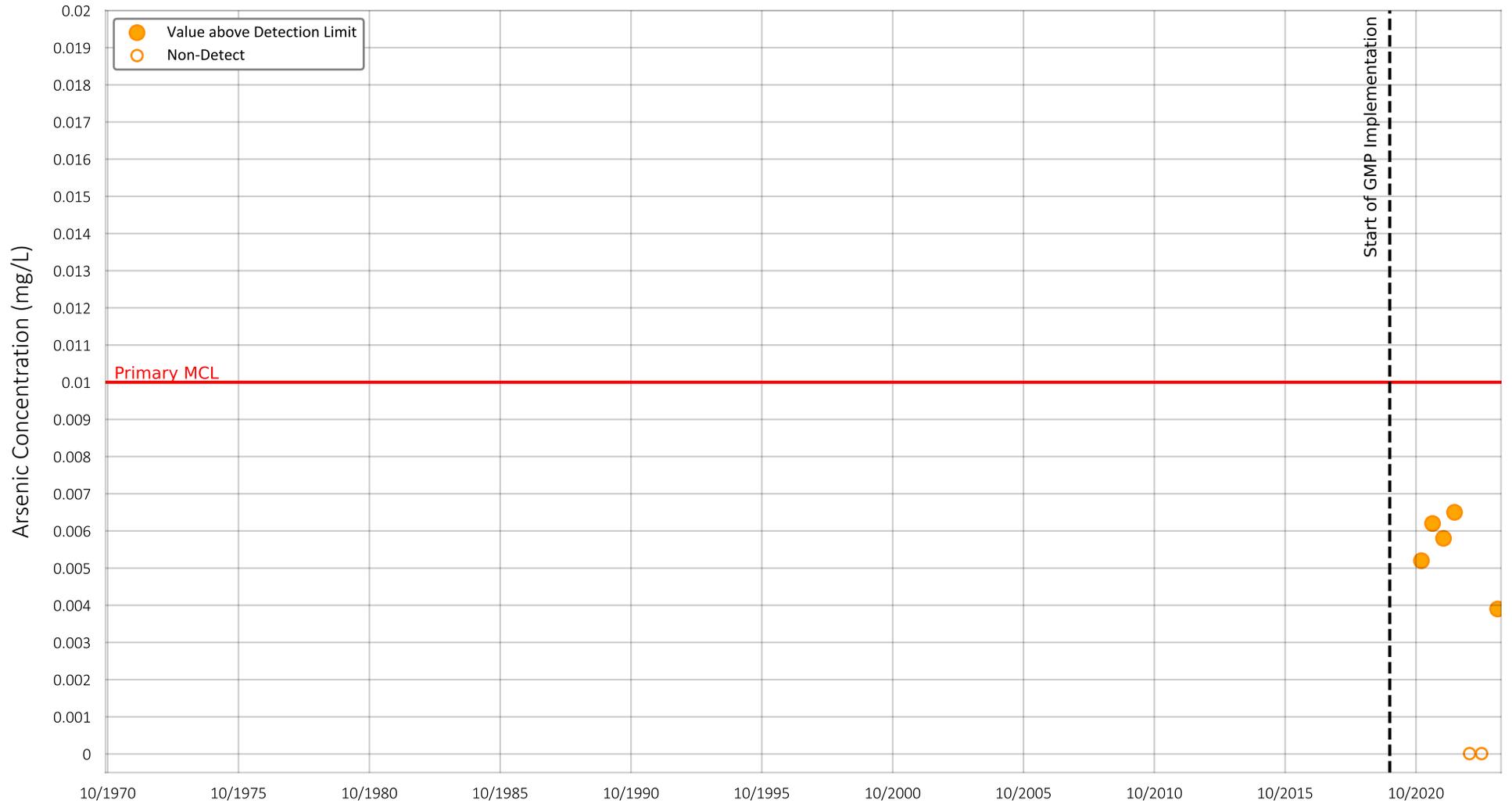


Prepared by:



Arsenic Concentration
 Well Name: Fortiner #1 (Allegre 1)
 State Well ID: 010S006E09N001S
 Well Depth (ft): 560
 Perforated Interval (ft): 250 - 607

Figure G-11



Location of Well in Borrego Springs

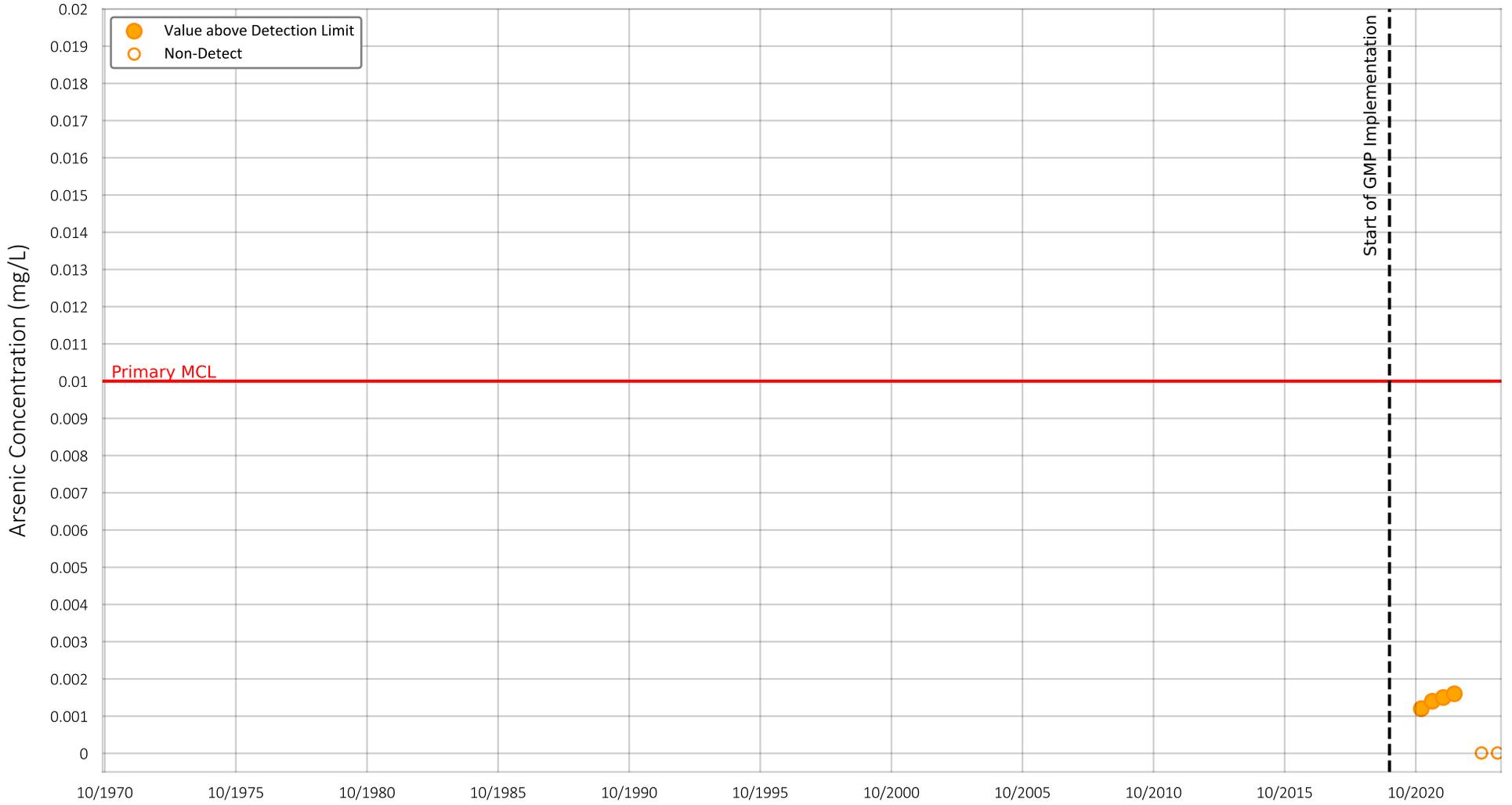


Prepared by:



Arsenic Concentration
 Well Name: Air Ranch Well 4
 State Well ID: 011S007E30L001S
 Well Depth (ft): 380
 Perforated Interval (ft): 120 - 380

Figure G-12



Location of Well in Borrego Springs

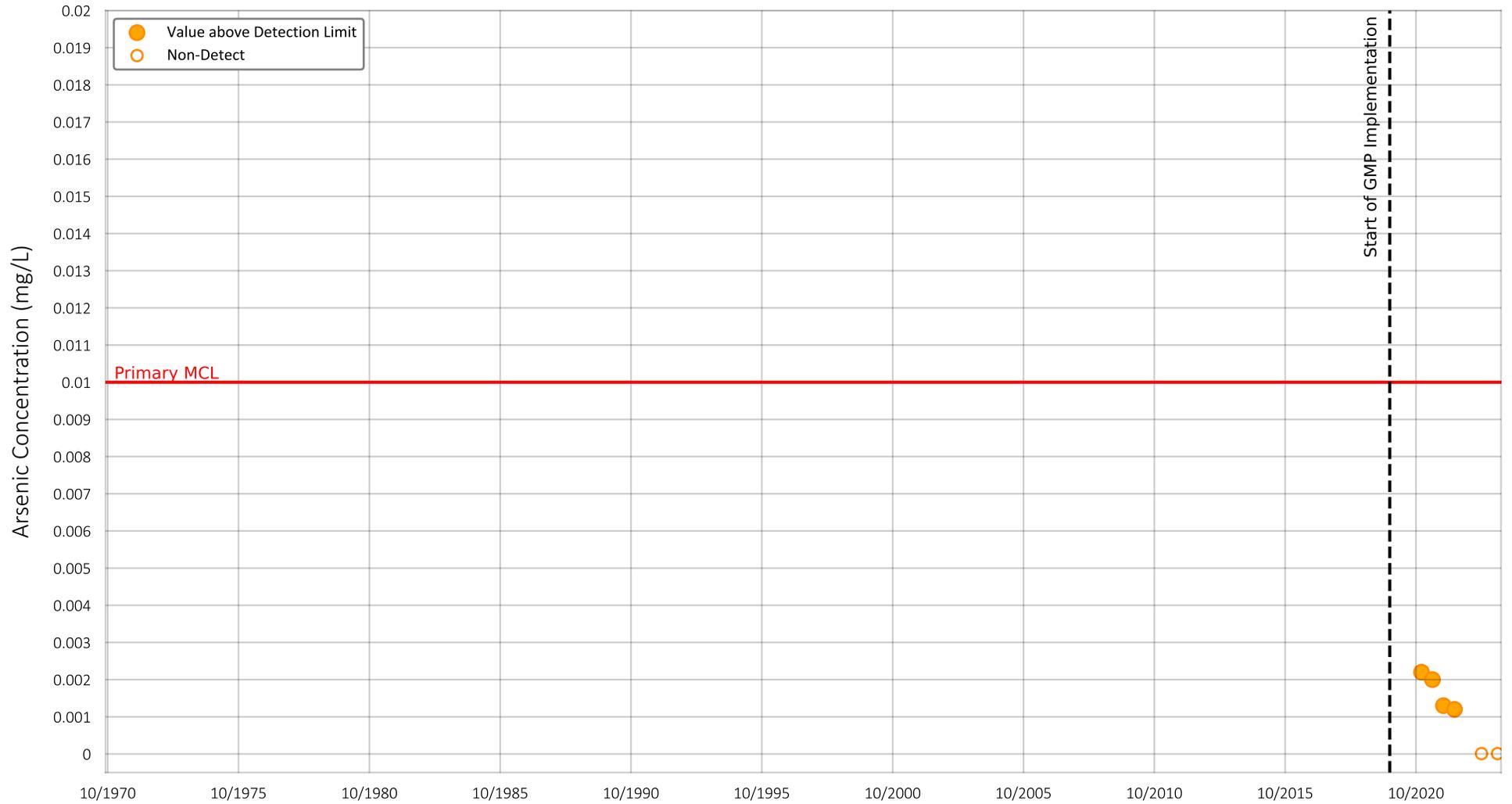


Prepared by:



Arsenic Concentration
 Well Name: MW-5A (East-Lower)
 State Well ID: 011S007E07R001S
 Well Depth (ft): 345
 Perforated Interval (ft): 50 - 160

Figure G-13



Location of Well in Borrego Springs

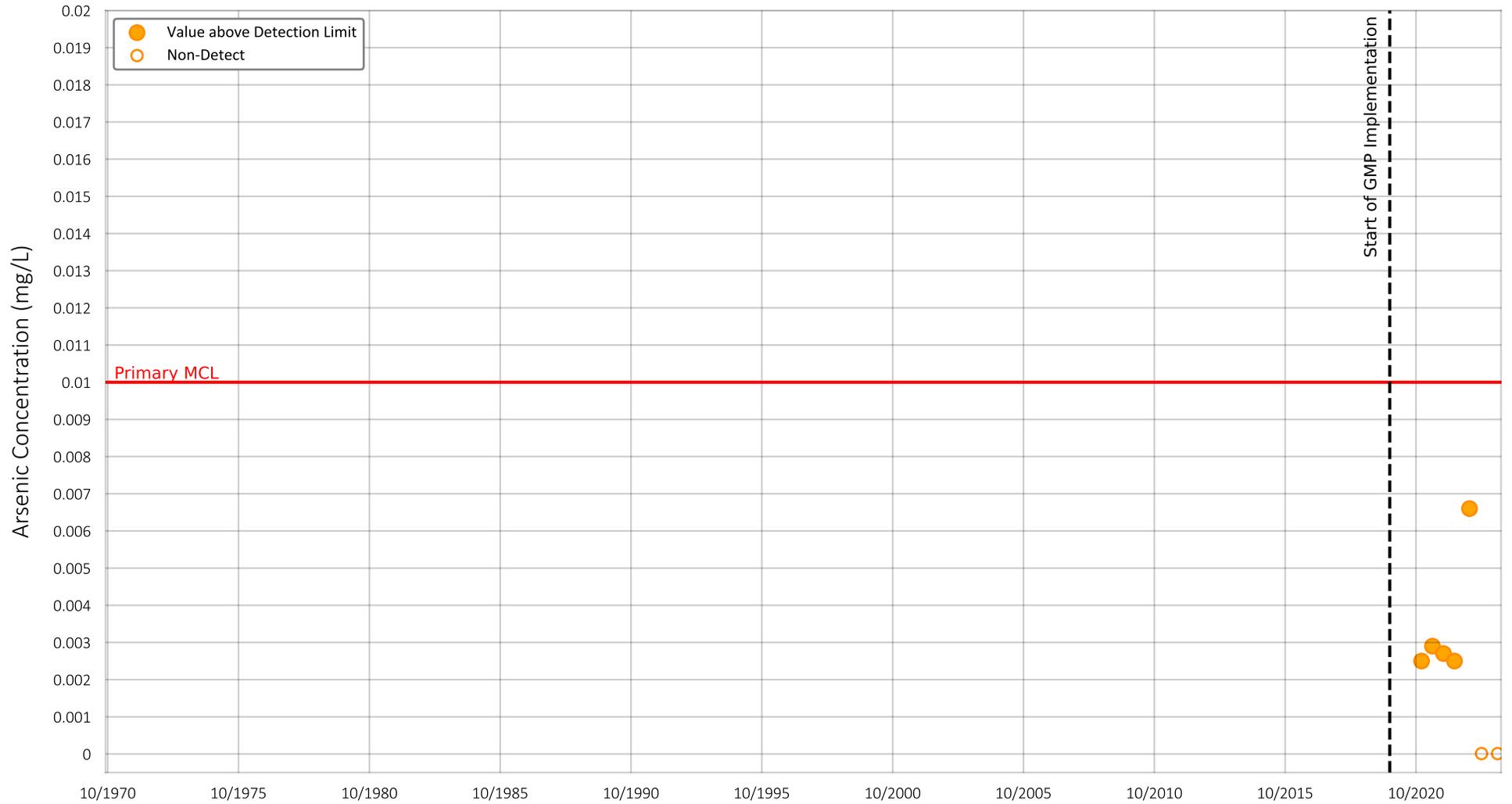


Prepared by:



Arsenic Concentration
 Well Name: MW-5B (West-Upper)
 State Well ID: 011S007E07R002S
 Well Depth (ft): 160
 Perforated Interval (ft): 45 - 340

Figure G-14



Location of Well in Borrego Springs

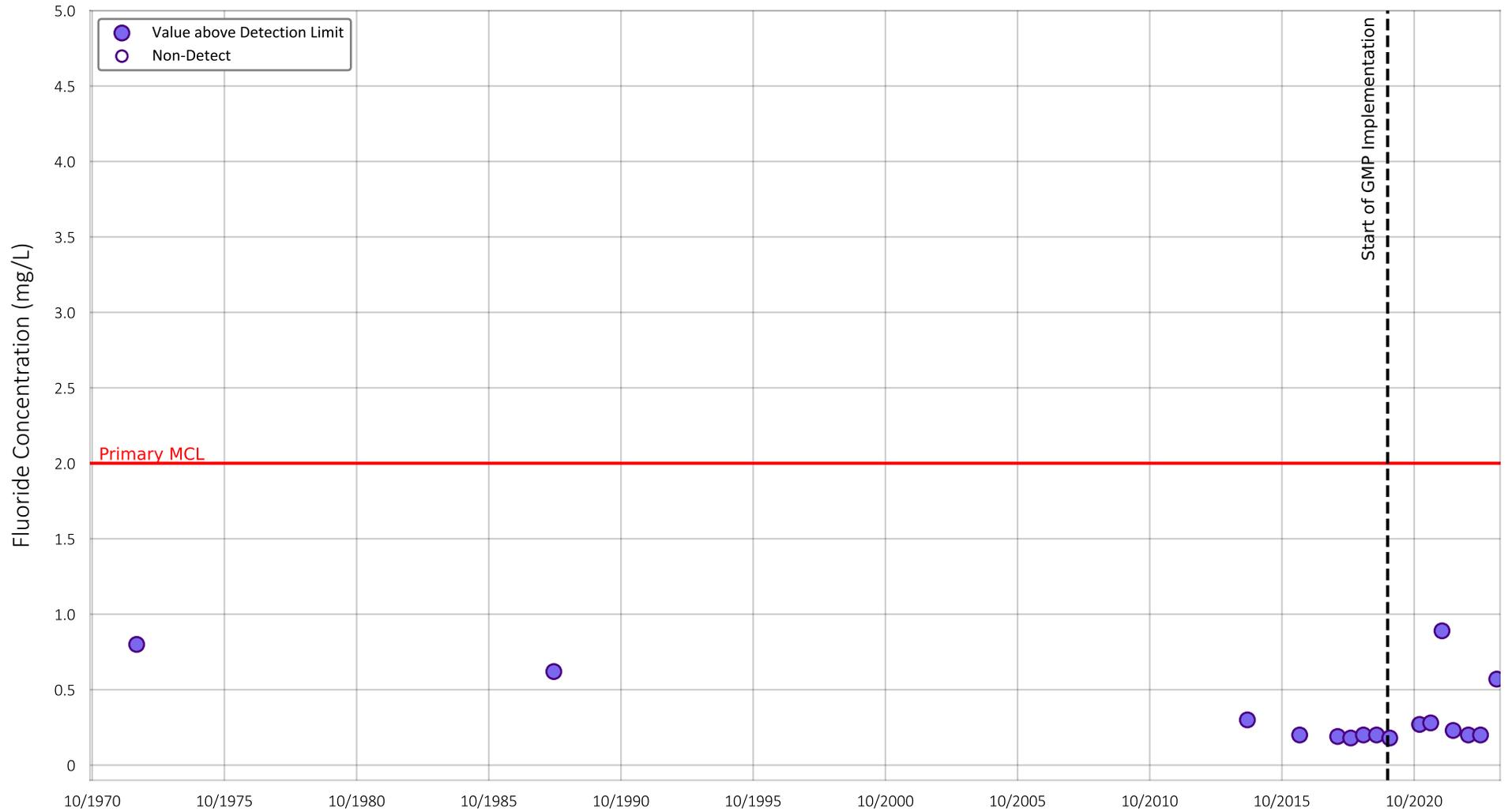


Prepared by:



Arsenic Concentration
 Well Name: MW-1
 State Well ID: 010S006E21A002S
 Well Depth (ft): 900
 Perforated Interval (ft): 800 - 890

Figure G-15



Location of Well in Borrego Springs

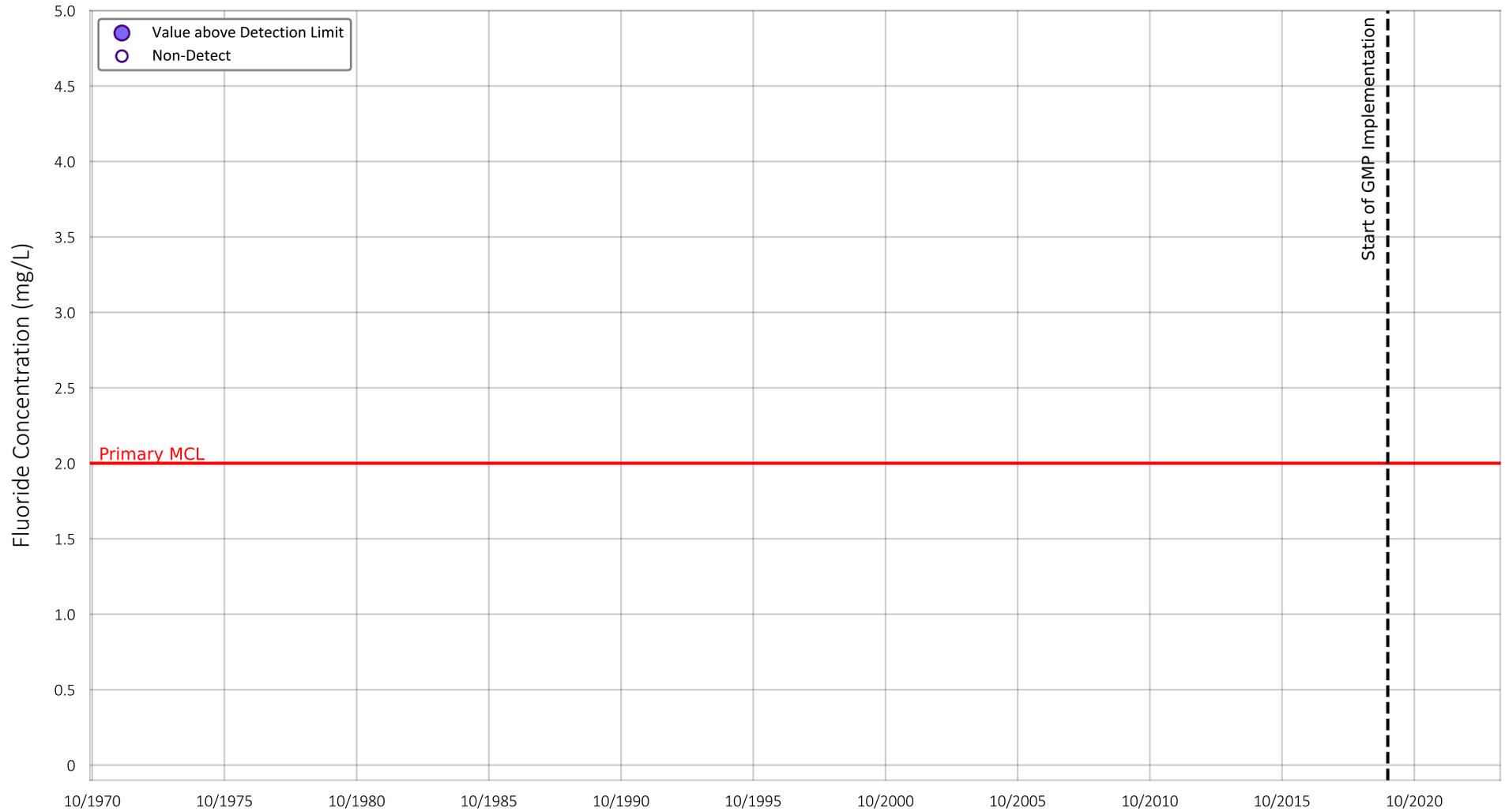


Prepared by:



Fluoride Concentration
 Well Name: RH-1 (ID1-1)
 State Well ID: 011S006E25A001S
 Well Depth (ft): 600
 Perforated Interval (ft): 180 - 580

Figure G-16



Location of Well in Borrego Springs

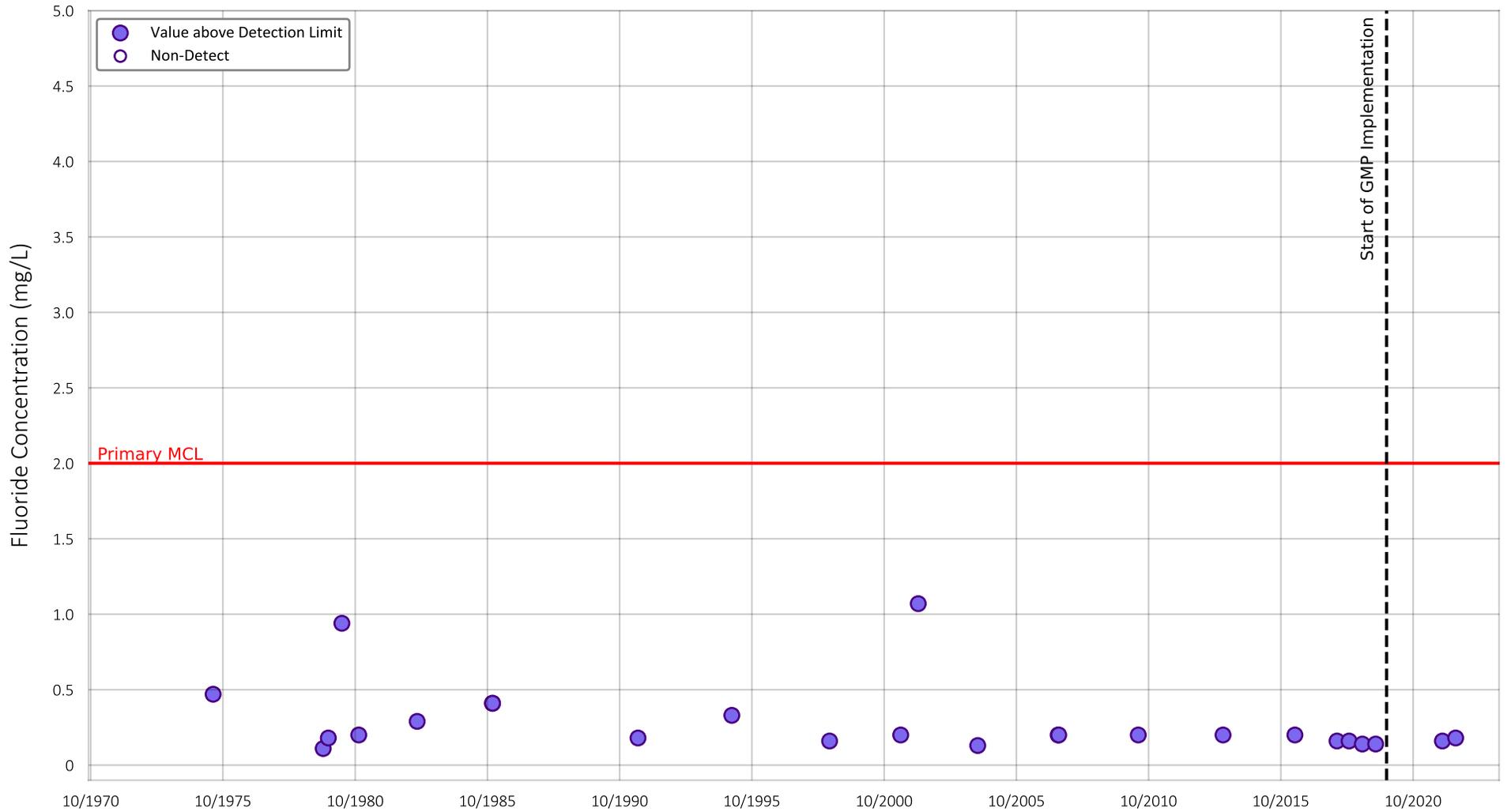


Prepared by:



Fluoride Concentration
 Well Name: ID4-3
 State Well ID: 010S006E18R001S
 Well Depth (ft): 621
 Perforated Interval (ft): no data - no data

Figure G-17



Location of Well in Borrego Springs

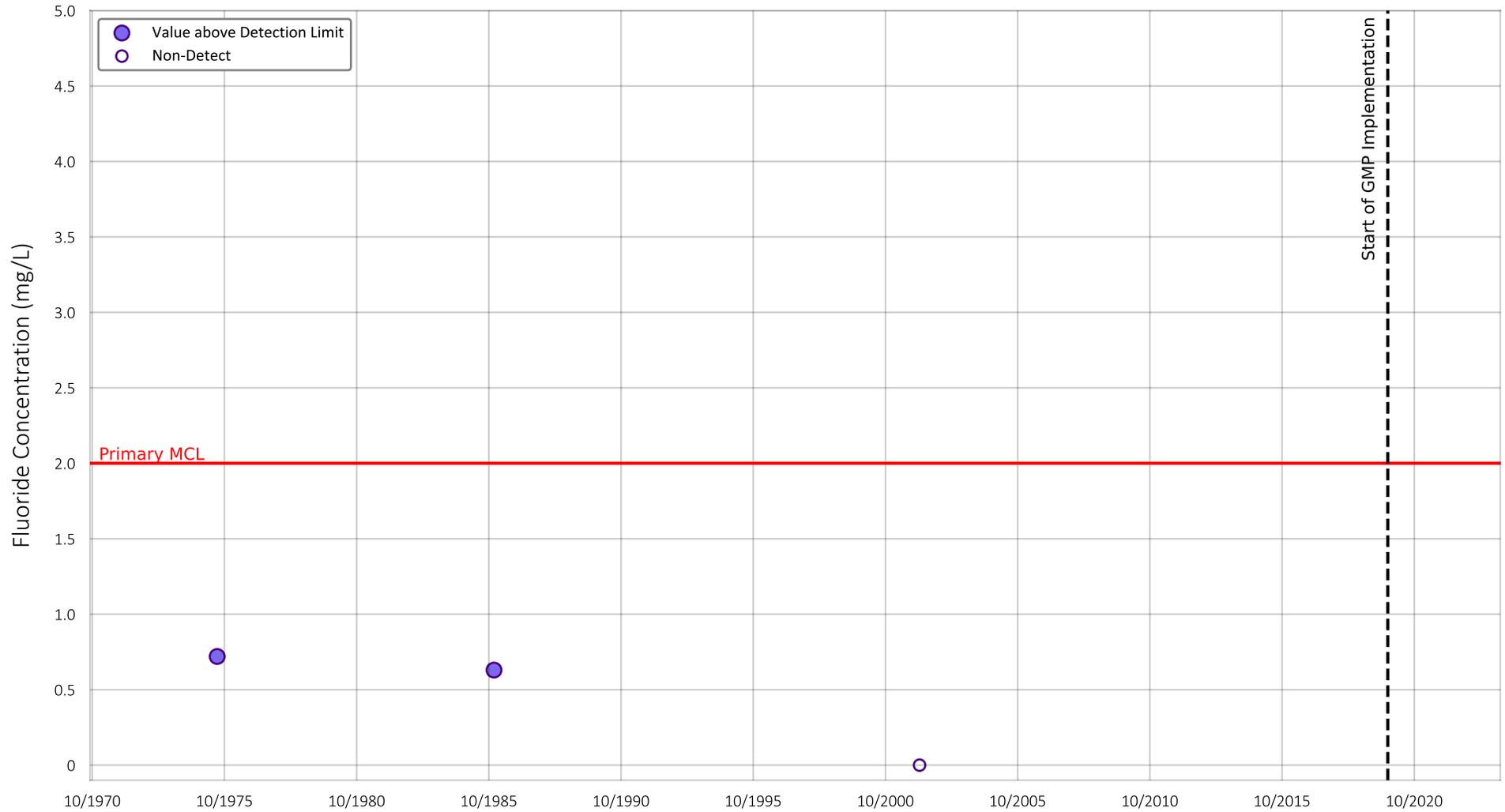


Prepared by:



Fluoride Concentration
 Well Name: ID4-4
 State Well ID: 010S006E29K002S
 Well Depth (ft): 802
 Perforated Interval (ft): 470 - 786

Figure G-18



Location of Well in Borrego Springs

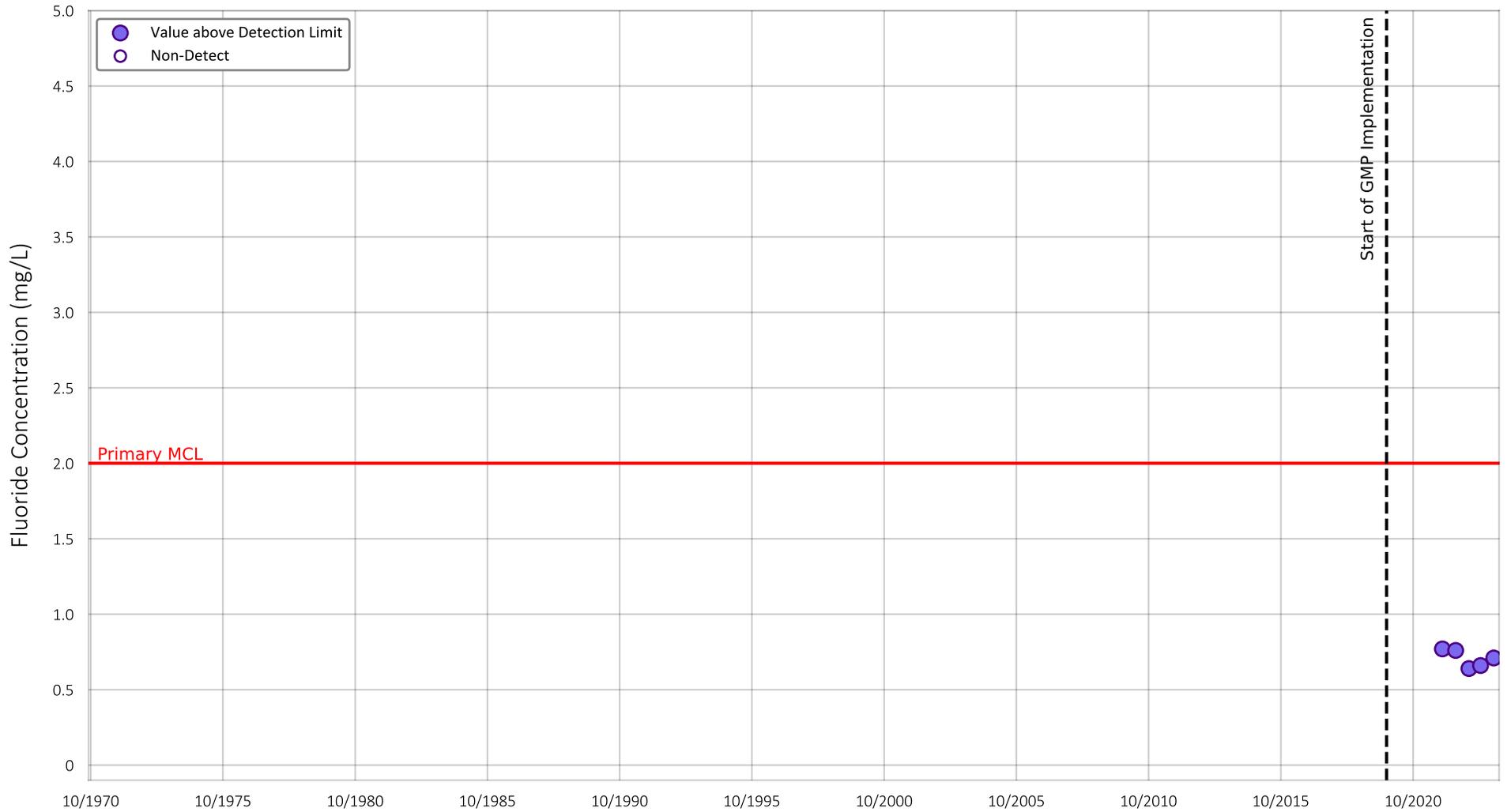


Prepared by:



Fluoride Concentration
 Well Name: ID4-1
 State Well ID: 010S006E32R001S
 Well Depth (ft): no data
 Perforated Interval (ft): no data - no data

Figure G-19



Location of Well in Borrego Springs

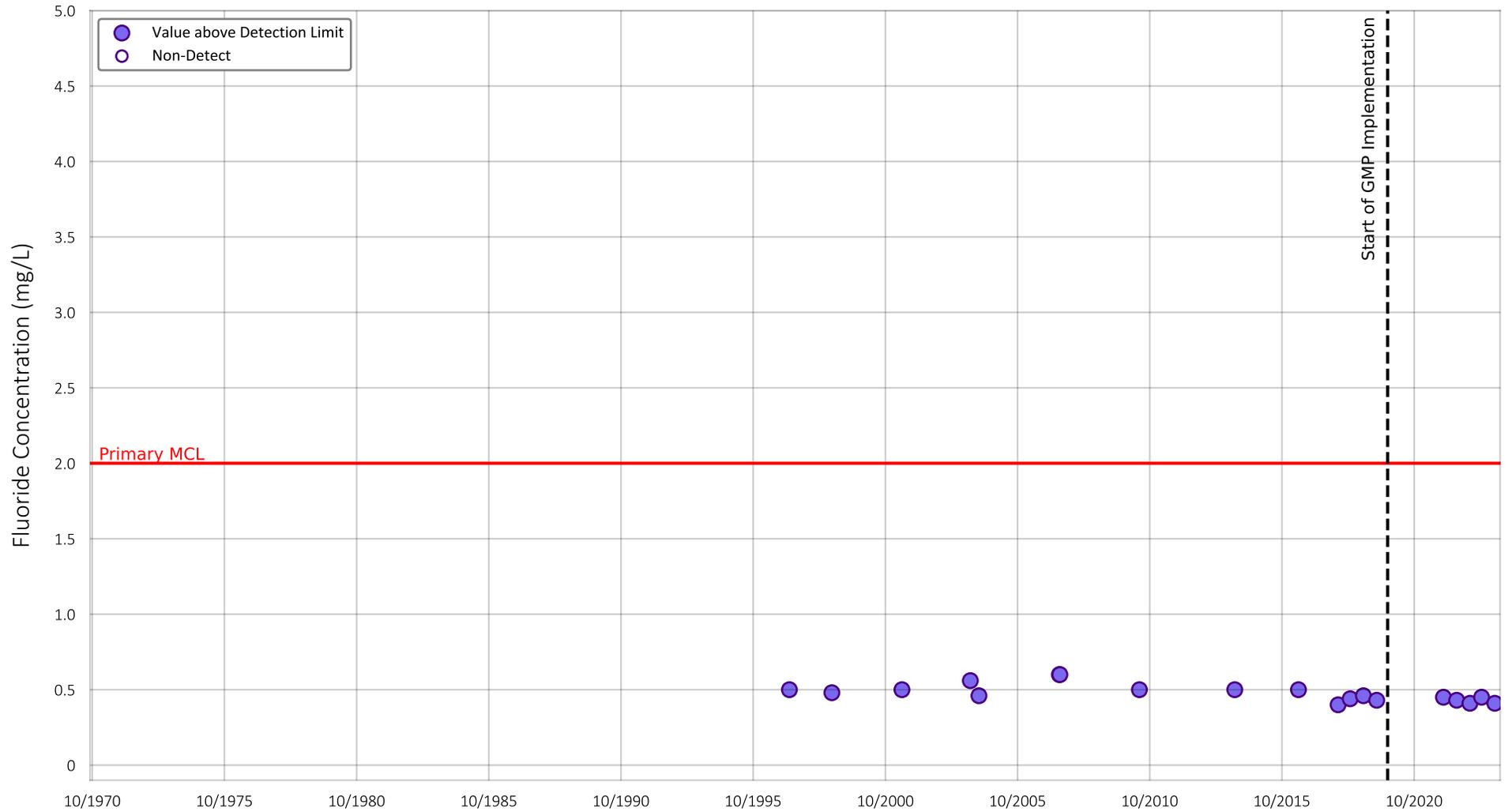


Prepared by:



Fluoride Concentration
 Well Name: ID4-18
 State Well ID: 010S006E18J001S
 Well Depth (ft): 570
 Perforated Interval (ft): 240 - 560

Figure G-20



Location of Well in Borrego Springs

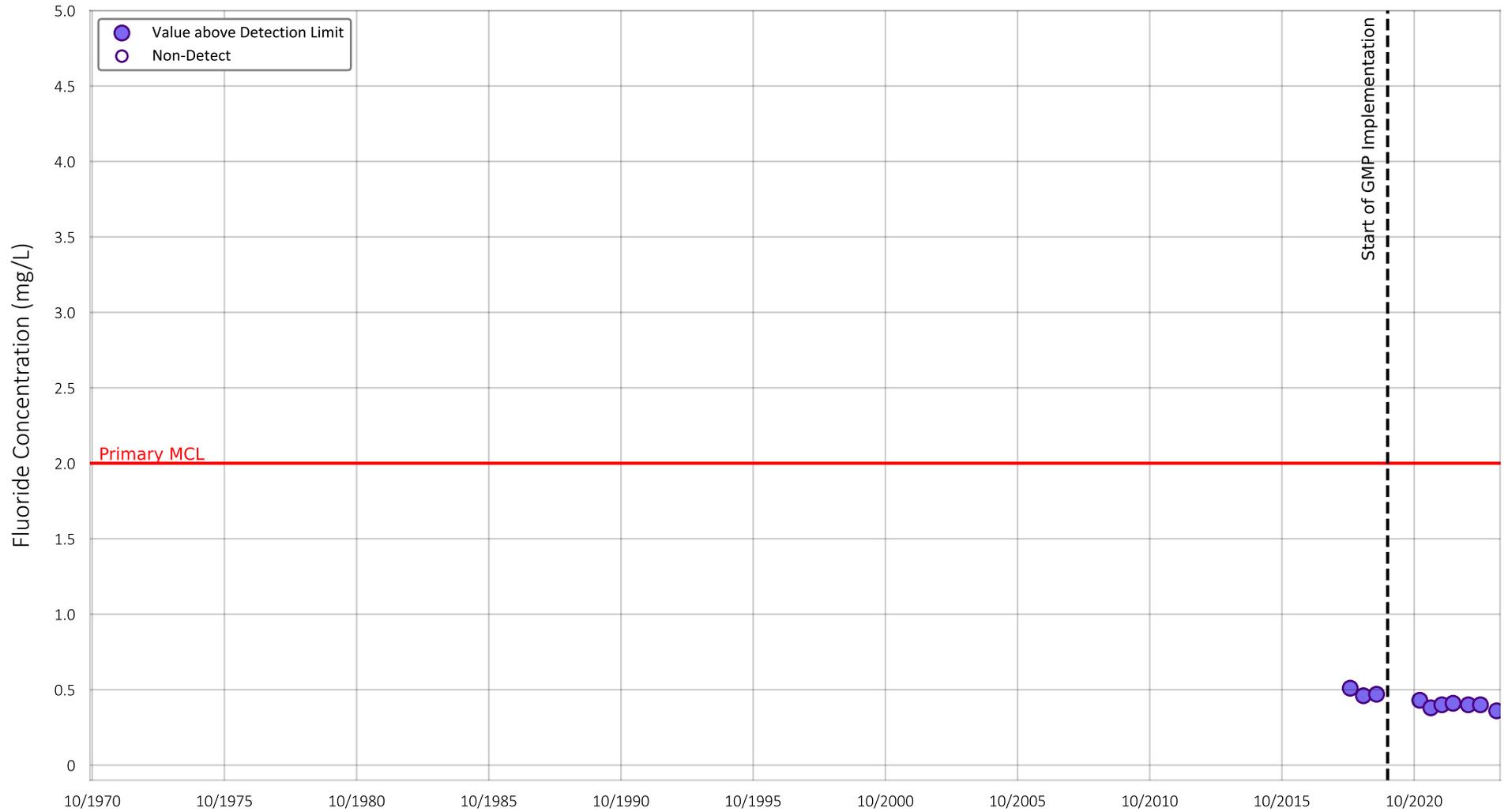


Prepared by:



Fluoride Concentration
 Well Name: ID1-16
 State Well ID: 011S006E16N001S
 Well Depth (ft): 705
 Perforated Interval (ft): 160 - 549

Figure G-22



Location of Well in Borrego Springs

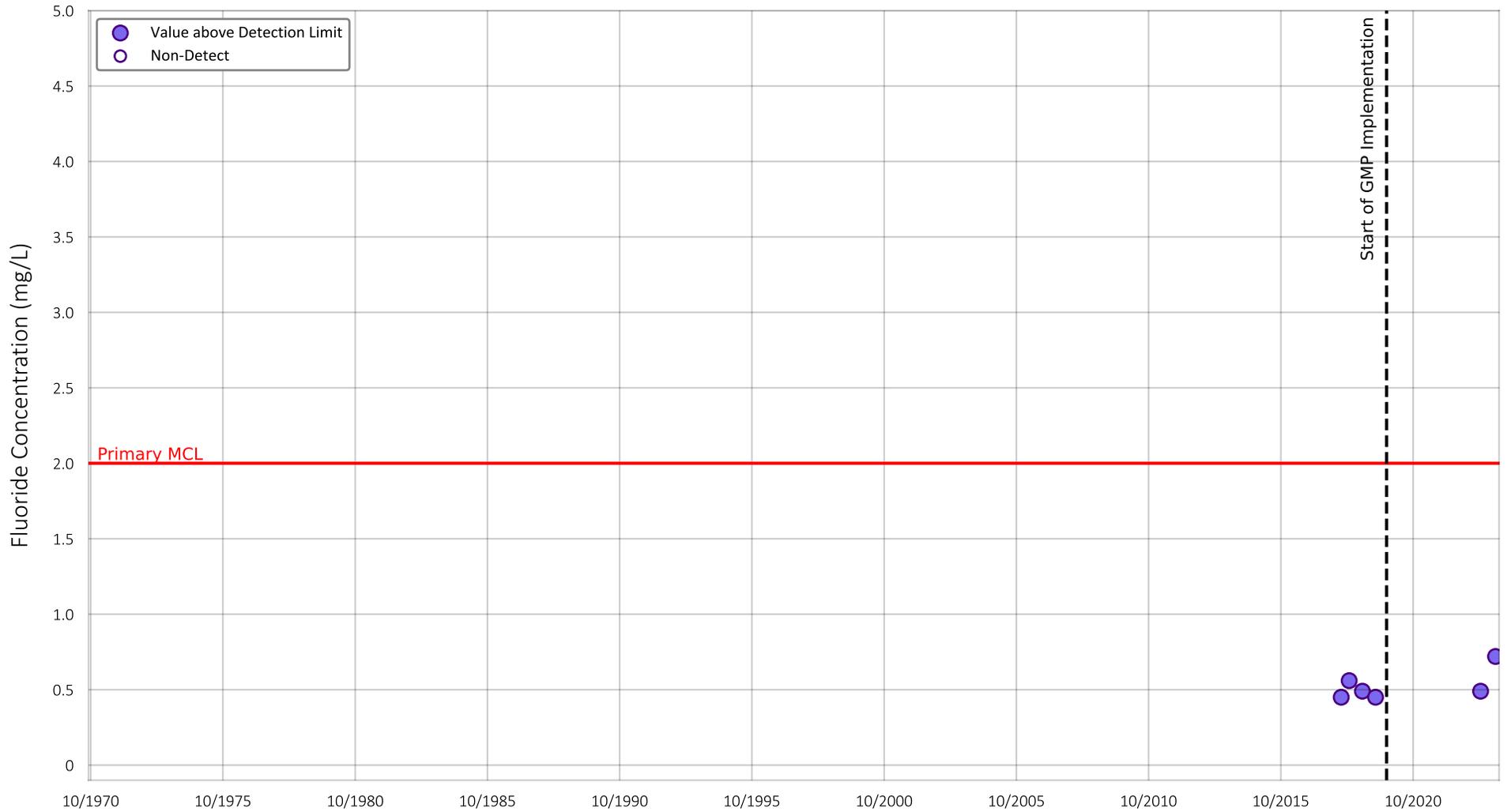


Prepared by:



Fluoride Concentration
 Well Name: MW-3
 State Well ID: 011S006E23J002S
 Well Depth (ft): 325
 Perforated Interval (ft): 175 - 331

Figure G-25



Location of Well in Borrego Springs

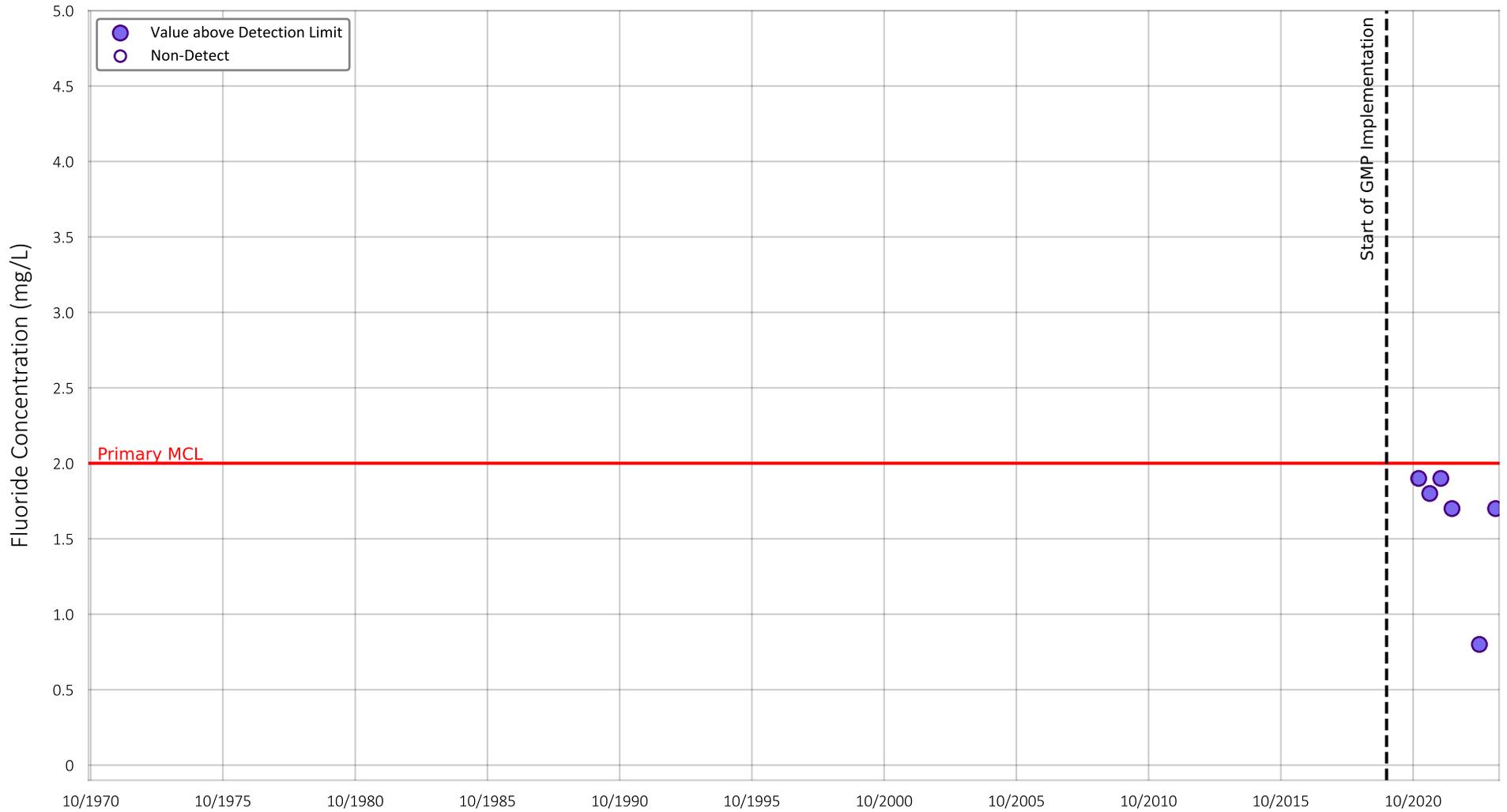


Prepared by:



Fluoride Concentration
 Well Name: Fortiner #1 (Allegre 1)
 State Well ID: 010S006E09N001S
 Well Depth (ft): 560
 Perforated Interval (ft): 250 - 607

Figure G-26



Location of Well in Borrego Springs

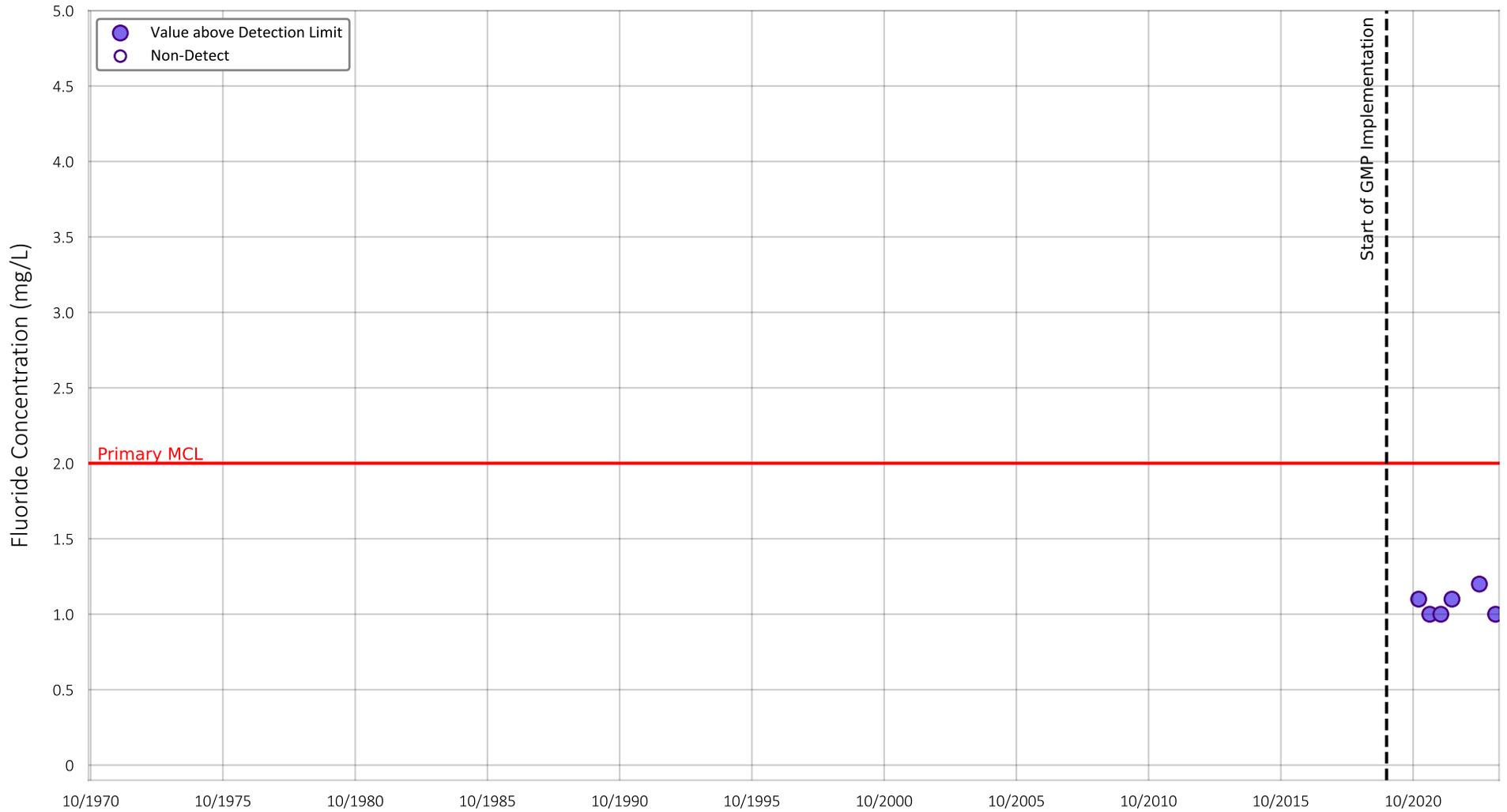


Prepared by:



Fluoride Concentration
 Well Name: MW-5A (East-Lower)
 State Well ID: 011S007E07R001S
 Well Depth (ft): 345
 Perforated Interval (ft): 50 - 160

Figure G-28



Location of Well in Borrego Springs

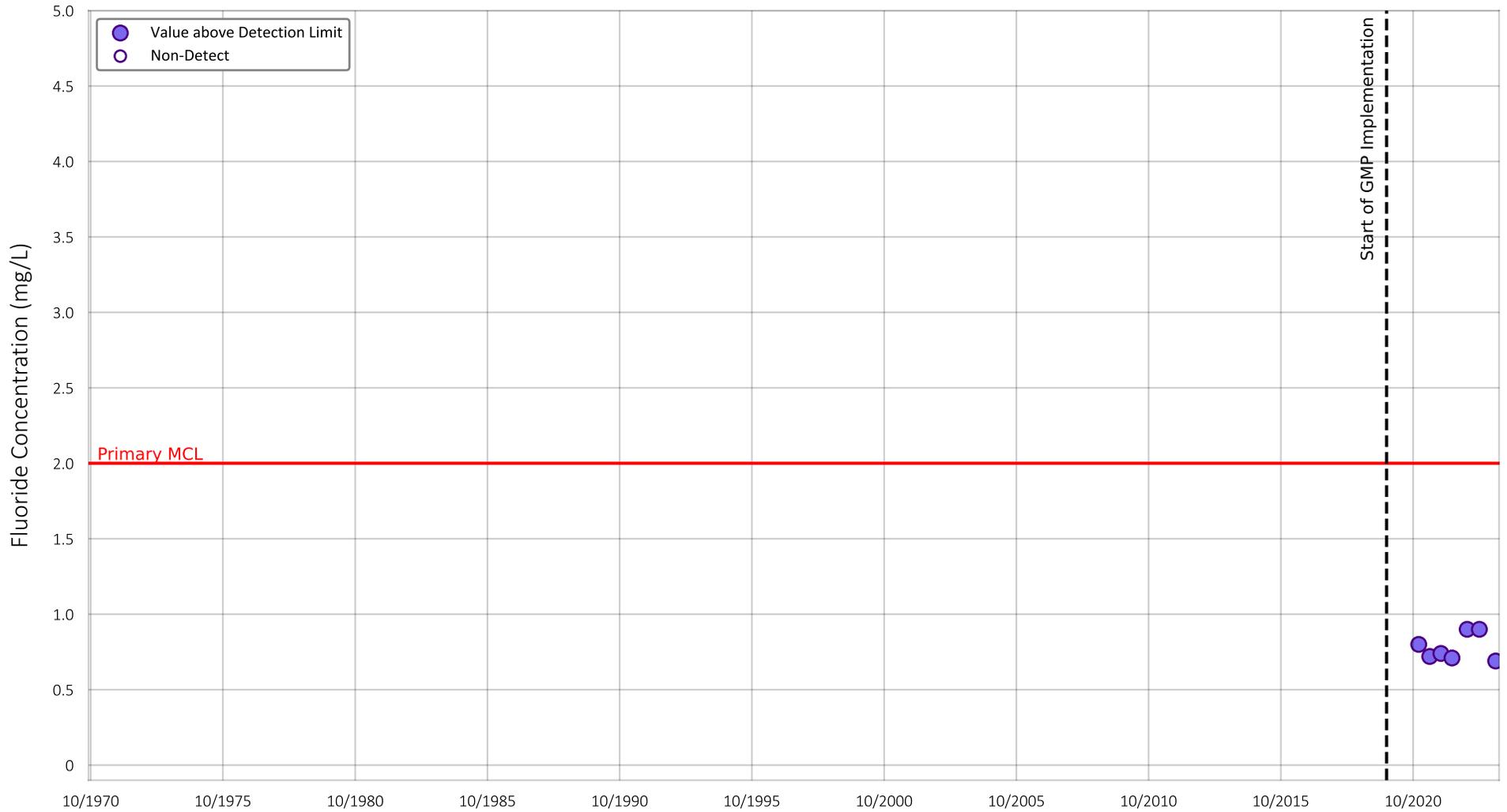


Prepared by:



Fluoride Concentration
 Well Name: MW-5B (West-Upper)
 State Well ID: 011S007E07R002S
 Well Depth (ft): 160
 Perforated Interval (ft): 45 - 340

Figure G-29



Location of Well in Borrego Springs

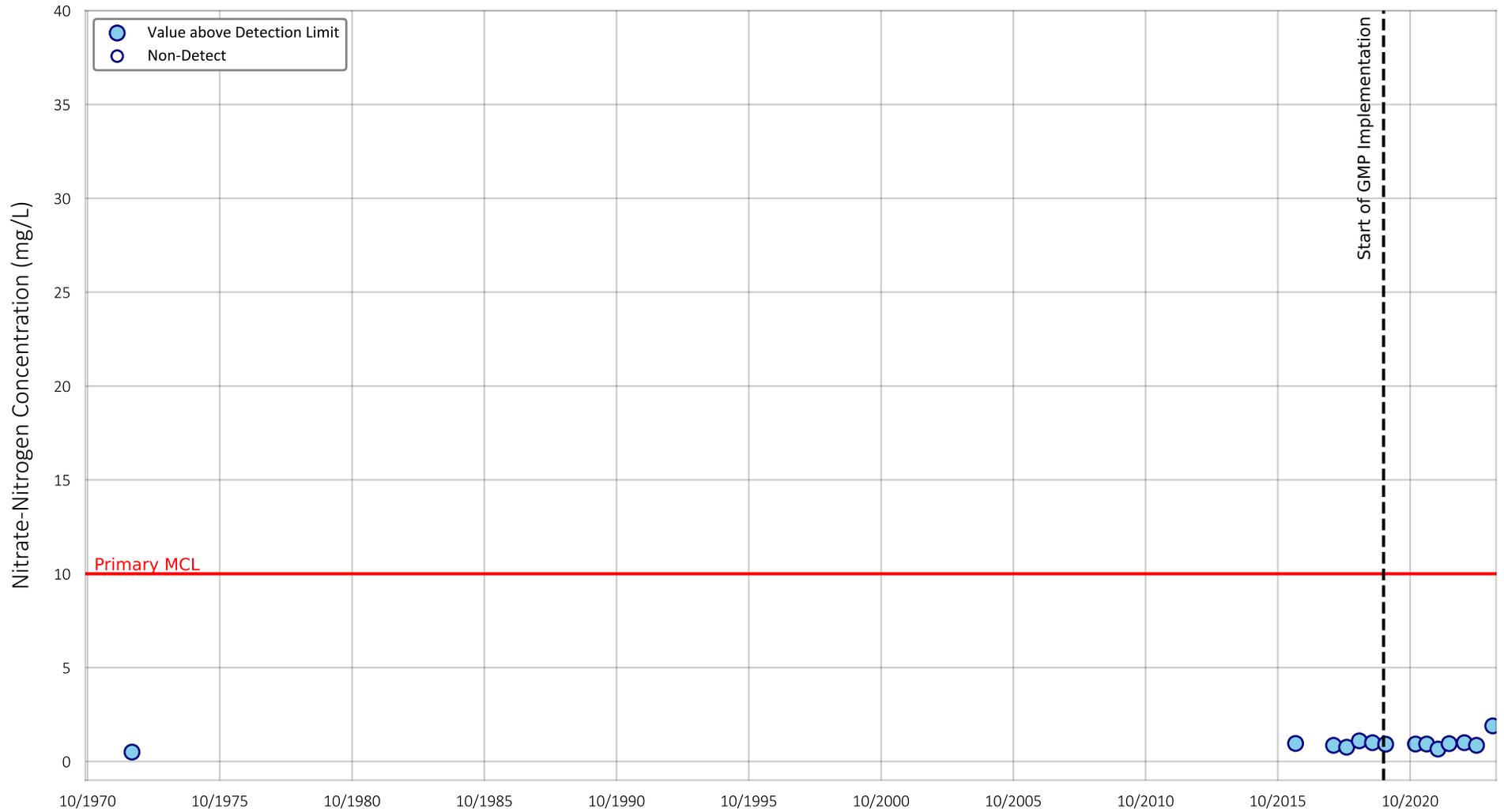


Prepared by:



Fluoride Concentration
 Well Name: MW-1
 State Well ID: 010S006E21A002S
 Well Depth (ft): 900
 Perforated Interval (ft): 800 - 890

Figure G-30



Location of Well in Borrego Springs

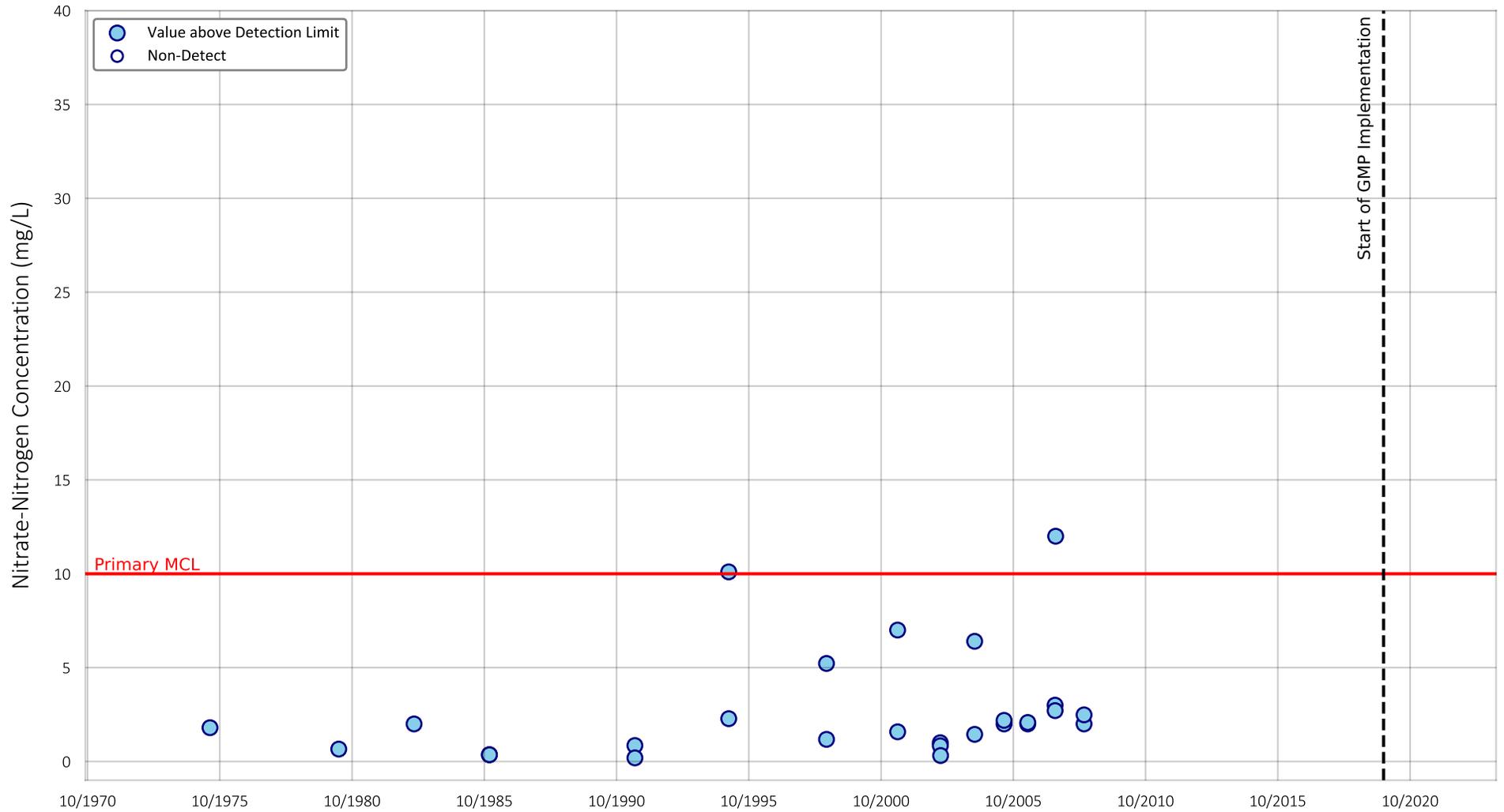


Prepared by:



Nitrate-Nitrogen Concentration
 Well Name: RH-1 (ID1-1)
 State Well ID: 011S006E25A001S
 Well Depth (ft): 600
 Perforated Interval (ft): 180 - 580

Figure G-31



Location of Well in Borrego Springs

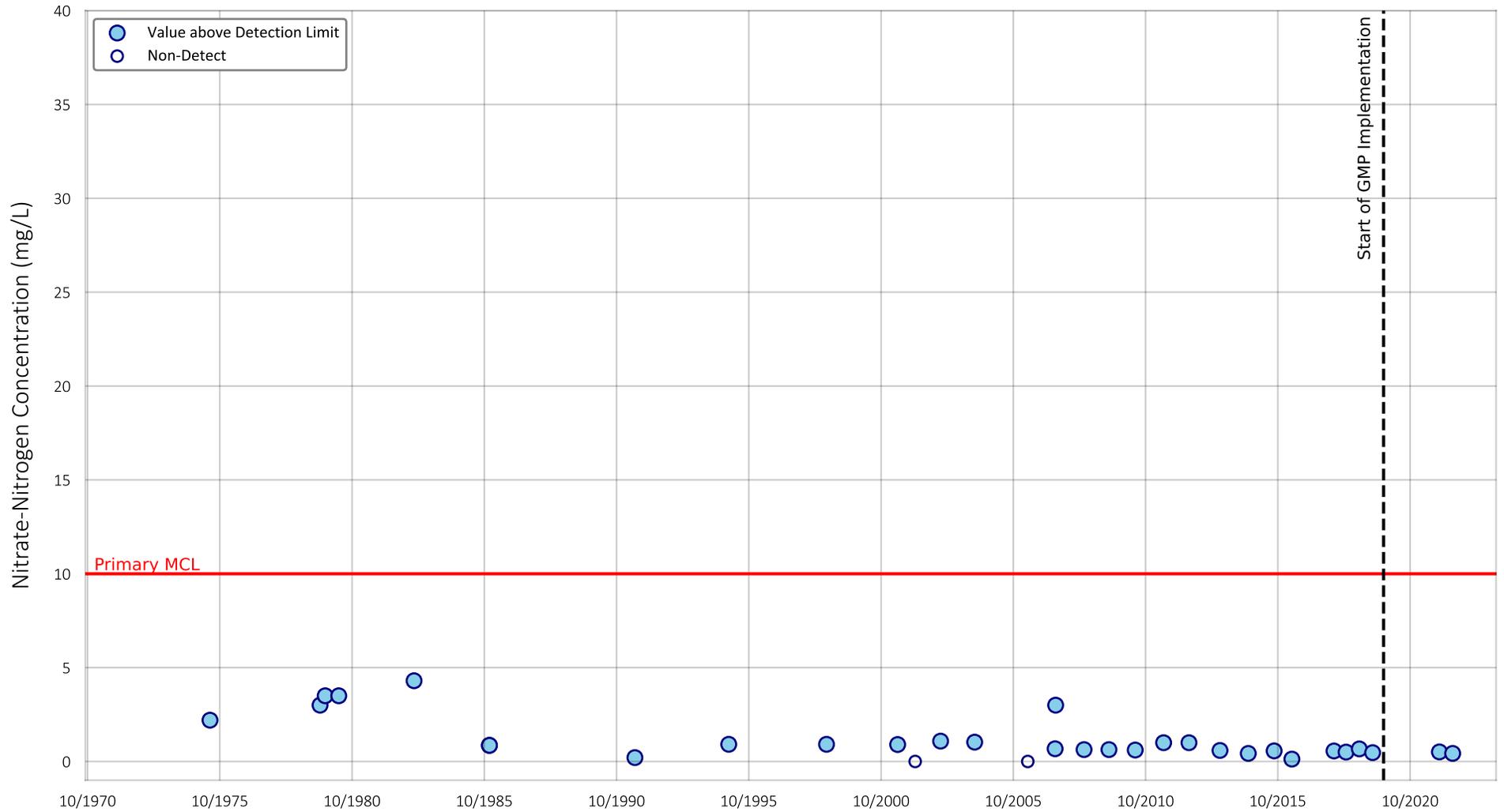


Prepared by:



Nitrate-Nitrogen Concentration
 Well Name: ID4-3
 State Well ID: 010S006E18R001S
 Well Depth (ft): 621
 Perforated Interval (ft): no data - no data

Figure G-32



Location of Well in Borrego Springs

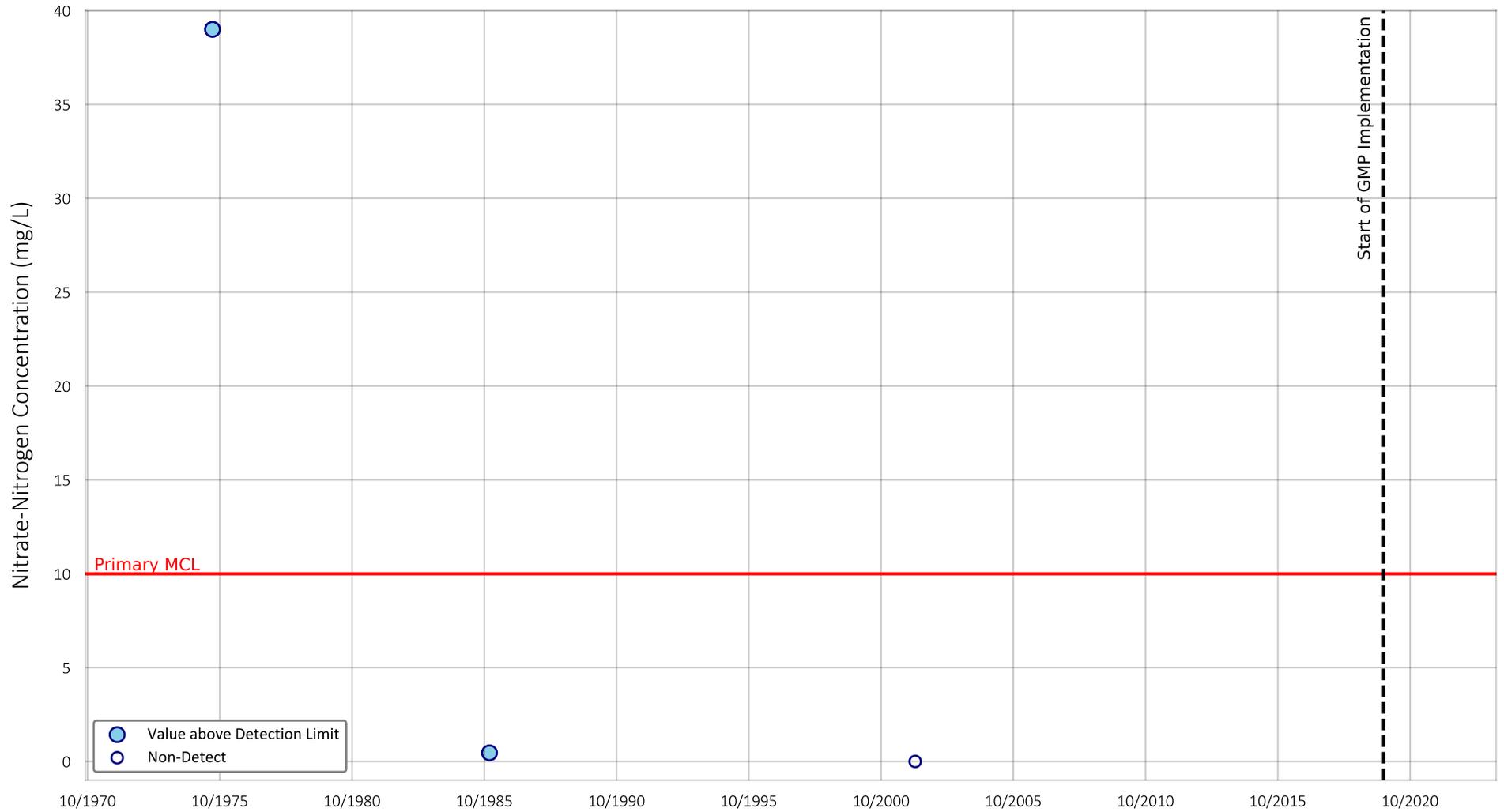


Prepared by:

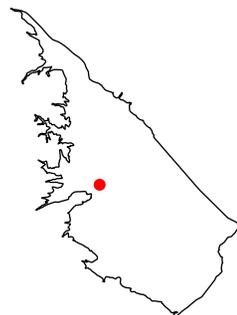


Nitrate-Nitrogen Concentration
 Well Name: ID4-4
 State Well ID: 010S006E29K002S
 Well Depth (ft): 802
 Perforated Interval (ft): 470 - 786

Figure G-33



Location of Well in Borrego Springs

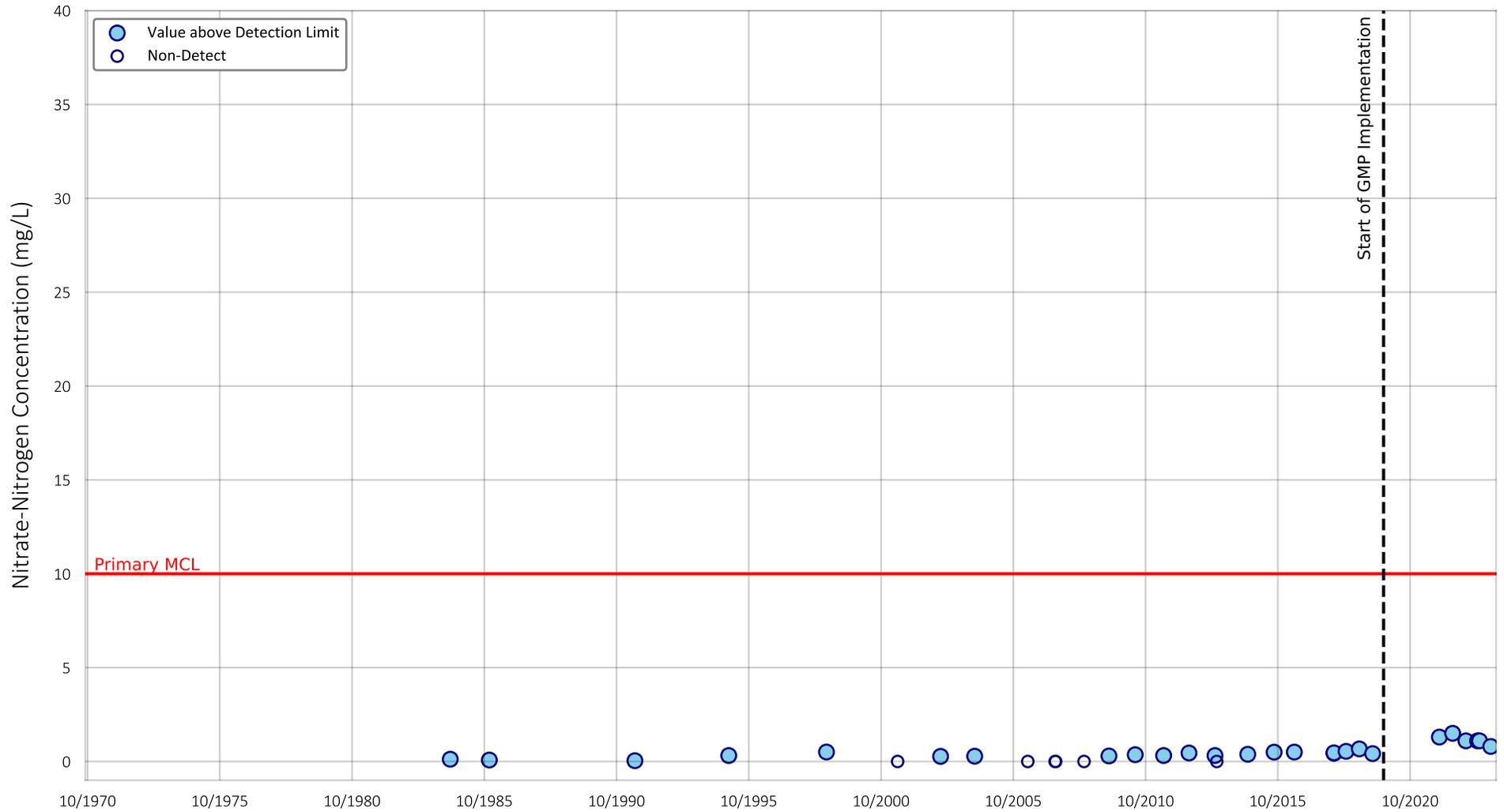


Prepared by:



Nitrate-Nitrogen Concentration
 Well Name: ID4-1
 State Well ID: 010S006E32R001S
 Well Depth (ft): no data
 Perforated Interval (ft): no data - no data

Figure G-34



Location of Well in Borrego Springs

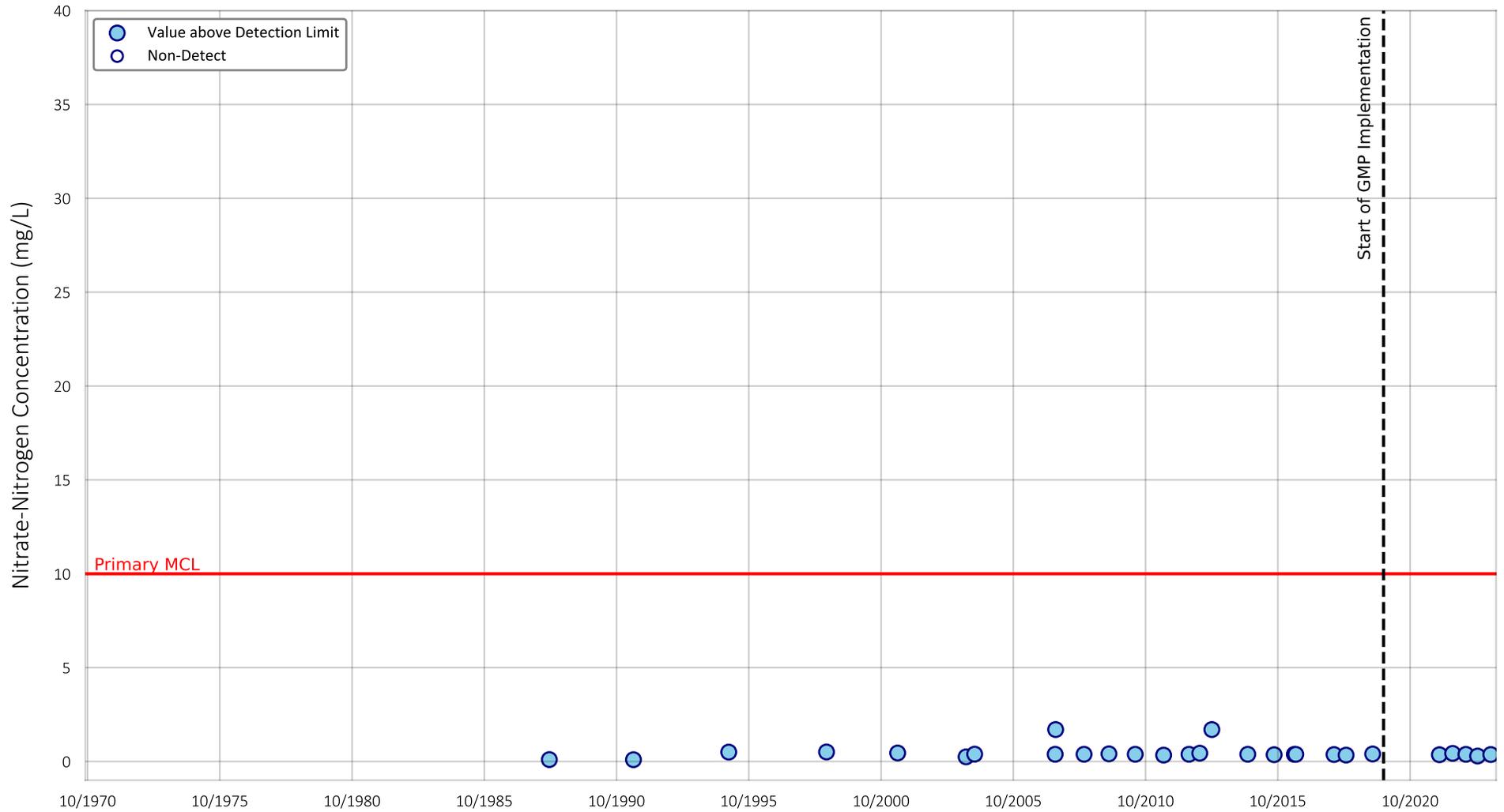


Prepared by:



Nitrate-Nitrogen Concentration
 Well Name: ID4-18
 State Well ID: 010S006E18J001S
 Well Depth (ft): 570
 Perforated Interval (ft): 240 - 560

Figure G-35



Location of Well in Borrego Springs

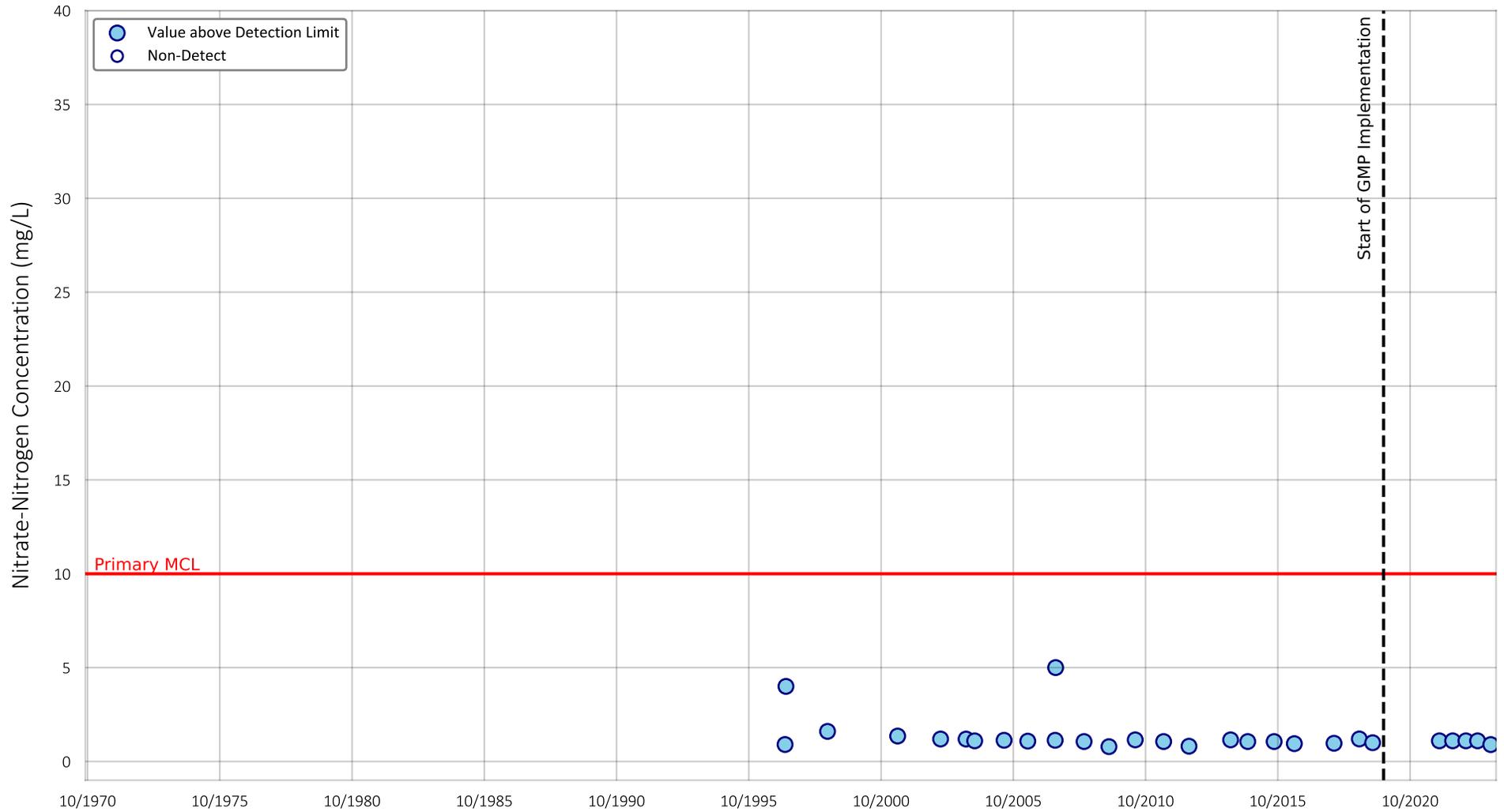


Prepared by:



Nitrate-Nitrogen Concentration
 Well Name: ID1-12
 State Well ID: 011S006E16A002S
 Well Depth (ft): 580
 Perforated Interval (ft): 248 - 568

Figure G-36



Location of Well in Borrego Springs

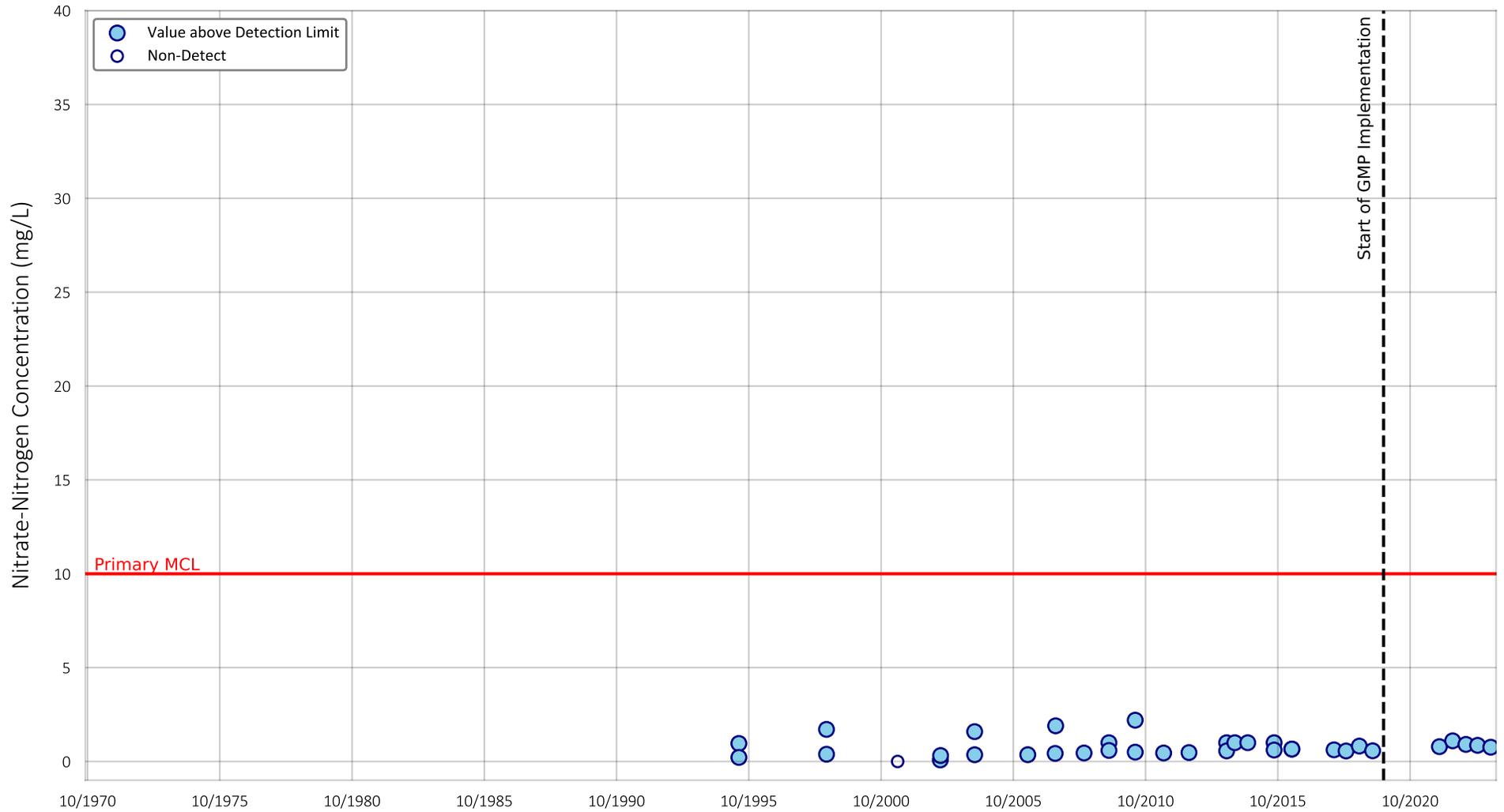


Prepared by:



Nitrate-Nitrogen Concentration
 Well Name: ID1-16
 State Well ID: 011S006E16N001S
 Well Depth (ft): 705
 Perforated Interval (ft): 160 - 549

Figure G-37



Location of Well in Borrego Springs

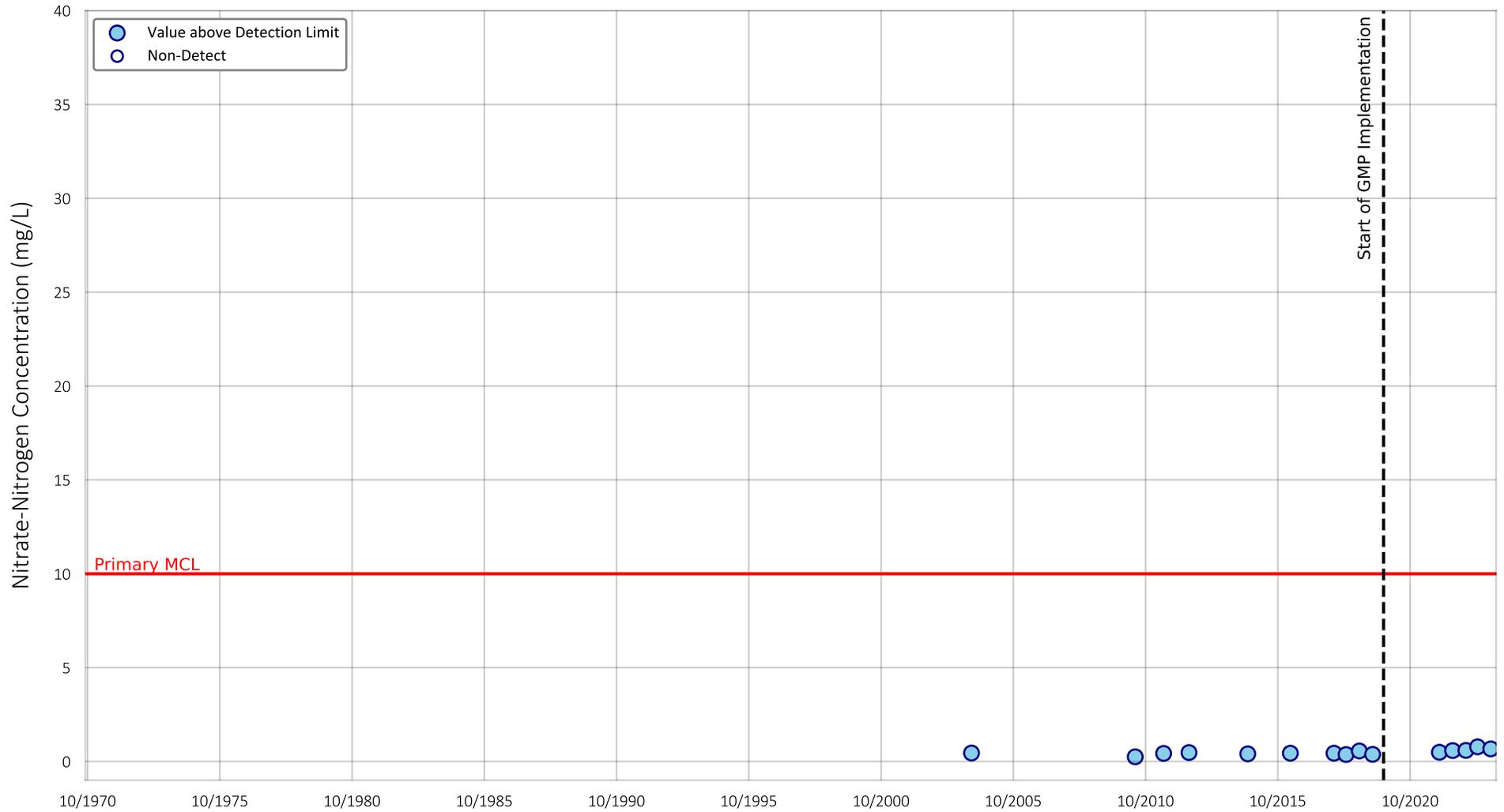


Prepared by:



Nitrate-Nitrogen Concentration
 Well Name: ID4-11
 State Well ID: 010S006E32D001S
 Well Depth (ft): 770
 Perforated Interval (ft): 450 - 760

Figure G-38



Location of Well in Borrego Springs

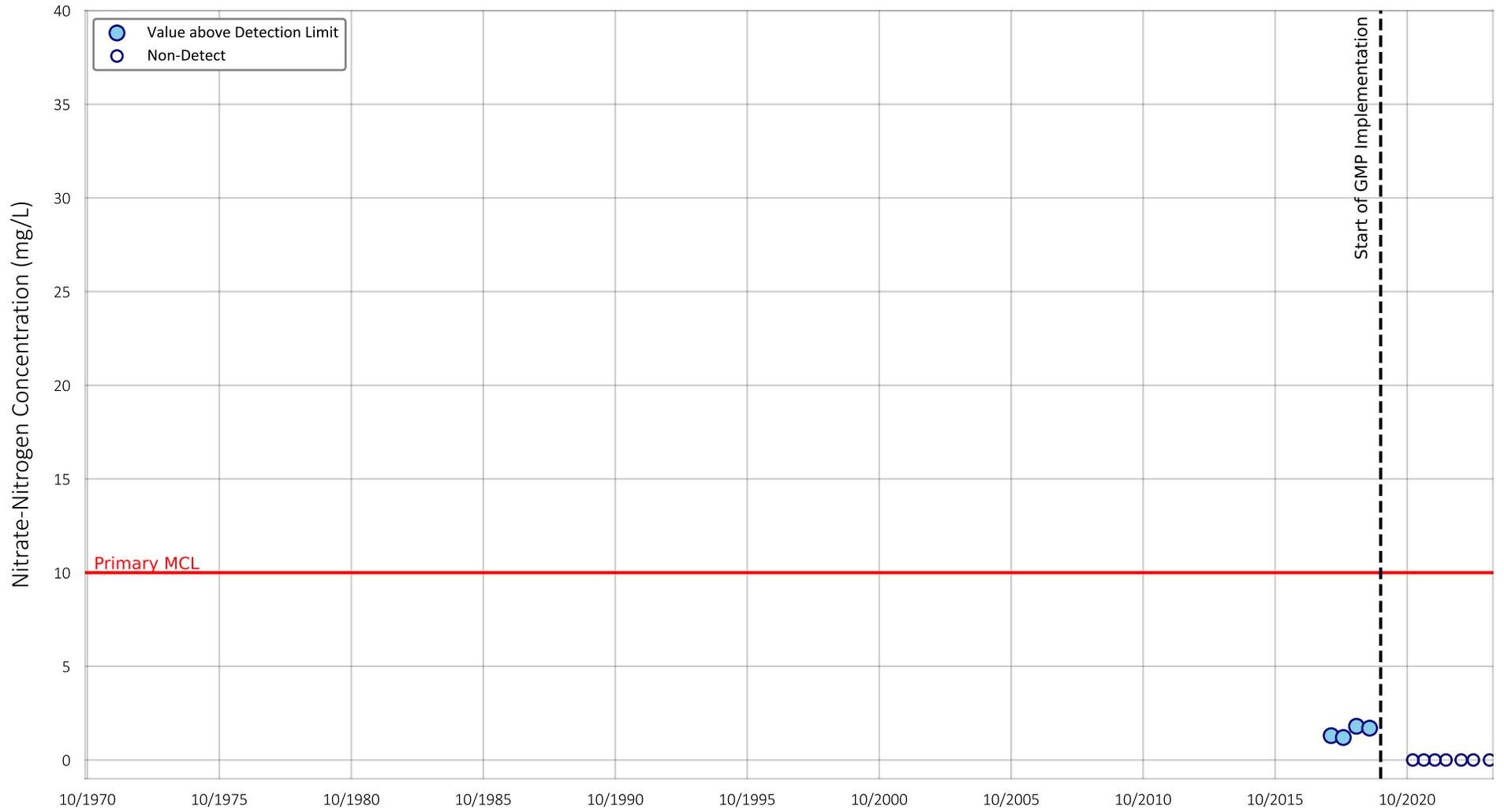


Prepared by:



Nitrate-Nitrogen Concentration
 Well Name: ID5-5
 State Well ID: 011S006E09E001S
 Well Depth (ft): 700
 Perforated Interval (ft): 400 - 700

Figure G-39



Location of Well in Borrego Springs

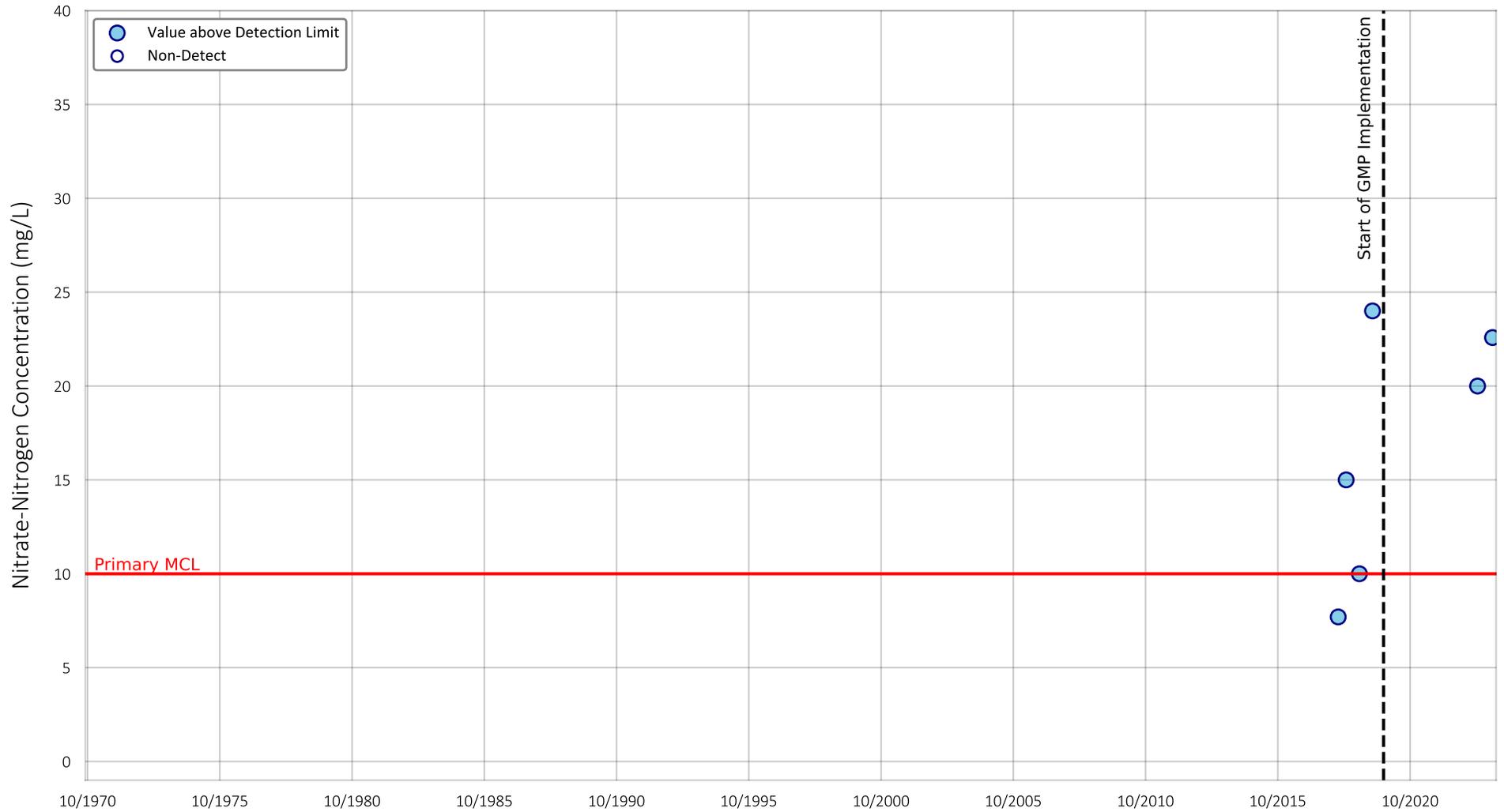


Prepared by:



Nitrate-Nitrogen Concentration
 Well Name: MW-3
 State Well ID: 011S006E23J002S
 Well Depth (ft): 325
 Perforated Interval (ft): 175 - 331

Figure G-40



Location of Well in Borrego Springs

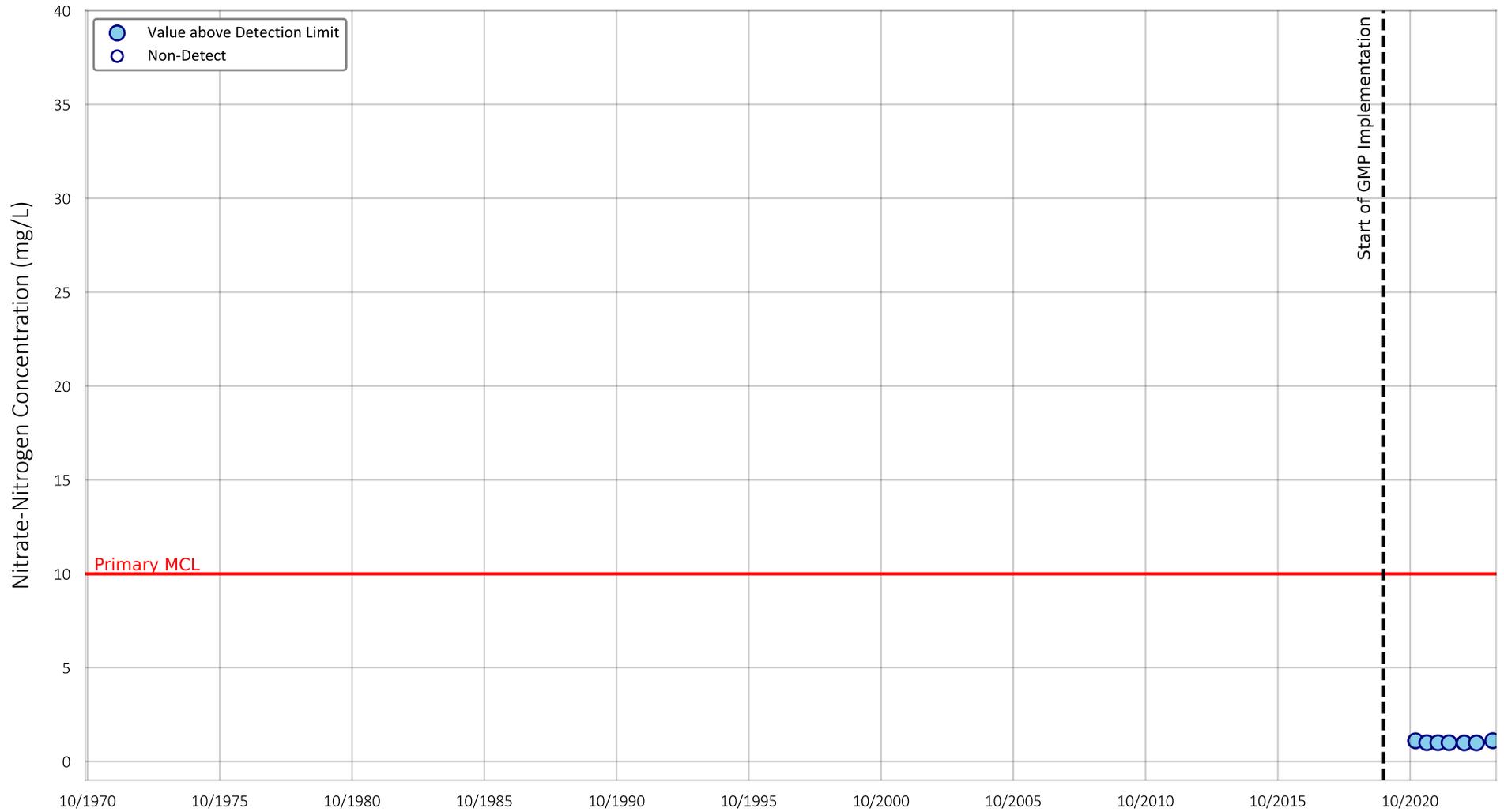


Prepared by:



Nitrate-Nitrogen Concentration
 Well Name: Fortiner #1 (Allegre 1)
 State Well ID: 010S006E09N001S
 Well Depth (ft): 560
 Perforated Interval (ft): 250 - 607

Figure G-41



Location of Well in Borrego Springs

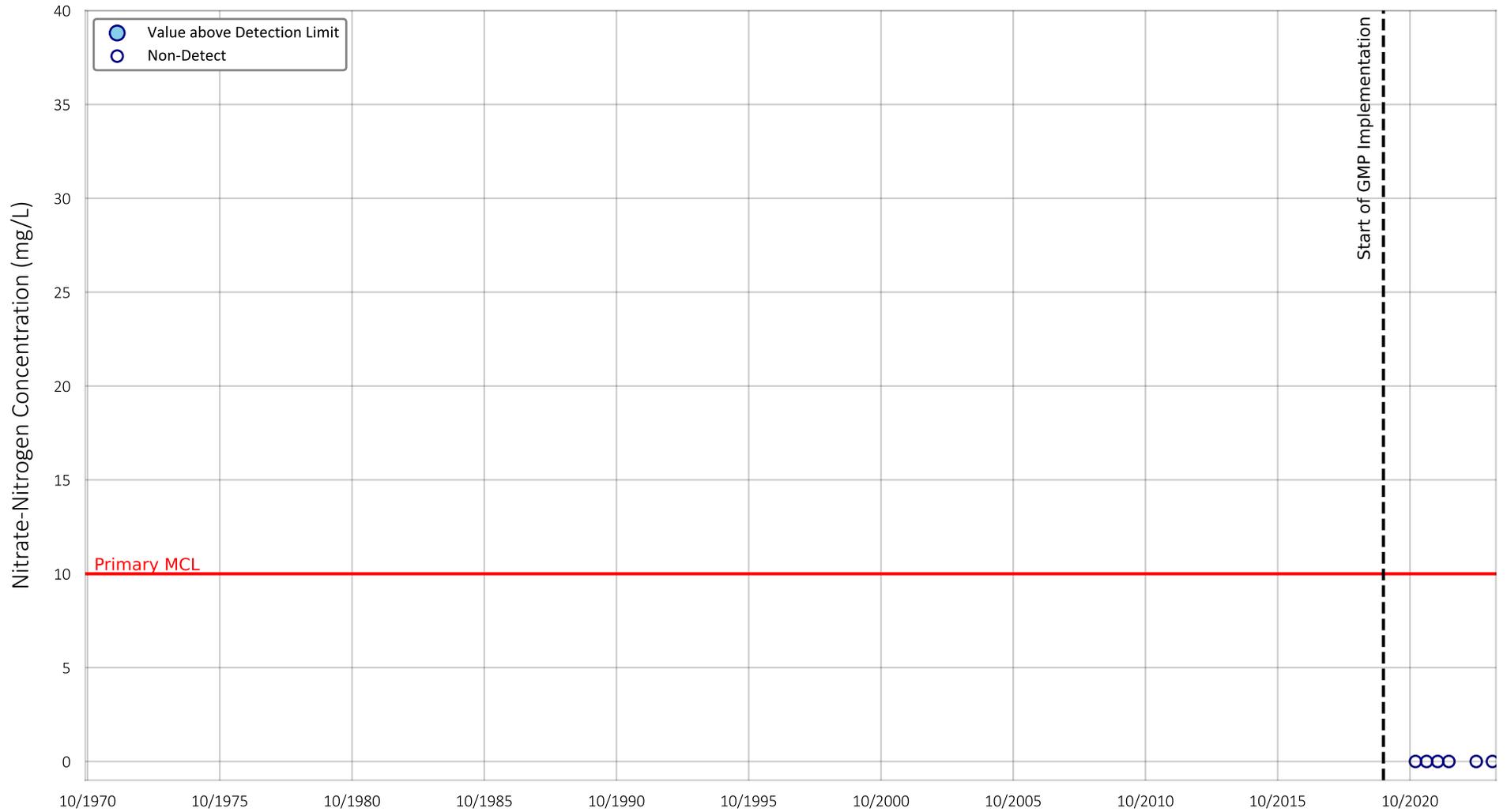


Prepared by:



Nitrate-Nitrogen Concentration
 Well Name: Air Ranch Well 4
 State Well ID: 011S007E30L001S
 Well Depth (ft): 380
 Perforated Interval (ft): 120 - 380

Figure G-42



Location of Well in Borrego Springs

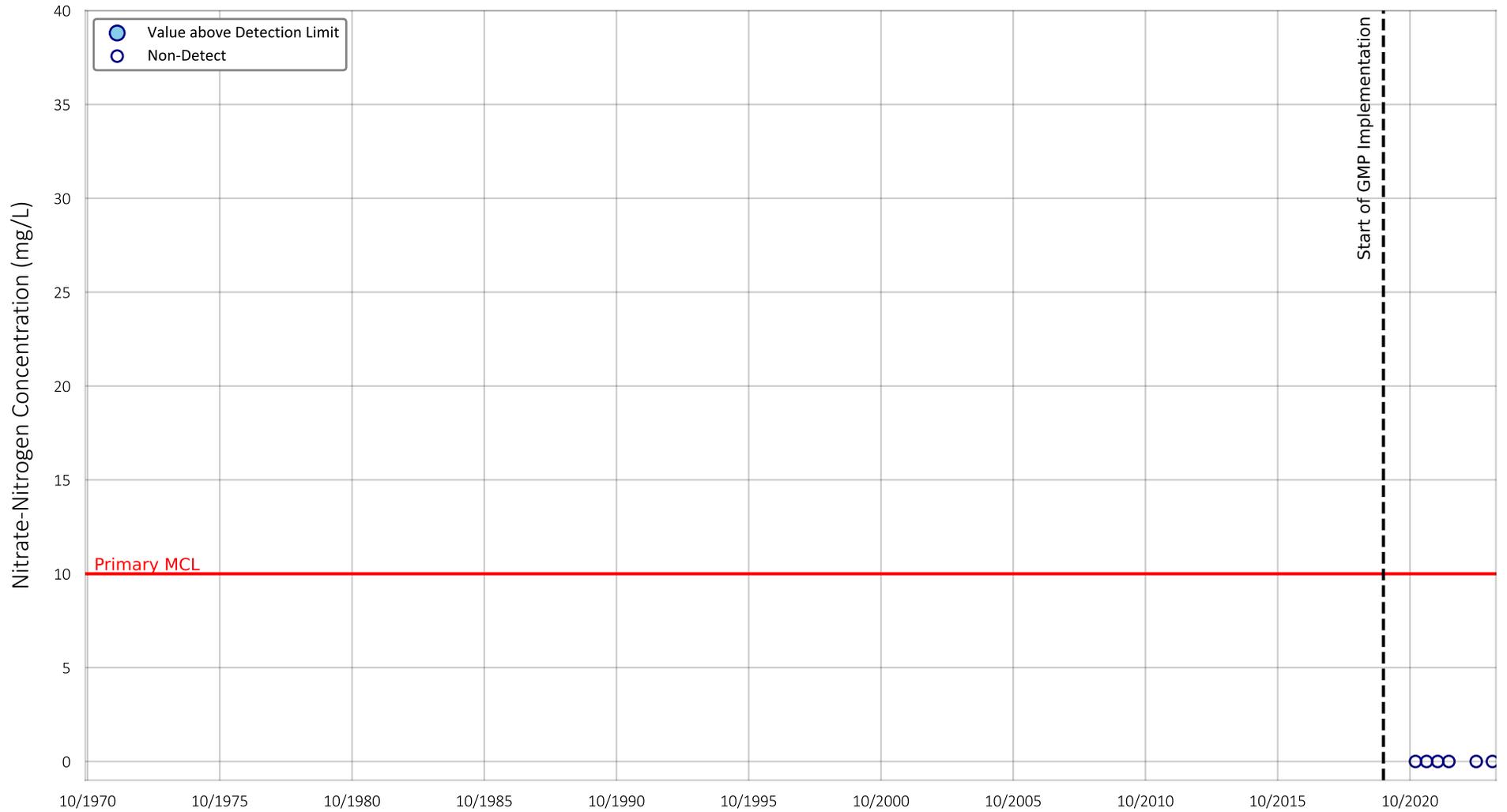


Prepared by:



Nitrate-Nitrogen Concentration
Well Name: MW-5A (East-Lower)
State Well ID: 011S007E07R001S
Well Depth (ft): 345
Perforated Interval (ft): 50 - 160

Figure G-43



Location of Well in Borrego Springs

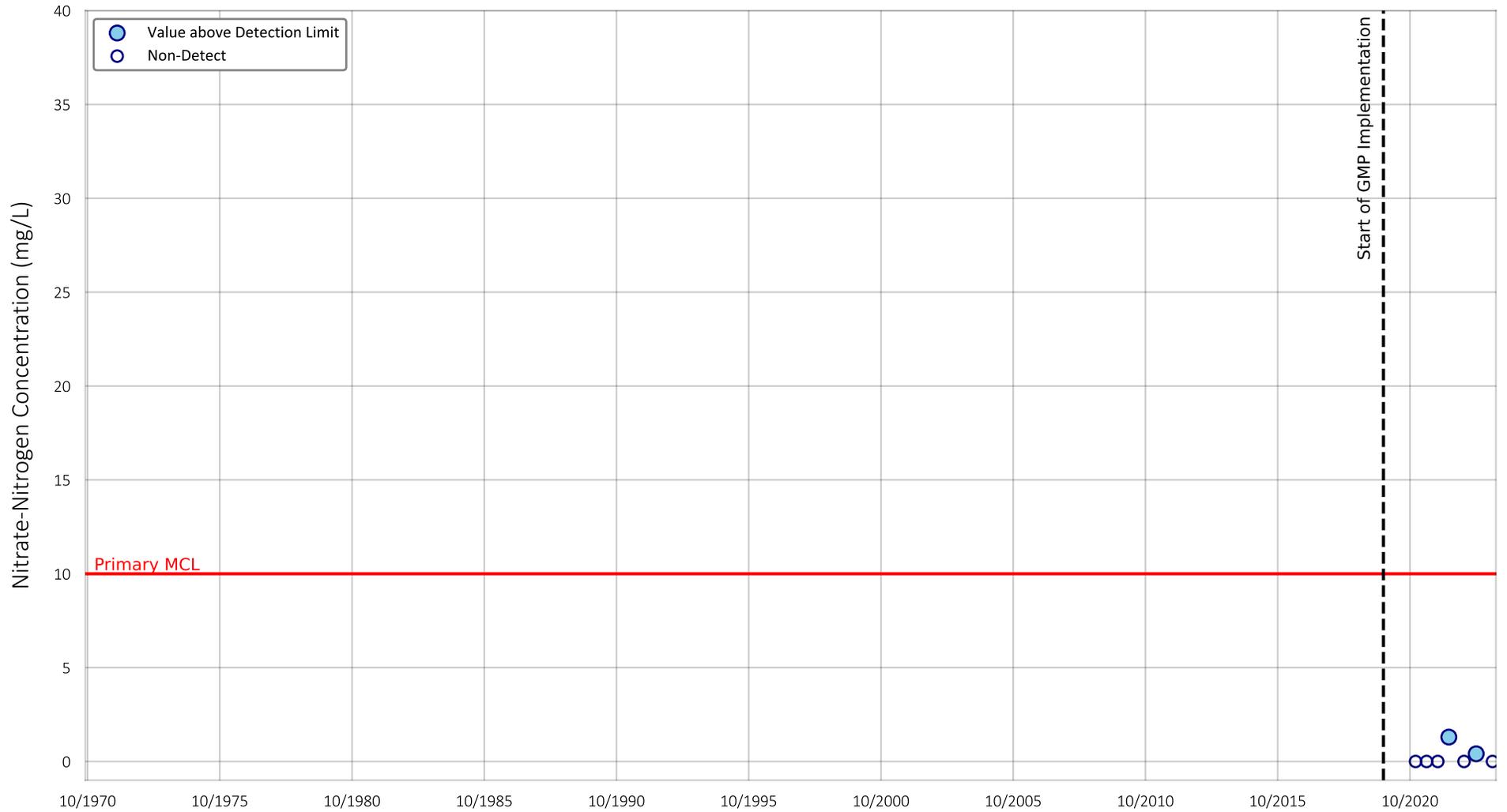


Prepared by:



Nitrate-Nitrogen Concentration
Well Name: MW-5B (West-Upper)
State Well ID: 011S007E07R002S
Well Depth (ft): 160
Perforated Interval (ft): 45 - 340

Figure G-44



Location of Well in Borrego Springs

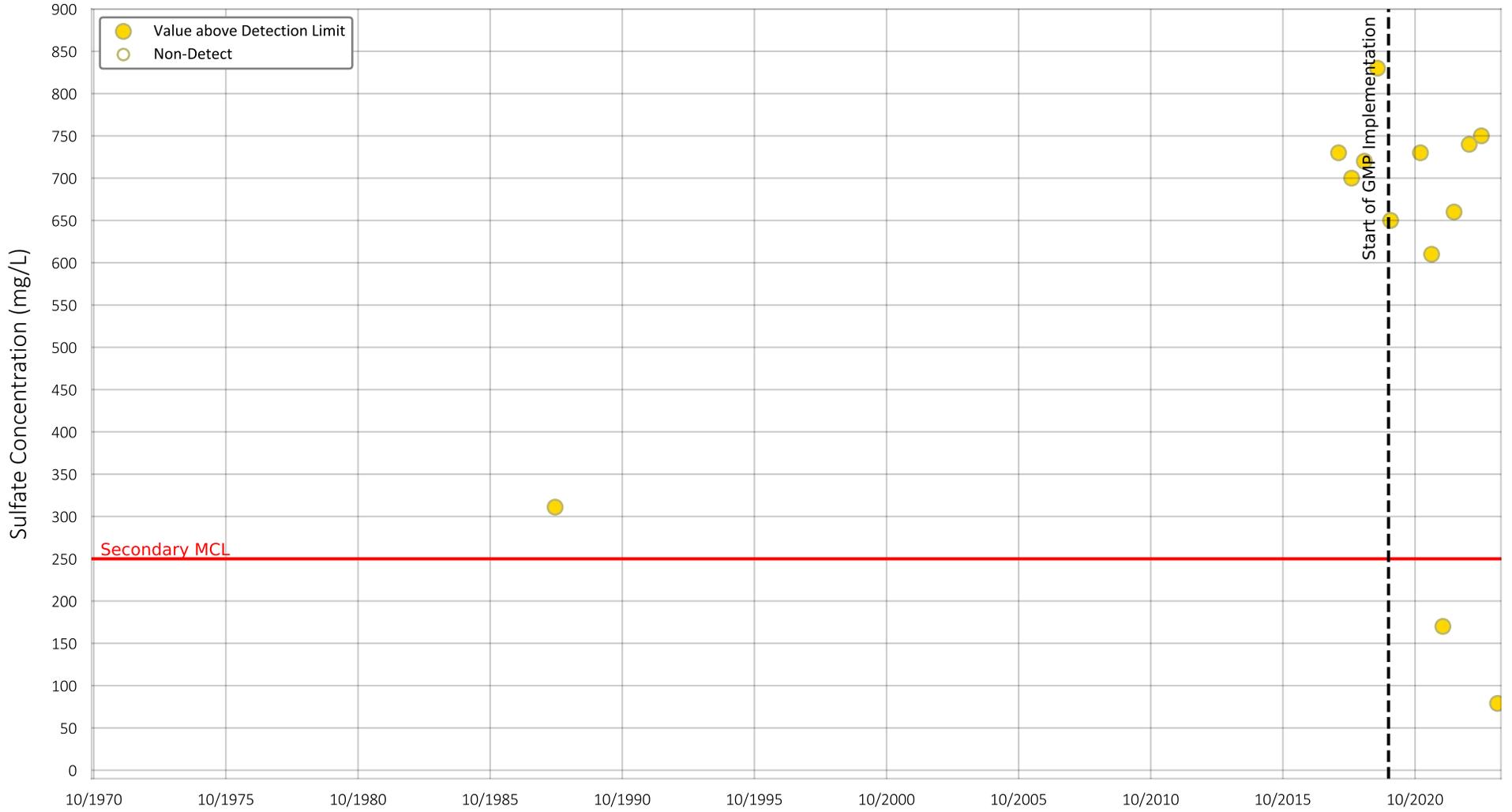


Prepared by:



Nitrate-Nitrogen Concentration
 Well Name: MW-1
 State Well ID: 010S006E21A002S
 Well Depth (ft): 900
 Perforated Interval (ft): 800 - 890

Figure G-45



Location of Well in Borrego Springs

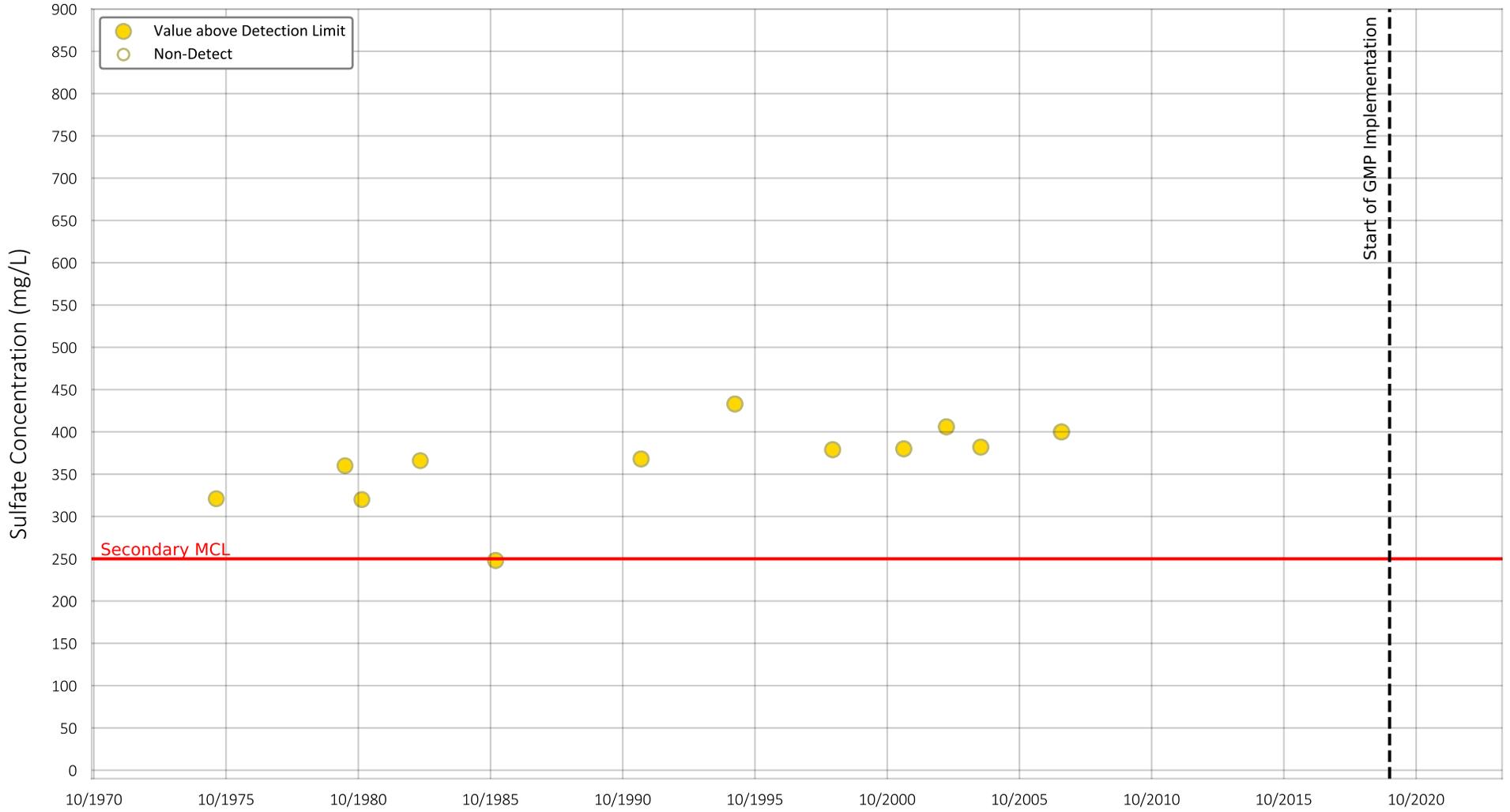


Prepared by:



Sulfate Concentration
 Well Name: RH-1 (ID1-1)
 State Well ID: 011S006E25A001S
 Well Depth (ft): 600
 Perforated Interval (ft): 180 - 580

Figure G-46



Location of Well in Borrego Springs

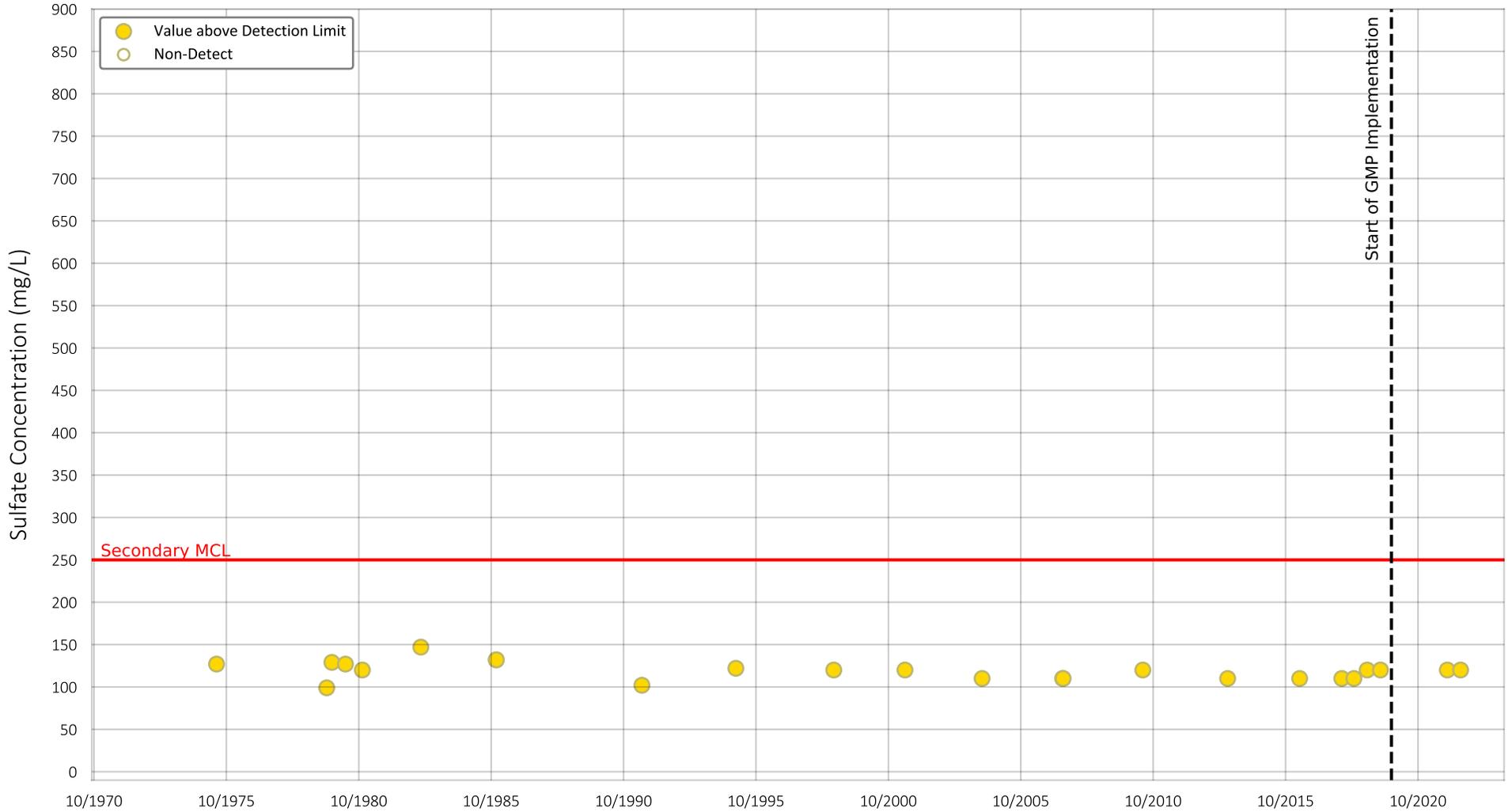


Prepared by:



Sulfate Concentration
 Well Name: ID4-3
 State Well ID: 010S006E18R001S
 Well Depth (ft): 621
 Perforated Interval (ft): no data - no data

Figure G-47



Location of Well in Borrego Springs

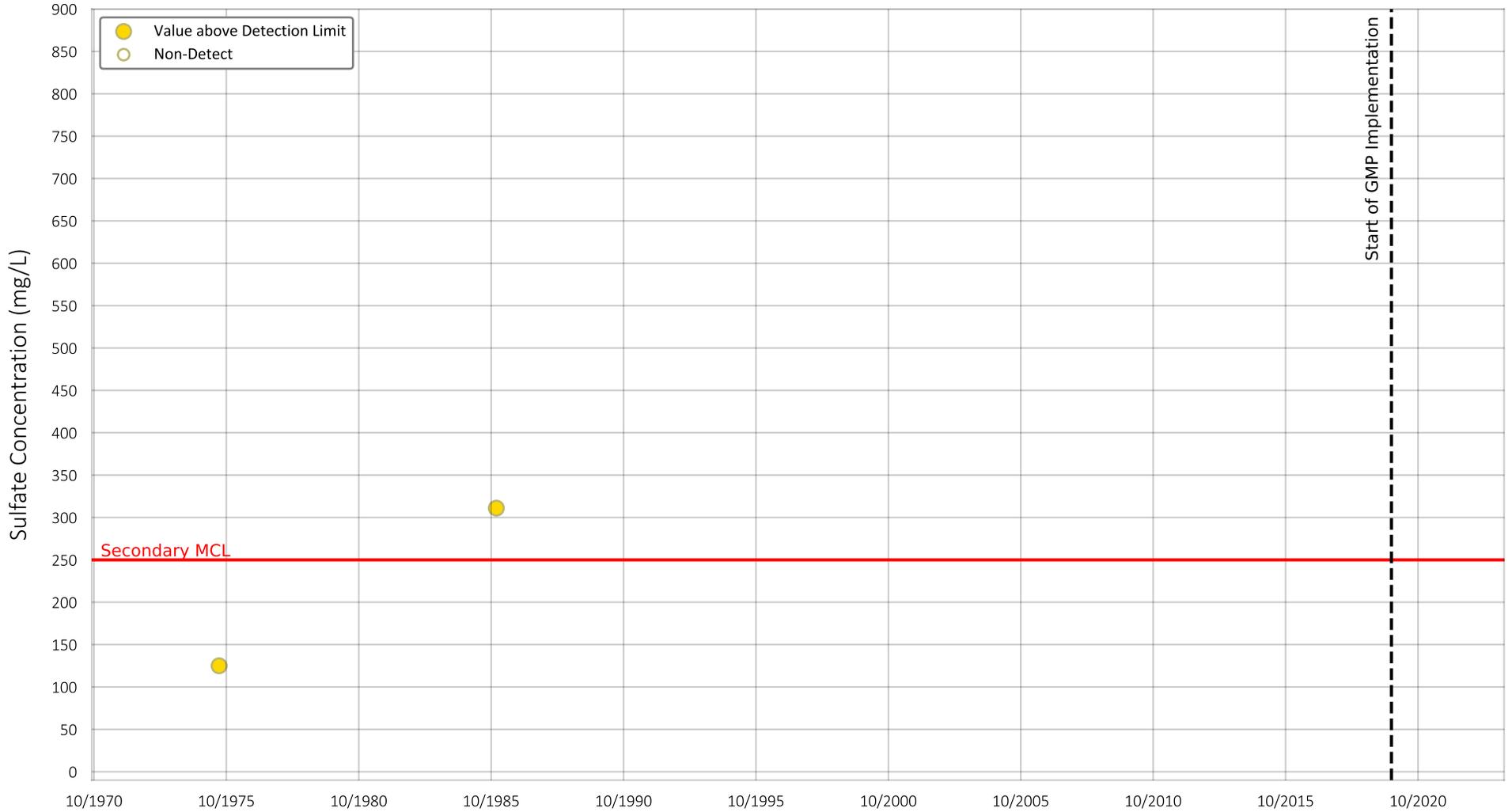


Prepared by:



Sulfate Concentration
 Well Name: ID4-4
 State Well ID: 010S006E29K002S
 Well Depth (ft): 802
 Perforated Interval (ft): 470 - 786

Figure G-48



Location of Well in Borrego Springs

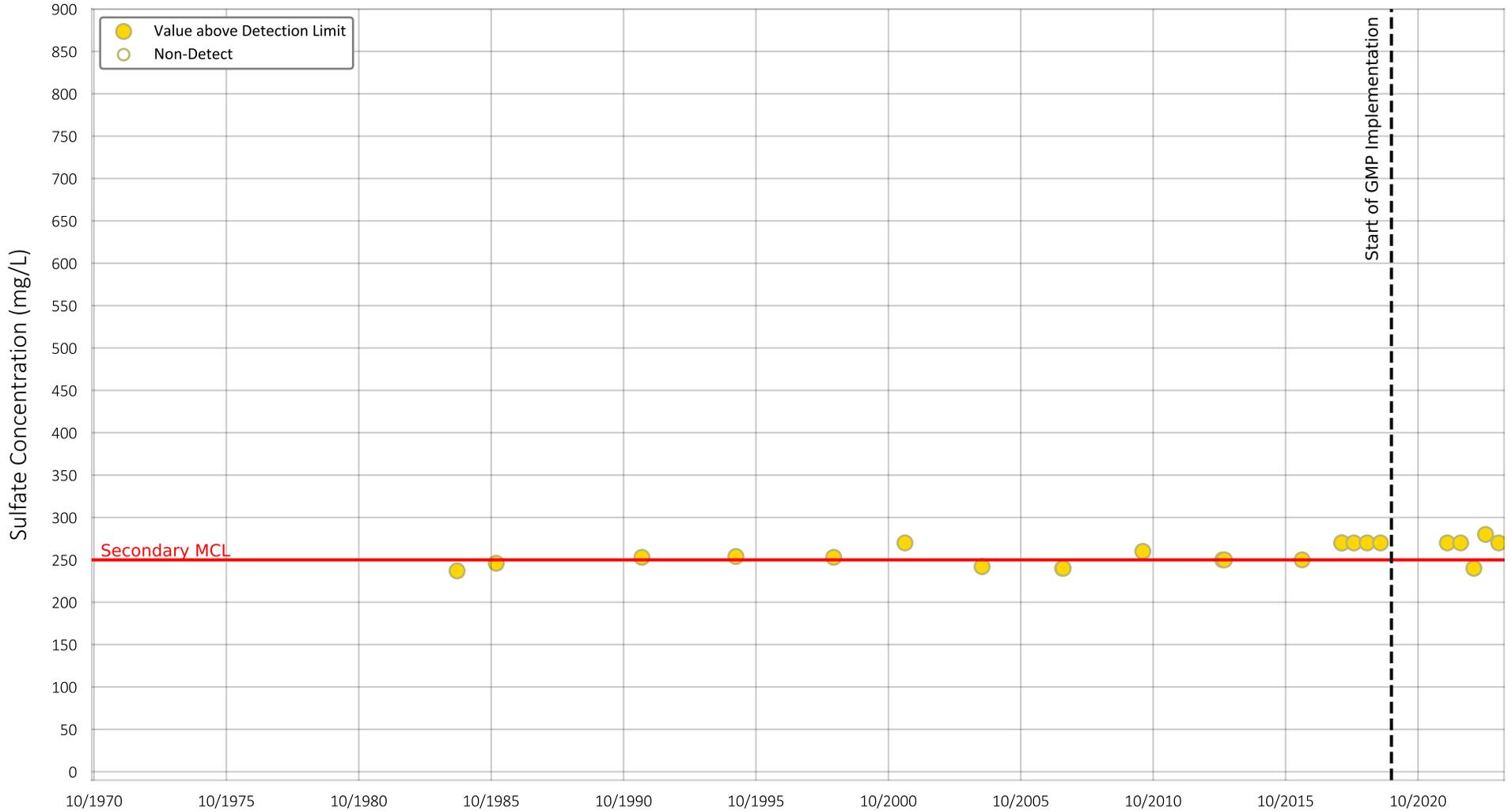


Prepared by:



Sulfate Concentration
 Well Name: ID4-1
 State Well ID: 010S006E32R001S
 Well Depth (ft): no data
 Perforated Interval (ft): no data - no data

Figure G-49



Location of Well in Borrego Springs

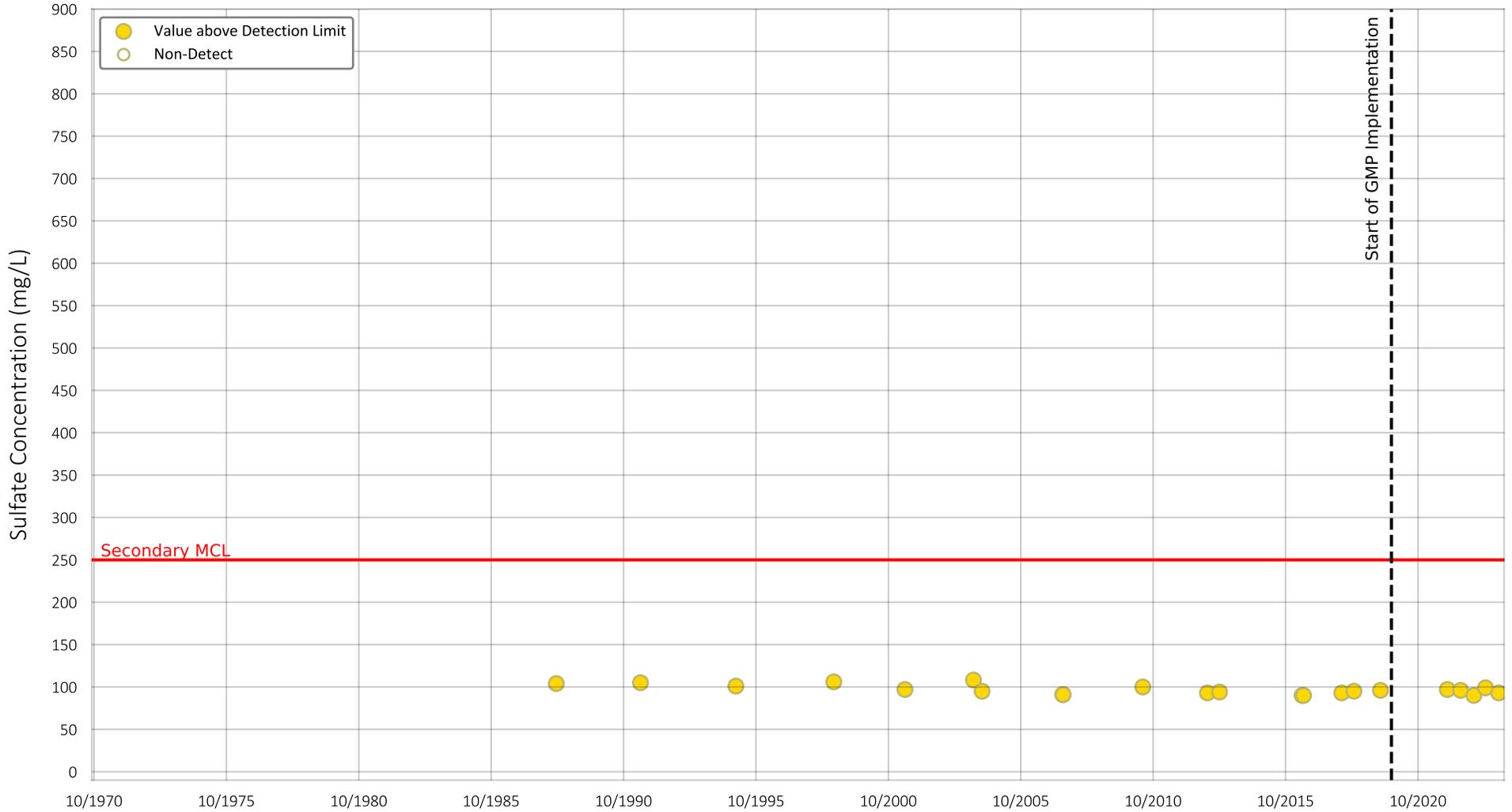


Prepared by:



Sulfate Concentration
 Well Name: ID4-18
 State Well ID: 010S006E18J001S
 Well Depth (ft): 570
 Perforated Interval (ft): 240 - 560

Figure G-50



Location of Well in Borrego Springs

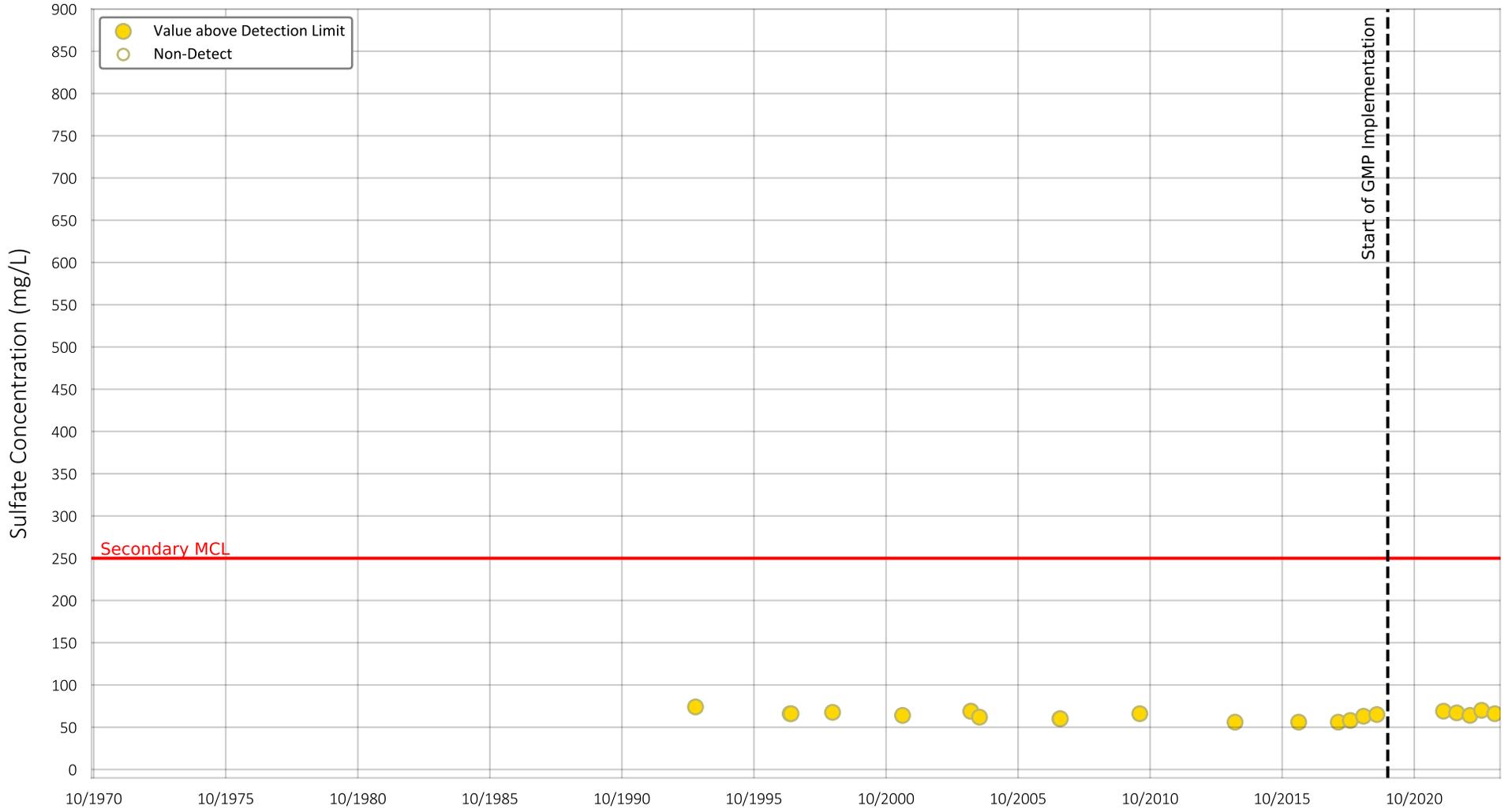


Prepared by:



Sulfate Concentration
 Well Name: ID1-12
 State Well ID: 011S006E16A002S
 Well Depth (ft): 580
 Perforated Interval (ft): 248 - 568

Figure G-51



Location of Well in Borrego Springs

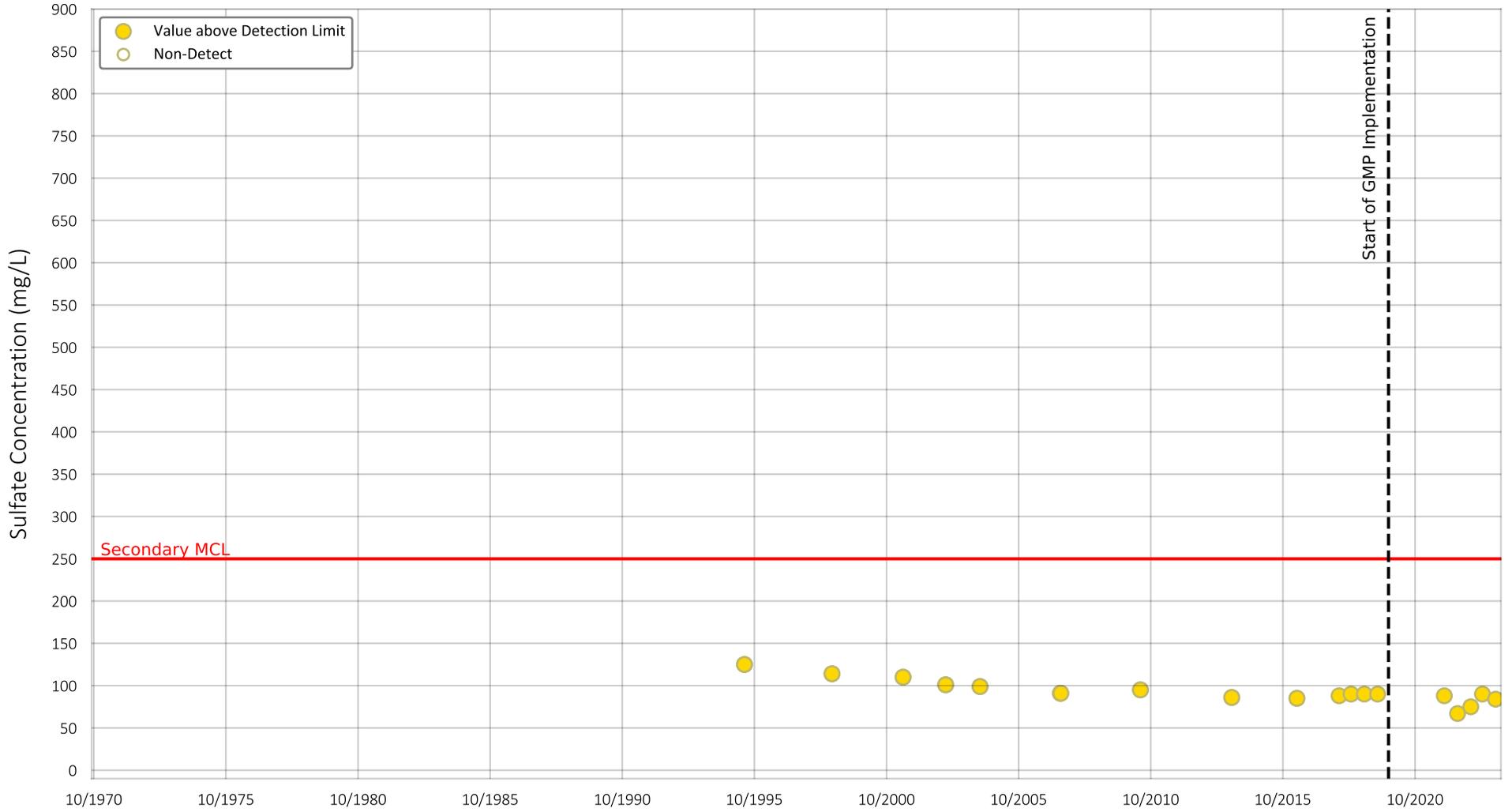


Prepared by:



Sulfate Concentration
 Well Name: ID1-16
 State Well ID: 011S006E16N001S
 Well Depth (ft): 705
 Perforated Interval (ft): 160 - 549

Figure G-52



Location of Well in Borrego Springs

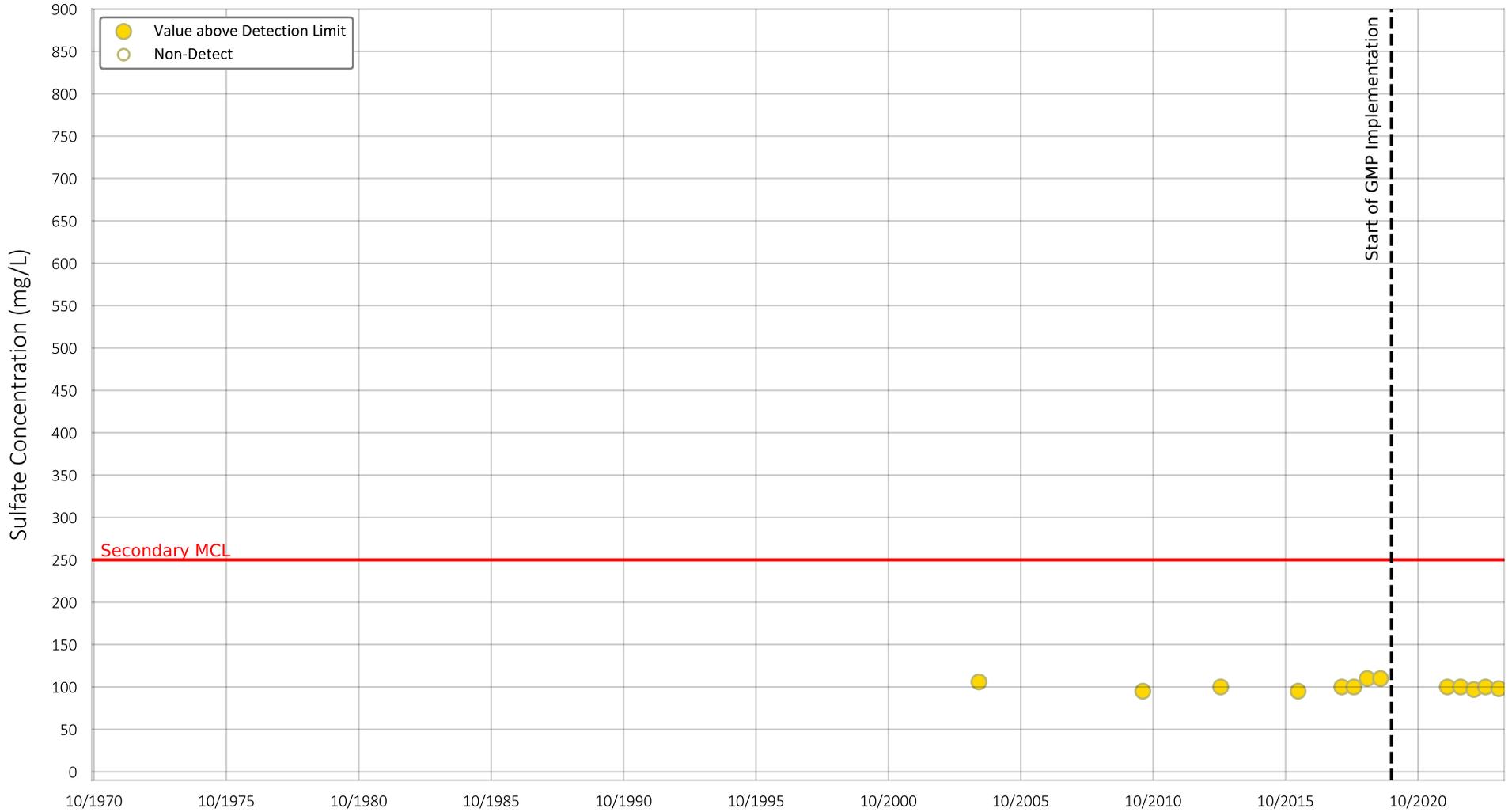


Prepared by:



Sulfate Concentration
 Well Name: ID4-11
 State Well ID: 010S006E32D001S
 Well Depth (ft): 770
 Perforated Interval (ft): 450 - 760

Figure G-53



Location of Well in Borrego Springs

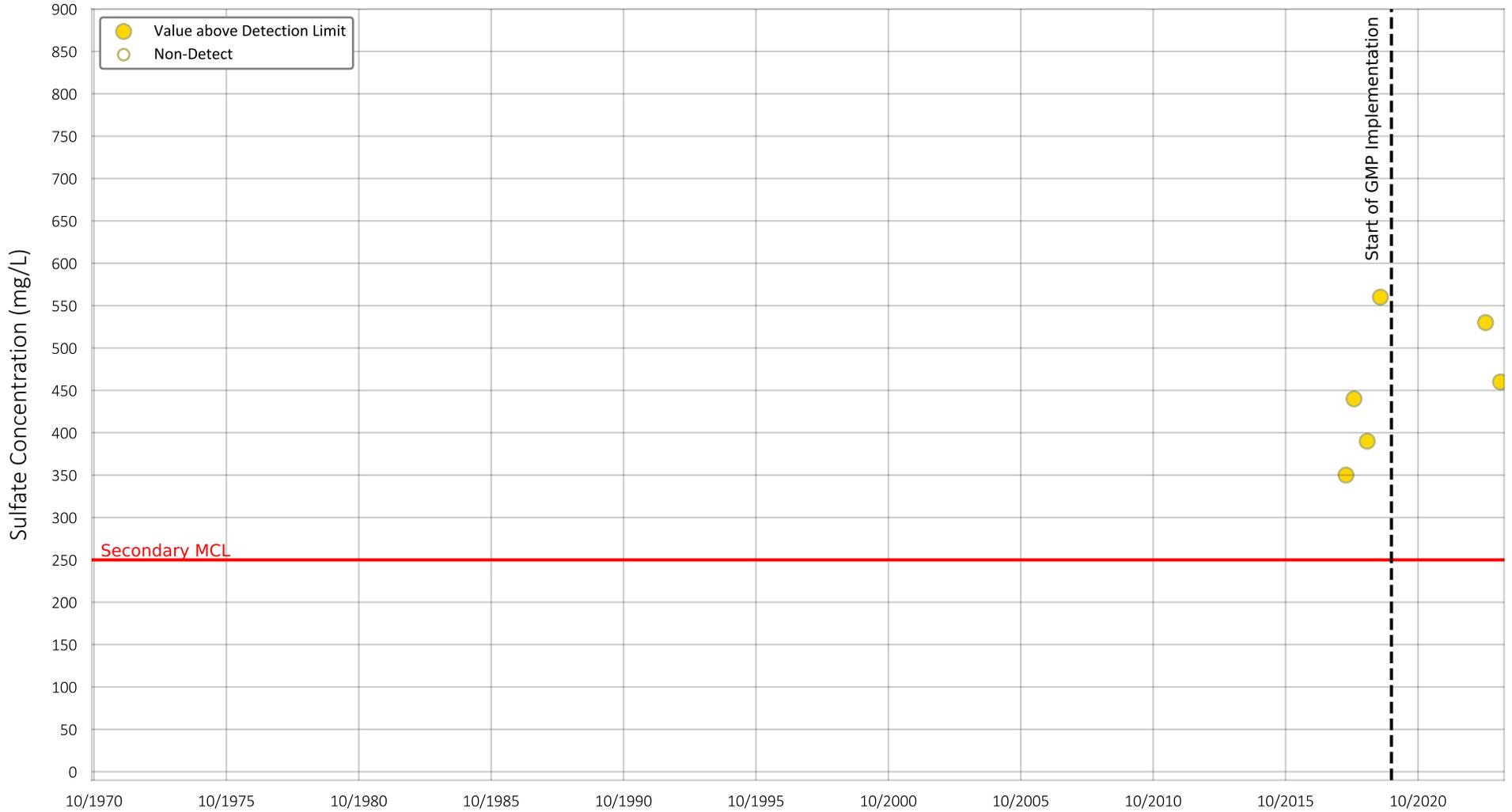


Prepared by:



Sulfate Concentration
 Well Name: ID5-5
 State Well ID: 011S006E09E001S
 Well Depth (ft): 700
 Perforated Interval (ft): 400 - 700

Figure G-54



Location of Well in Borrego Springs

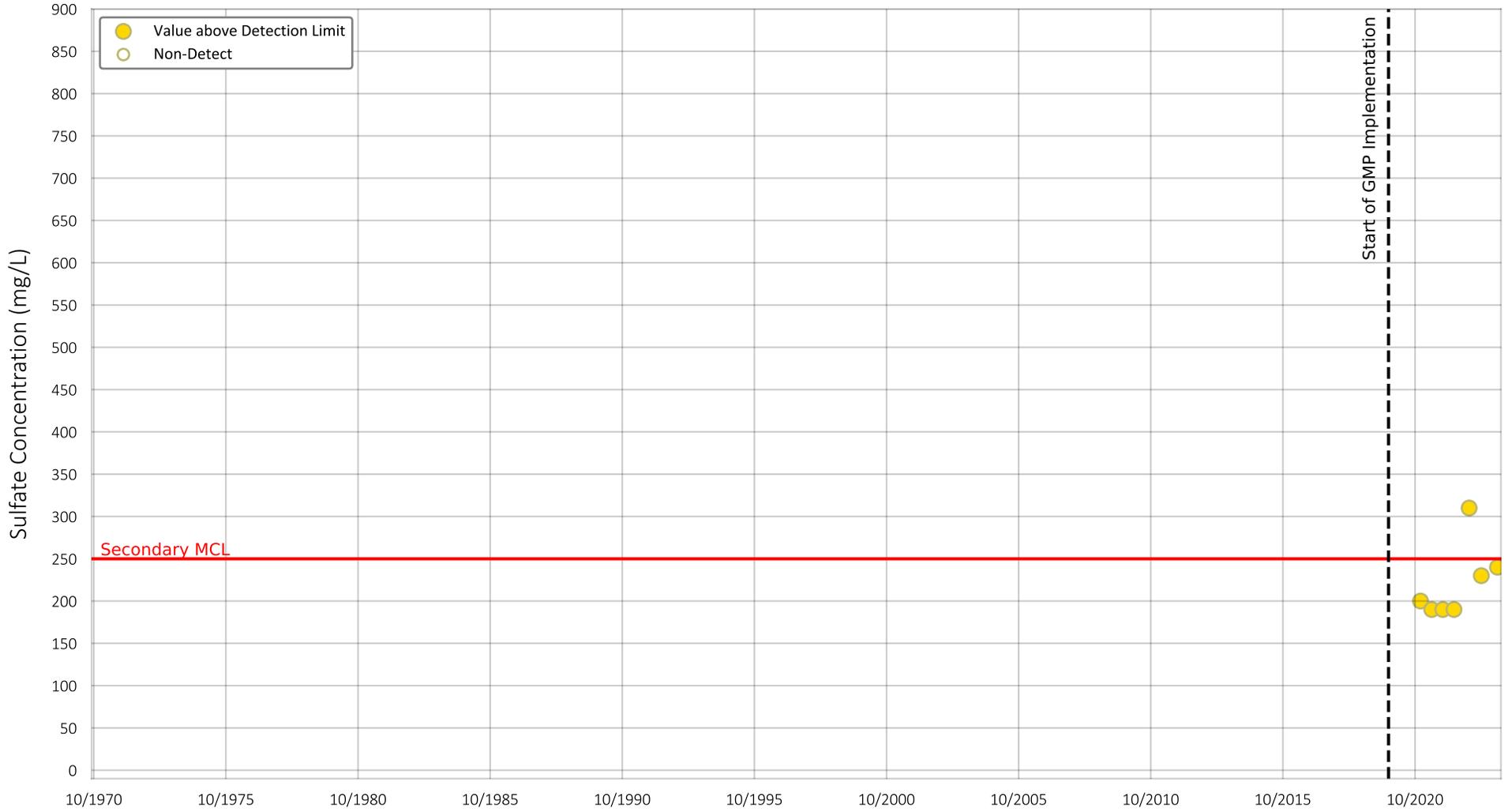


Prepared by:

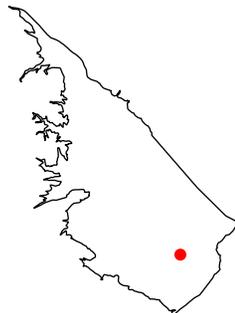


Sulfate Concentration
 Well Name: Fortiner #1 (Allegre 1)
 State Well ID: 010S006E09N001S
 Well Depth (ft): 560
 Perforated Interval (ft): 250 - 607

Figure G-56



Location of Well in Borrego Springs

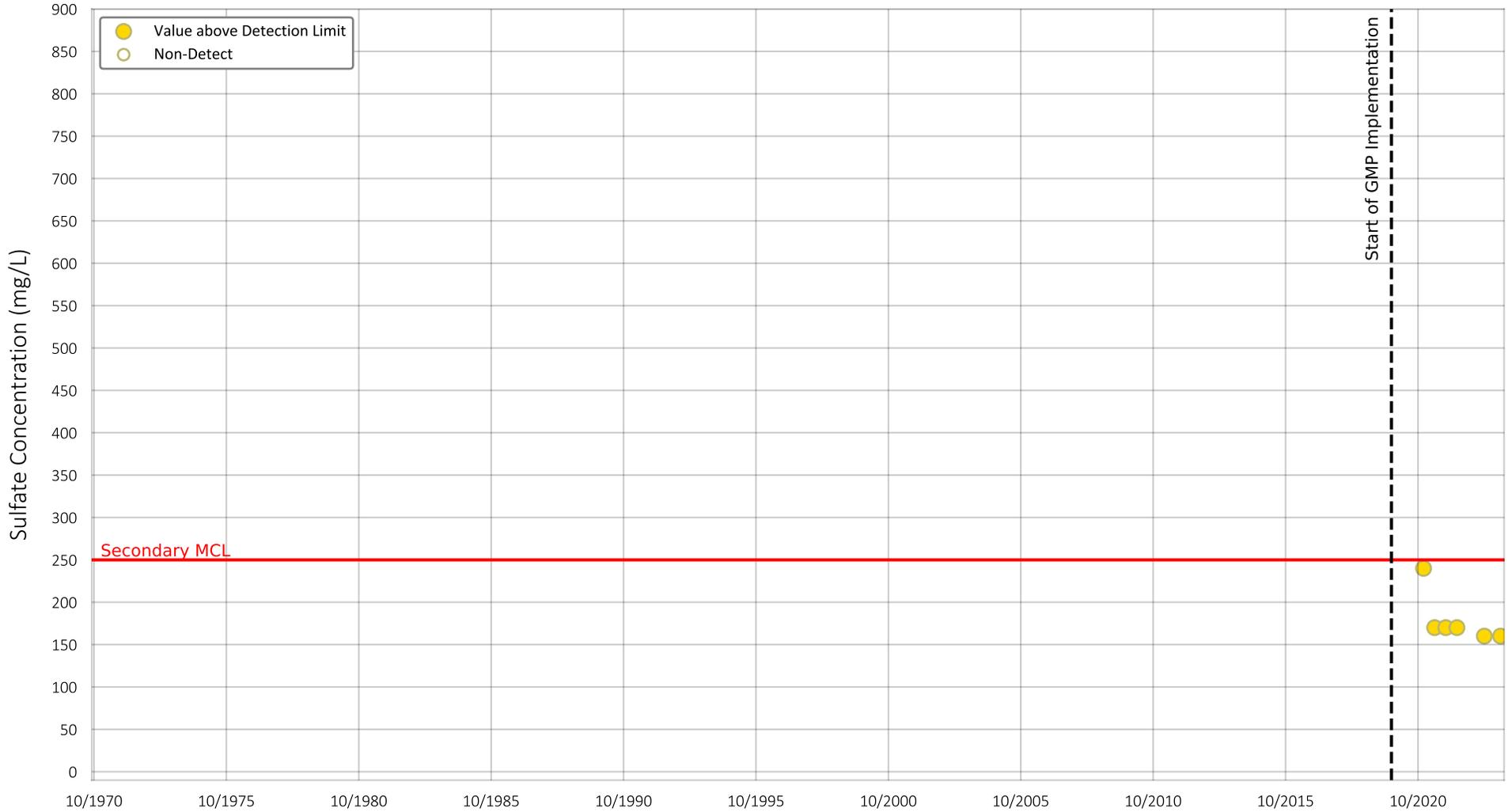


Prepared by:



Sulfate Concentration
 Well Name: Air Ranch Well 4
 State Well ID: 011S007E30L001S
 Well Depth (ft): 380
 Perforated Interval (ft): 120 - 380

Figure G-57



Location of Well in Borrego Springs

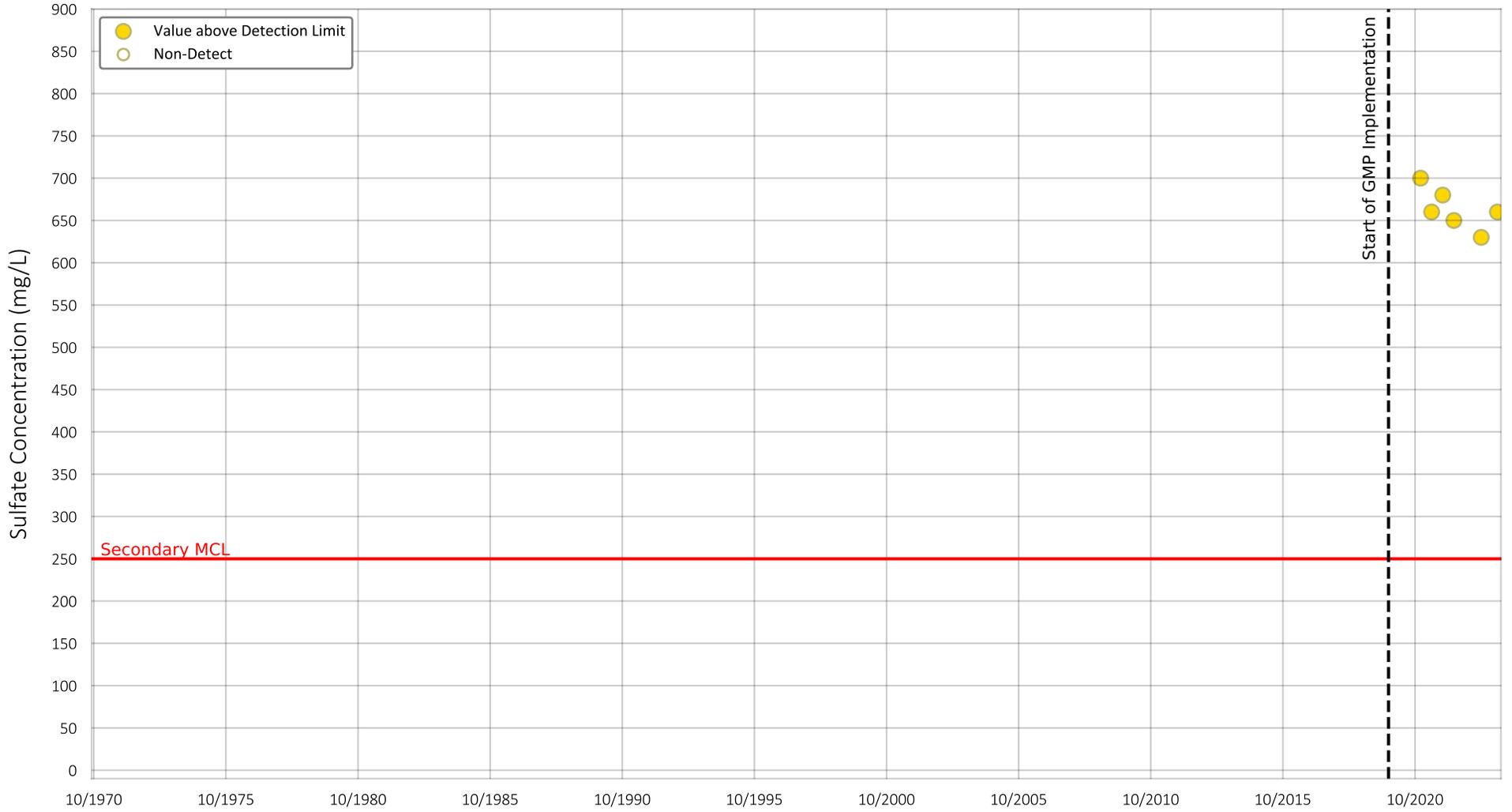


Prepared by:



Sulfate Concentration
 Well Name: MW-5A (East-Lower)
 State Well ID: 011S007E07R001S
 Well Depth (ft): 345
 Perforated Interval (ft): 50 - 160

Figure G-58



Location of Well in Borrego Springs

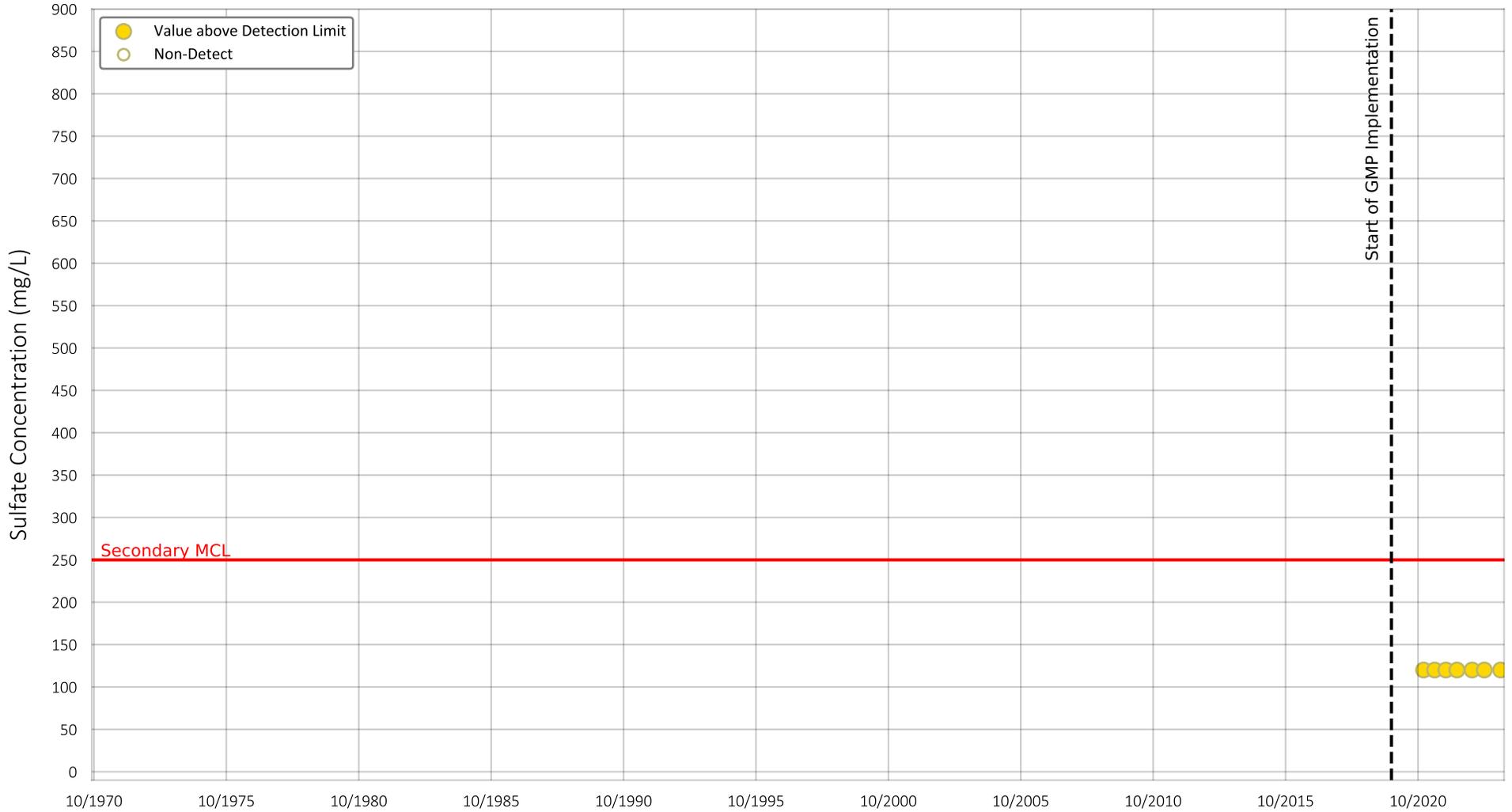


Prepared by:



Sulfate Concentration
 Well Name: MW-5B (West-Upper)
 State Well ID: 011S007E07R002S
 Well Depth (ft): 160
 Perforated Interval (ft): 45 - 340

Figure G-59



Location of Well in Borrego Springs

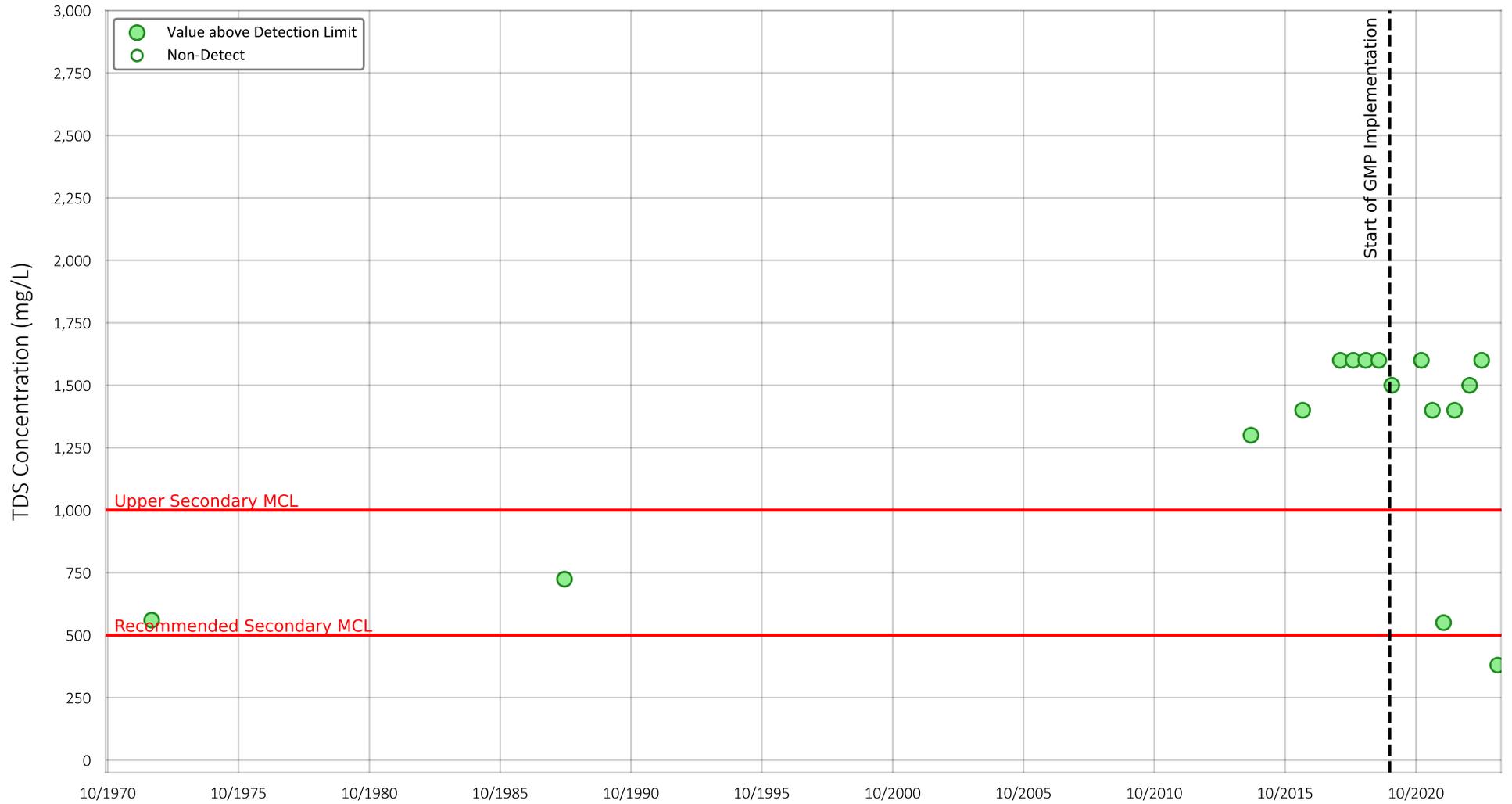


Prepared by:



Sulfate Concentration
 Well Name: MW-1
 State Well ID: 010S006E21A002S
 Well Depth (ft): 900
 Perforated Interval (ft): 800 - 890

Figure G-60



Location of Well in Borrego Springs

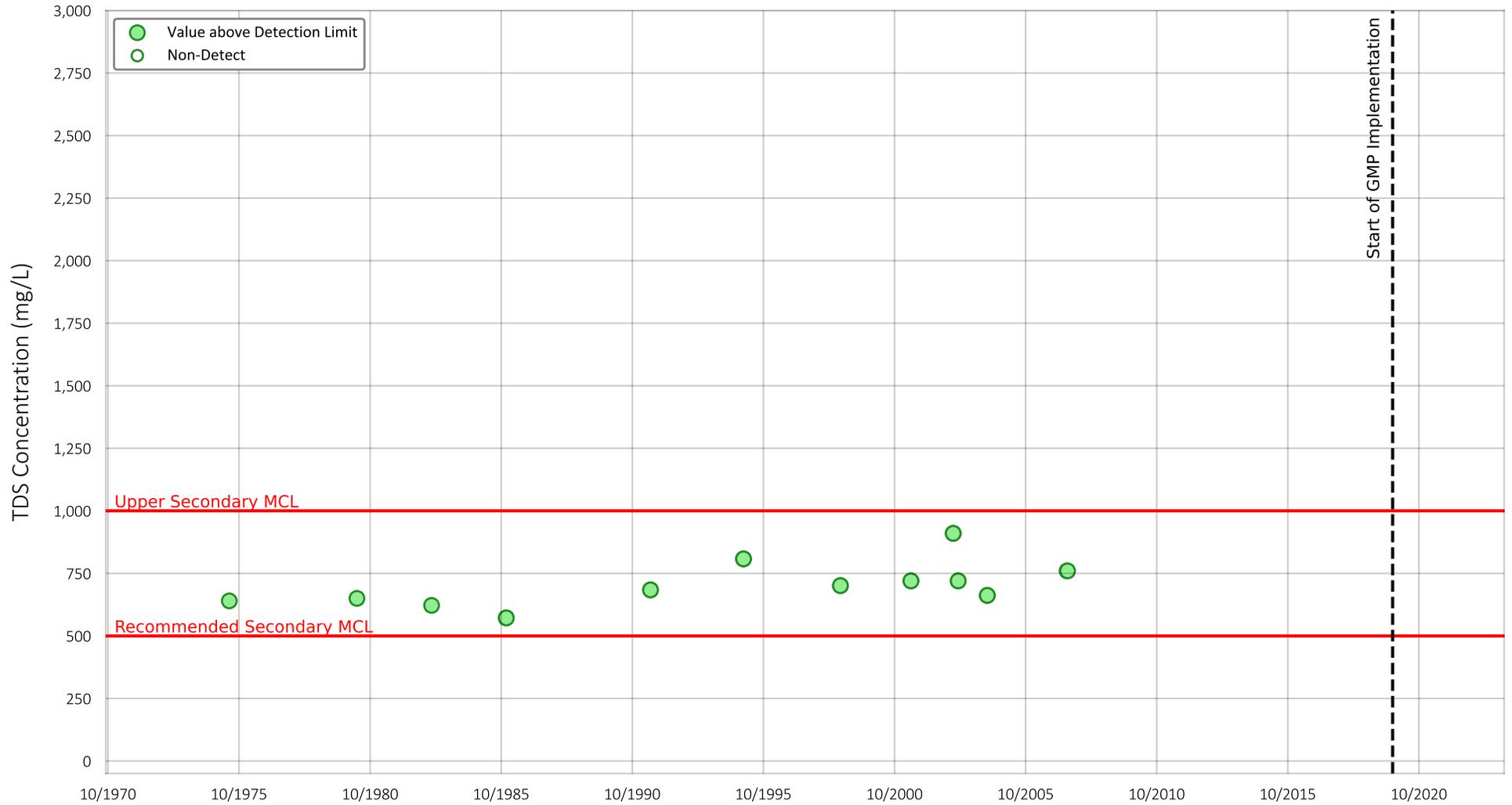


Prepared by:



TDS Concentration
 Well Name: RH-1 (ID1-1)
 State Well ID: 011S006E25A001S
 Well Depth (ft): 600
 Perforated Interval (ft): 180 - 580

Figure G-61



Location of Well in Borrego Springs

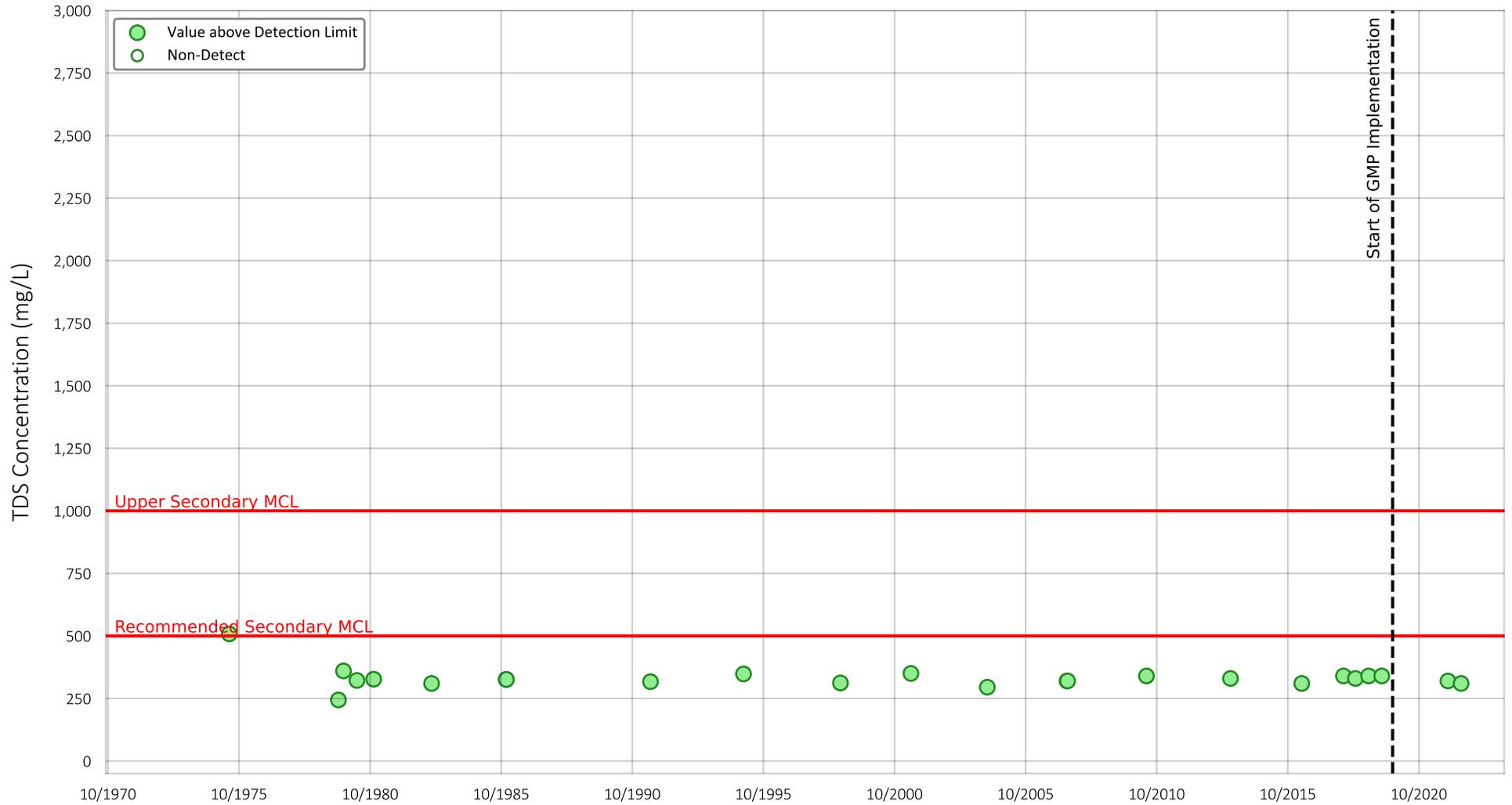


Prepared by:



TDS Concentration
 Well Name: ID4-3
 State Well ID: 010S006E18R001S
 Well Depth (ft): 621
 Perforated Interval (ft): no data - no data

Figure G-62



Location of Well in Borrego Springs

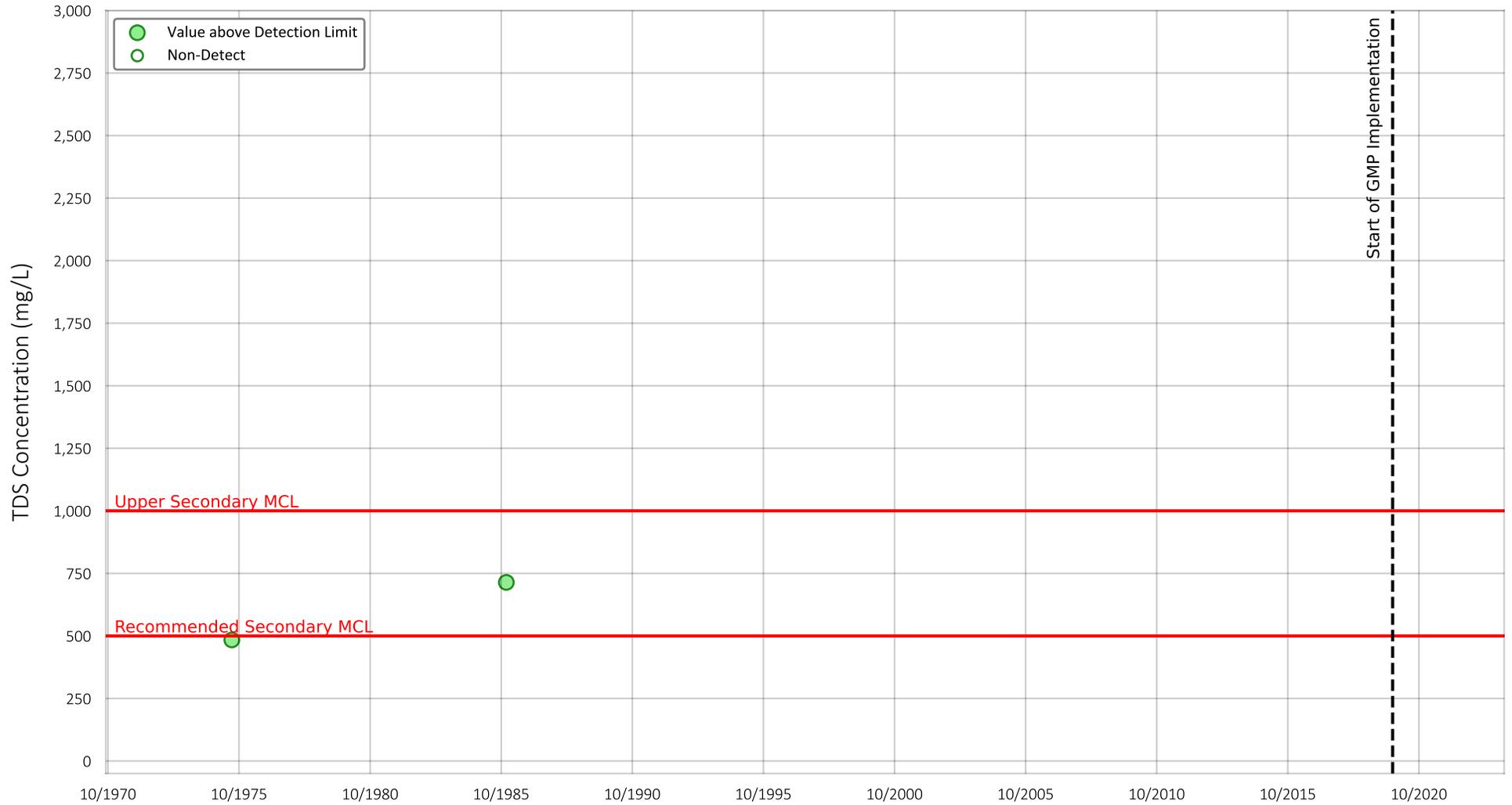


Prepared by:

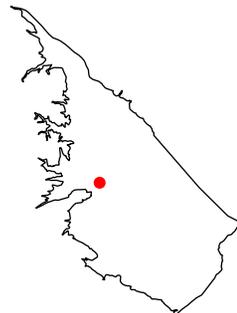


TDS Concentration
 Well Name: ID4-4
 State Well ID: 010S006E29K002S
 Well Depth (ft): 802
 Perforated Interval (ft): 470 - 786

Figure G-63



Location of Well in Borrego Springs

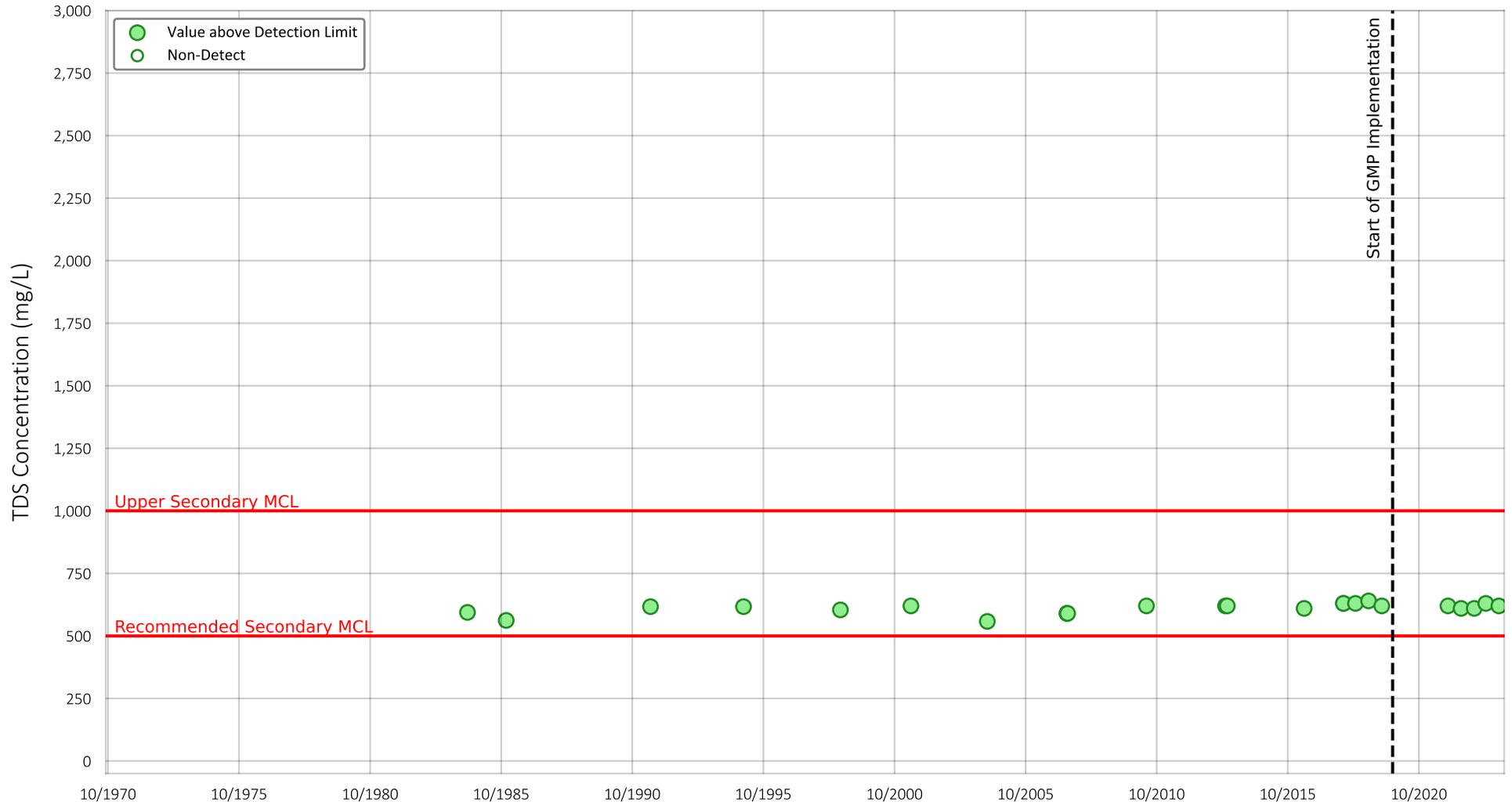


Prepared by:



TDS Concentration
 Well Name: ID4-1
 State Well ID: 010S006E32R001S
 Well Depth (ft): no data
 Perforated Interval (ft): no data - no data

Figure G-64



Location of Well in Borrego Springs

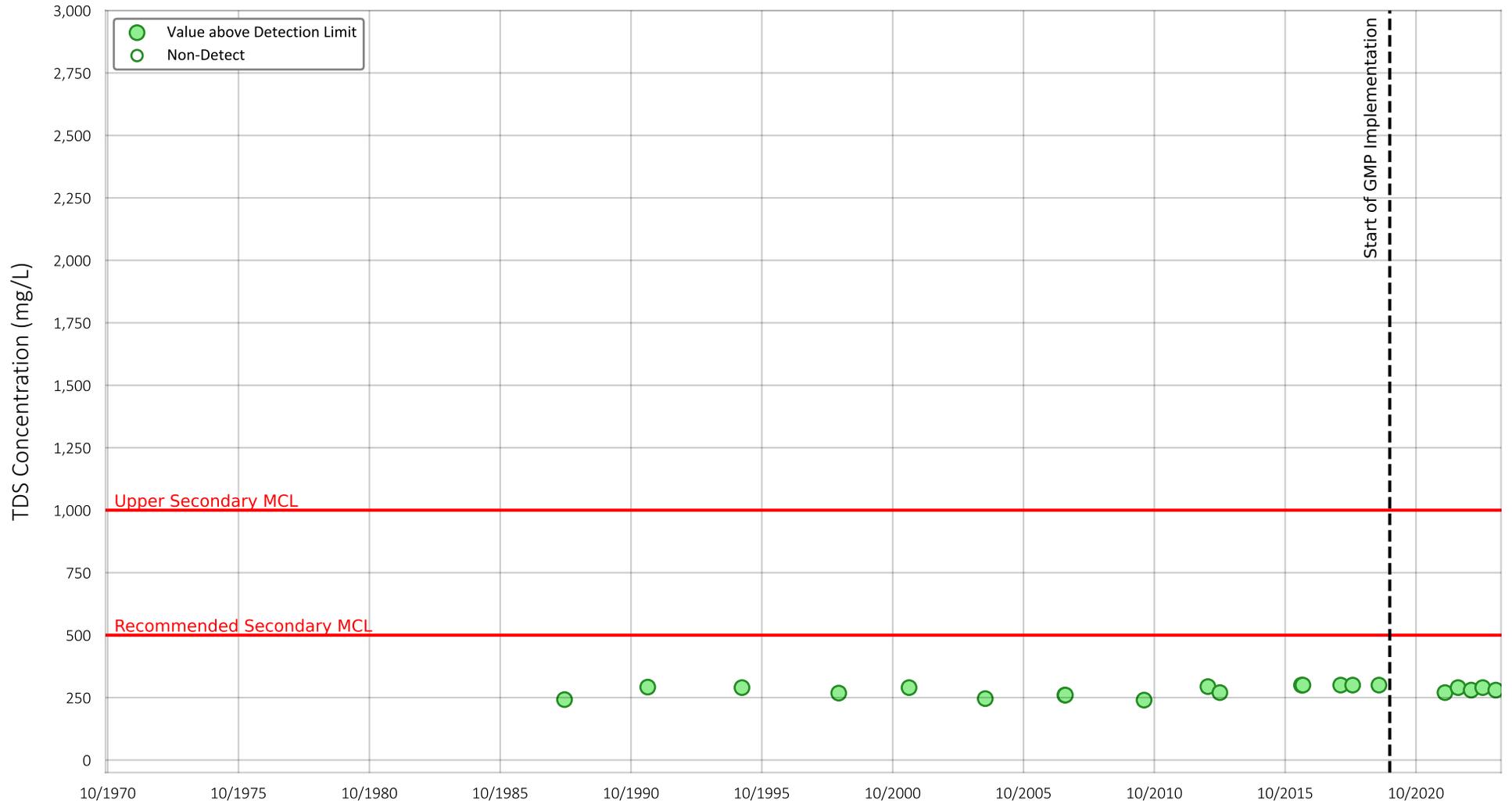


Prepared by:



TDS Concentration
 Well Name: ID4-18
 State Well ID: 010S006E18J001S
 Well Depth (ft): 570
 Perforated Interval (ft): 240 - 560

Figure G-65



Location of Well in Borrego Springs

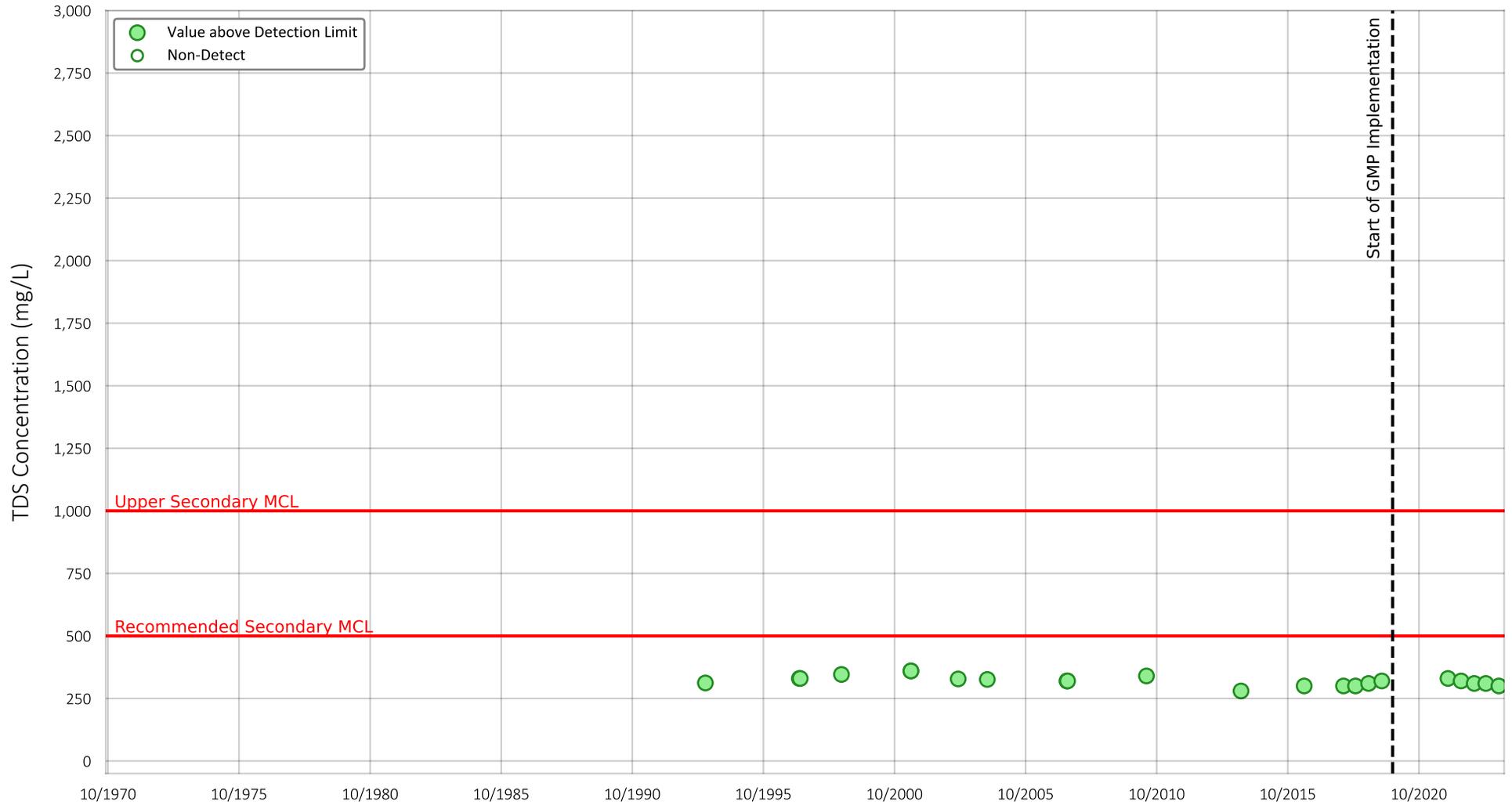


Prepared by:



TDS Concentration
 Well Name: ID1-12
 State Well ID: 011S006E16A002S
 Well Depth (ft): 580
 Perforated Interval (ft): 248 - 568

Figure G-66



Location of Well in Borrego Springs

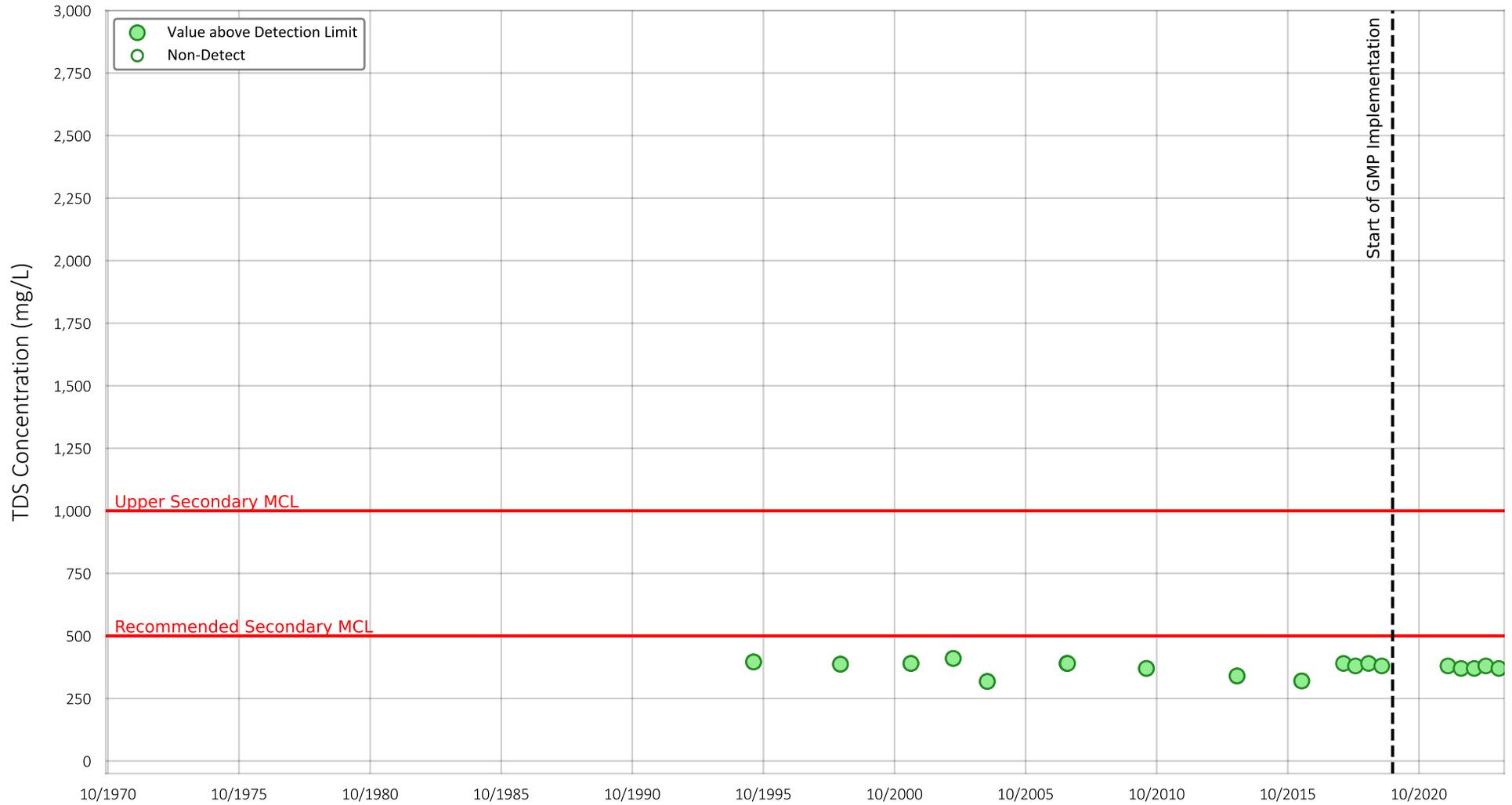


Prepared by:



TDS Concentration
 Well Name: ID1-16
 State Well ID: 011S006E16N001S
 Well Depth (ft): 705
 Perforated Interval (ft): 160 - 549

Figure G-67



Location of Well in Borrego Springs

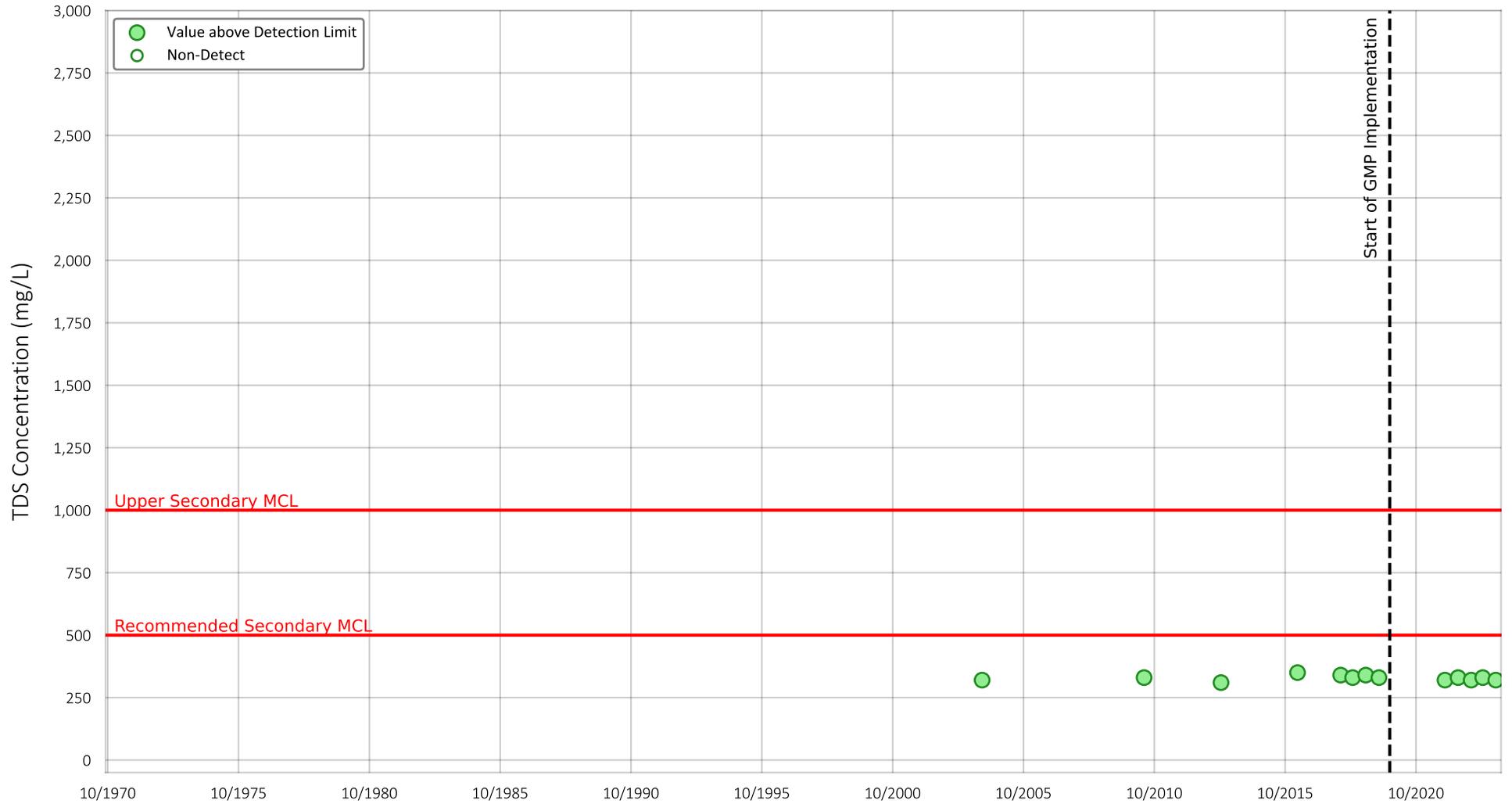


Prepared by:



TDS Concentration
 Well Name: ID4-11
 State Well ID: 010S006E32D001S
 Well Depth (ft): 770
 Perforated Interval (ft): 450 - 760

Figure G-68



Location of Well in Borrego Springs

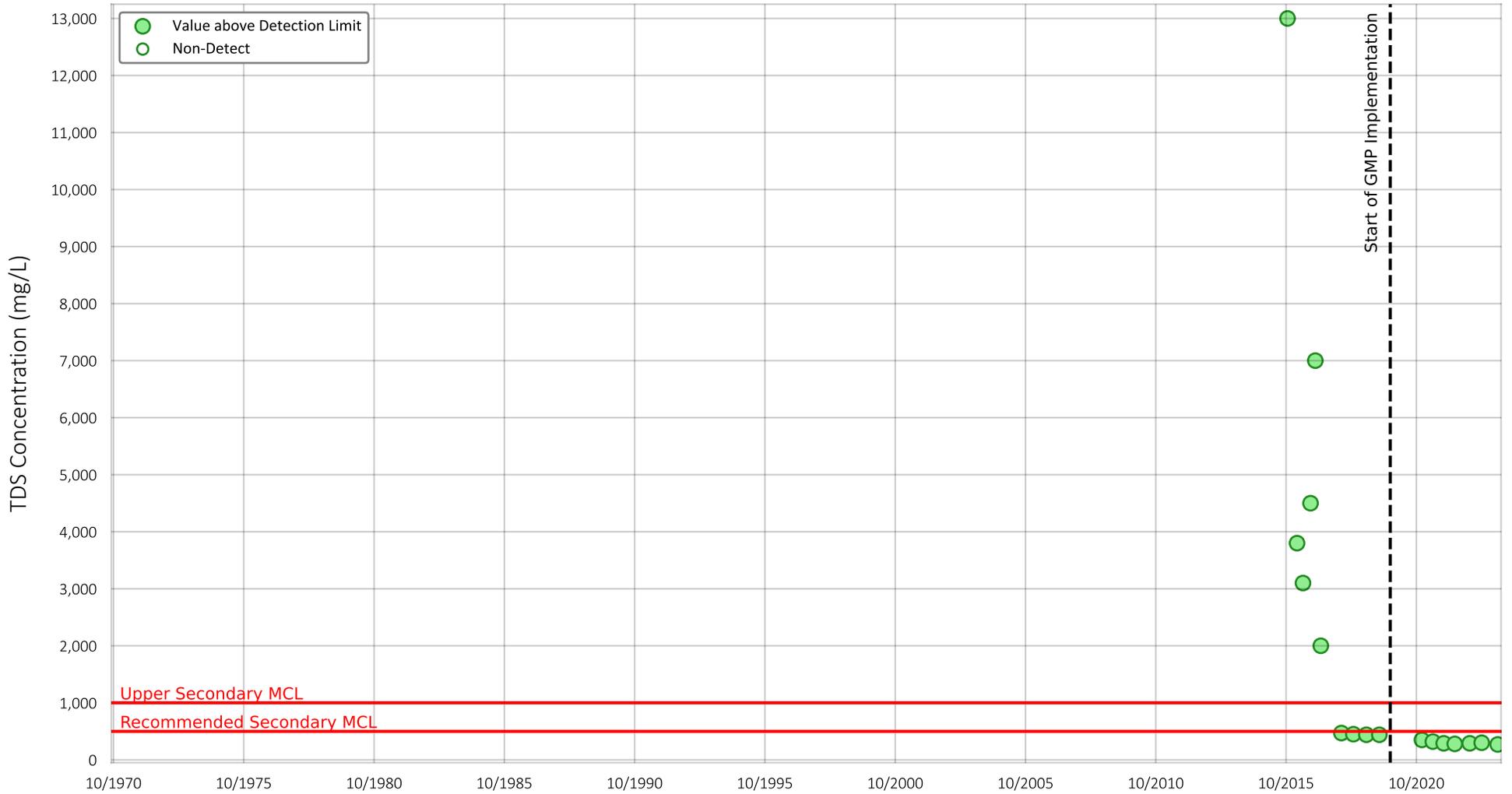


Prepared by:



TDS Concentration
 Well Name: ID5-5
 State Well ID: 011S006E09E001S
 Well Depth (ft): 700
 Perforated Interval (ft): 400 - 700

Figure G-69



Location of Well in Borrego Springs

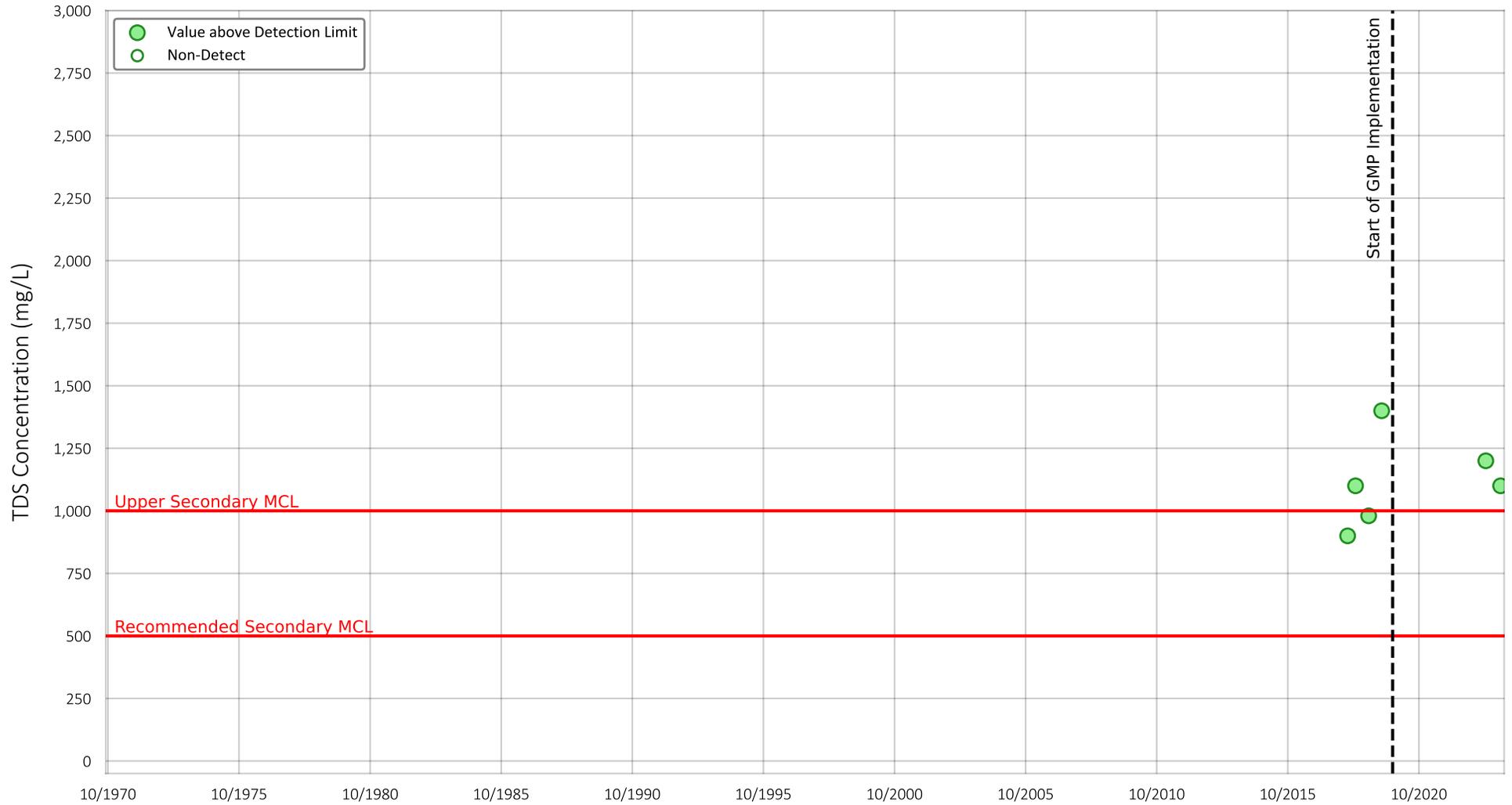


Prepared by:



TDS Concentration
 Well Name: MW-3
 State Well ID: 011S006E23J002S
 Well Depth (ft): 325
 Perforated Interval (ft): 175 - 331

Figure G-70



Location of Well in Borrego Springs

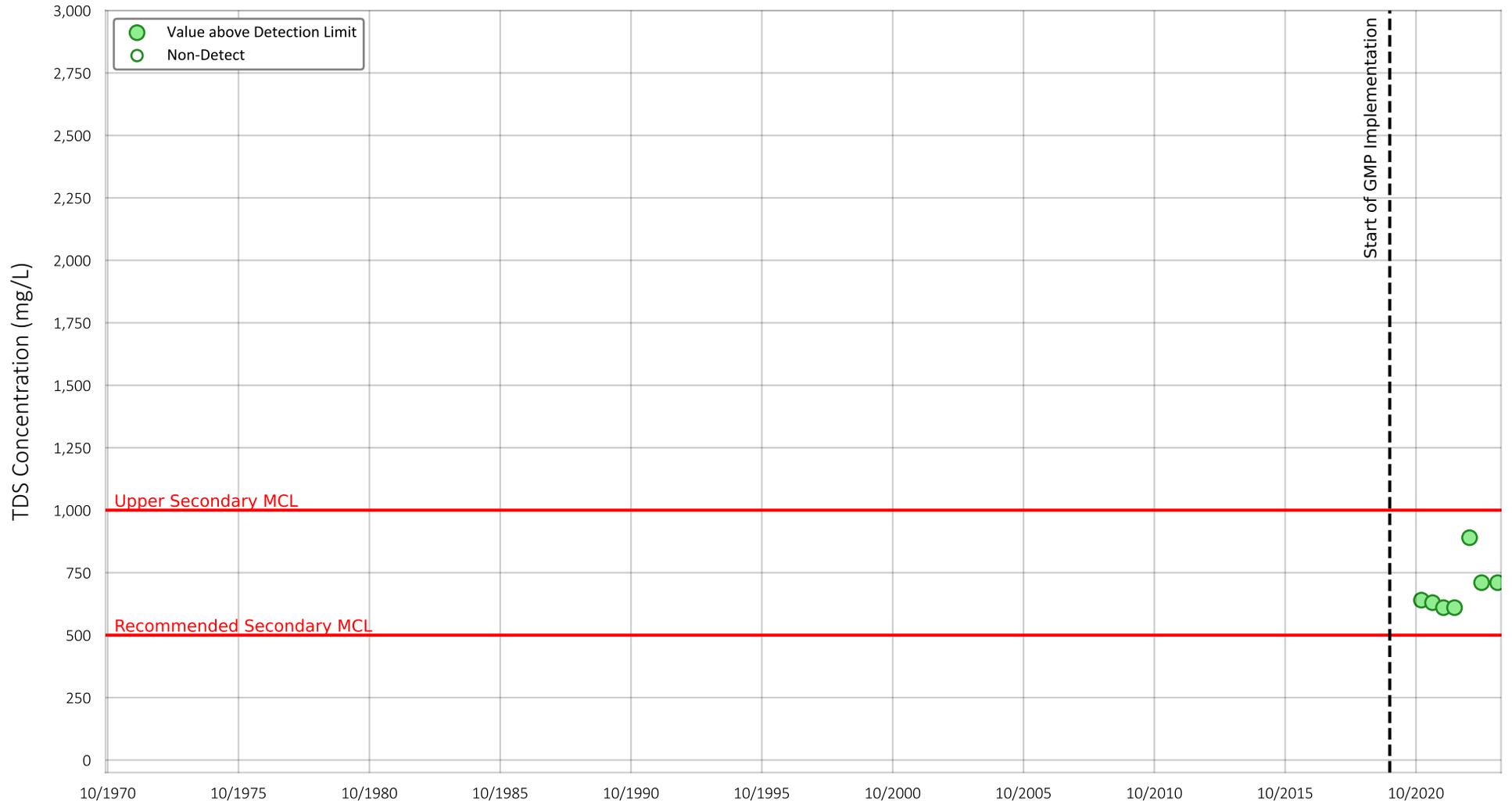


Prepared by:



TDS Concentration
 Well Name: Fortiner #1 (Allegre 1)
 State Well ID: 010S006E09N001S
 Well Depth (ft): 560
 Perforated Interval (ft): 250 - 607

Figure G-71



Location of Well in Borrego Springs

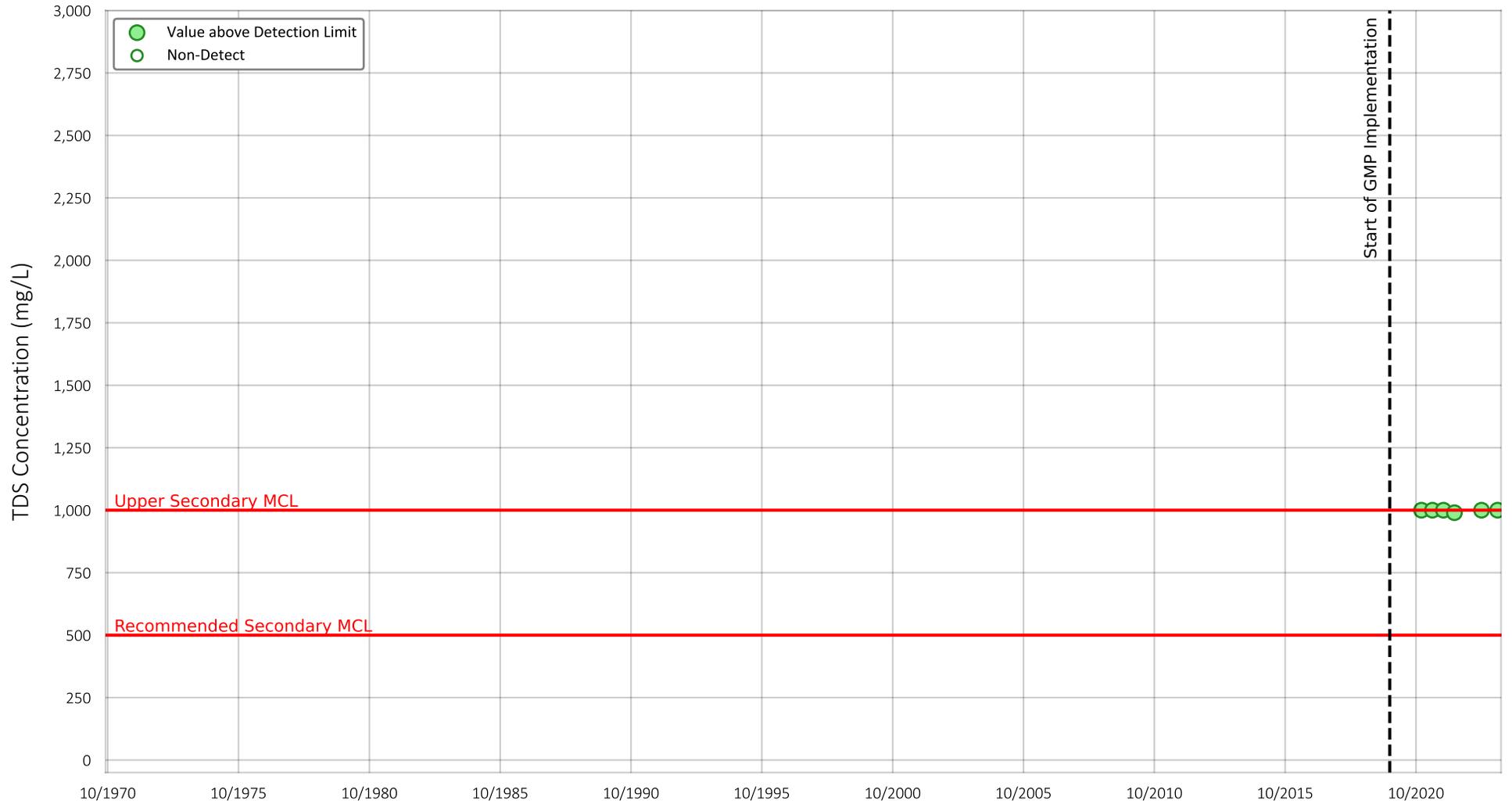


Prepared by:



TDS Concentration
 Well Name: Air Ranch Well 4
 State Well ID: 011S007E30L001S
 Well Depth (ft): 380
 Perforated Interval (ft): 120 - 380

Figure G-72



Location of Well in Borrego Springs

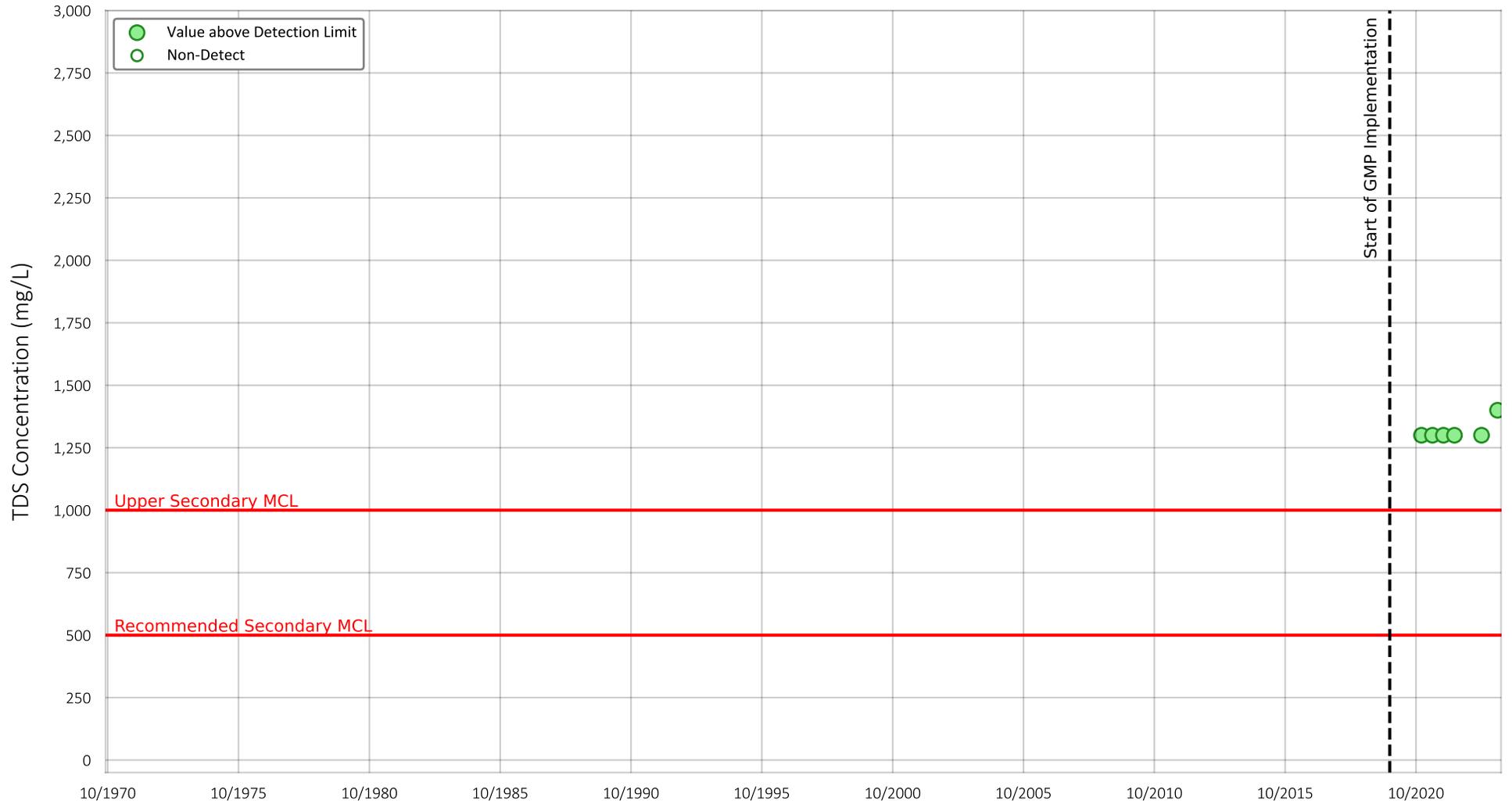


Prepared by:



TDS Concentration
 Well Name: MW-5A (East-Lower)
 State Well ID: 011S007E07R001S
 Well Depth (ft): 345
 Perforated Interval (ft): 50 - 160

Figure G-73



Location of Well in Borrego Springs

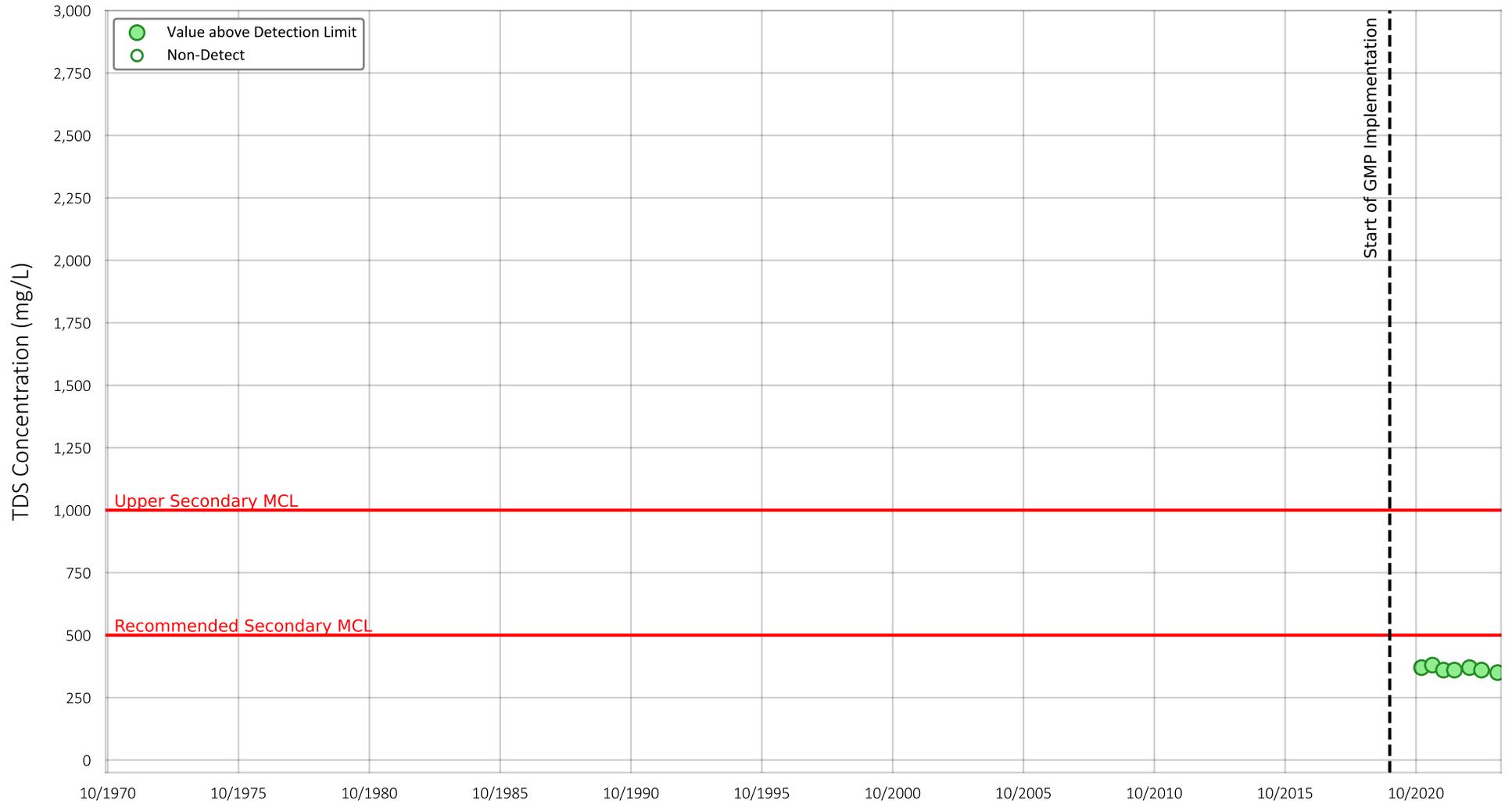


Prepared by:



TDS Concentration
 Well Name: MW-5B (West-Upper)
 State Well ID: 011S007E07R002S
 Well Depth (ft): 160
 Perforated Interval (ft): 45 - 340

Figure G-74



Location of Well in Borrego Springs



Prepared by:



TDS Concentration
 Well Name: MW-1
 State Well ID: 010S006E21A002S
 Well Depth (ft): 900
 Perforated Interval (ft): 800 - 890

Figure G-75

BORREGO WATER DISTRICT
BOARD OF DIRECTORS MEETING
FEBRUARY 13, 2024
AGENDA ITEM IV.A

February 6, 2024

TO: Board of Directors
FROM: Geoffrey Poole, General Manager
SUBJECT: GM Report

*EPA Waiver: Staff/BBK DC and our EPA Contact had a productive call highlighted with the good news that our request for waiving the local funding match of 20% (\$800 K ish) will be recommended for approval. Its not over yet but one important step is now behind us and I'm encouraged about the possibility of receiving the approval. Diana and I are almost done with the Application package and will be submitting in the next week or two. The application forms are done, and EPA wants to look at and discuss our environmental documents in an effort to fast track approval of this part of the process. Our EPA Contact is VERY HELPFUL! Im planning to deliver good news at the next meeting regarding the 20% waiver approval.

*GPD/EDU Wastewater:

Staff has been working with Dudek Engineering on development of a GPD/EDU for BWDs Waste Water Customers. Initially, the following 3 step process was proposed:

#1: Water Consumption for no landscape customers: For those customers who have no outside landscaping, BWD is assuming all of the usage is going down the sewer. An inventory of all no landscape customers and analysis of consumption has been performed by BWD Staff and Dudek. This agenda item is to share the results of this analysis.

#2: Metered Sewer Flows: Use metered flows for Town Center, Borrego Springs Resort/Club Circle, Rams Hill and extrapolate La Casa flows. BWD is in the process of calibrating all old and new meters and will have accurate reading in mid February. Analysis of the data will result in an average GPD and the number of EDUs for each area will be applied to calculate the GPD/EDU. The need exists to accumulate data once the meters are calibrated, therefore, it is planned to have the calculations complete in late 2024 for Step #2.

#3: Automated Metering Infrastructure System: BWD is in the process of installing an AMI system which has the ability to differentiate between indoor and outdoor usage. This information, organized by the 5 service areas above, will result in accurate estimates for indoor use which can be translated into an GPD/EDU

UPDATE:

STEP #1: After extensive analysis of No/Lo landscape customers, the variability in the data is too great on both ends, high and low, leading to an Average plus One Standard Deviation that is at or above the current standard of 250 gpd, which based on actual flows, seems to be too high. Therefore, staff is planning to put the No/Lo analysis on hold for now.

STEP #2: Roy has worked hard to get the WWTP inflow and other meters functional and calibrated, including visits from 2 different Contactors last week. Roy and Dudek will monitor the data as it comes in over the coming weeks and months to ensure it accurately describes the inflows and the various sources (TSC/BNSR-CC/RH/La Casa-Legion). Roy is also evaluating all EDUs in the WW system. When complete, staff and Dudek will use accurate sewer flows and updated EDU info to calculate GPD/EDU from actual sewer flows. Staff feels at least 6 months of data would be needed to draw any initial findings, which sets the schedule for the end of 2024.

STEP #3: AMI Data: BWDs planned Automated Metering Infrastructure will estimate indoor vs outdoor use on all water accounts. The indoor use data generated by the AMI system will be an extremely useful tool to estimate actual flows into the BWD sewer system, plus data for those customers who are on septic (more data points). The timeline for installation and programming/training should coincide with #2 above, end of 2024 for any initial findings.

Staff initially planned for Representatives from Dudek to discuss the process and results for step 1 at the meeting, but since this Project is now on hold, there is no need to spend the money for the Consultant to say the idea is a good one but did not apply to Borrego due to low occupancy year round and other factors. Stay tuned...

