DRAFT REPORT | JANUARY 2024

Water Year 2023 Annual Report for the Borrego Springs Subbasin

PREPARED FOR

Borrego Springs Watermaster

PREPARED BY

WEST YOST
Water. Engineered.

Water Year 2023
Annual Report for the
Borrego Springs Subbasin

Prepared for

Borrego Springs Watermaster

Project No. 940-80-23-07

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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

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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 Mode 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 Accounting[3]. 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 pumpers.

- 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 Judgment[4] (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.

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

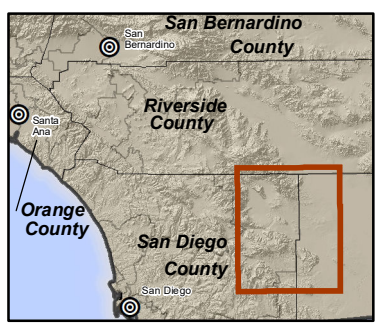


Figure 1

Borrego Springs Subbasin Location Map

Prepared by:

WEST YOST

Borrego Springs Watermaster
Borrego Springs Subbasin
2023 Annual Report

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 GSP[7] 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 GMP[9], 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 below[12].

Establishment of Pumping Rights[13]**.** 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 Yield[15]. 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 Schedule[16]**.** 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 Carryover[17]**.** 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 BPA[18]**.** 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 Overproduction[19]. The Judgment provides remedies for Overproduction of annual pumping limits and provides Watermaster the authority to establish penalty assessments for Overproduction.

Fallowing Standards[20]**.** 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 Judgement 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 Judgment[21]:

- **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 GMP[22]. 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.

Table 3. Borrego Springs Watermaster Board Representatives and Officers in WY 2023

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 Yost[23] 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-040[24], "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.

Table 4. Watermaster Board Meetings During the Reporting Period – 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[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 meters[27]. 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 funding[28]. 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

- 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
Revenues[2]	**$ 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 Expenditures[4]	**$ 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**
General Technical Consultant Services	***$ 203,762***	***$ 204,604***	***$ 403,556***	***$ 369,923***	***$ 172,429***	***$ 177,602***	***$ 182,930***
Coordinate/Implement meter reading program	*$ 30,893*	*$ 27,739*	*$ 30,388*	*$ 31,634*	*$ 26,889*	*$ 27,696*	*$ 28,526*
Groundwater Monitoring Program	*$ 87,180*	*$ 87,351*	*$ 99,151*	*$ 101,940*	*$ 60,000*	*$ 61,800*	*$ 63,654*
Data Management and Data Reporting	*$ 18,083*	*$ 18,083*	*$ 19,890*	*$ 16,567*	*$ 14,910*	*$ 15,357*	*$ 15,818*
Annual Report to the Court and DWR	*$ 52,442*	*$ 53,028*	*$ 50,936*	*$ 52,464*	*$ 54,038*	*$ 55,659*	*$ 57,329*
Address Inactive Wells via Abandonment/Conversion	*$ -*	*$ 3,239*	***$ 187,551***	***$ 151,210***	*$ -*	*$ -*	*$ -*
As-needed technical support	*$ 15,164*	*$ 15,164*	*$ 15,640*	*$ 16,109*	*$ 16,592*	*$ 17,090*	*$ 17,603*
Grant services	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*
Consulting Services with TAC Support/Input	***$ 213,644***	***$ 213,644***	***$ 340,742***	***$ 87,144***	***$ 10,448***	***$ 10,761***	***$ 11,084***
Technical Work to Support Sustainable Yield Updates	*$ 146,322*	*$ 146,322*	*$ 200,240*	*$ 17,655*	*$ -*	*$ -*	*$ -*
Development of Work Plan for an Expanded Groundwater Quality & Level Monitoring Workplan	*$ 46,392*	*$ 46,392*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*
TSS Grant Implementation (new monitoring well)	*$ 11,000*	*$ 11,000*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*
5-Year Update of the GMP (required by DWR)	*$ -*	*$ -*	*$ 130,654*	*$ 59,346*	*$ -*	*$ -*	*$ -*
Address Ad Hoc Requests from the Board	*$ 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**
Biological Restoration of Fallowed Lands	***$ 378,301***	***$ 330,684***	***$ 265,394***	***$ 159,262***	*$ -*	*$ -*	*$ -*
	$ -	*$ -*				*$ -*	*$ -*
Ad Hoc Requests and EWG Meetings	*$ 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 Terms[6]							
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 Reserves[8]							
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, HydroDaVE^{SM}. 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 program[29]:

- 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://borregospringswatermaster.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 GWMP[30] 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 program[31]. 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 program [32].

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.

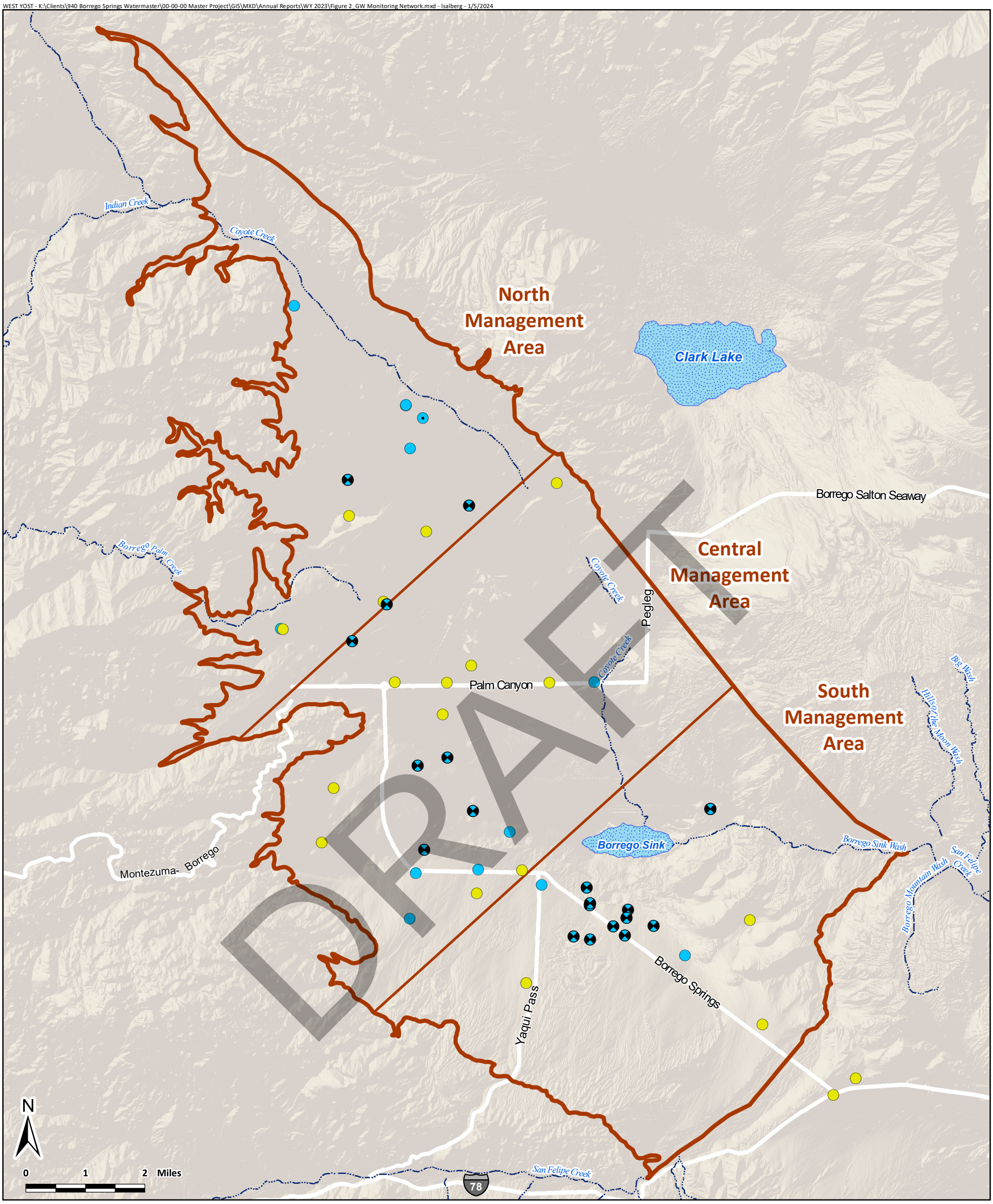
Through these efforts, the Watermaster identified 35 wells that are potential candidates for filling either a groundwater-level and/or groundwater quality monitoring gap in WY 2023. Of the 35 wells, 14 wells could potentially fill gaps in the groundwater-level monitoring network and 24 wells could potentially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

WEST YOST - K:\Clients\940 Borrego Springs Watermaster\00-00-00 Master Project\GIS\MXD\Annual Reports\WY 2023\Figure 2_GW Monitoring Network.mxd - lsalberg - 1/5/2024



Groundwater Monitoring Nework

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

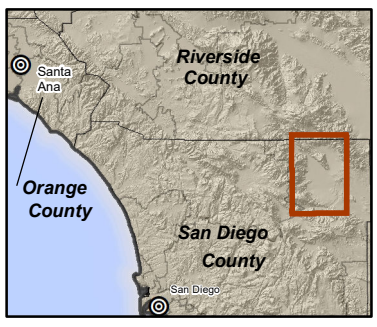


Figure 2

Groundwater Level and Quality Monitoring Network

Borrego Springs Watermaster
Borrego Springs Subbasin
2023 Annual Report

Prepared by:
WEST YOST

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	na			yes	x	x	*Unable to measure GWL due to sounding tube obstruction*
T2 Farms	010S006E09C001S	Irrigation	na			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		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 collected 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	• 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 *Groundwater Monitoring Gap Analysis* • 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	• Review of the new guidelines regarding TAC procedures • Review of draft *Groundwater Monitoring Plan* • 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	• Review results of Task 1 and Task 2 of the revised scope-of-work to Redetermine the Sustainable Yield by 2025: ○ Task 1 – *Compare FMP-Estimated Pumping Actual Pumping for WY 2022* ○ Task 2 – *Update Water-Use Factors in the FMP*
August 29, 2023	• Review results of Task 2 – *Update Water-Use Factors in the FMP* 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/

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 *Bob Wagner*	BWD *Trey Driscoll*	County of San Diego *Jim Bennett*	T2 Borrego, LLC *Tom Watson*	
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-OWHM					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].

Table 13. Environmental Working Group Meetings and Topics in WY 2023

Meeting Date and Format	Agenda Topics
January 27, 2023 (in-person)	• Status update on the Biological Restoration of Fallowed Lands project: ○ Introduction and overview on fallowed farmland ○ Reference natural habitat and sand fence design ○ Farmland rehabilitation strategies and prioritization
September 26, 2023 (virtual)	• Status update on the Biological Restoration of Fallowed Lands project: ○ Design, research questions, and methods of Task 2 – *Existing Abandoned Farmland and Reference Natural Habitat Study* ○ Design, research questions, methods, and update of Task 3 – *Fallowed Farmland Brush Fence Study* • 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 work[42] 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	• 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:
	  ○ 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	• 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:
	  ○ 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 X 418 af = 355.3 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)

= 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 fallowing standards) and documented on Watermaster-approved forms[45]. 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 fallowing 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 fallowing 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 x (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 af[57]:
  - 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 af[59]
- 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.

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[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) = minimum of [(e)+(l)] or (n)*

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

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

[61] *(r): if (q) > (f), then (r) = (q) - (f), 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

[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 Party or Party with Other Non-De Minimis Water Rights	BPA or Other Non-De Minimis Rights as of Sep 30, 2022[1] *(a)*	Permanent Transfer of BPA[1,2] effective in WY 2023 *(b)*	BPA or Other Non-De Minimis Rights as of Oct 1, 2023 *(c) = (a) + (b)*	Maximum Allowable Carryover Account Balance [3,1] *(d) = 2 x (c)*	Carryover Account Balance as of Oct 1, 2022[3,1] *(e)*	Cumulative Max Over-production Limit for WYs 2021-2023[4] *(f) = 20% of Annual Allocation in WYs 21, 22, 23*	Balance of Over-production as of Oct 1, 2022[5] *(g)*	Portion of Over-production Balance to Resolve Effective Sept 30, 2023[6] *(h): if (g) > (f), then (h) = (g) - (f), otherwise (h) = 0*	Portion of Overproduction Balance to Resolve Effective Sept 30, 2025[6] *(i) = (g) - (h)*	WY 2023 Annual Allocation per Rampdown: 85% of BPA[7]; 100% of non-BPA rights[8,1] *For BPA Parties: (j) = 0.85 x (c) For other Parties: (d) = (c)*	Leased or Transferred Annual Allocation Effective in WY 2023[2] *(k)*	Leased or Transferred Carryover Effective in WY 2023[2] *(l)*	Total Allowable Pumping for WY 2023[9] *(m) = (e) + (j) + (k) + (l) - (g)*	Total Pumping in WY 2023 *(n)*	WY 2023 Pumping was Metered or Estimated[10] *(o)*	Carryover Pumped in WY 2023[11,1] *(p)*[11]	Balance of Over-production as of September 30, 2023 *(q)*[12]	Balance of Over-production to Resolve by Sept 30, 2024[13] *(r): if (q) > (f), then (r) = (q) - (f), otherwise (r) = 0*	Balance of Over-production to Resolve by Sept 30, 2025[13] *(s) = (q) - (r)*	Pumping Allocation Eligible for Carryover[14] *(t)*[14]	Carryover Election by Party *(u)*	Carryover Account Balance as of October 1, 2023 *(v) = (e)+(l)-(p)+(u)*	WY 2023 Adjusted Pumping Calculation *(w)= (n)-(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 Party or Party with Other Non-De Minimis Water Rights	BPA or Other Non-De Minimis Rights as of Sep 30, 2022[1] *(a)*	Permanent Transfer of BPA[1,2] effective in WY 2023 *(b)*	BPA or Other Non-De Minimis Rights as of Oct 1, 2023 *(c) = (a) + (b)*	Maximum Allowable Carryover Account Balance [3,1] *(d) = 2 x (c)*	Carryover Account Balance as of Oct 1, 2022[3,1] *(e)*	Cumulative Max Over-production Limit for WYs 2021-2023[4] *(f) = 20% of Annual Allocation in WYs 21, 22, 23*	Balance of Over-production as of Oct 1, 2022[5] *(g)*	Portion of Over-production Balance to Resolve Effective Sept 30, 2023[6] *(h): if (g) > (f), then (h) = (g) - (f), otherwise (h) = 0*	Portion of Overproduction Balance to Resolve Effective Sept 30, 2025[6] *(i) = (g) - (h)*	WY 2023 Annual Allocation per Rampdown: 85% of BPA[7]; 100% of non-BPA rights[8,1] *For BPA Parties: (j) = 0.85 x (c) For other Parties: (d) = (c)*	Leased or Transferred Annual Allocation Effective in WY 2023[2] *(k)*	Leased or Transferred Carryover Effective in WY 2023[2] *(l)*	Total Allowable Pumping for WY 2023[9] *(m) = (e) + (j) + (k) + (l) - (g)*	Total Pumping in WY 2023 *(n)*	WY 2023 Pumping was Metered or Estimated[10] *(o)*	Carryover Pumped in WY 2023[11,1] *(p)*[11]	Balance of Over-production as of September 30, 2023 *(q)*[12]	Balance of Over-production to Resolve by Sept 30, 2024[13] *(r): if (q) > (f), then (r) = (q) - (f), otherwise (r) = 0*	Balance of Over-production to Resolve by Sept 30, 2025[13] *(s) = (q) - (r)*	Pumping Allocation Eligible for Carryover[14] *(t)*[14]	Carryover Election by Party *(u)*	Carryover Account Balance as of October 1, 2023 *(v) = (e)+(l)-(p)+(u)*	WY 2023 Adjusted Pumping Calculation *(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																							
Other Party Subtotal	***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***	***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 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 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 [l]).

(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 fallow the land in accordance with the Judgment fallowing standards and transfer the BPA rights to be accounted with 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 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:

Total Watermaster Assessment for WY ($)
÷ Total Adjusted Pumping (af)
= Pumping Assessment Rate ($/af)

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

Adjusted Pumping Calculation (af)
x Pumping Assessment Rate ($/af)
= Pumping Assessment ($)

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:

$458,000
÷ 17,224.95 af
= $26.59/af

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 Climactic Data Center[67] (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.

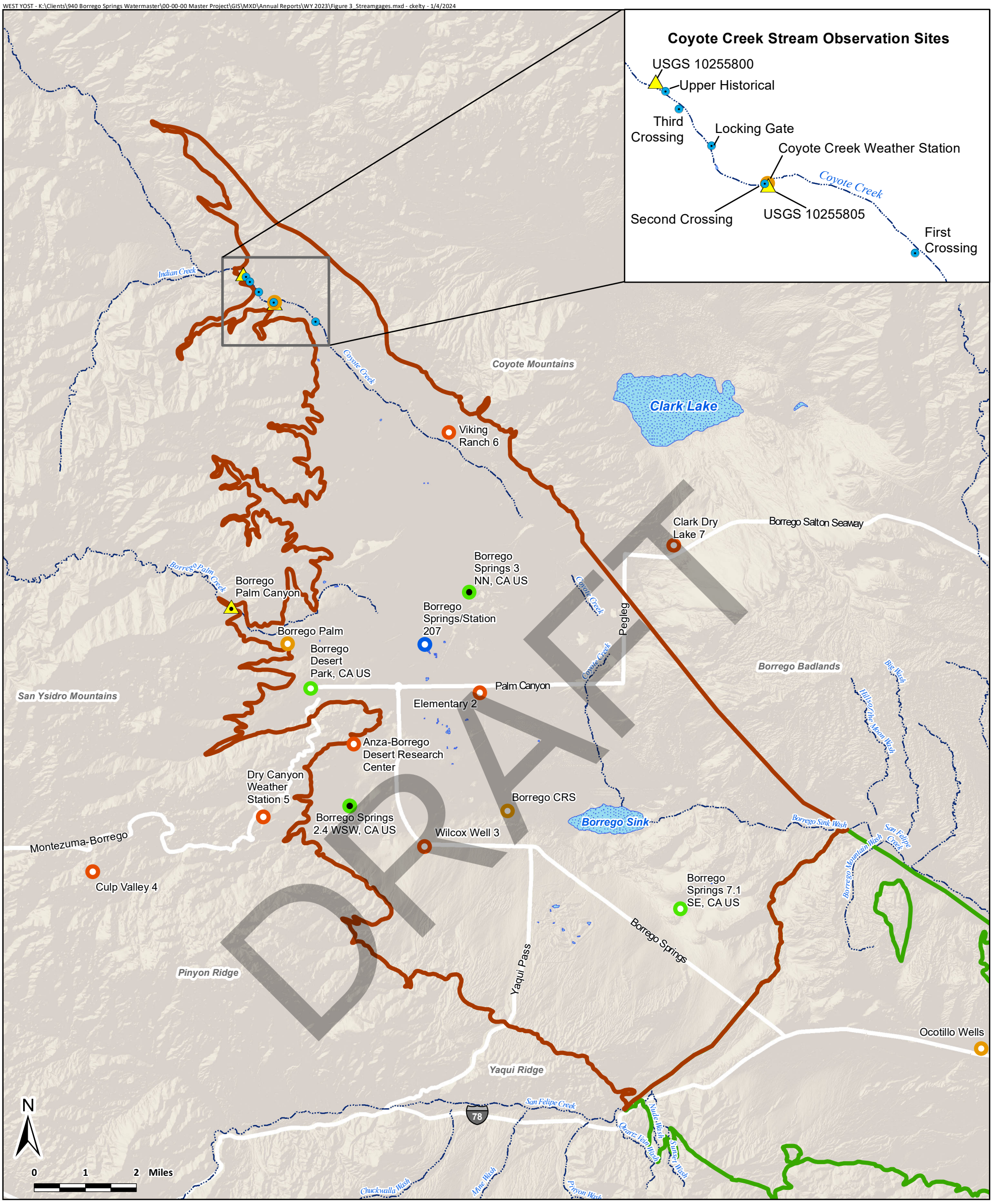
In WY 2023, the average daytime high temperature was 84.6°F and the average nighttime low was 58.6°F. The maximum average monthly daytime high temperature was 110.7°F in July 2023, and the minimum average monthly nighttime low temperature was 43.1°F in February 2023.

[67] NOAA, 2022. Station: Borrego Desert Park, Network ID - GHCND: USC00040983.

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 environments[68] (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 ETo across different desert environments in California calculated the average annual ETo 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

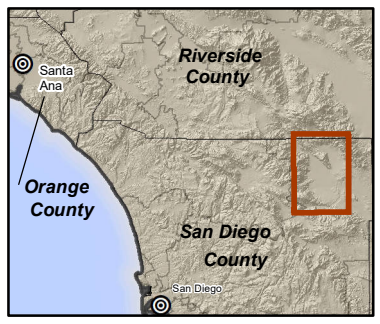
- California Irrigation Management Information System Station
- National Climactic Data Center Station (black fill denotes inactive stations)
- San Diego County Flood Control Station
- U.C. Irvine Station

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:

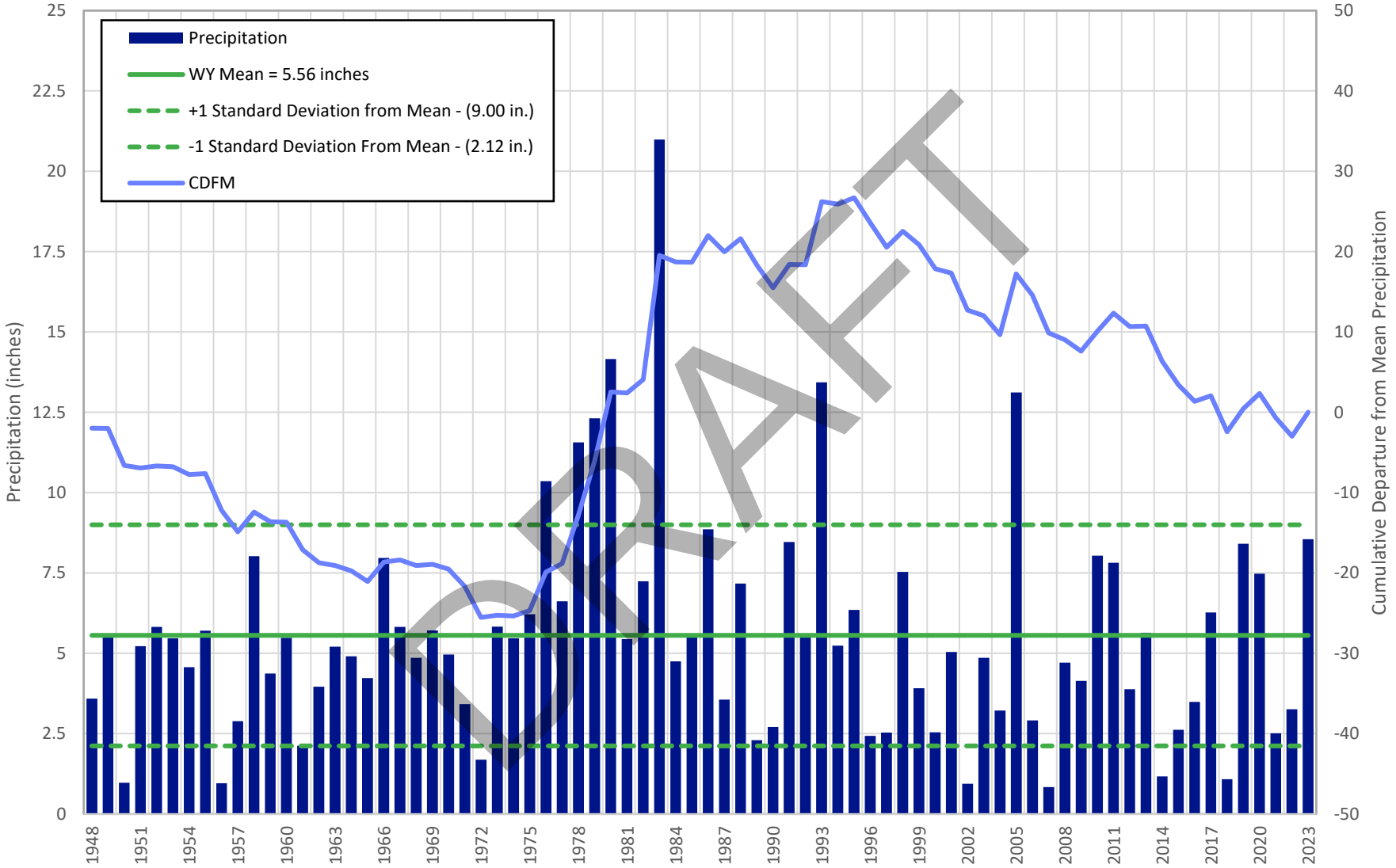
WEST YOST

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 (ETo) 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

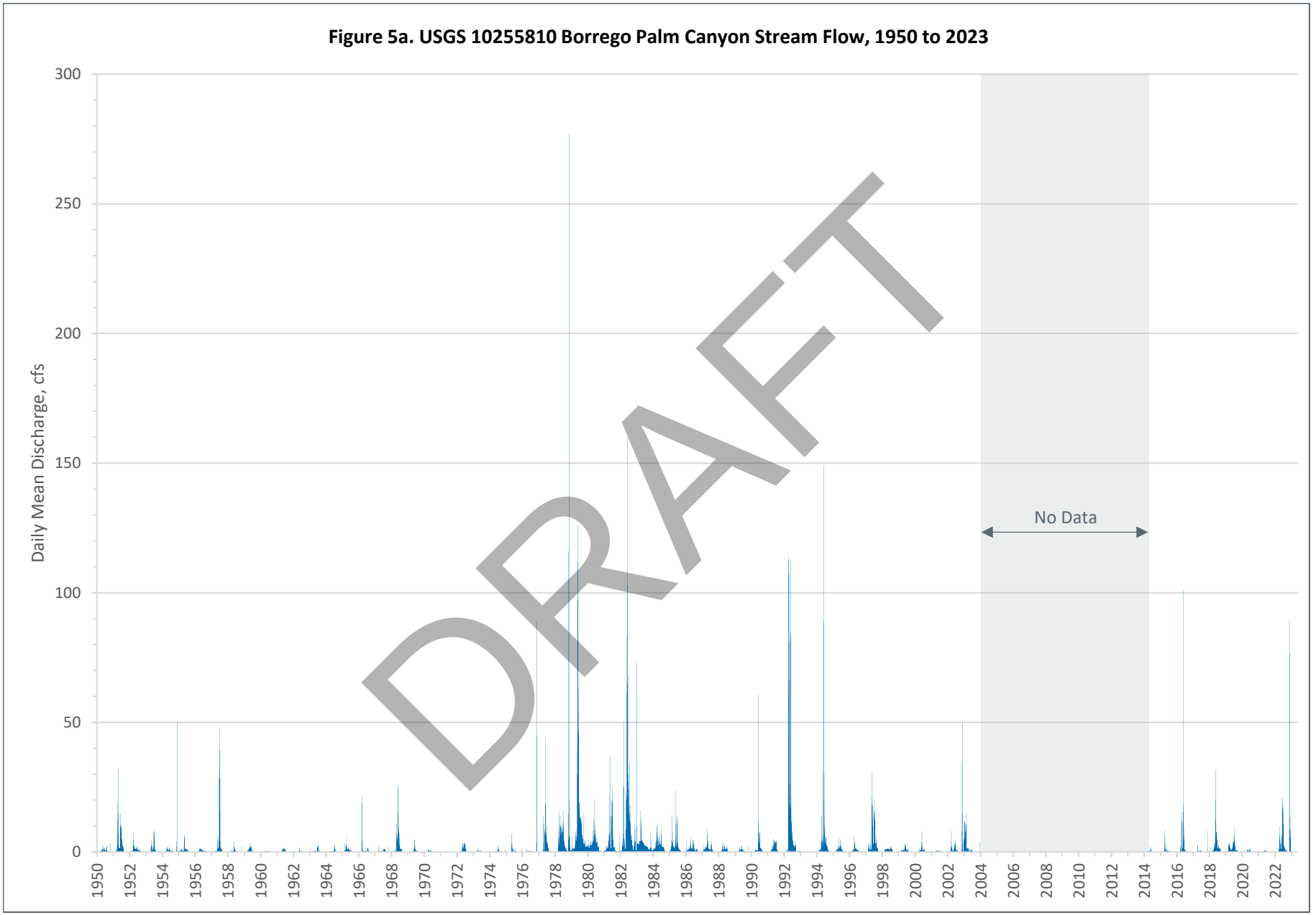
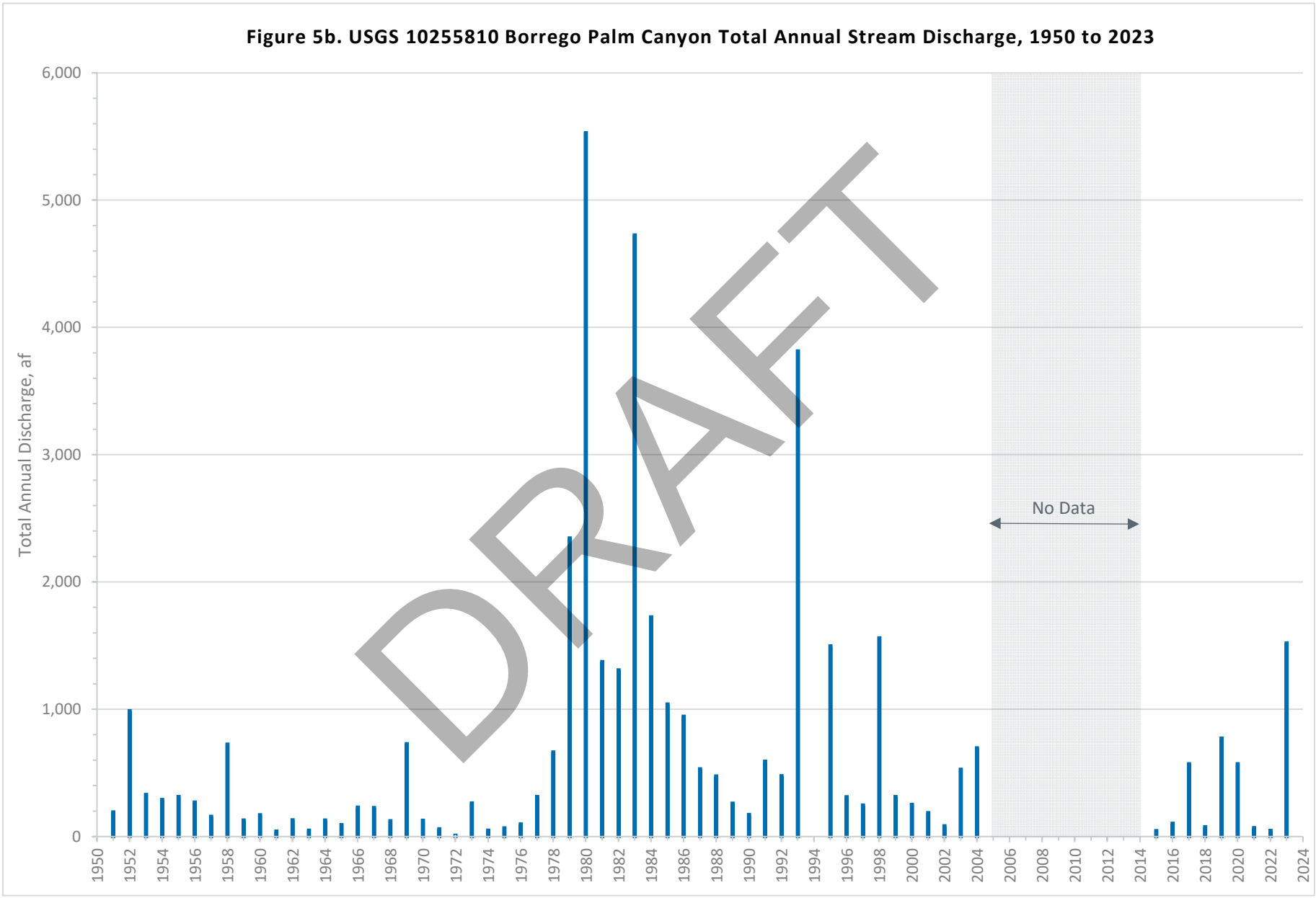


Figure 5b. USGS 10255810 Borrego Palm Canyon Total Annual Stream Discharge, 1950 to 2023



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.

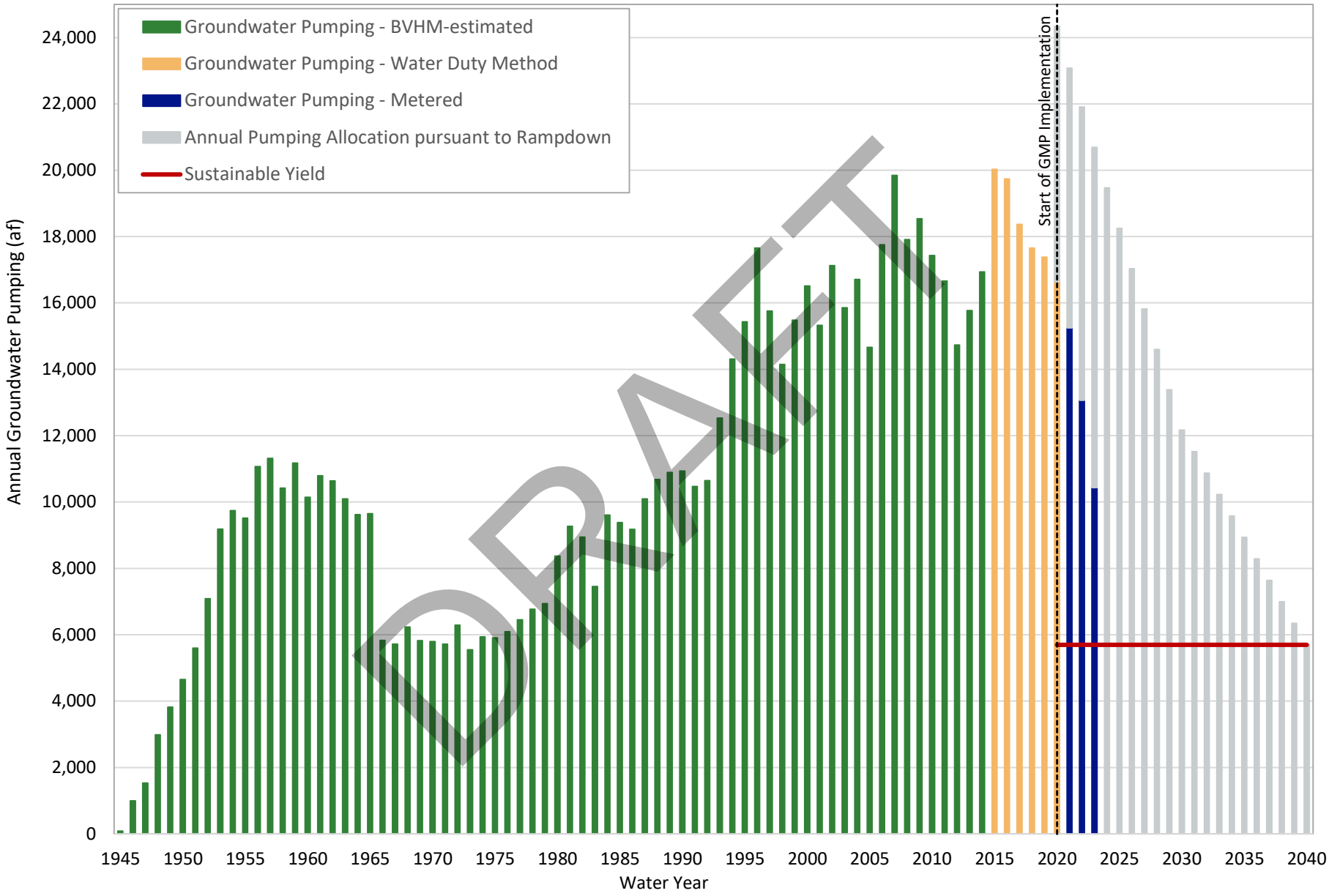
In Figure 6, the pumping totals shown are comprised of the following methods:

- 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:

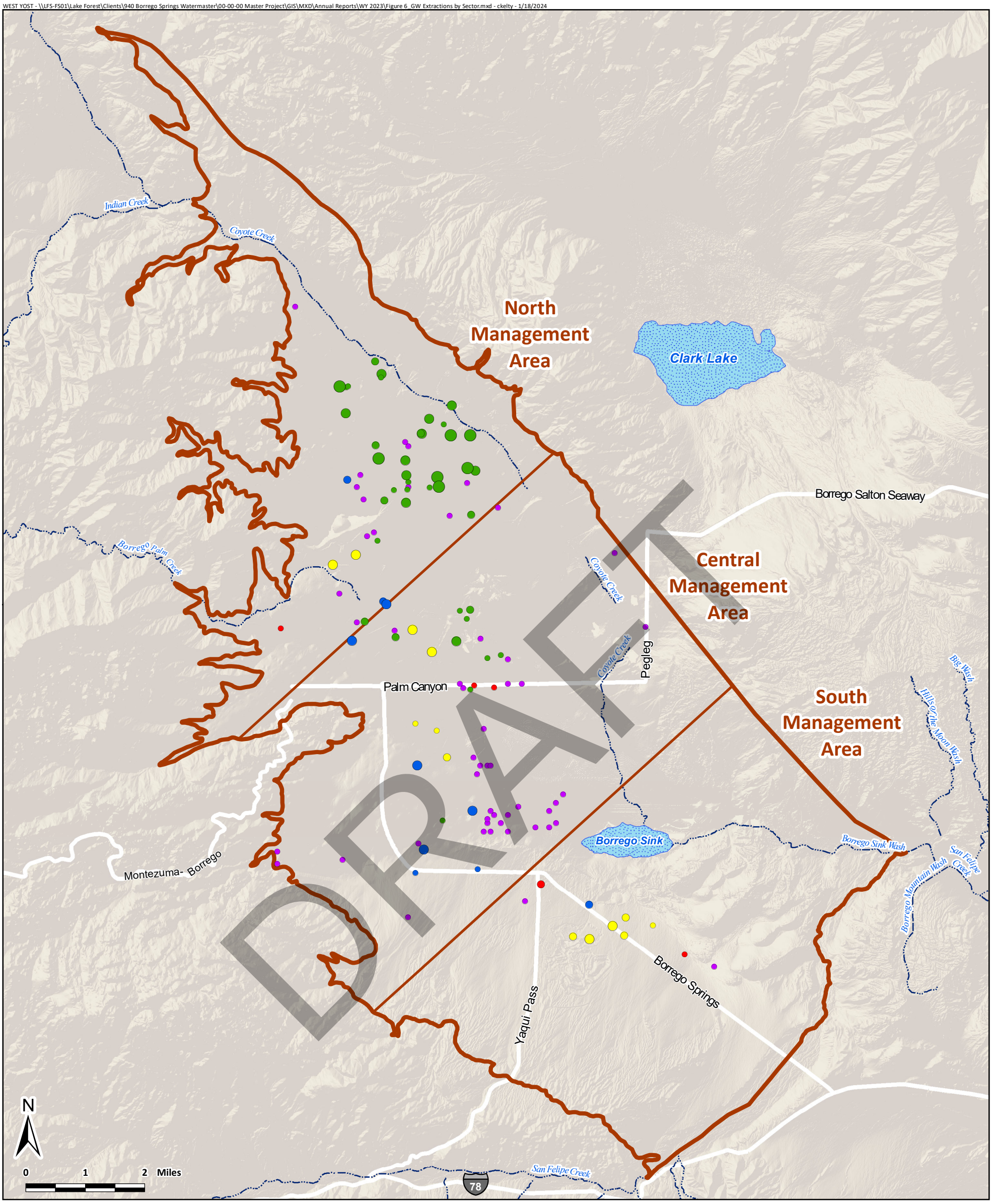
- Total annual groundwater pumping has been decreasing over the last eight years. From WY 2015 to WY 2023, pumping declined from about 20,028 af in WY 2015 to about 10,430 af in WY 2023 (a decrease of 9,598 af, or approximately 48 percent). It should be noted that pumping estimates for WY 2021 through 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.

WEST YOST - \\LFS-FS01\Lake Forest\Clients\940 Borrego Springs Watermaster\00-00-00 Master Project\GIS\MXD\Annual Reports\WY 2023\Figure 6_GW Extractions by Sector.mxd - ckelty - 1/18/2024



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

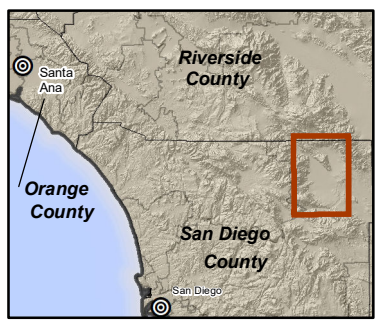


Figure 7

Groundwater Extractions by Sector (2023)

Borrego Springs Watermaster
Borrego Springs Subbasin
2023 Annual Report

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

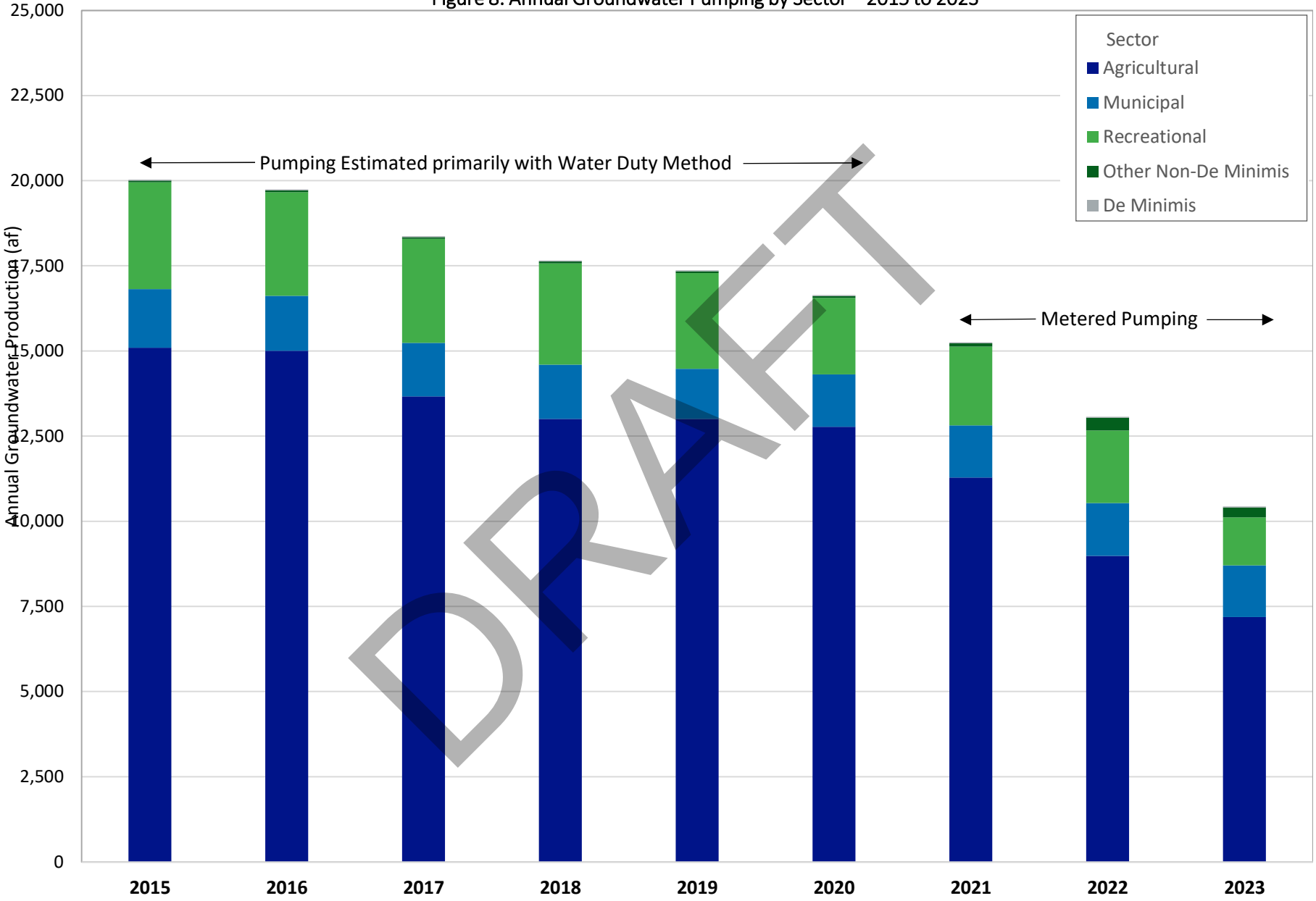


Table 18. Groundwater Pumping by Sector - 2015 to 2023

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 Indicators[73] 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.

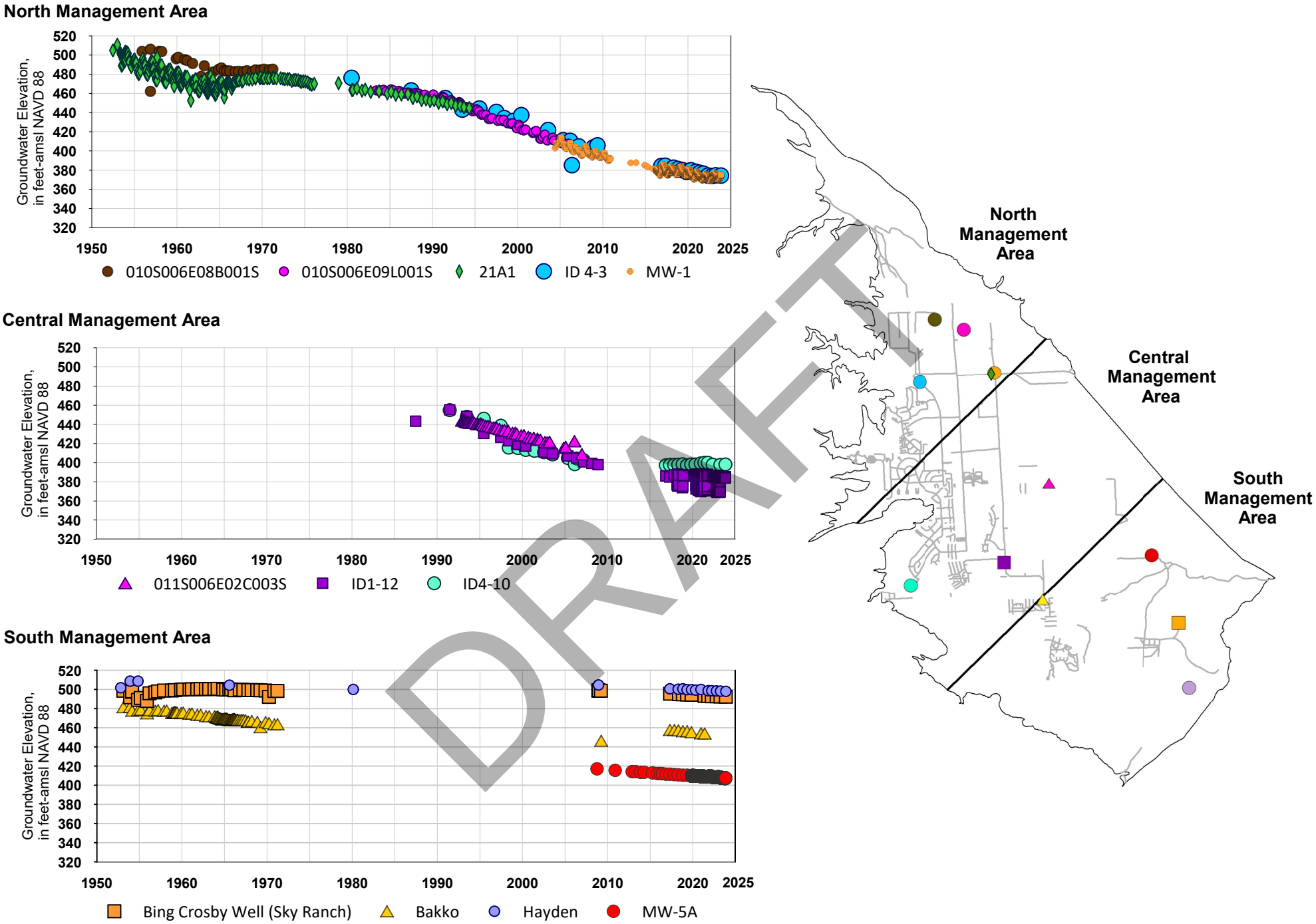
[73] "Sustainability Indicator" refers to any of the effects caused by groundwater conditions occurring throughout the Basin that, when significant and unreasonable, cause undesirable results (California Water Code Section 10721(x)).

- 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.



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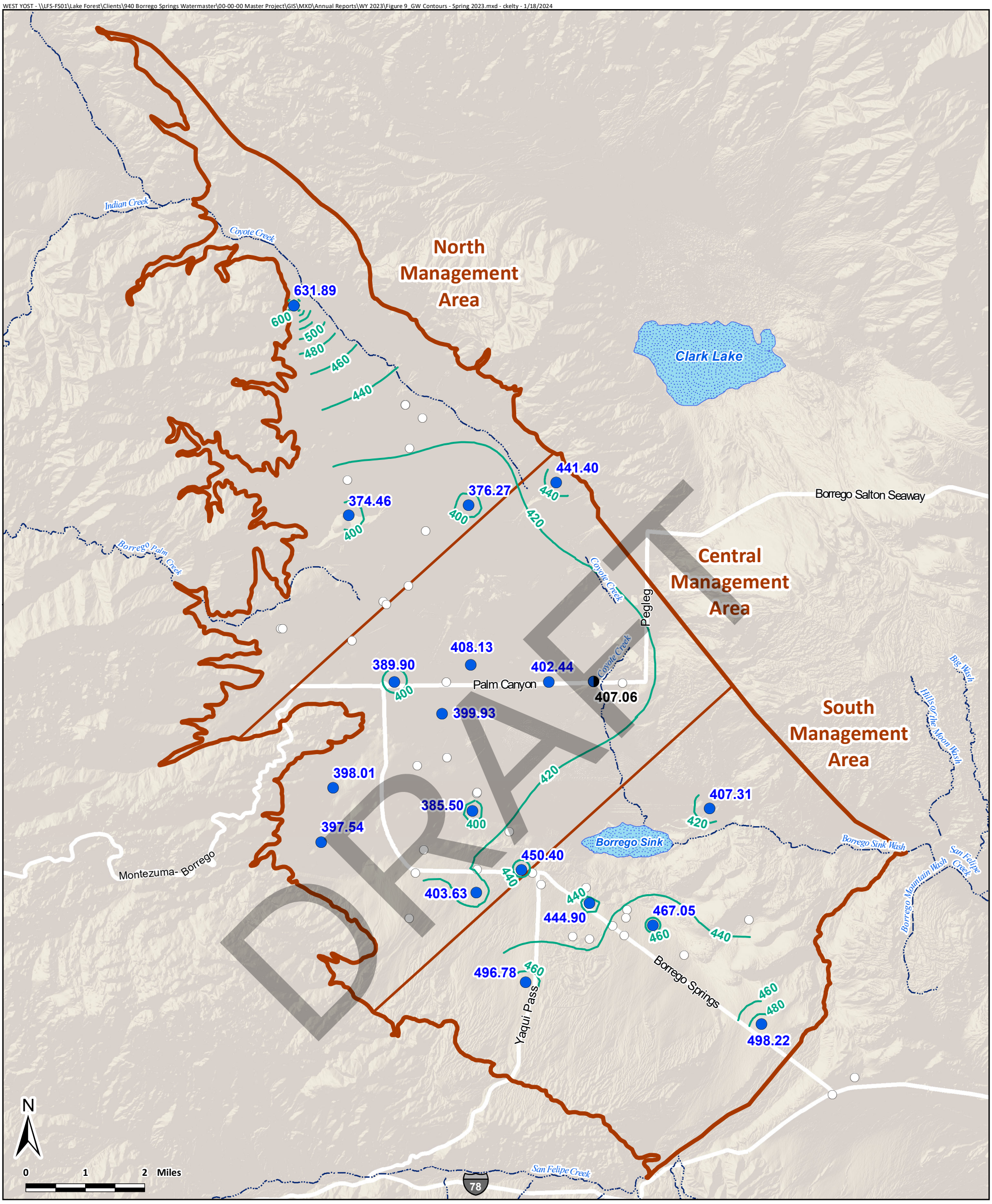
Author: CK
Date: 20240111
File: Figure 7_GW Levels in Key Wells.grf

Figure 9

Groundwater Levels in Selected Wells
within the Borrego Groundwater Subbasin

WEST YOST - \\LFS-FS01\Lake Forest\Clients\940 Borrego Springs Watermaster\00-00-00 Master Project\GIS\MXD\Annual Reports\WY 2023\Figure 9_GW Contours - Spring 2023.mxd - ckelty - 1/18/2024



Groundwater Monitoring Wells Used to Develop Groundwater Elevation Contours for Spring 2023

350 — True static groundwater elevation (ft-amsl)

350 — Estimated static groundwater elevation (ft-amsl)

—400— **Groundwater Elevation Contours** *Spring 2023 (ft-amsl)*

Other Features

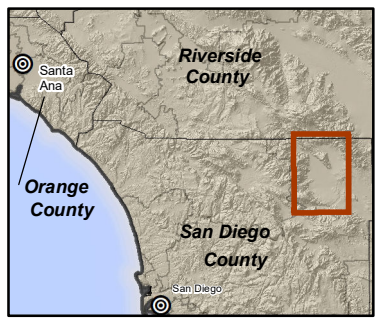
Borrego Springs Subbasin with Management Area Divisions

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.

Figure 10

Spring 2023 Groundwater Elevation

Borrego Springs Watermaster
Borrego Springs Subbasin
2023 Annual Report

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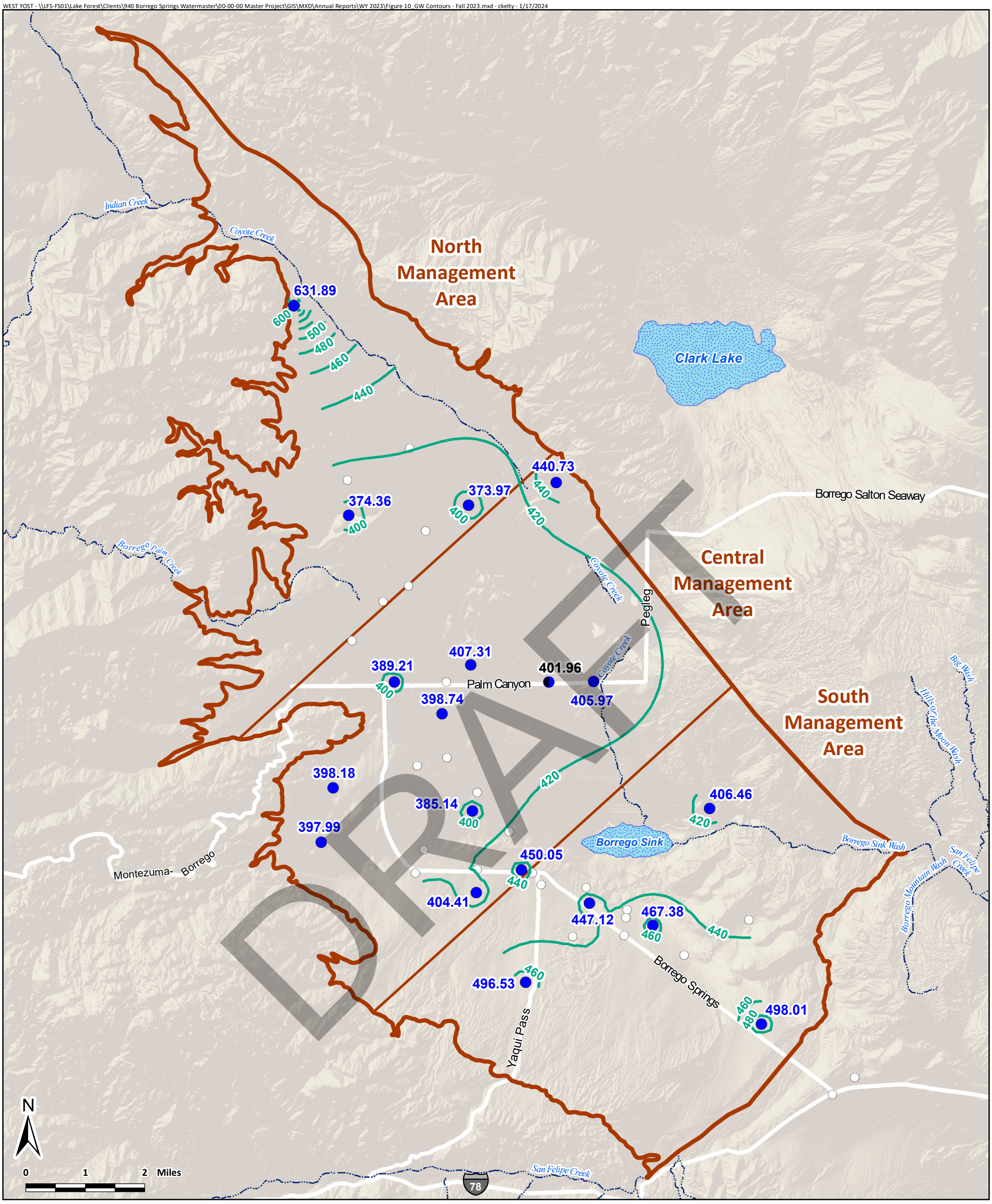
WEST YOST - \\LFS-FS01\Lake Forest\Clients\940 Borrego Springs Watermaster\00-00-00 Master Project\GIS\MXD\Annual Reports\WY 2023\Figure 10_GW Contours - Fall 2023.mxd - ckelty - 1/17/2024



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

350 True static groundwater elevation (ft-amsl)

350 Estimated static groundwater elevation (ft-amsl)

400 **Groundwater Elevation Contours** *Fall 2023 (ft-amsl)*

Other Features

Borrego Springs Subbasin with Management Area Divisions

Other Groundwater Monitoring Wells

Surface Water Features

Stream Channel

Dry Lake

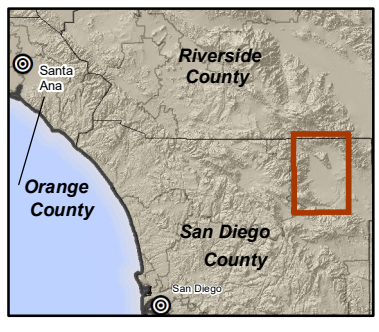


Figure 11

Fall 2023
Groundwater Elevation

Borrego Springs Watermaster
Borrego Springs Subbasin
2023 Annual Report

Prepared by:

WEST YOST

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:

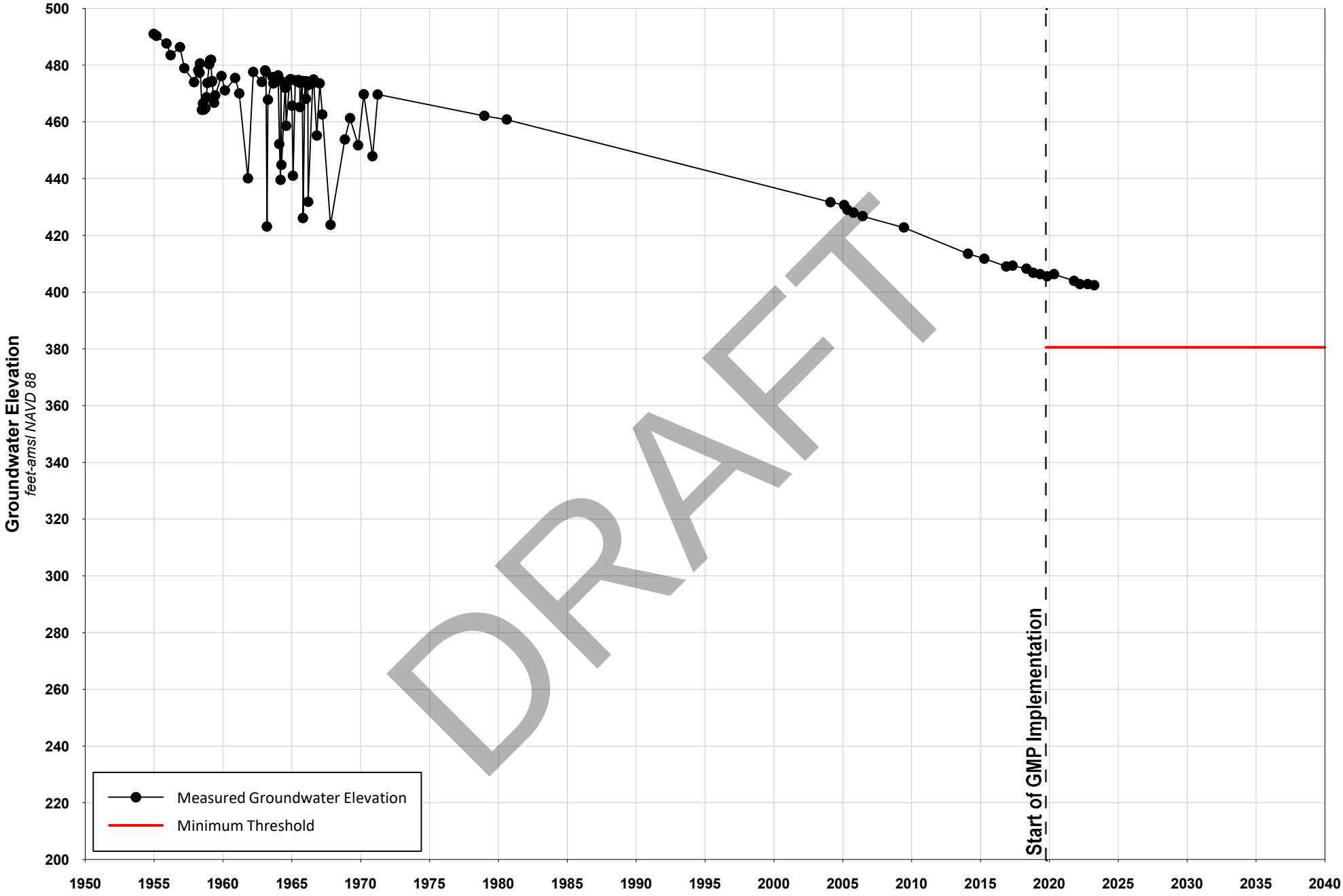
- Figures 12a through 12p are time-series charts that show historical groundwater elevations prior to the start of GMP implementation, groundwater elevations since the start of GMP implementation (e.g. fall 2019), and the Minimum Threshold for each of the 16 Representative Monitoring Wells.
- Table 19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



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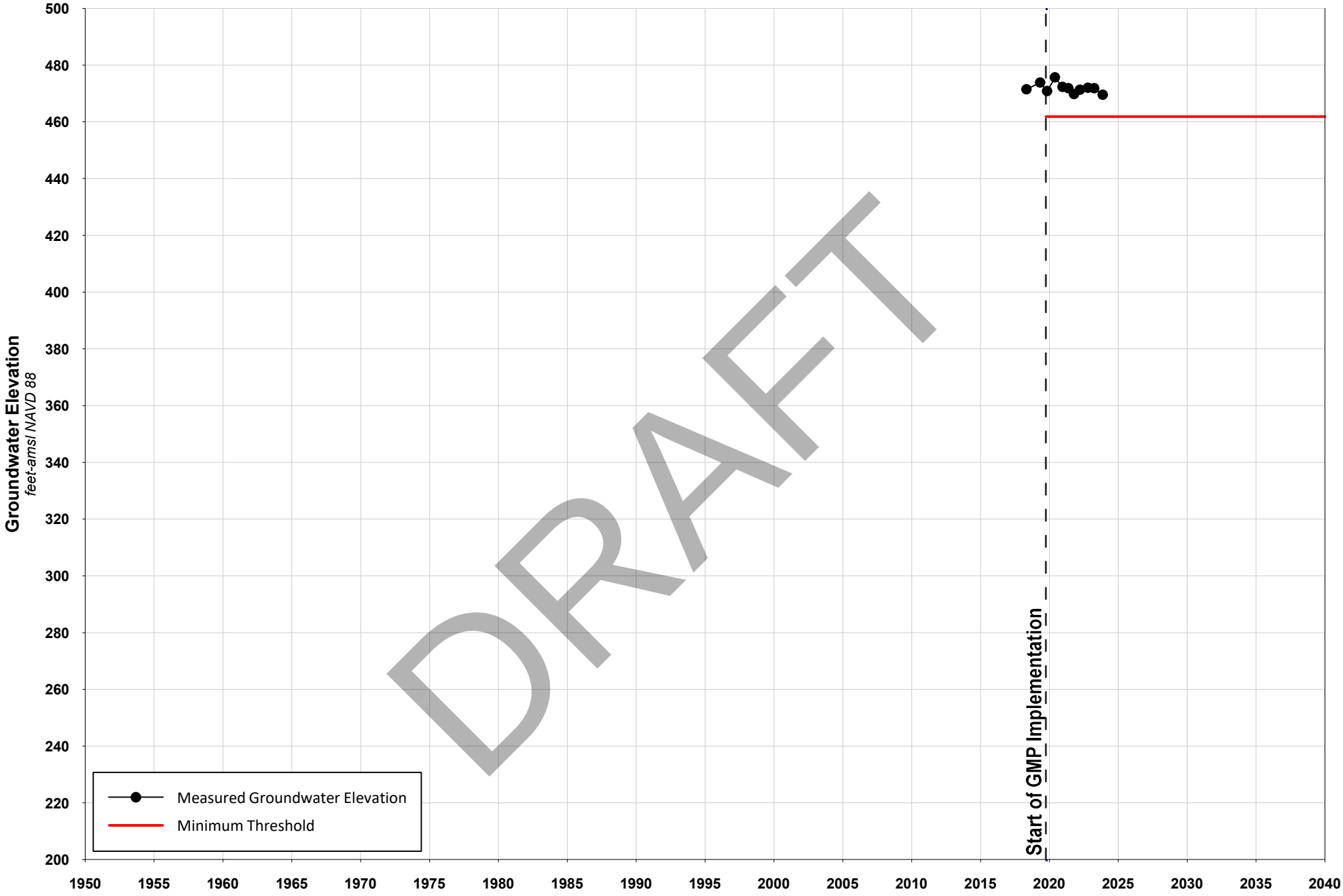
Author: CK
Date: 20240110
File: Figure8a_GW Levels in Airport 2.grf

Figure 12a

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

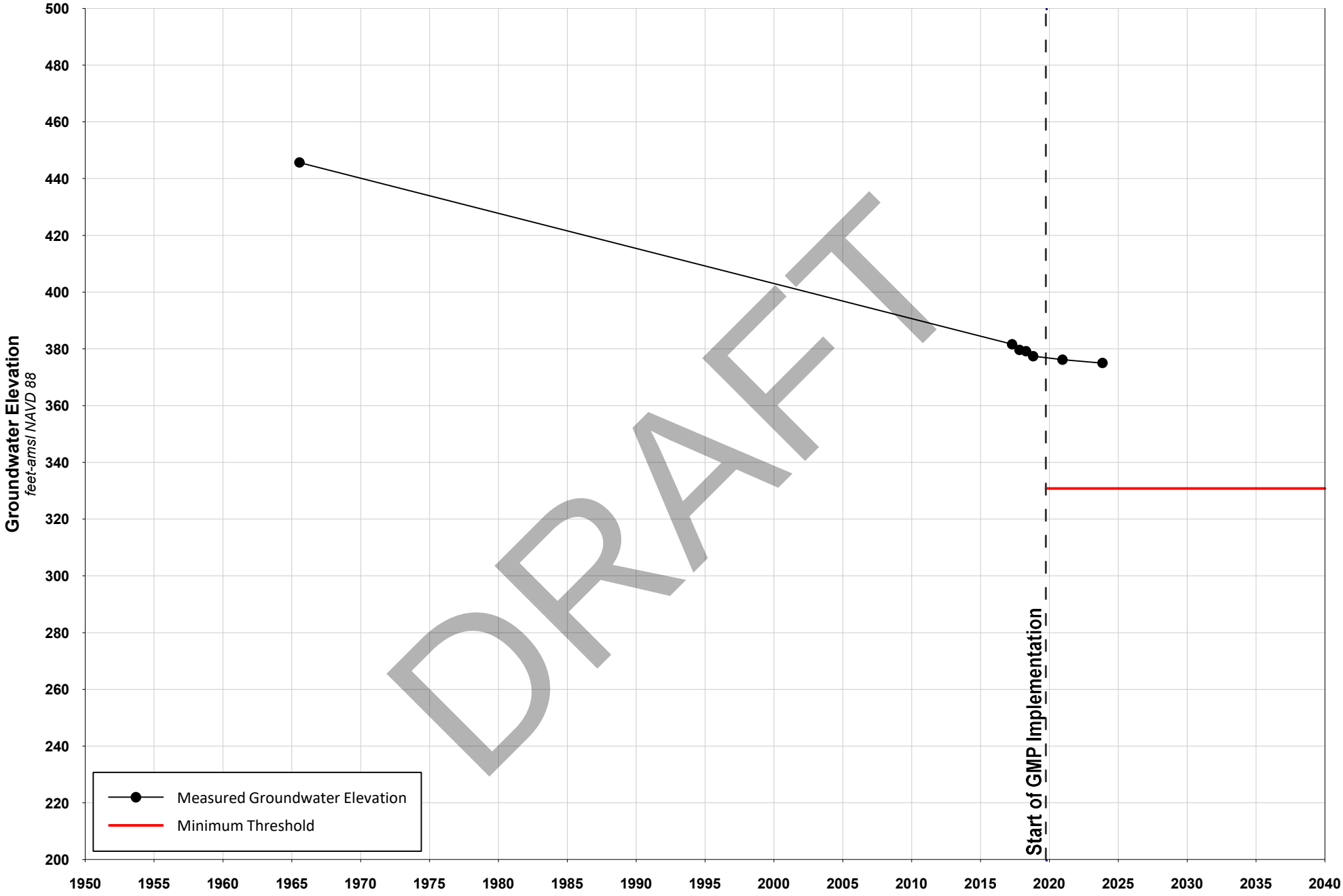


WEST YOST
Water. Engineered

Author: CK
Date: 20240111
File: Figure8b_GW Levels in Air Ranch 4.grf

Figure 12b

Groundwater Level and Sustainable Management Criteria
at Representative Monitoring Well Air Ranch 4

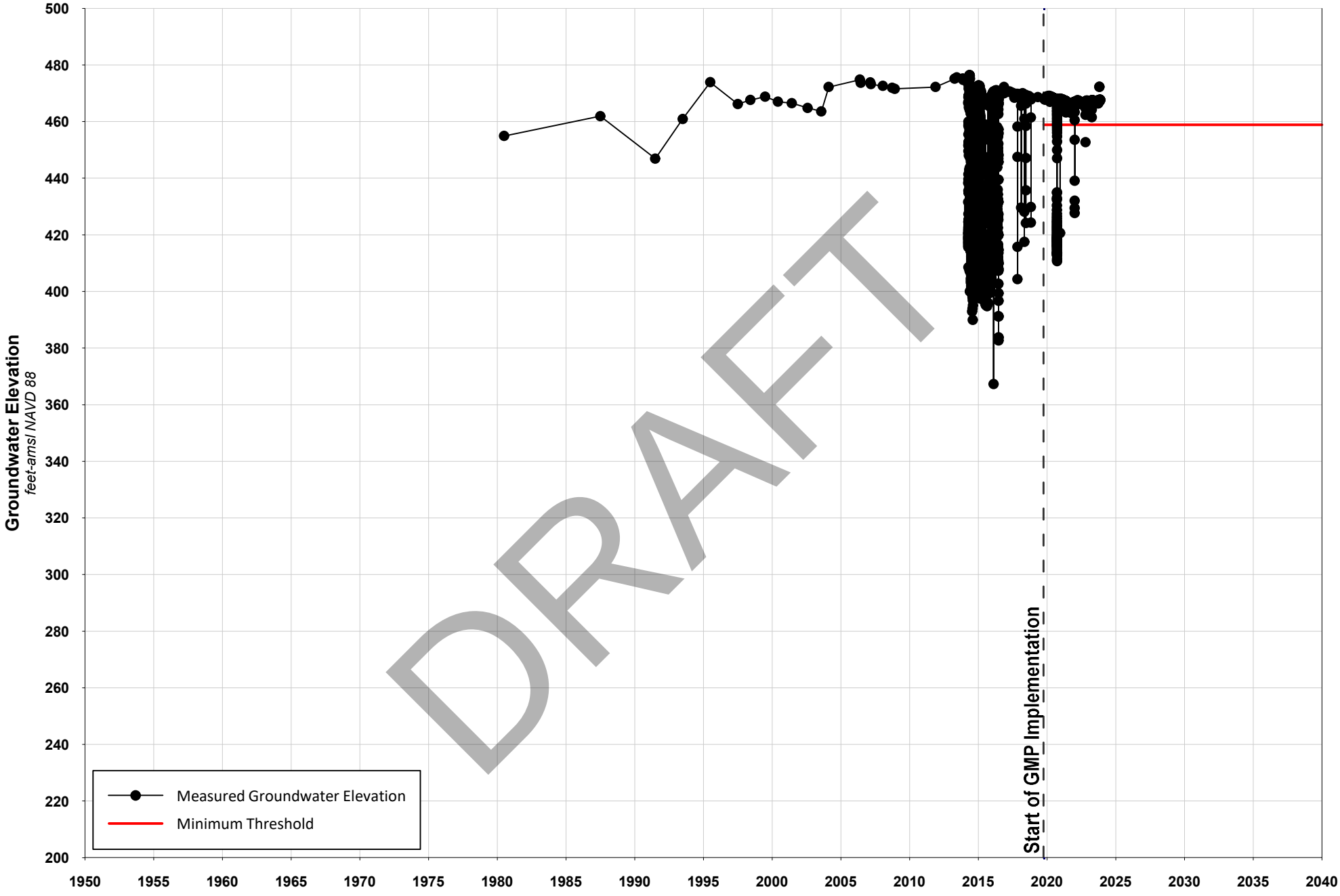


WEST YOST
Water. Engineered

Author: CK
Date: 20240111
File: Figure8c_GW Levels in Fortiner.grf

Figure 12c

Groundwater Level and Sustainable Management Criteria
at Representative Monitoring Well Fortiner #1



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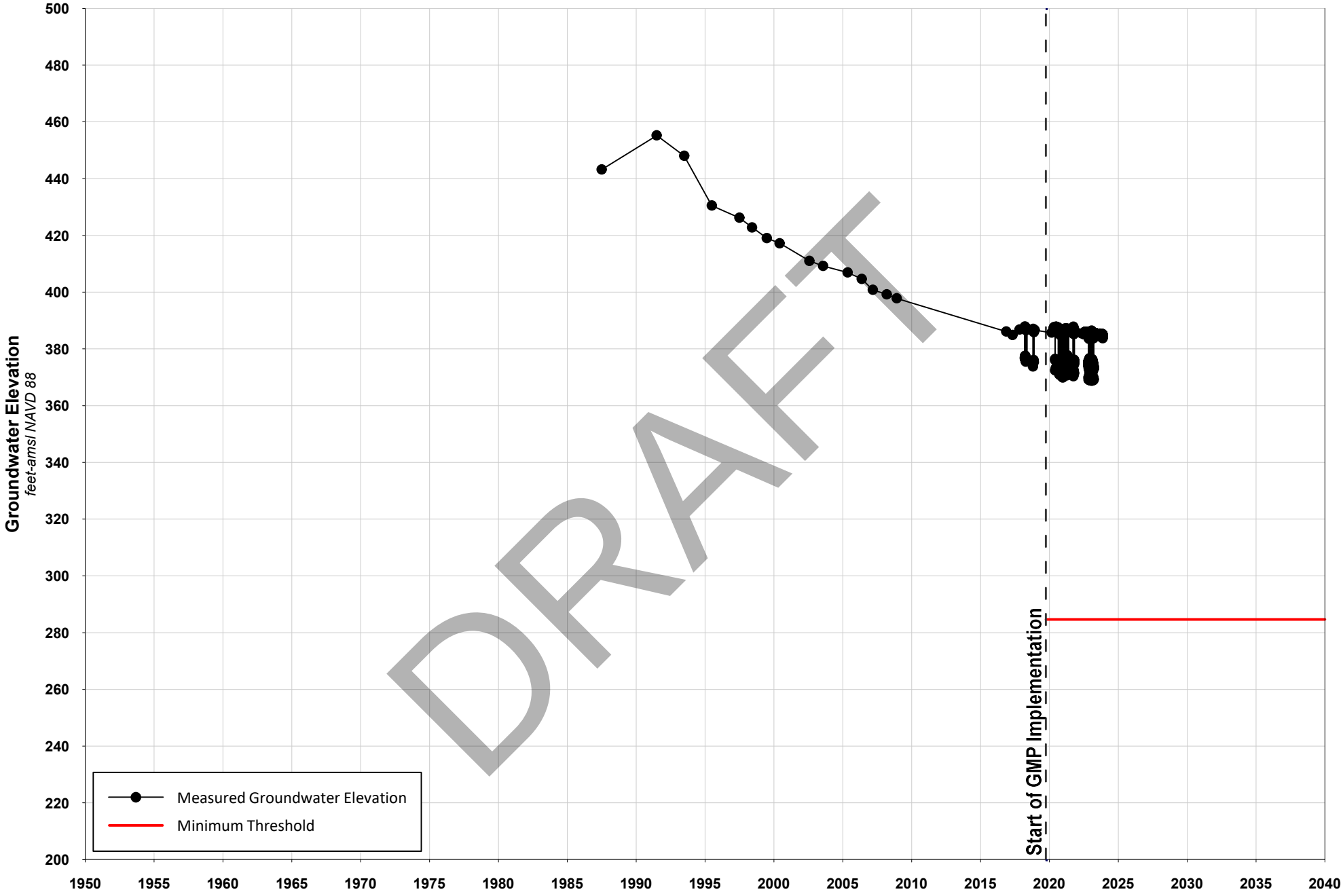
Water. Engineered

Author: CK
Date: 20240111
File: Figure8d_GW Levels in RH-1.grf

Figure 12d

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



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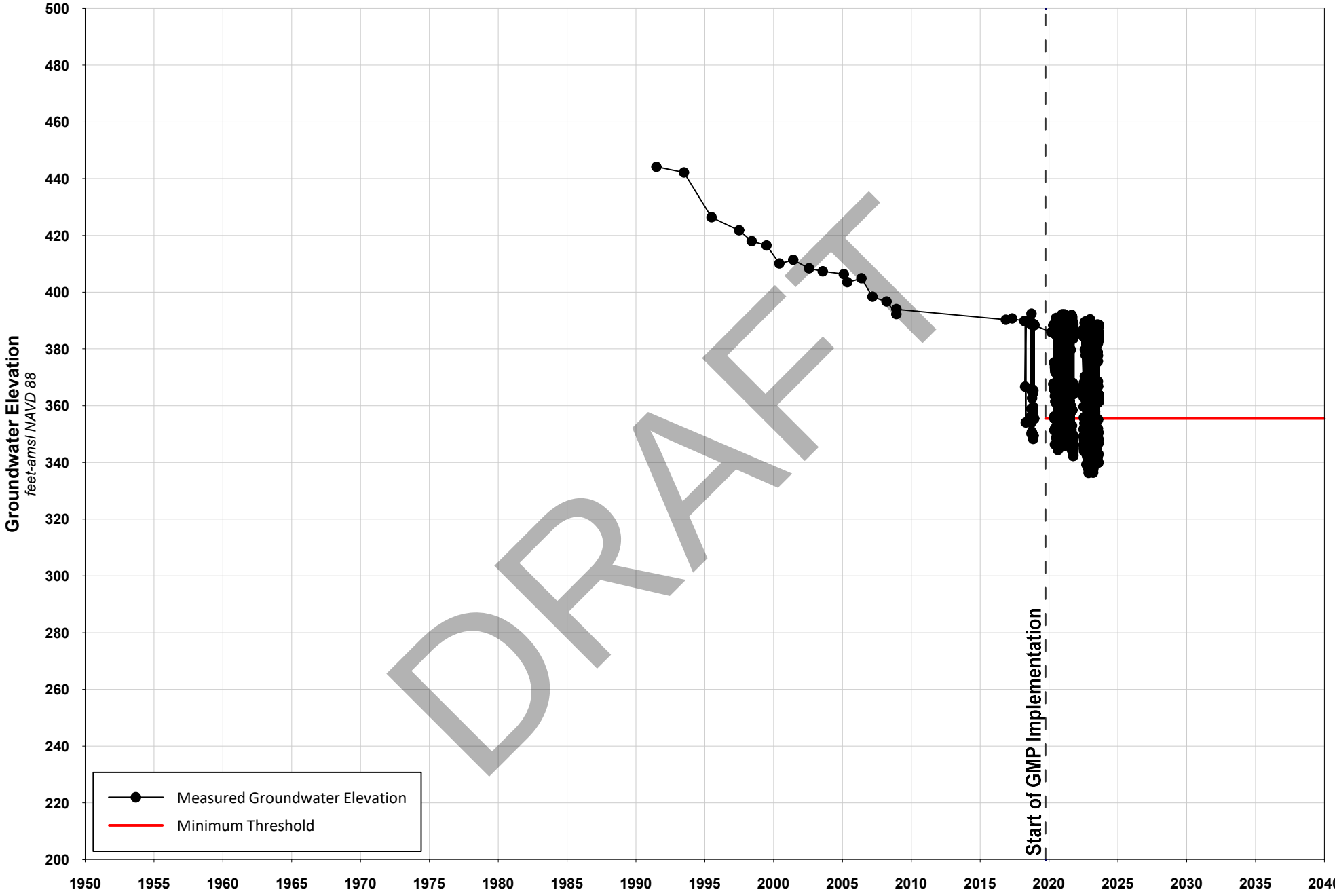
Water. Engineered

Author: CK
Date: 20240111
File: Figure8e_GW Levels in ID1-12.grf

Figure 12e

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



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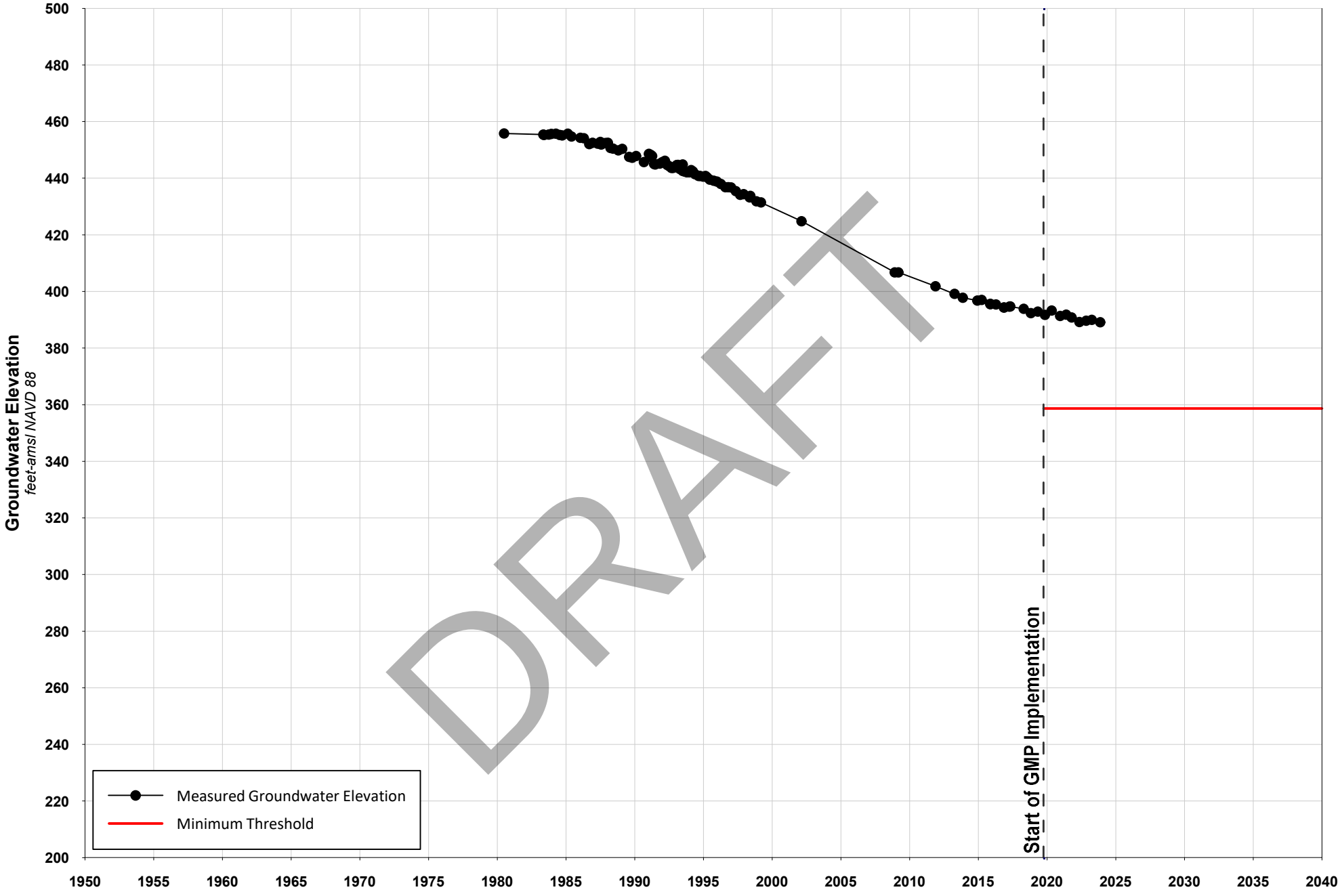
Water. Engineered

Author: CK
Date: 20240111
File: Figure8f_GW Levels in ID1-16.grf

Figure 12f

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



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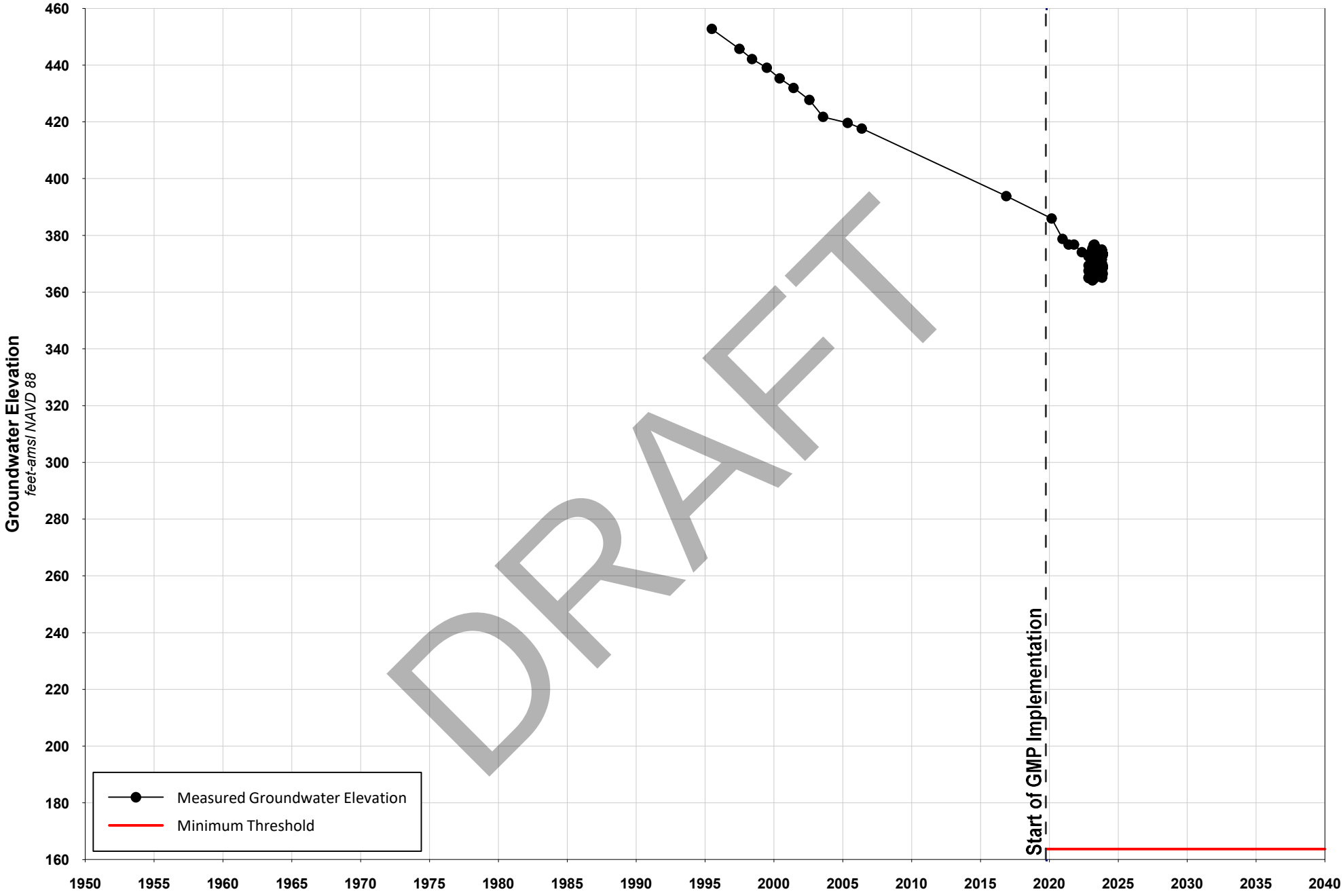
Water. Engineered

Author: CK
Date: 20240111
File: Figure8g_GW Levels in ID4-1.grf

Figure 12g

Groundwater Level and Sustainable Management Criteria
at Representative Monitoring Well ID4-1



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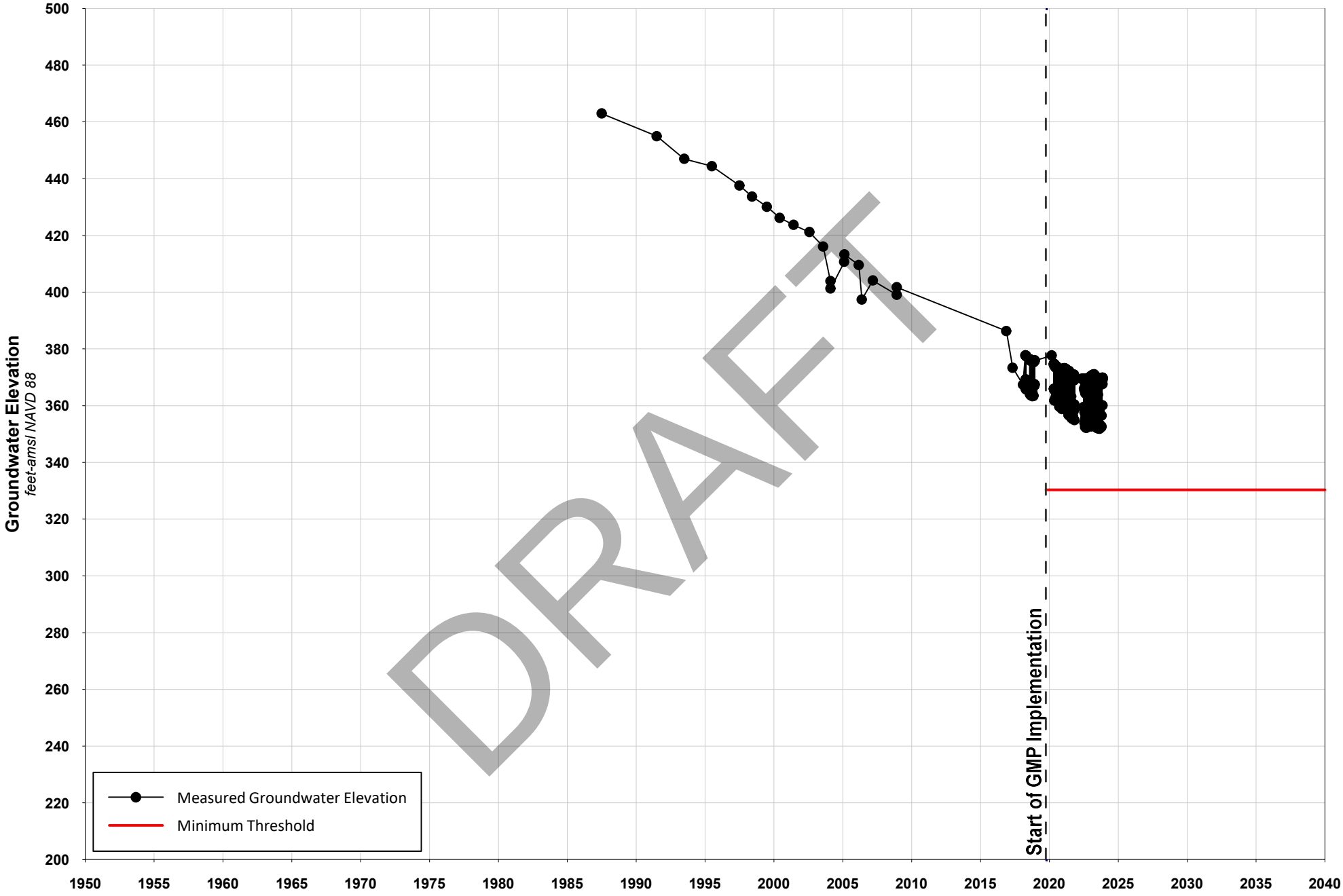
Water. Engineered

Author: CK
Date: 20240111
File: Figure8h_GW Levels in ID4-11.grf

Figure 12h

Groundwater Level and Sustainable Management Criteria
at Representative Monitoring Well ID4-11



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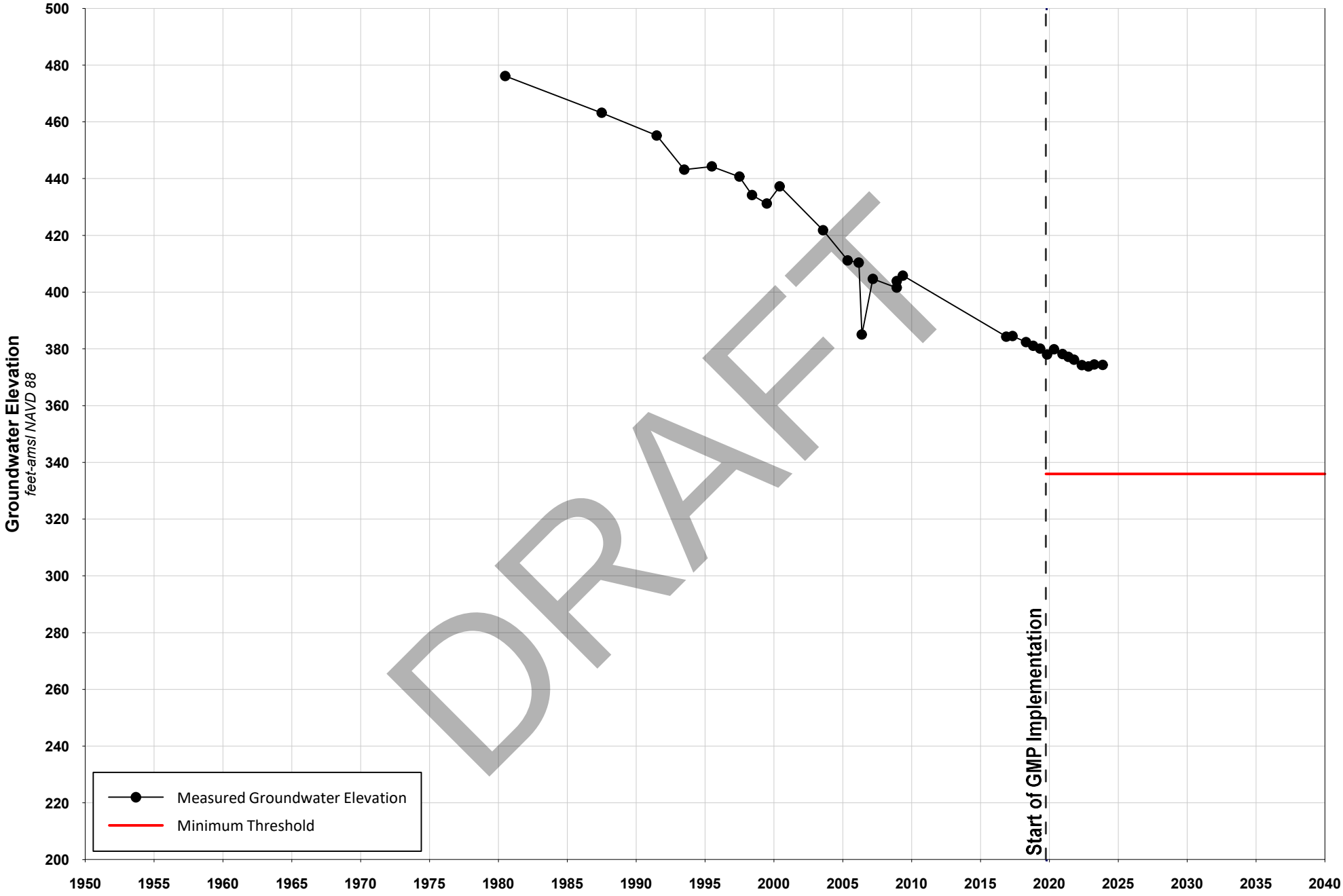
Water. Engineered

Author: CK
Date: 20240111
File: Figure8i_GW Levels in ID4-18.grf

Figure 12i

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

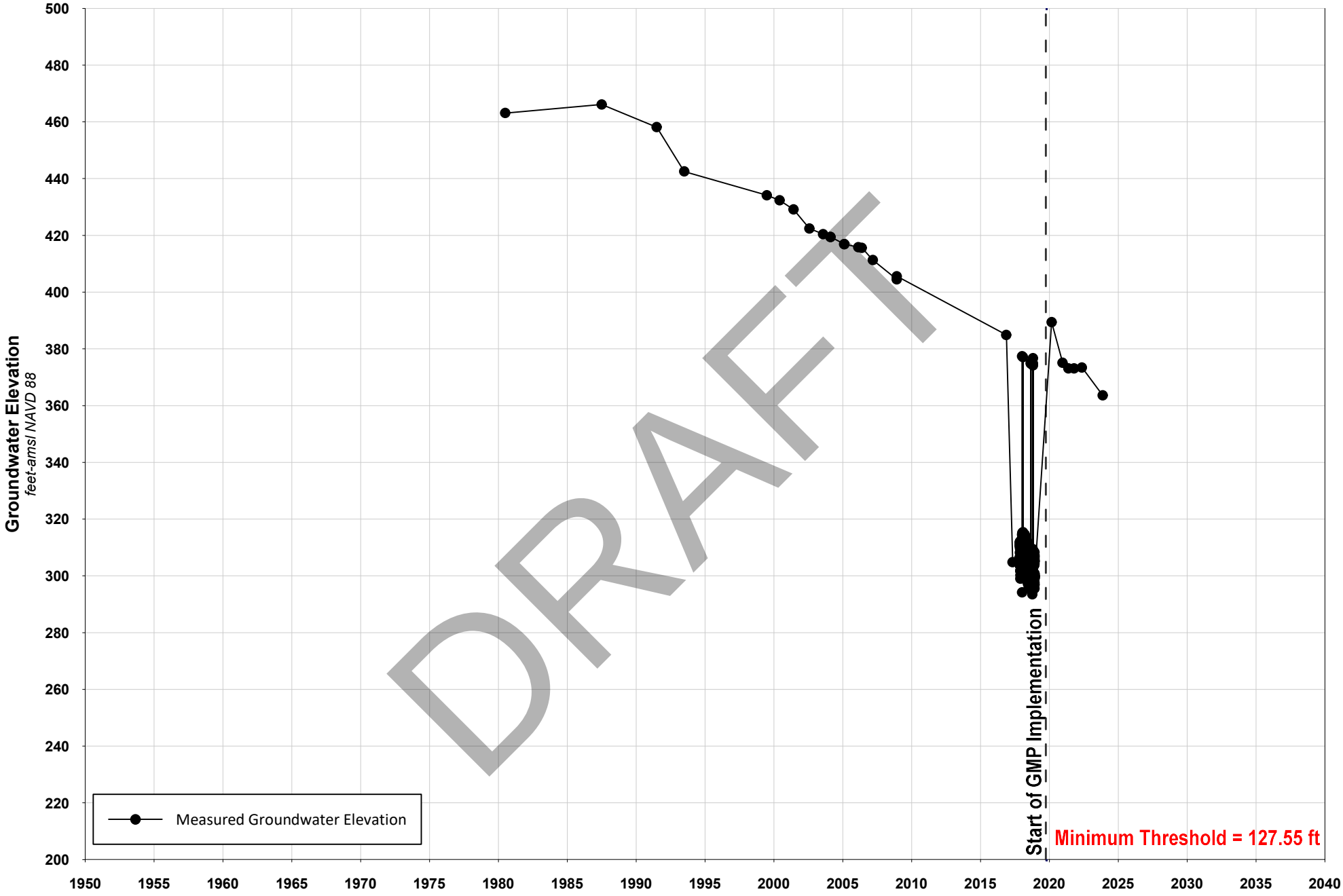


WEST YOST
Water. Engineered

Author: CK
Date: 20240111
File: Figure8j_GW Levels in ID4-3.grf

Figure 12j

Groundwater Level and Sustainable Management Criteria
at Representative Monitoring Well ID4-3

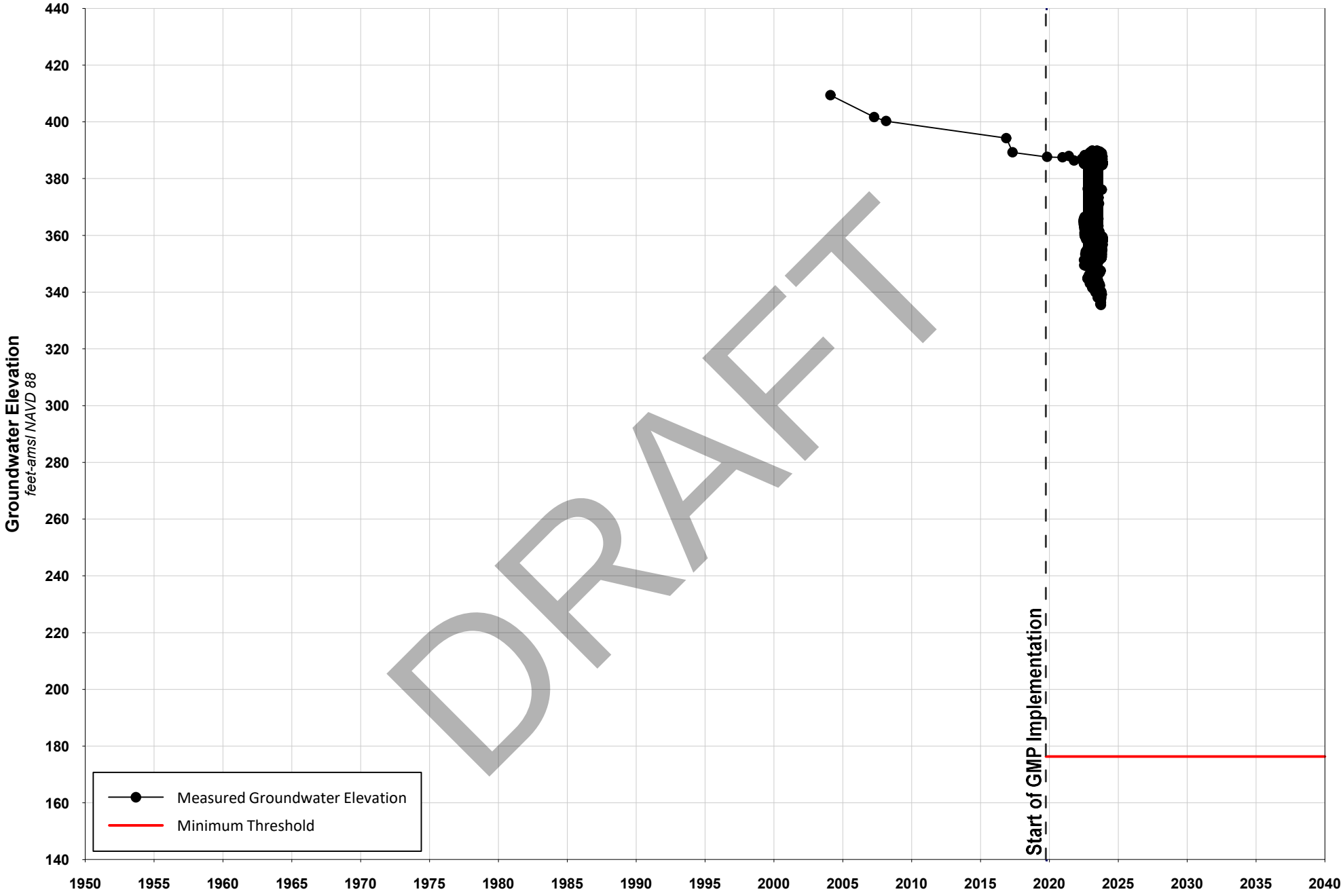


WEST YOST
Water. Engineered

Author: CK
Date: 20240111
File: Figure8k_GW Levels in ID4-4.grf

Figure 12k

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

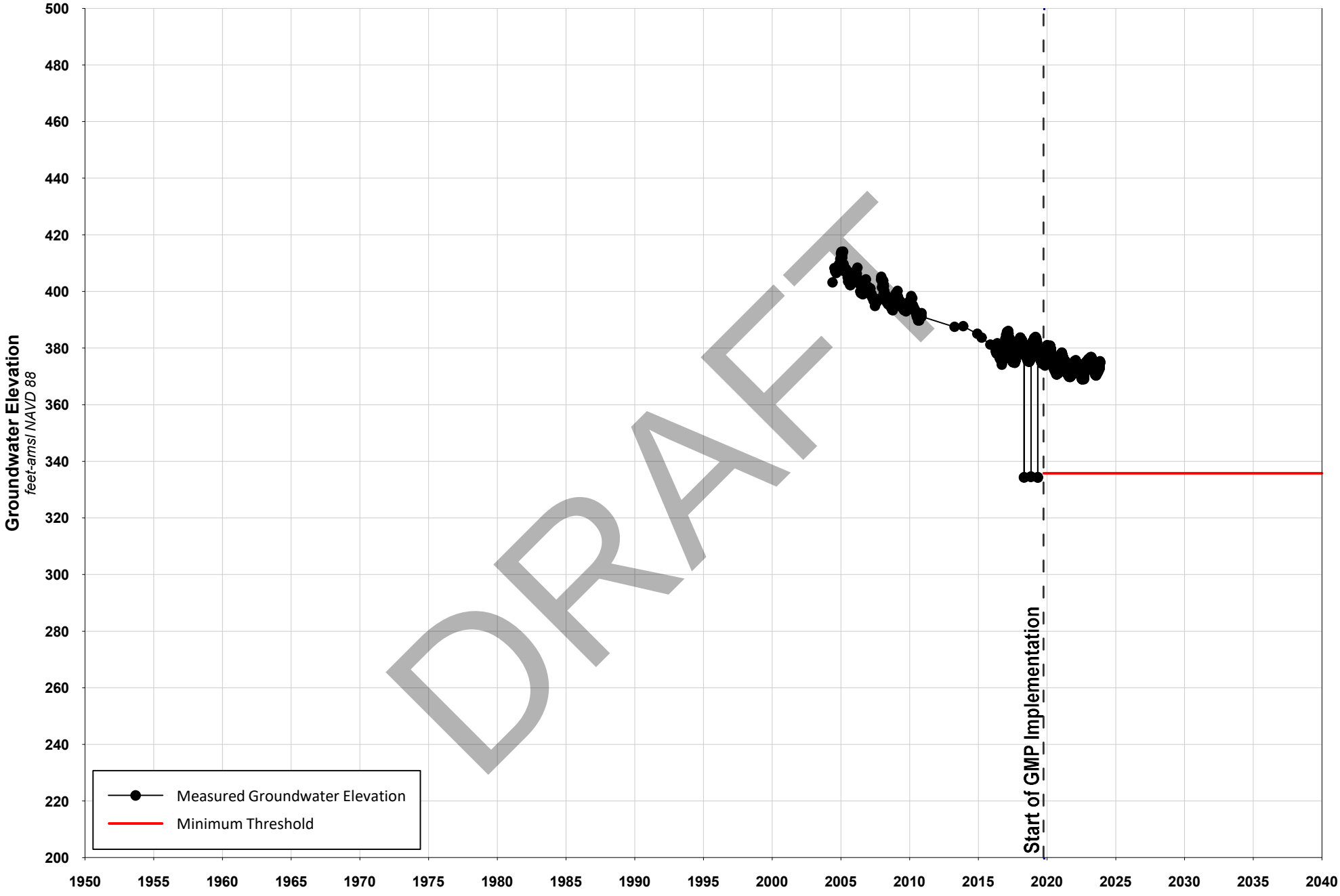


WEST YOST
Water. Engineered

Author: CK
Date: 20240111
File: Figure8l_GW Levels in ID5-5.grf

Figure 12l

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

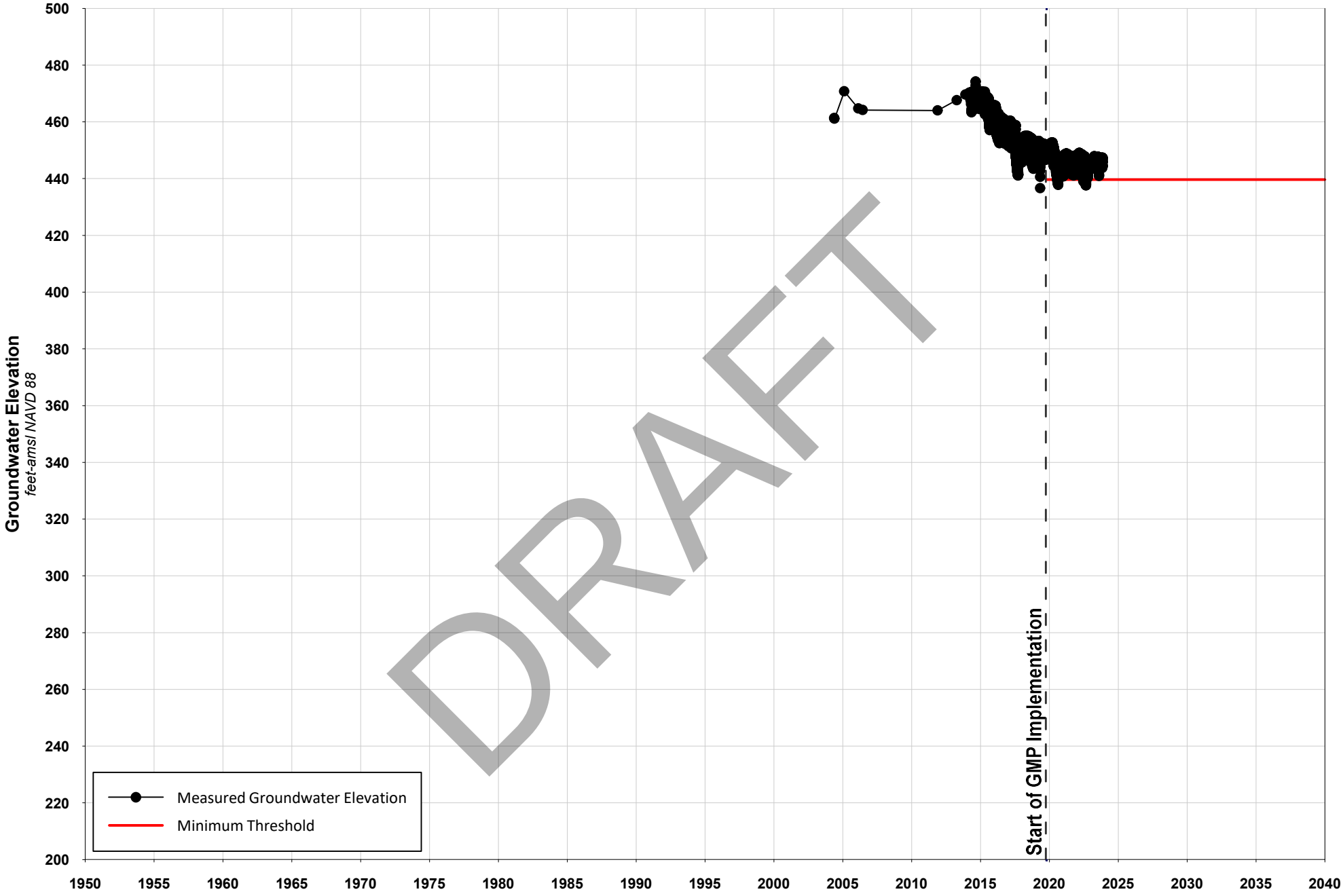


WEST YOST
Water. Engineered

Author: CK
Date: 20240111
File: Figure8m_GW Levels in MW-1.grf

Figure 12m

Groundwater Level and Sustainable Management Criteria
at Representative Monitoring Well MW-1

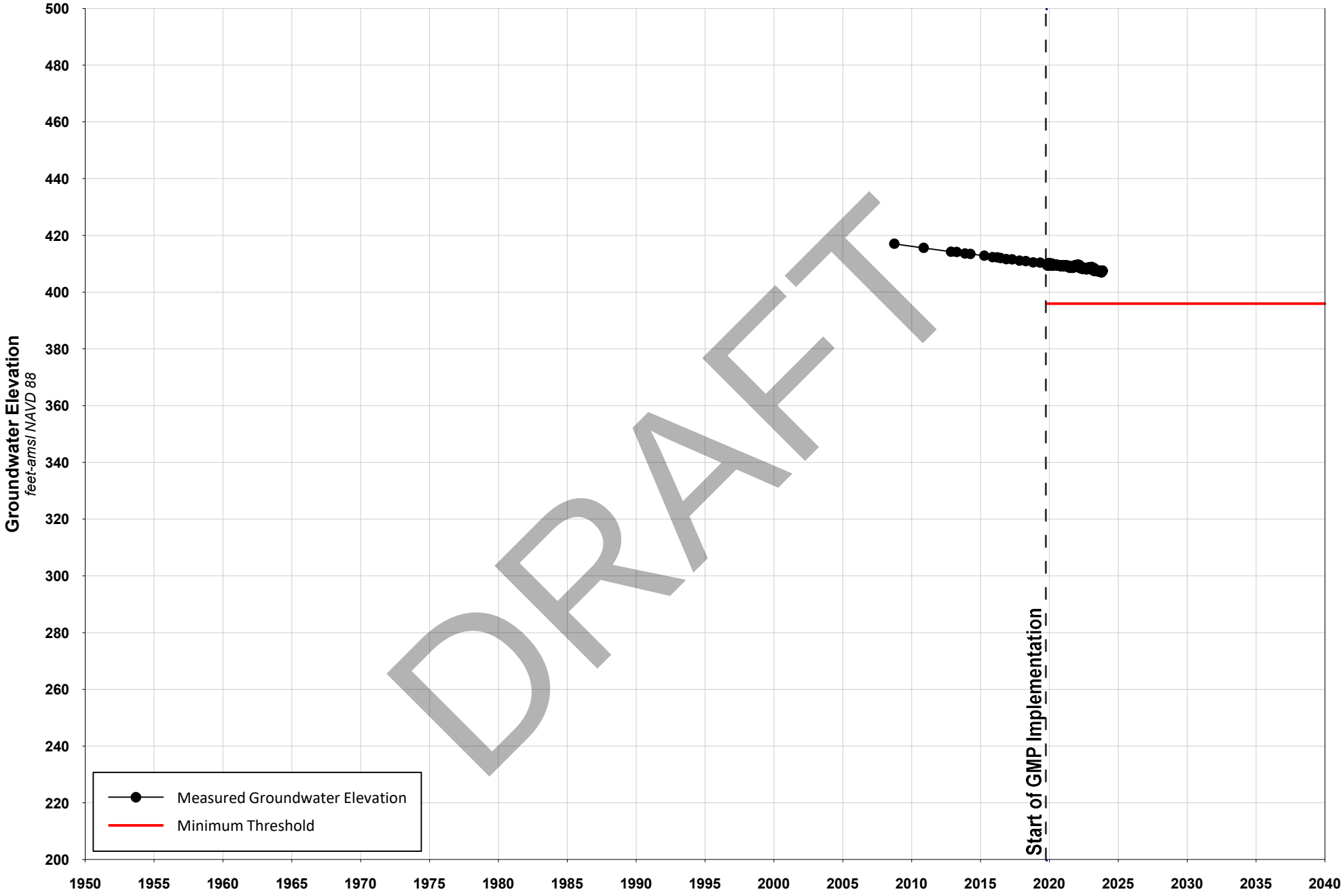


WEST YOST
Water. Engineered

Author: CK
Date: 20240111
File: Figure8n_GW Levels in MW-3.grf

Figure 12n

Groundwater Level and Sustainable Management Criteria
at Representative Monitoring Well MW-3



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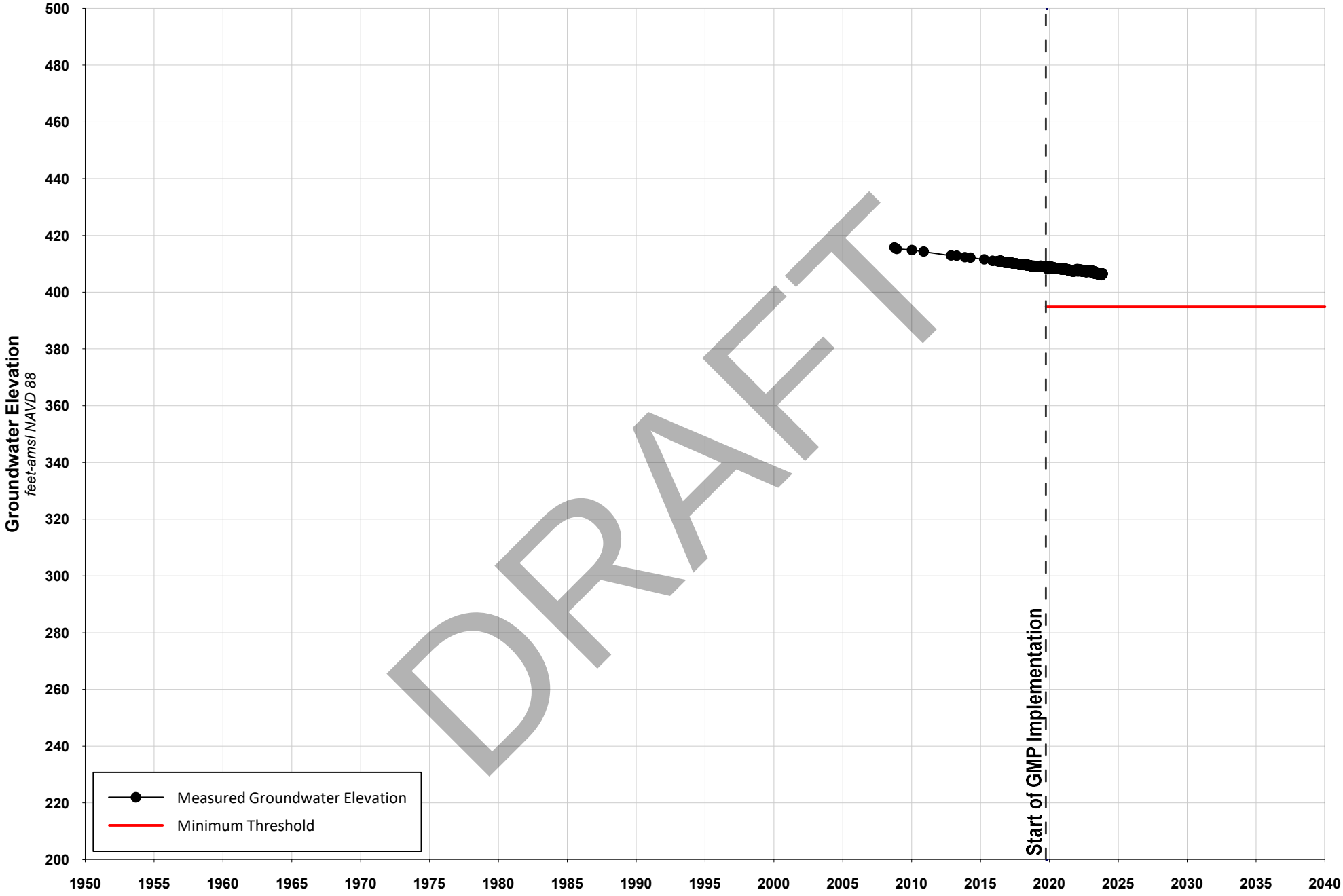
Water. Engineered

Author: CK
Date: 20240111
File: Figure8o_GW Levels in MW-5A.grf

Figure 12o

Groundwater Level and Sustainable Management Criteria
at Representative Monitoring Well MW-5A



WEST YOST
Water. Engineered

Author: CK
Date: 20240111
File: Figure8p_GW Levels in MW-5B.grf

Figure 12p

Groundwater Level and Management Sustainable Criteria
at Representative Monitoring Well MW-5B

Table 19. Current Groundwater Elevations at Representative Monitoring Wells Compared to Miniumum 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)
		a	*b*	*c = a-b*
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	*401.96*	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

(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 *blue italic font* . In Fall 2023 is the Airport 2 well; the well casing collapsed prior to the Fall 2023 Semi-Annual Monitoring Event.

(b) *Italic values* 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.

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)
		a	*b*	*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	*376.82*	374.99	-1.8	-0.5	-2.48
ID4-18	010S006E18J001S	*374.36*	369.66	-4.7	-1.2	-2.31
ID4-4	010S006E29K002S	*375.06*	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	*401.96*	-3.6	-0.9	-1.67
ID1-16	011S006E16N001S	*388.42*	382.13	-6.3	-1.6	-0.95
ID4-11	010S006E32D001S	*386.44*	374.35	-12.1	-3.0	-2.29
ID1-12	011S006E16A002S	*385.94*	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:

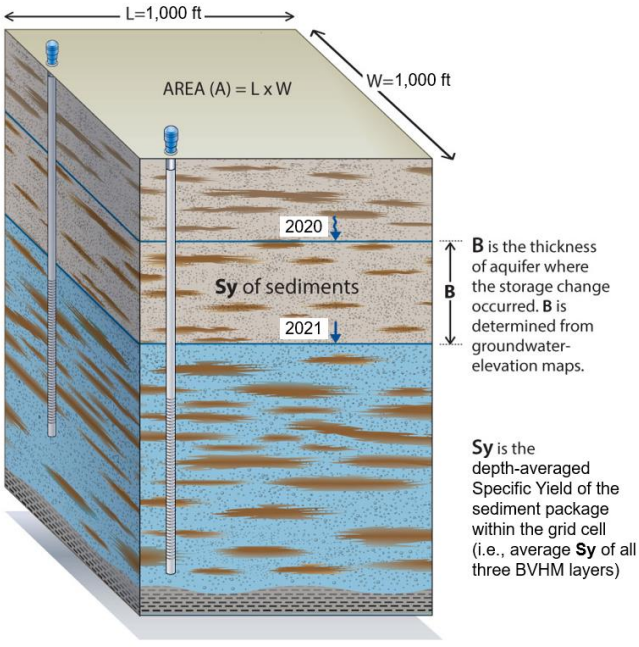
The information required to estimate storage change in the Basin for the current annual report includes:

- 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:

$$\boldsymbol{Change\ in\ Storage_i = \left(GWE_i^{t1} - GWE_i^{t0}\right) \times S_{y_i} \times A}$$

where, i represents a unique cell within the storage change calculation grid, GWE is the interpolated groundwater elevation at cell i, Sy 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.

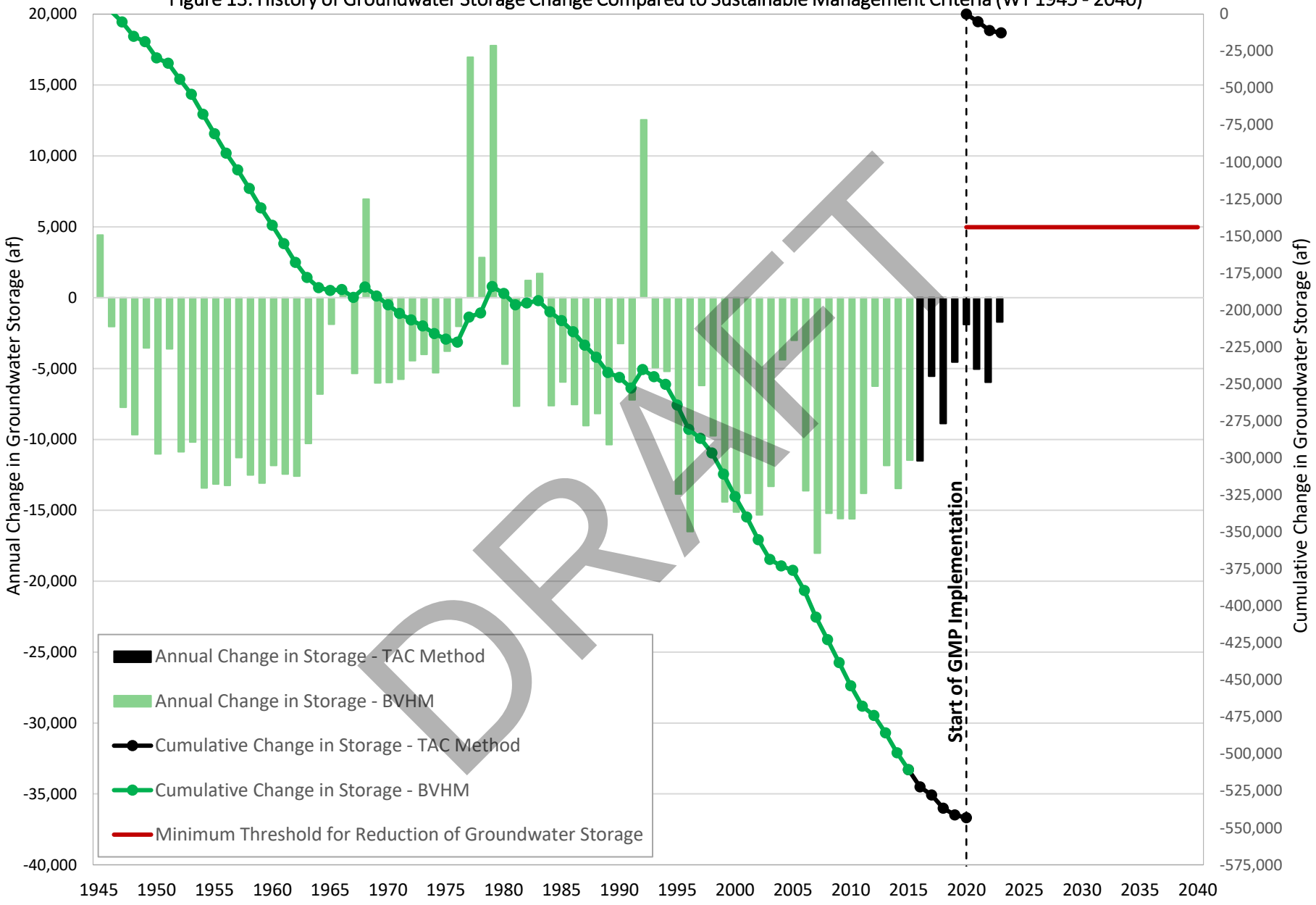


In the ***Change in Storage*** equation above: B = $\left(GWE_i^{t1} - GWE_i^{t0}\right)$

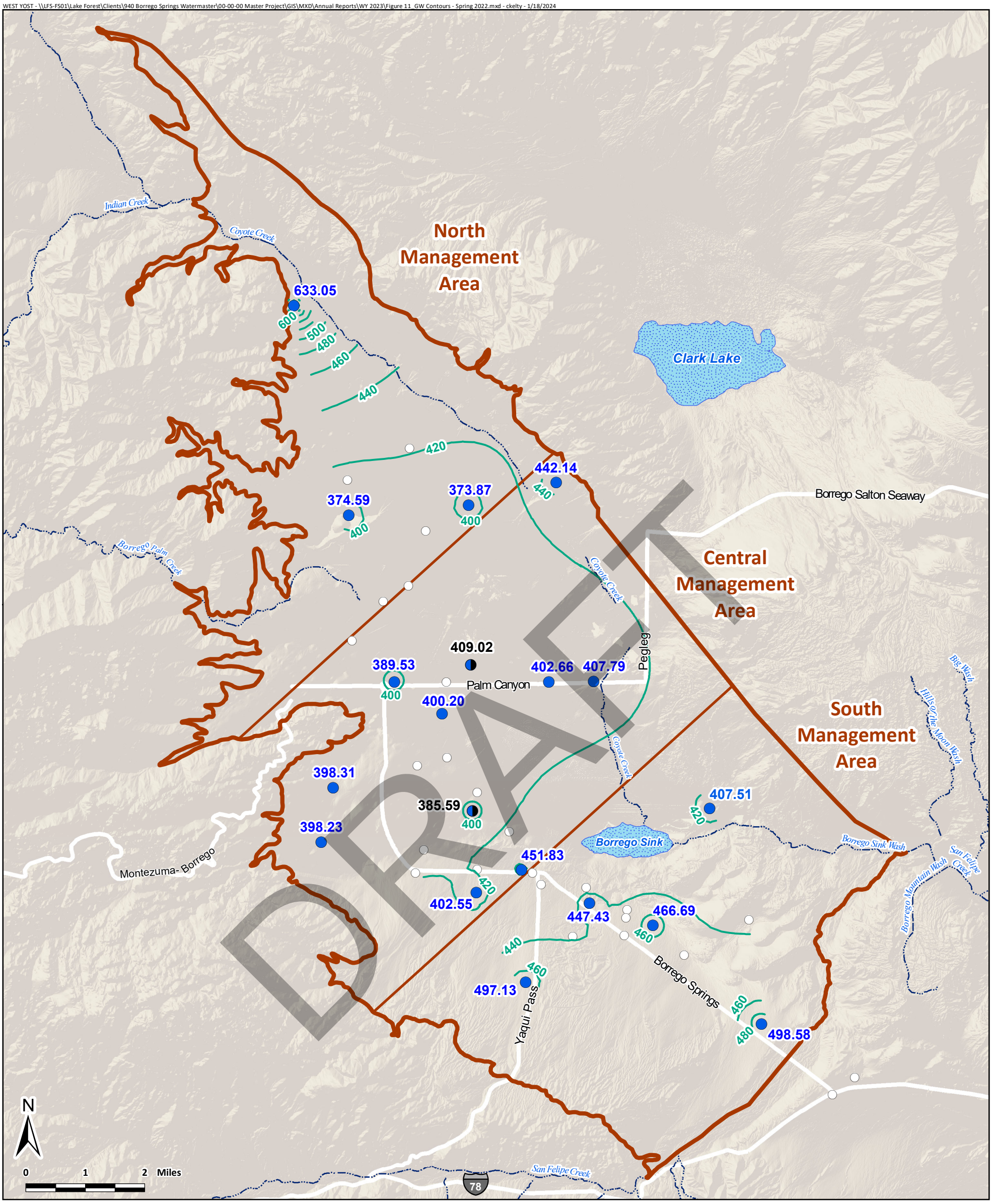
The sum of the change in storage values by grid cell provides an estimate of the total annual change in groundwater storage in the Basin.

[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)



WEST YOST - \\LFS-FS01\Lake Forest\Clients\940 Borrego Springs Watermaster\00-00-00 Master Project\GIS\MXD\Annual Reports\WY 2023\Figure 11_GW Contours - Spring 2022.mxd - ckelty - 1/18/2024



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

350 True static groundwater elevation (ft-amsl)

350 Estimated static groundwater elevation (ft-amsl)

400 **Groundwater Elevation Contours** *Spring 2022 (ft-amsl)*

Other Features

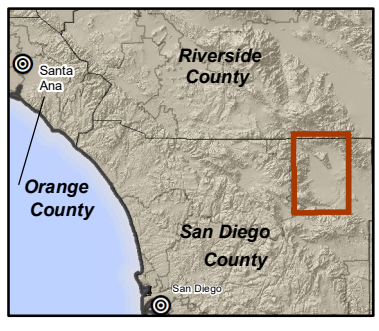
Borrego Springs Subbasin with Management Area Divisions

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.

Figure 14

Spring 2022 Groundwater Elevation

Borrego Springs Watermaster
Borrego Springs Subbasin
2023 Annual Report

Prepared by:

WEST YOST

WEST YOST - \\LFS-FS01\Lake Forest\Clients\940 Borrego Springs Watermaster\00-00-00 Master Project\GIS\MXD\Annual Reports\WY 2023\Figure 12_Storage Change Grid.mxd - ckelty - 1/18/2024

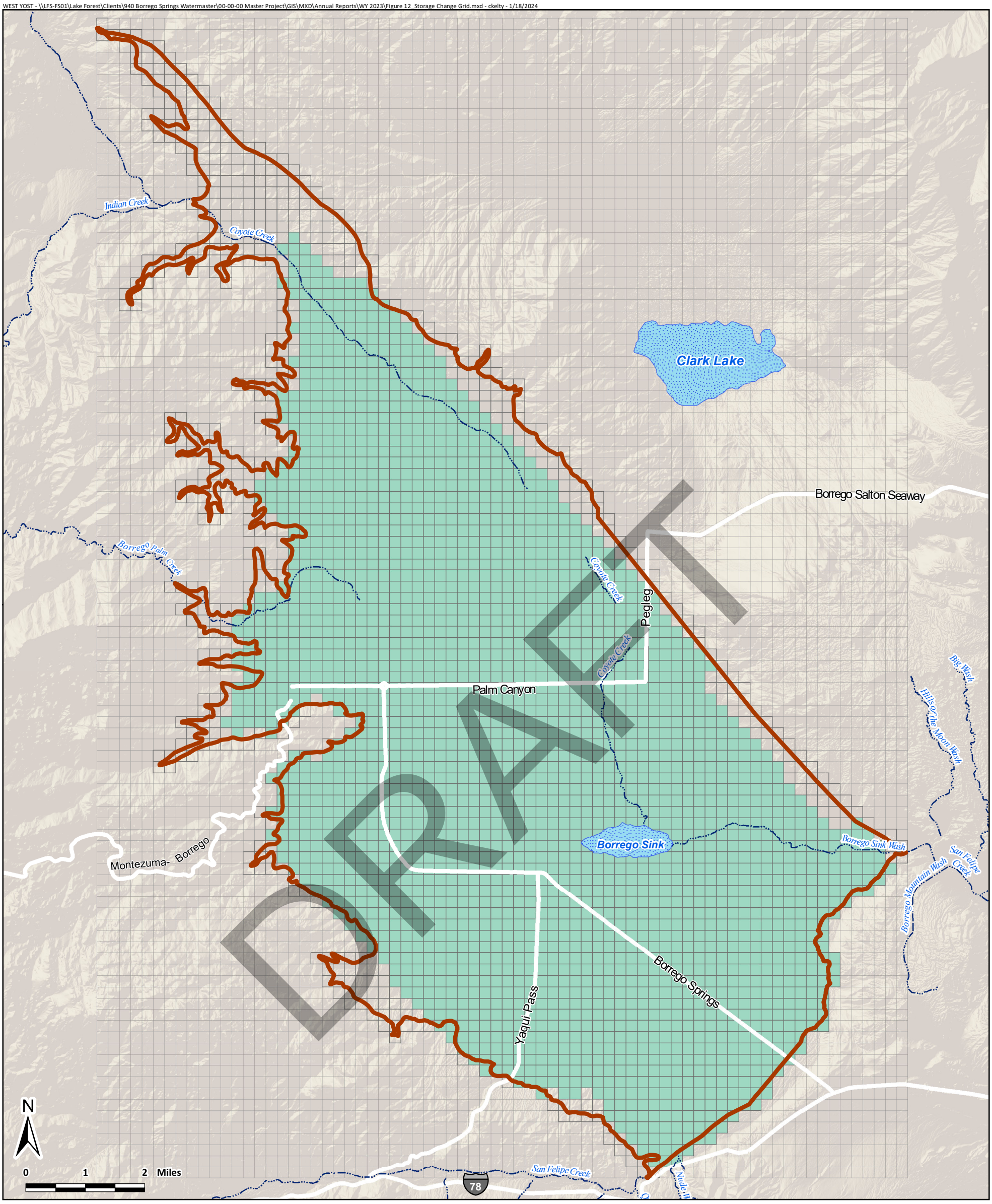


Figure 15

Storage Change Grid and Area Used to Compute Storage Change

Borrego Springs Watermaster
Borrego Springs Subbasin
2023 Annual Report

Prepared by:

WEST YOST

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.

Table 21. Annual and Cumulative Change in Groundwater, af

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.

Indian Creek
Coyote Creek
Clark Lake
Borrego Salton Seaway
Borrego Palm Creek
Coyote Creek
Pegleg
Coyote Creek
Palm Canyon
Big Wash
Hills of the Moon Wash
Borrego Sink
Borrego Sink Wash
San Felipe Creek
Borrego Mountain Wash
Montezuma- Borrego
Borrego Springs
Yaqui Pass
N
0 1 2 Miles
78
San Felipe Creek

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)

> - 4	0
-4 to -3	0 to 1
-3 to -2	1 to 2
-2 to -1	
-1 to 0	

Borrego Springs Groundwater Subbasin (7-024.01)

Surface Water Features

- Stream Channel
- Dry Lake

Prepared by:

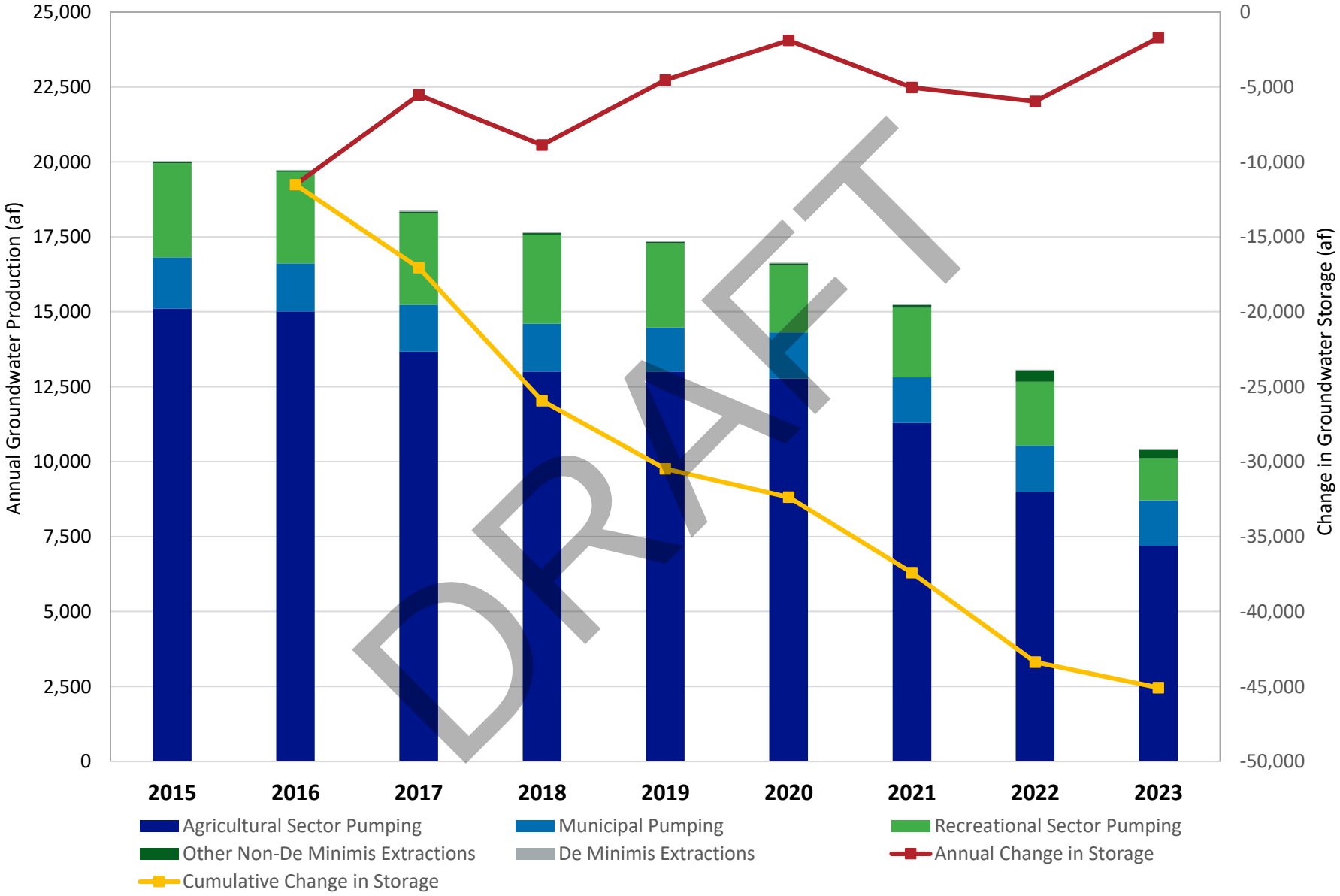
WEST YOST

Figure 16

Change in Groundwater Storage
Spring 2022 to Spring 2023

Borrego Springs Watermaster
Borrego Springs Subbasin
2023 Annual Report

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:

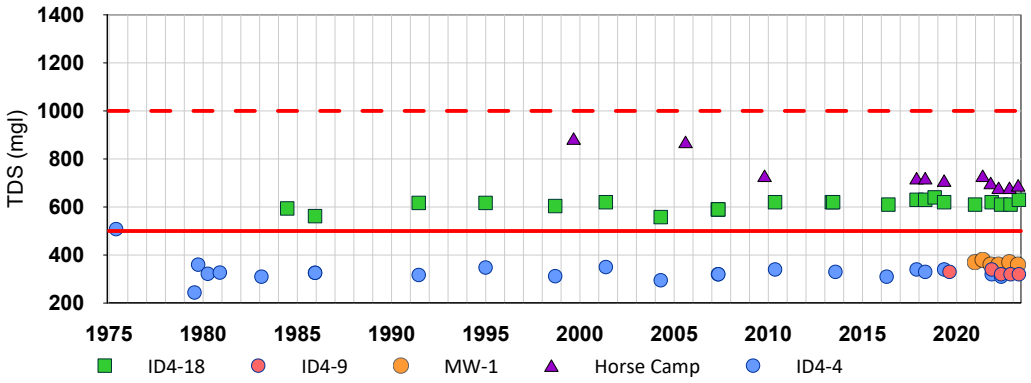
- A map that illustrates the spatial distribution of the COC concentrations at all wells sampled in spring 2023.
- Time-series charts of historical COC concentrations at selected wells in each of the Management Areas. The primary or secondary MCL are also plotted on each time-series chart.

The following observations are made from these figures in spring 2023:

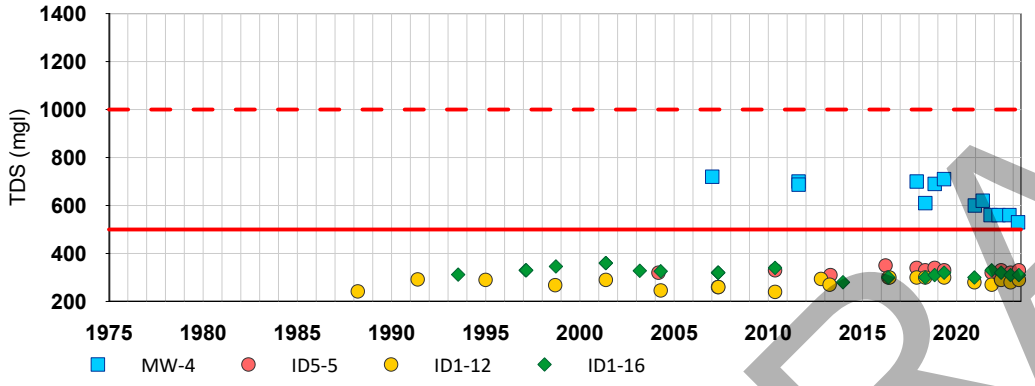
- Figure 18 shows that TDS concentrations are highest in the North and South Management Areas and in groundwater near the Borrego Sink. The "recommended" level for the California secondary MCL of 500 milligrams per liter (mg/L) was exceeded at 15 wells across the Basin. The "upper" level for the California 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.

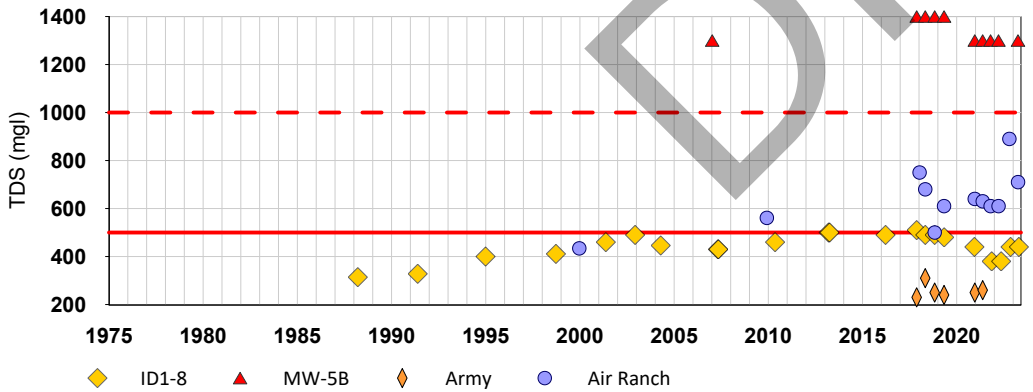
North Management Area

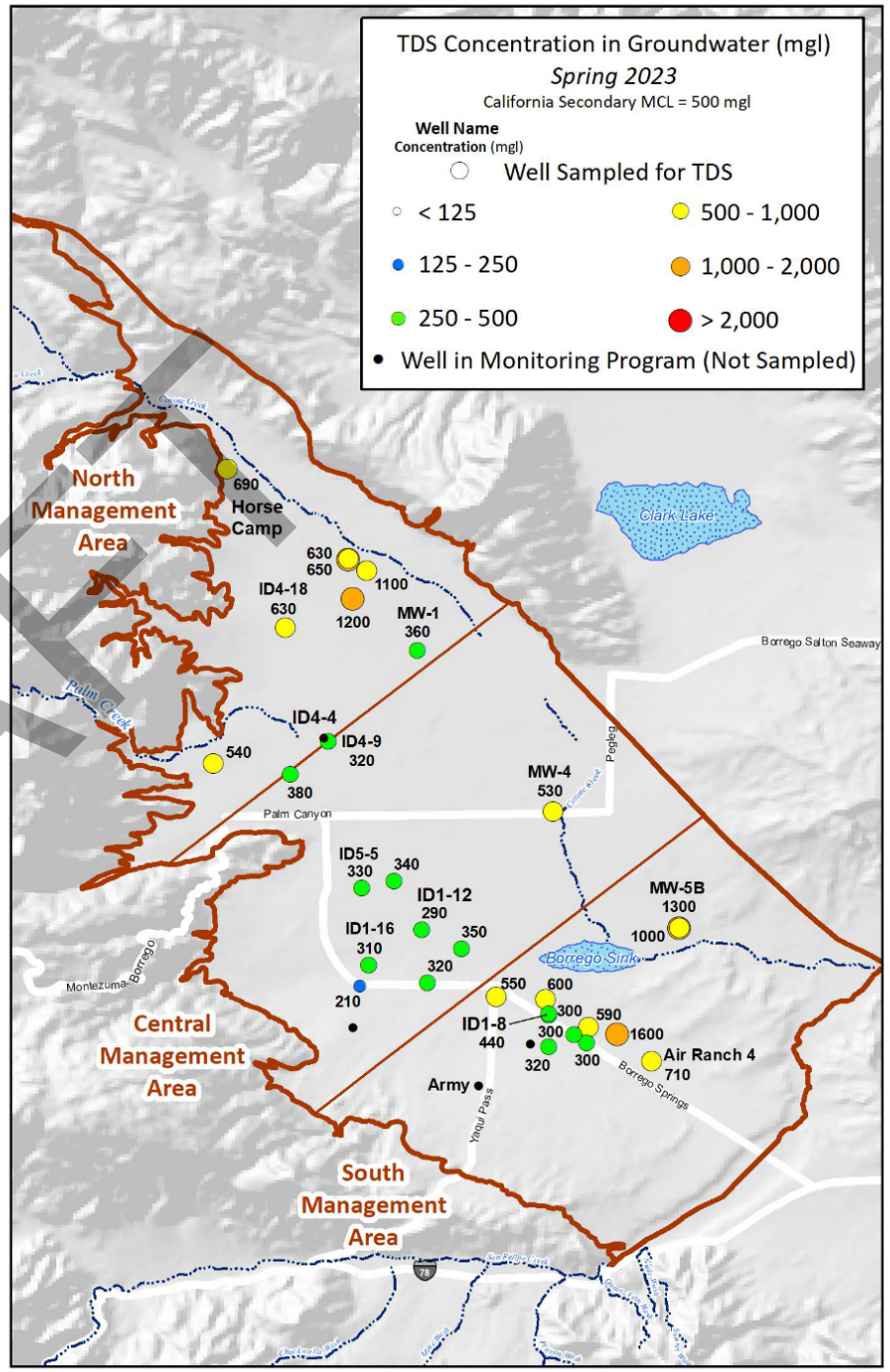


Central Management Area



South Management Area





WEST YOST
Water. Engineered.

Author: CK
Date: 20240104
File: TDS

Wells by Principal Aquifer

- △ Upper
- ◊ Lower
- □ Upper and Middle
- ◇ Upper, Middle, and Lower
- ○ Middle and Lower

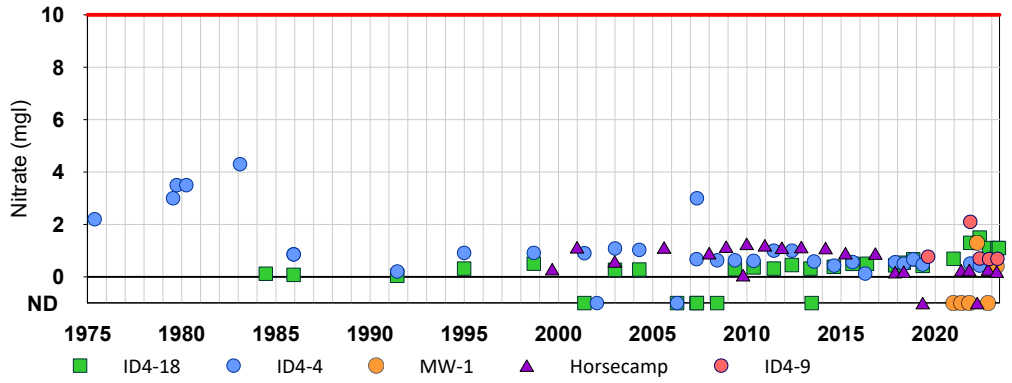
Maximum Contaminant Level

- Upper Secondary MCL
- Recommended Secondary MCL

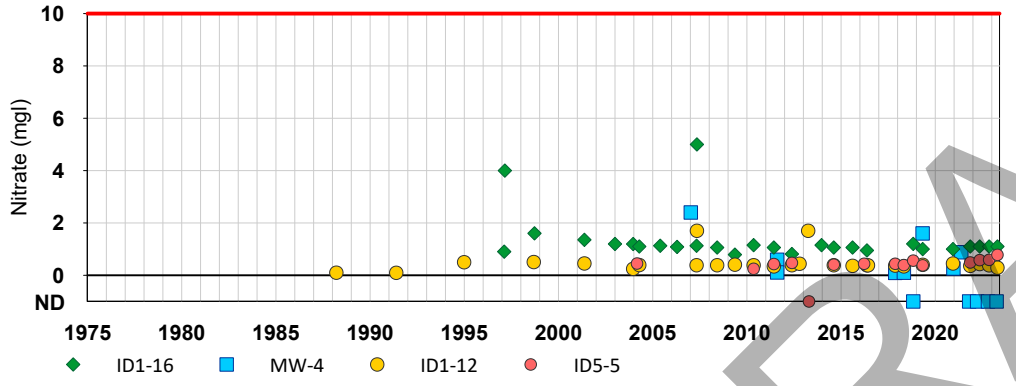
Figure 18

Total Dissolved Solids (TDS) in Groundwater

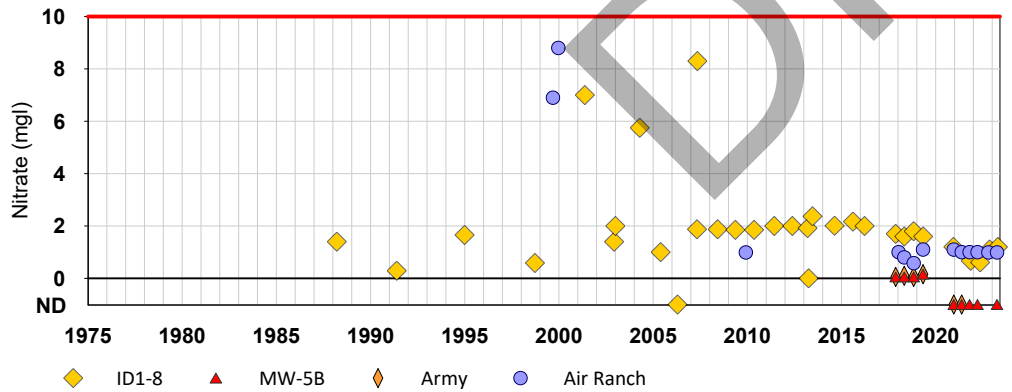
North Management Area

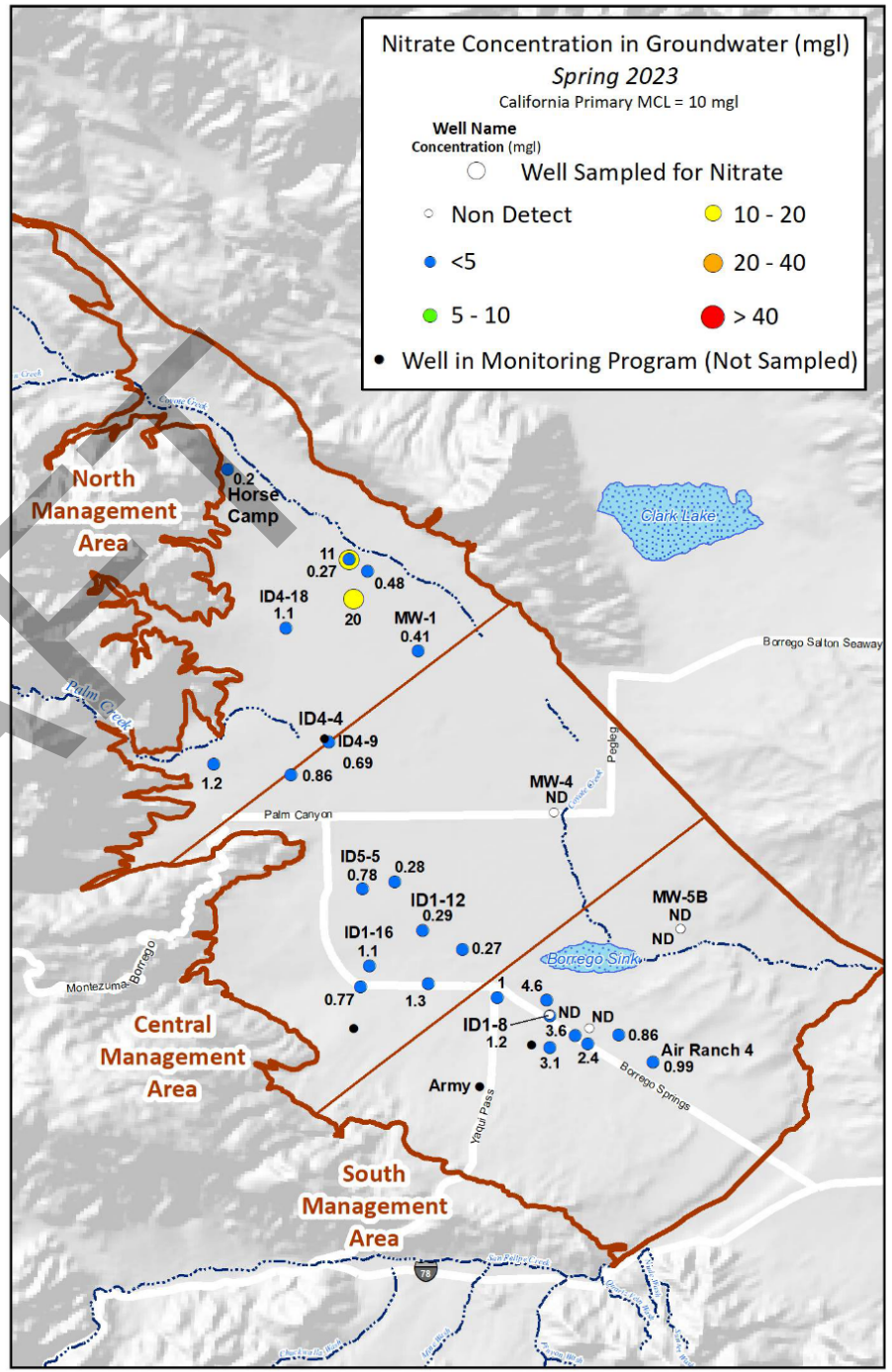


Central Management Area



South Management Area





Wells by Principal Aquifer

- △ Upper
- ◊ Lower
- □ Upper and Middle
- ◇ Upper, Middle, and Lower
- ○ Middle and Lower

Maximum Contaminant Level

- Primary MCL

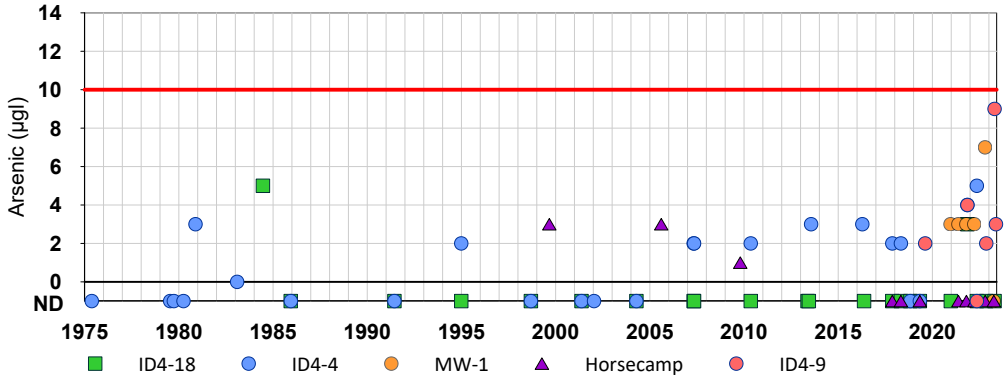
WEST YOST
Water. Engineered.

Author: CK
Date: 20240104
File: Nitrate

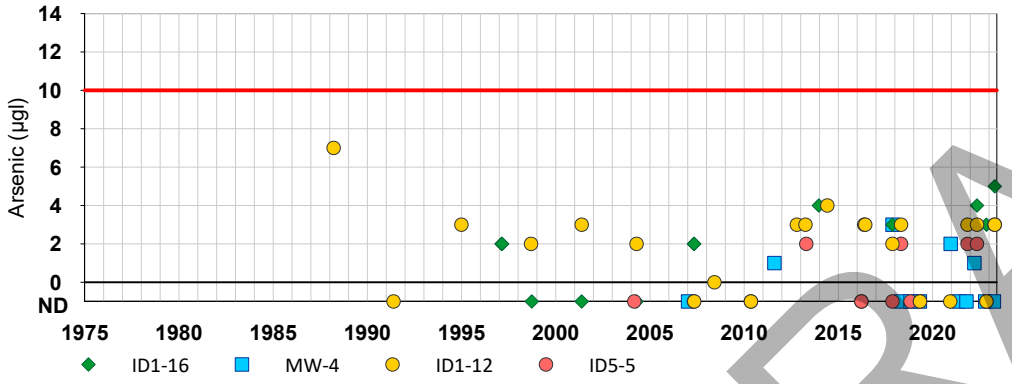
Figure 19

Nitrate (as Nitrogen) in Groundwater

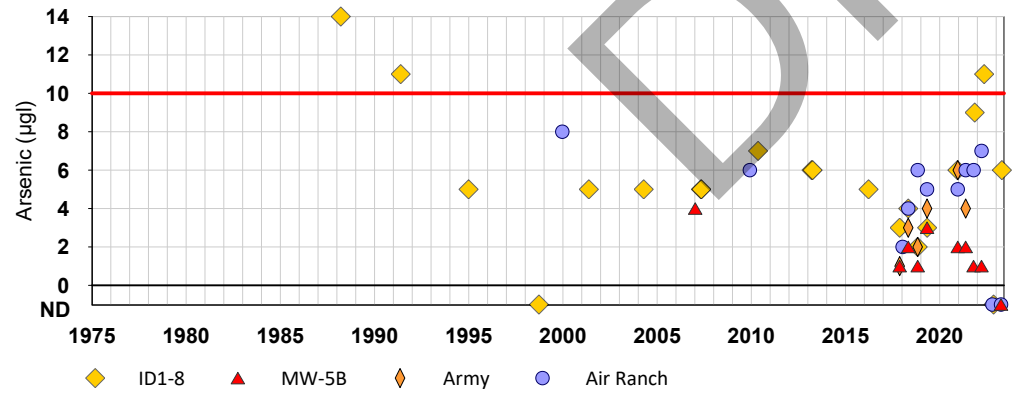
North Management Area

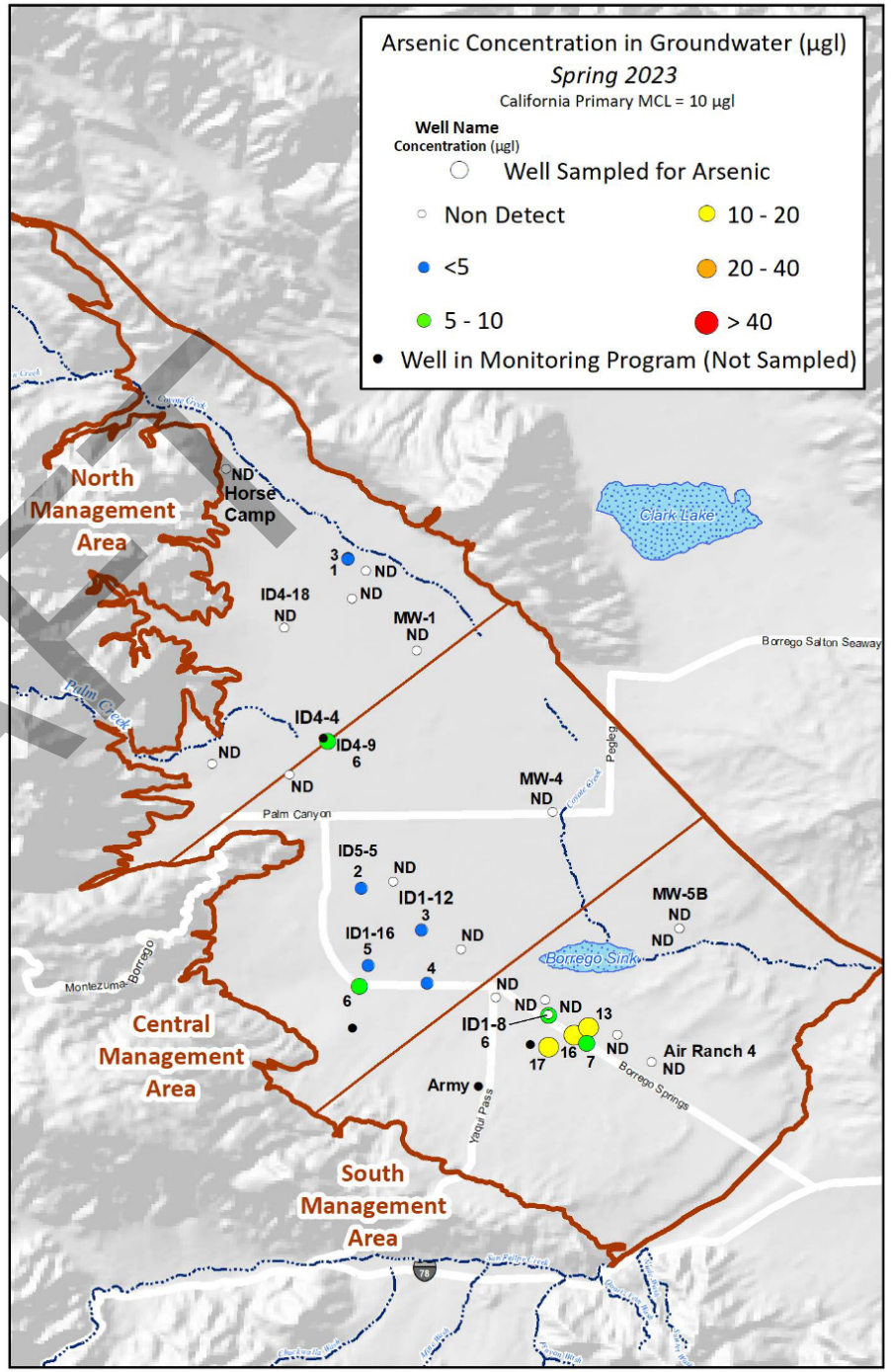


Central Management Area



South Management Area





Wells by Principal Aquifer

- △ Upper
- ◊ Lower
- □ Upper and Middle
- ◇ Upper, Middle, and Lower
- ○ Middle and Lower

Maximum Contaminant Level

- Primary MCL

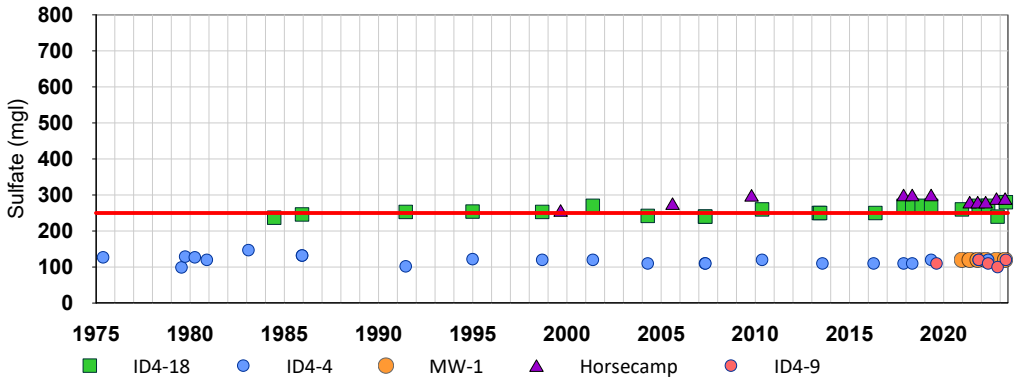
WEST YOST
Water. Engineered.

Author: CK
Date: 20240104
File: Arsenic

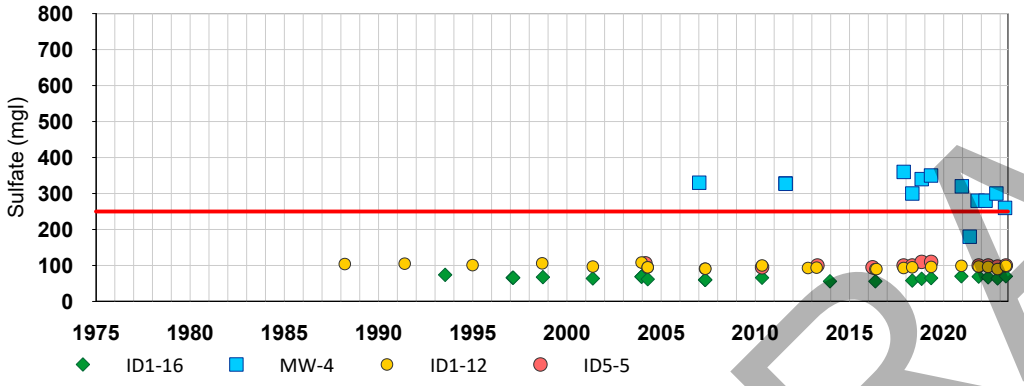
Figure 20

Arsenic in Groundwater

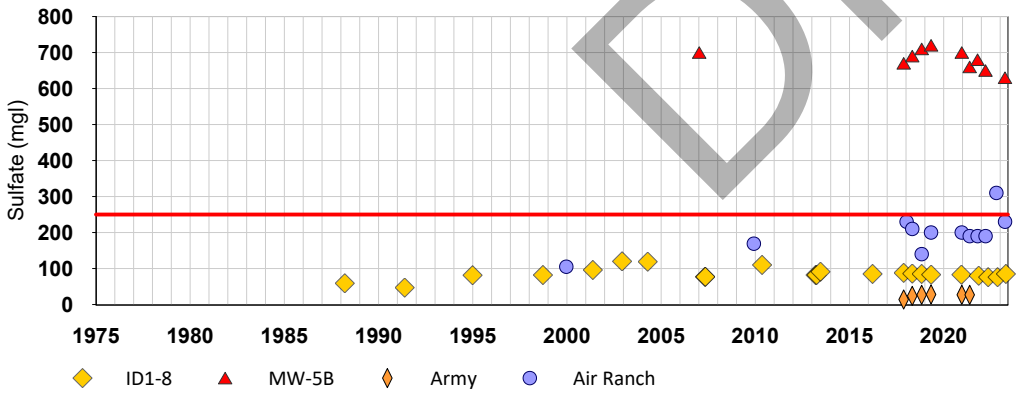
North Management Area

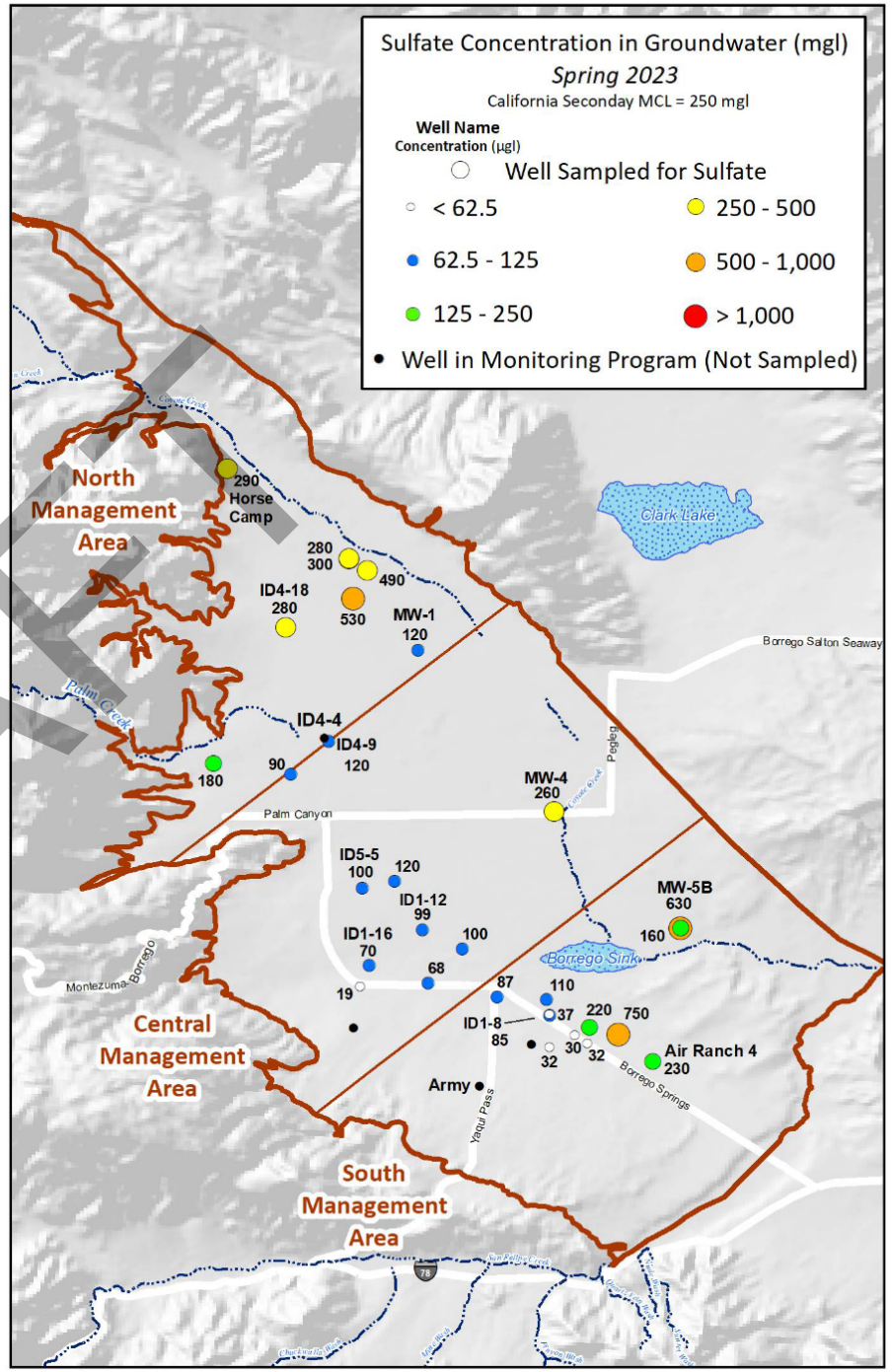


Central Management Area



South Management Area





Wells by Principal Aquifer

- △ Upper
- ◊ Lower
- □ Upper and Middle
- ◇ Upper, Middle, and Lower
- ○ Middle and Lower

Maximum Contaminant Level

- Secondary MCL

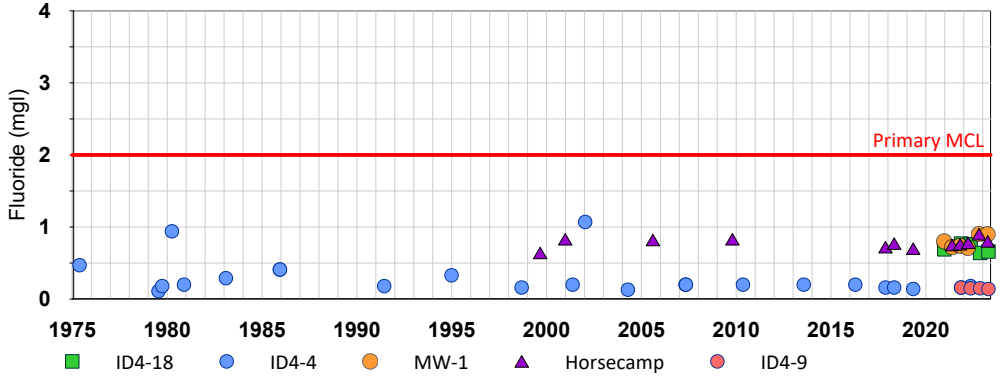
WEST YOST
Water. Engineered.

Author: CK
Date: 20240104
File: Sulfate

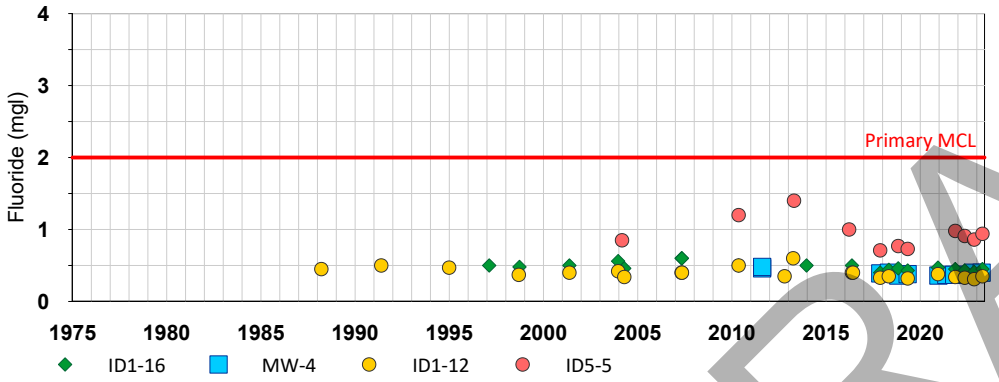
Figure 21

Sulfate in Groundwater

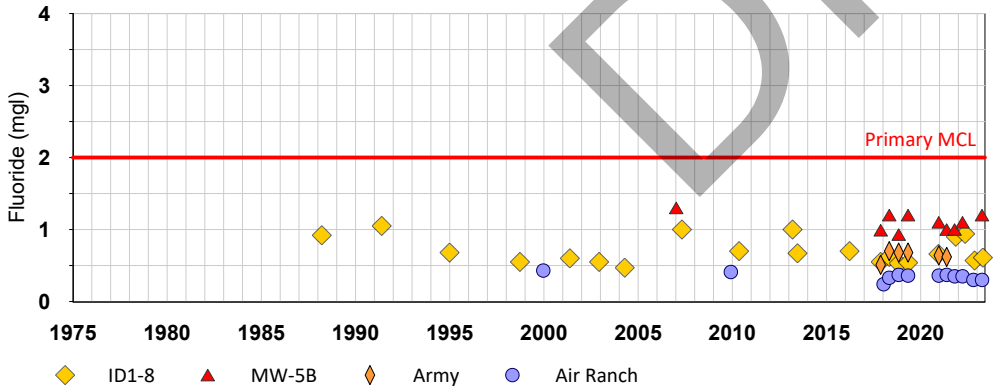
North Management Area

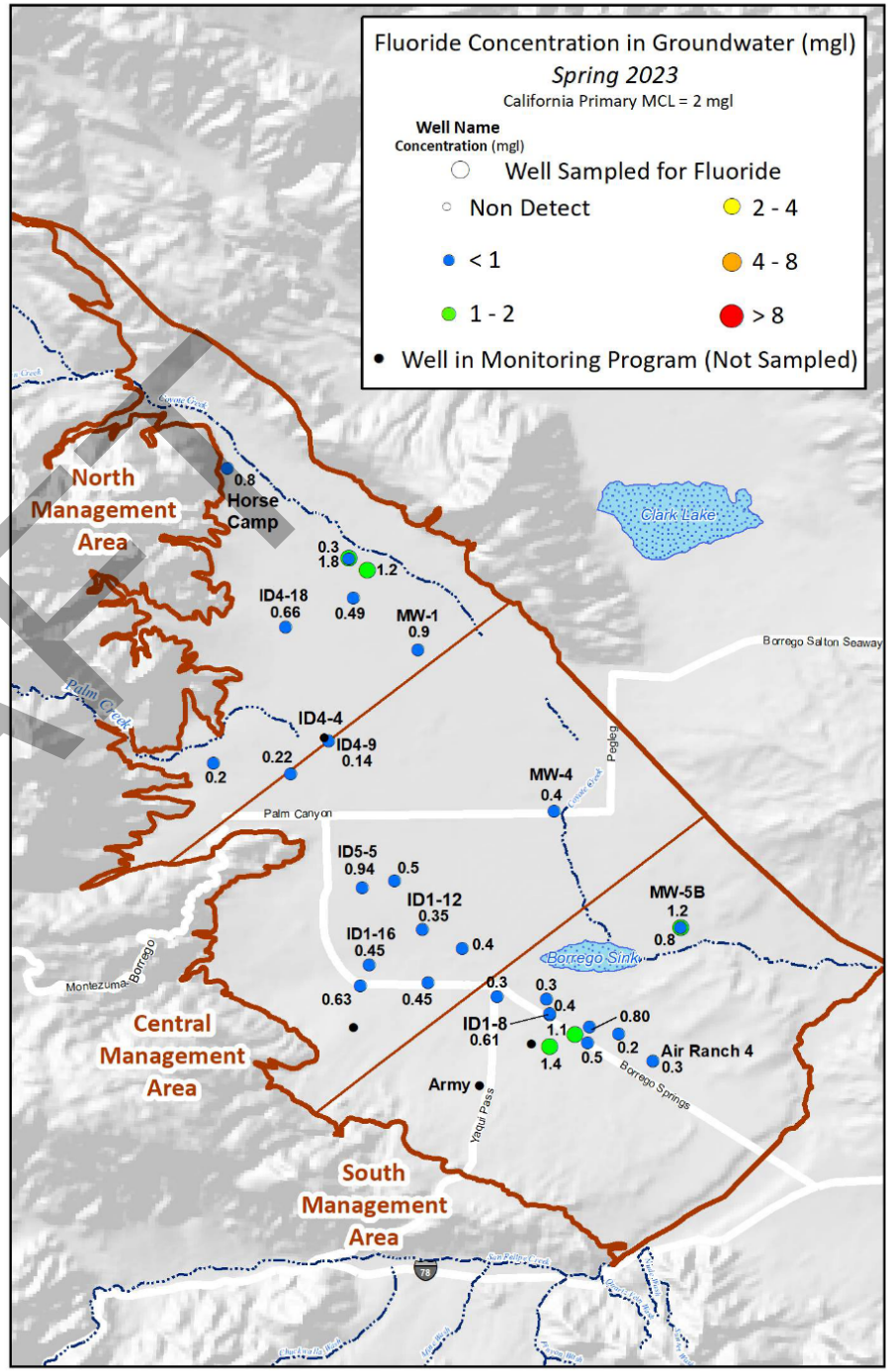


Central Management Area



South Management Area





Wells by Principal Aquifer

- △ Upper
- ◊ Lower
- □ Upper and Middle
- ◇ Upper, Middle, and Lower
- ○ Middle and Lower

Maximum Contaminant Level

- Primary MCL

WEST YOST
Water. Engineered.

Author: CK
Date: 20230104
File: Fluoride

Figure 22

Fluoride in Groundwater

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

- 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

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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 *Agreement for the Sustainable Groundwater Management Grant Program between Borrego Water District and Borrego Springs Watermaster* , 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 *Water Year 2022 Financial Audit* by LSL and include it with the *Water Year 2022 Annual Report for the Borrego Springs Subbasin*	Moved by Vice Chair Smith
		Seconded by Director Jorgensen
		Motion carried 5-0-0
Agenda Item IV.B	Approve the *Water Year 2022 Annual Report for the Borrego Springs Subbasin* 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 *Groundwater Monitoring Plan for the Borrego Springs Subbasin* 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 *[to move the Closed Session (Item VII) to follow the Consent Calendar]*	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)

✓ **Recommended Action**	✓ **Provide Direction to Staff**	☐ **Information and Discussion**
✓ **Fiscal Impact**	☐ **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 April[1] 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
Revenues[2]	**$ 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 Expenditures[4]	**$ 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***
Coordinate/Implement meter reading program	*$ 30,893*	*$ 27,739*	*$ 30,388*	*$ 31,634*	*$ 26,889*	*$ 27,696*	*$ 28,526*
Groundwater Monitoring Program	*$ 87,180*	*$ 87,351*	*$ 99,151*	*$ 101,940*	*$ 60,000*	*$ 61,800*	*$ 63,654*
Data Management and Data Reporting	*$ 18,083*	*$ 18,083*	*$ 19,890*	*$ 16,567*	*$ 14,910*	*$ 15,357*	*$ 15,818*
Annual Report to the Court and DWR	*$ 52,442*	*$ 53,028*	*$ 50,936*	*$ 52,464*	*$ 54,038*	*$ 55,659*	*$ 57,329*
Address Inactive Wells via Abandonment/Conversion	*$ -*	*$ 3,239*	***$ 187,551***	***$ 151,210***	*$ -*	*$ -*	*$ -*
As-needed technical support	*$ 15,164*	*$ 15,164*	*$ 15,640*	*$ 16,109*	*$ 16,592*	*$ 17,090*	*$ 17,603*
Grant services	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*
Consulting Services with TAC Support/Input	***$ 213,644***	***$ 213,644***	***$ 340,742***	***$ 87,144***	***$ 10,448***	***$ 10,761***	***$ 11,084***
Technical Work to Support Sustainable Yield Updates	*$ 146,322*	*$ 146,322*	*$ 200,240*	*$ 17,655*	*$ -*	*$ -*	*$ -*
Development of Work Plan for an Expanded Groundwater Quality & Level Monitoring Workplan	*$ 46,392*	*$ 46,392*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*
TSS Grant Implementation (new monitoring well)	*$ 11,000*	*$ 11,000*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*
5-Year Update of the GMP (required by DWR)	*$ -*	*$ -*	*$ 130,654*	*$ 59,346*	*$ -*	*$ -*	*$ -*
Address Ad Hoc Requests from the Board	*$ 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**
Biological Restoration of Fallowed Lands	***$ 378,301***	***$ 330,684***	***$ 265,394***	***$ 159,262***	*$ -*	*$ -*	*$ -*
	$ -	*$ -*				*$ -*	*$ -*
Ad Hoc Requests and EWG Meetings	*$ 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 Terms[6]							
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 Reserves[8]							
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:

Revenues[3]. 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

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
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/GeoI/Eng II	Associate Sci/GeoI/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 Equip-ment Rental or Purchase	Lab-oratory	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**		**$101,120**	**$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**	**$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**		**$4,016**	**$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**	**$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		**$0**		**$11,716**	**$0**
2.2 Insurance, accounting, and financial services	12					8				90	1	110		**$19,244**					$0		**$0**		**$19,244**	**$0**
2.3 Management of Records, Documents, and Website	0.3					1.8				0.8	12	33		**$7,080**					$0		**$0**		**$7,080**	**$7,080**
2.4 Track/respond to public communications and requests	0.3					0.3				0.3	12	9		**$2,112**					$0		**$0**		**$2,112**	**$0**
2.5 As-needed support to the BPA Parties	2					1					12	36		**$10,584**					$0		**$0**		**$10,584**	**$0**
2.6 As-requested admin. of the Judgment, Rules & Regs, and GMP	24					10				4	1	38		**$10,732**					$0		**$0**		**$10,732**	**$0**
2.7 General administration and project managements tasks	1					2				1	12	48		**$11,160**					$0		**$0**		**$11,160**	**$0**
2.8 Prop 68 Grant project management and reporting	4					5				8.5	12	210		**$44,604**					$0		**$0**		**$44,604**	**$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/GeoI/Eng II	Associate Sci/GeoI/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 Equip-ment Rental or Purchase	Lab-oratory	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														**$30,388**						**$0**		**$30,388**	**$30,388**
a Collect and review annual meter calibration/accuracy reports	2	2					24				1	28	$6,346						$0		$6,346		
b Collect, catalog monthly meter reads and calculate pumping	0.5					2		7.5			12	120	$24,042						$0		$24,042		
3.2 Implement Groundwater Monitoring Program														**$71,251**						**$27,900**		**$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														**$19,890**						**$0**		**$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**
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**	**$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	BPA[1] 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	BPA[1] Acre Feet	APN(s)[2]	Well Number(s)[2]
Borrego Air Ranch Mutual Water & Improvement Co.	Borrego Air Ranch	12	201-192-08[7]	011S007E30L001S
Borrego Nazareth LLC	Borrego Springs Resort and Club Circle	1,462	198-021-08-00 198-270-18-00 199-010-16-00 199-010-17-00 199-010-18-00 199-010-19-00 199-010-23-00 199-010-24-00 199-010-25-00 199-010-26-00 199-080-10-00 199-011-04-00 199-100-24-00 199-080-11-00 199-080-20-00 199-080-21-00 199-080-22-00 199-080-15-00 199-080-16-00 199-080-17-00	WM ID 1245829 WM ID 1245942 011S006E09B002S
Borrego Water District	N/A	2,588.3[8]	N/A	N/A
Raymond A. Carpenter and Susan R. Carpenter, co-trustees of the Carpenter Family Trust 12-11-07		6	140-280-35	Unassigned

[7] Water eligible for use at all parcels served by Borrego Air Ranch Mutual Water & Improvement Co. as shown on the attached service area map, and those parcels will be treated as the Original BPA Parcel.
[8] Includes water credit to BPA conversion of 359 AF of BPA.

Owner(s)	Common Property Name	BPA[1] 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	BPA[1] 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	BPA[1] 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	BPA[1] 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	BPA[1] 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	BPA[1] 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

[24]Full amount is water credit to BPA conversion.
[25]Full 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	BPA[1] 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	BPA[1] 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	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: • 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[4,1]	Carryover Account Balance as of October 1, 2020[5,1]	Carryover Account Limit [5,1]	Leased or Transferred Annual Allocation in WY 2021[2]	Total Allowable Pumping for WY 2021	Cumulative Max Over Production Limit for WYs 2021-2023[5]	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[6]	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 Crumrine Family Trust 04-19-06	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
CWC Casa Del Zorro LLC	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
De Anza Desert Country Club	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
John B. & Silvia H. Hogan	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 Doljanin	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
Genus L.P.	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
JM Roadrunner, LLC	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
Robert Larkins	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
Michael Maiter & John Savittieri	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
Gamini D. Weerasekera	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
Manuel & Araceli C. Navarro	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
Monica Real Estate Holdings, LP	18	-18	0	0.00	na	0	na	na	9.72	na	na	na	na	0.00	na	na	na
Doug & Patricia Munson	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
Ronald Pecoff	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
The Roadrunner Club at Borrego, LP	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
RTA Borrego, LLC	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
Jose G. & Maria E. Sanchez	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
Seley Ranches, L.P.	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
Shenandoah Growers, Inc.	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
Max Siefker	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
Brian Siefker Trust 12-18-01	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
Smith Kent R. Revocable Living Trust 01-04-90	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
The Springs RV and Golf Resort, LP	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
T2 Borrego, LLC	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 - Ram's Hill	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 Farms LLC	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
Bagdasarian 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
Joel Vanasdlen	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
Michael C. Ward, Sr. Revocable Trust 10-05-17	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
Wisdom Gabriel B & Weiss-Wisdom Diana Family 2008 Trust 08-01-08	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
Wright Family Living Trust 06-19-89	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
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.

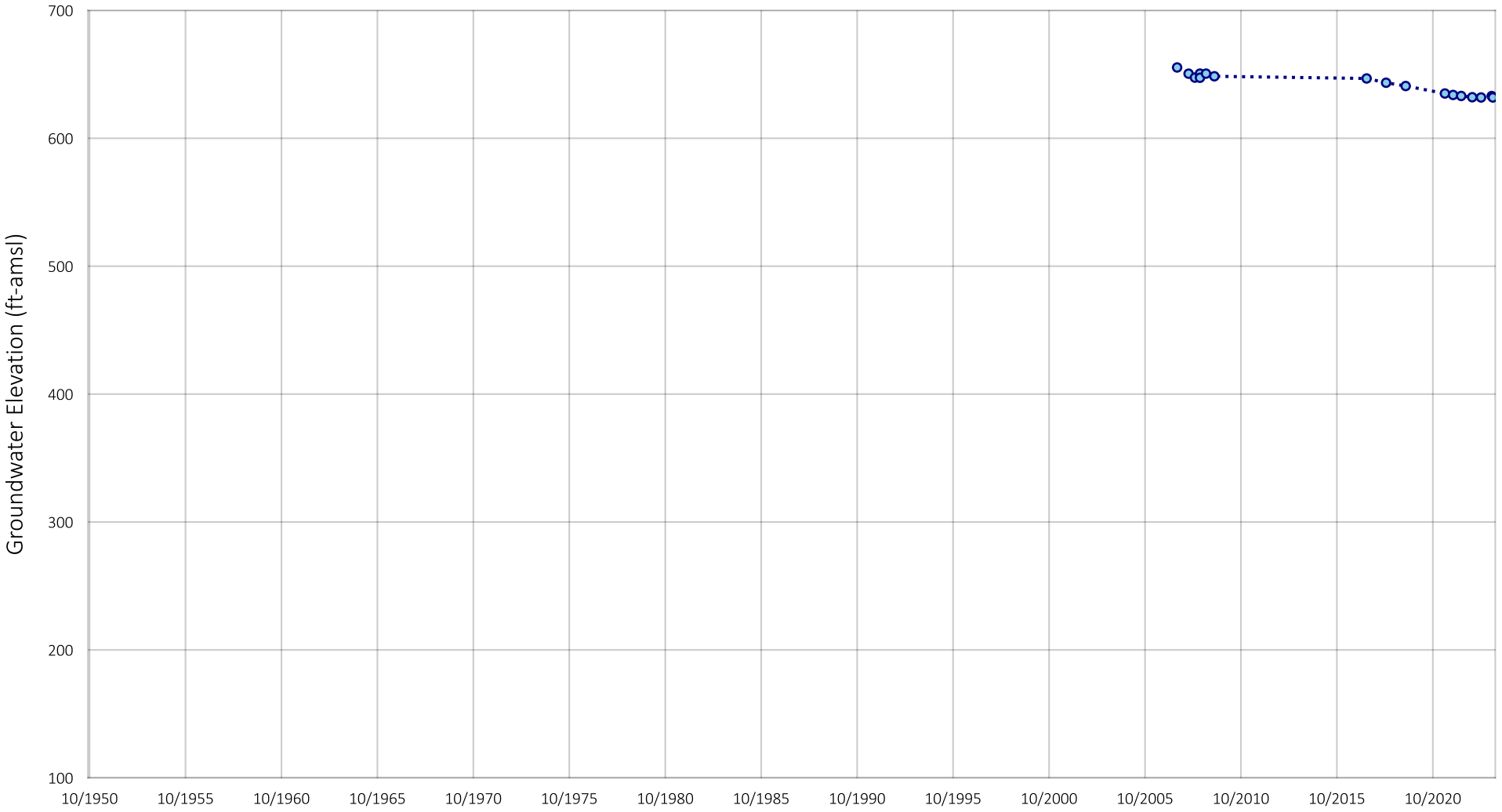
(7) Not all parties were metered by October 1, 2020. "Estimated (P)" values were estimated for parties with partial year metered data (the available data was used to estimate pumping for the WY based on the data available). "Estimated" values are for Parties with no meter data available in which case 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



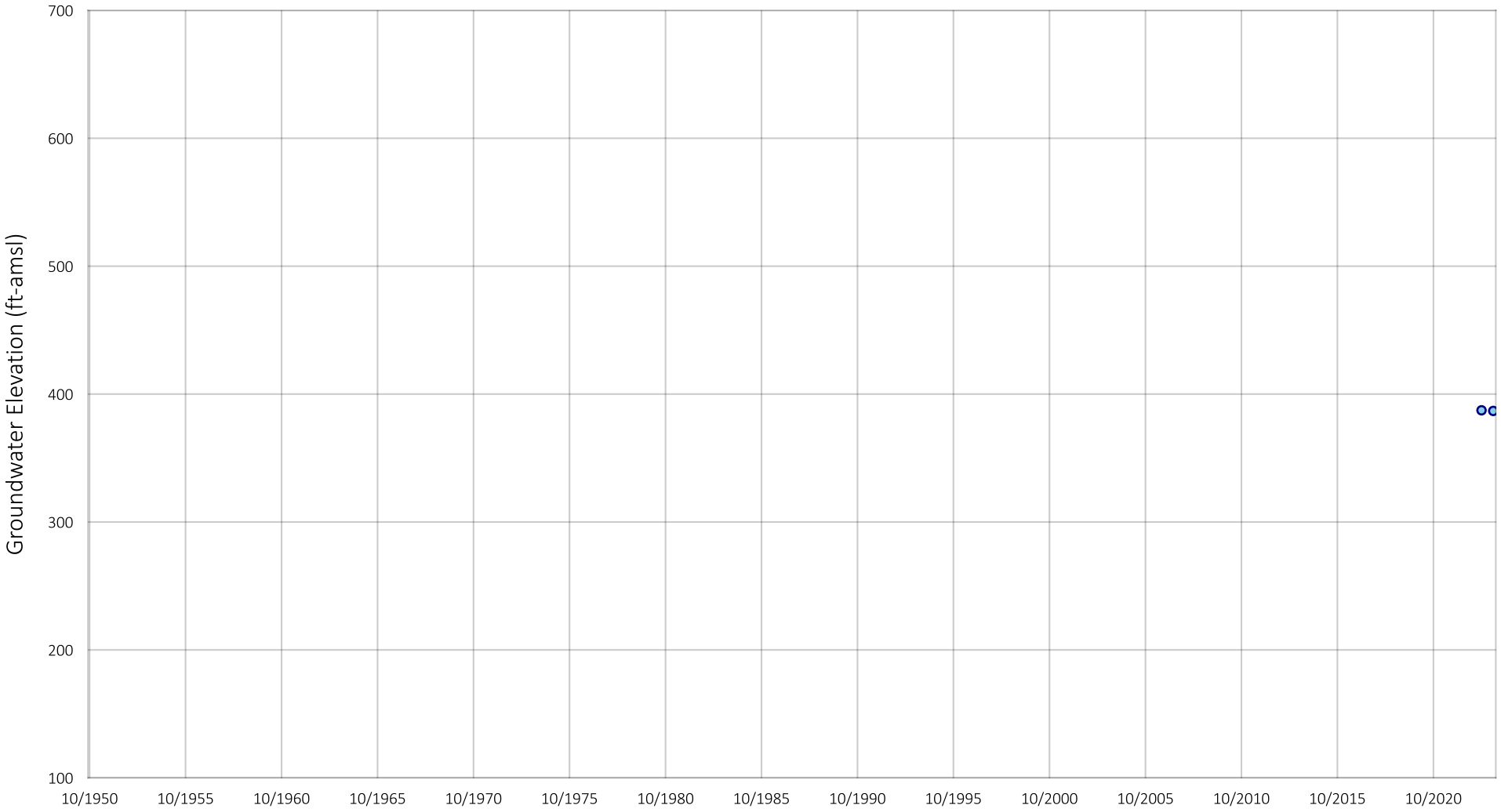
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Historical Groundwater Level Elevation
BSWM ID: 1245876
Well Name: Horse Camp
State Well ID: 009S006E31E003S

Figure F-1



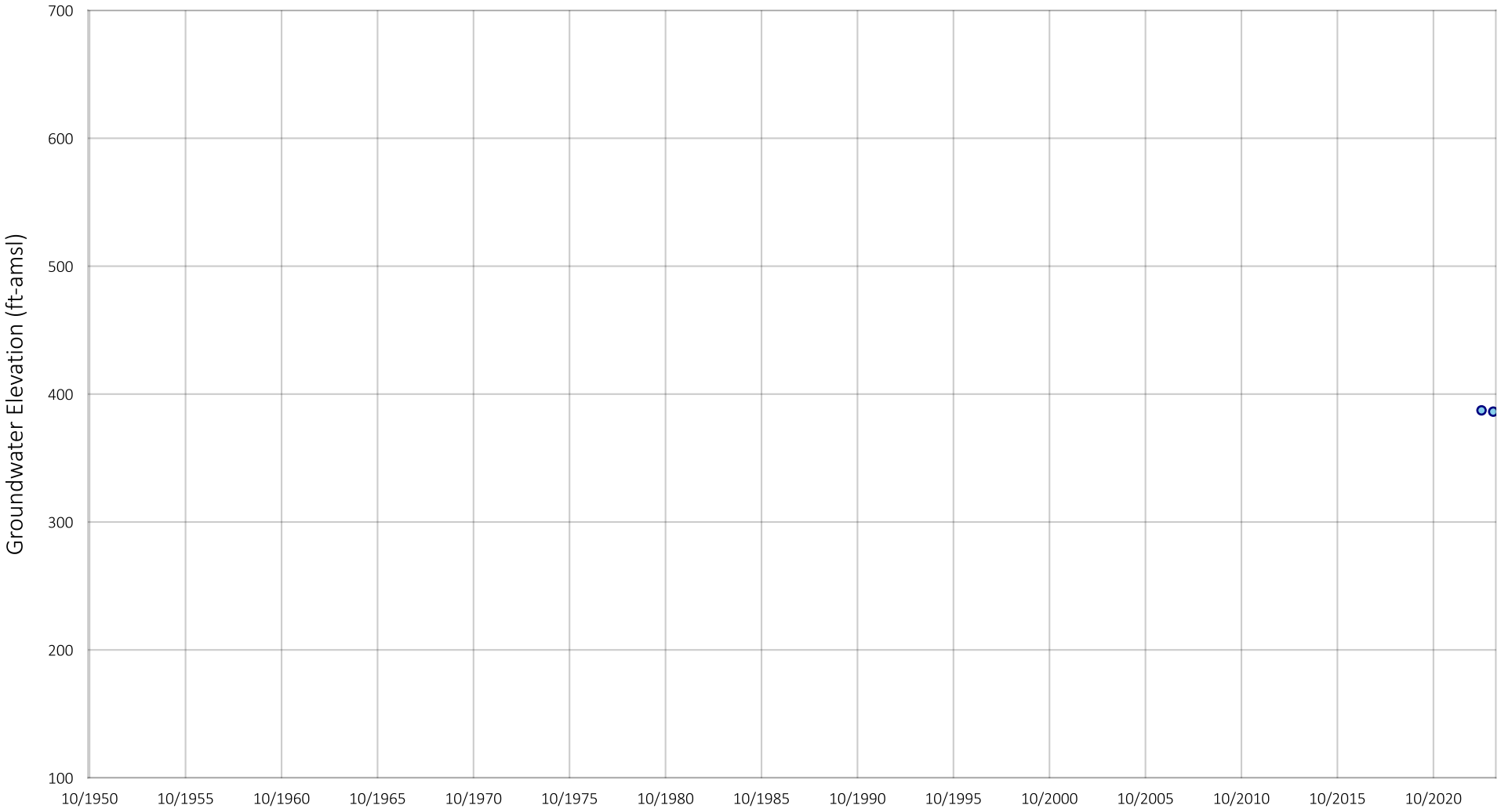
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Historical Groundwater Level Elevation
BSWM ID: 1246758
Well Name: MW-6D
State Well ID: nan

Figure F-2



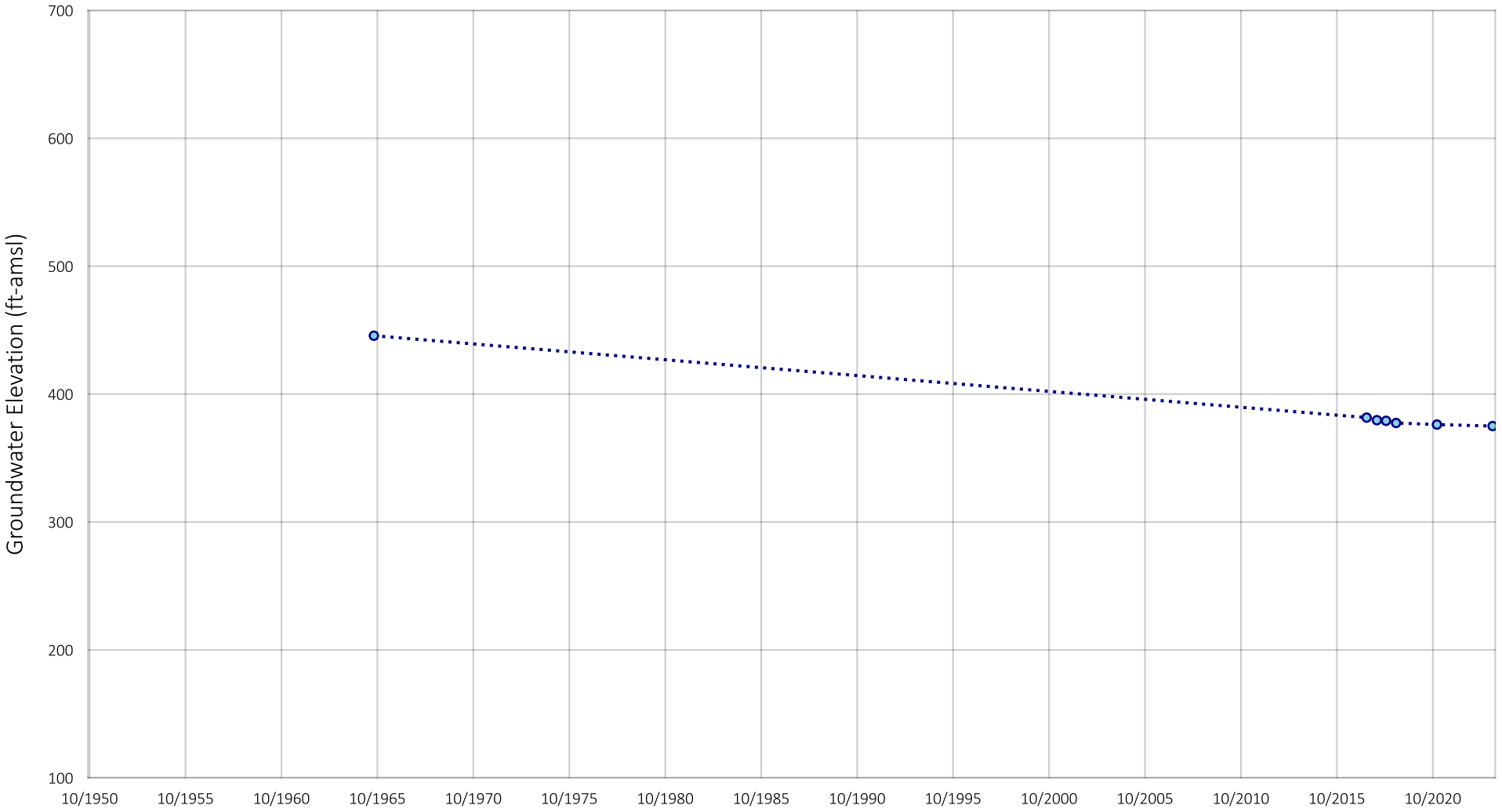
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Historical Groundwater Level Elevation
BSWM ID: 1246759
Well Name: MW-6S
State Well ID: nan

Figure F-3



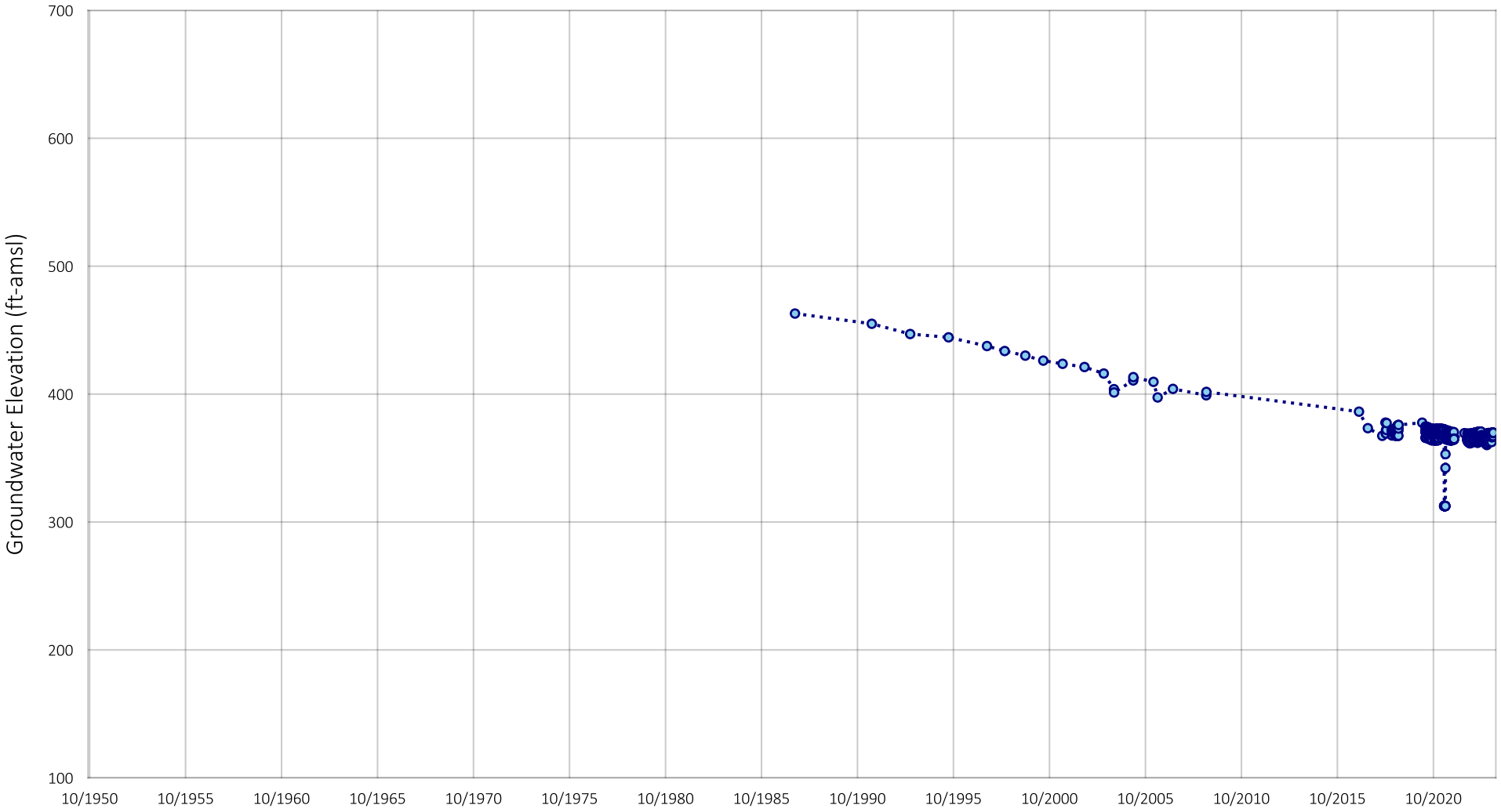
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Historical Groundwater Level Elevation
BSWM ID: 1245869
Well Name: Fortiner #1 (Allegre 1)
State Well ID: 010S006E09N001S

Figure F-4



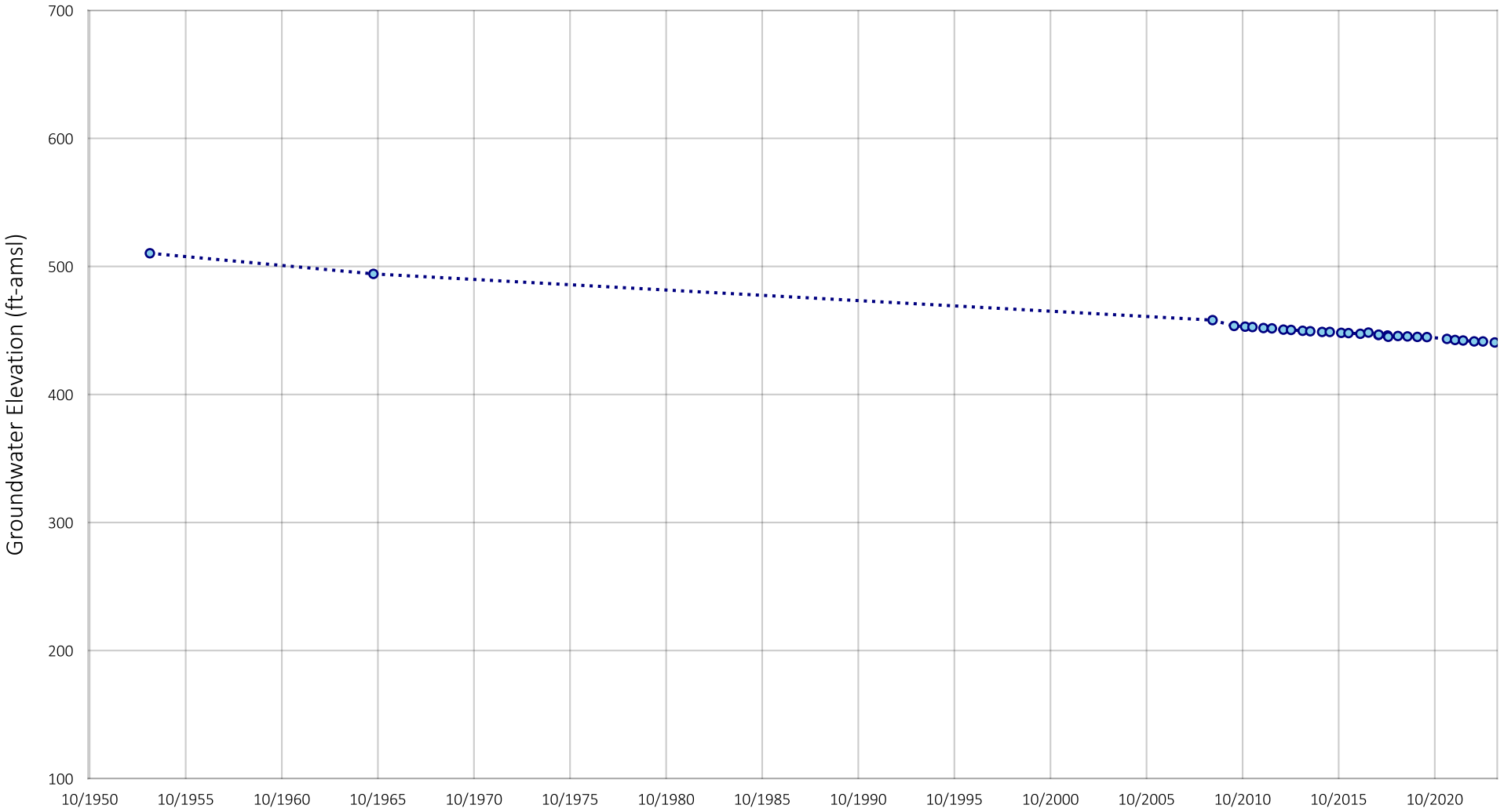
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Historical Groundwater Level Elevation
BSWM ID: 1245886
Well Name: ID4-18
State Well ID: 010S006E18J001S

Figure F-5



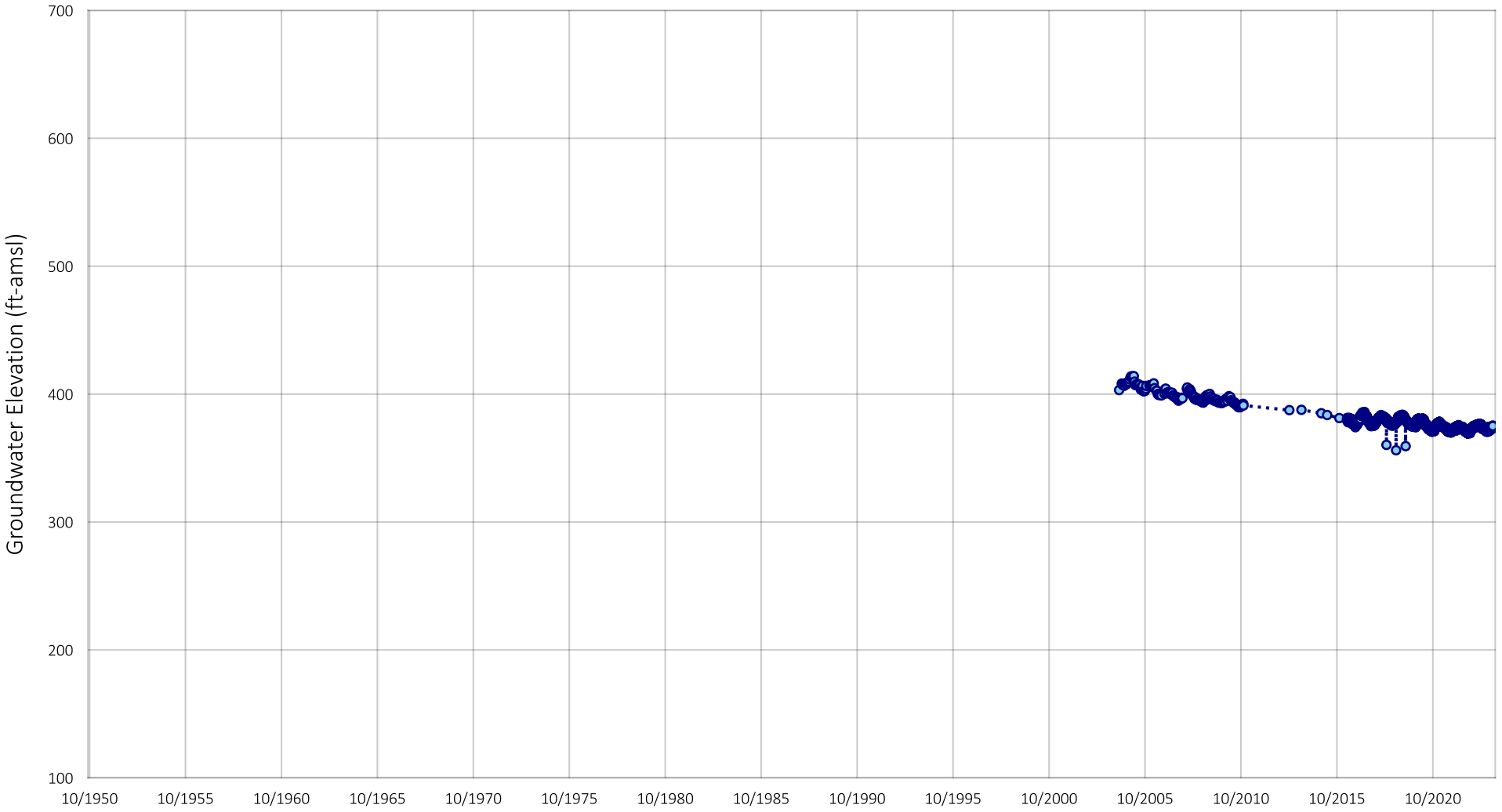
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Historical Groundwater Level Elevation
BSWM ID: 1245873
Well Name: Hanna (Flowers)
State Well ID: 010S006E14G001S

Figure F-6



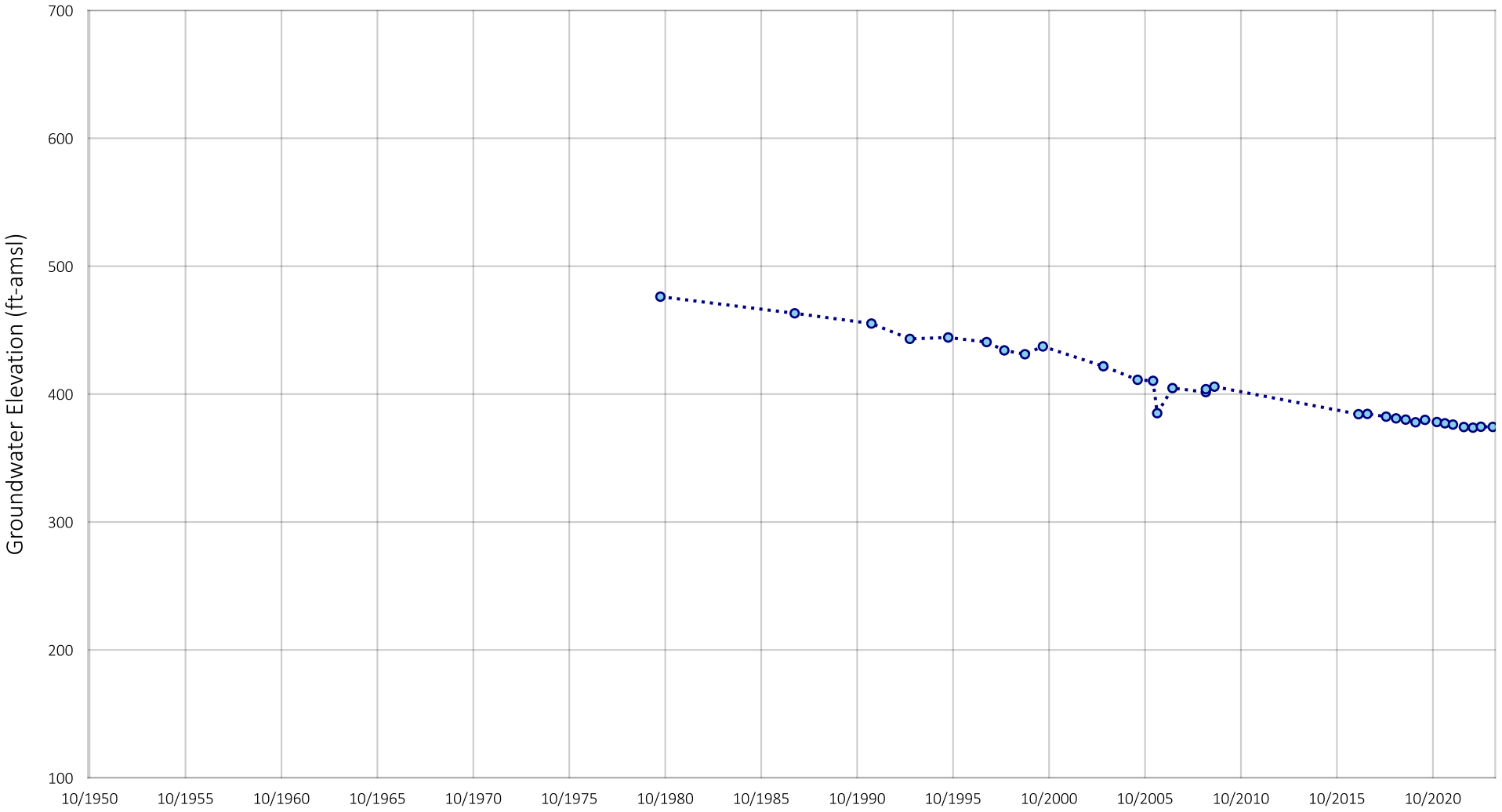
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Historical Groundwater Level Elevation
BSWM ID: 1245897
Well Name: MW-1
State Well ID: 010S006E21A002S

Figure F-7



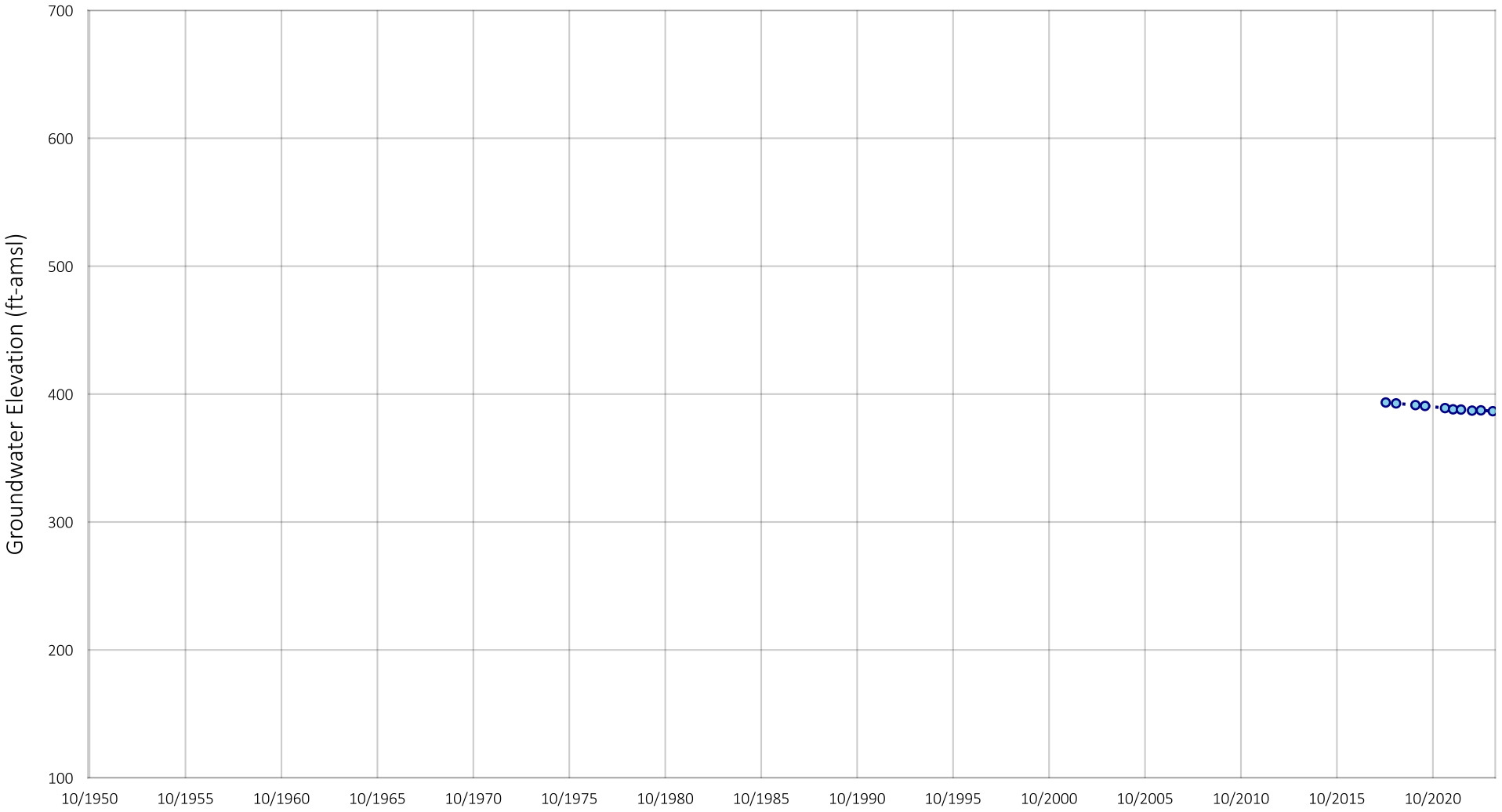
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Historical Groundwater Level Elevation
BSWM ID: 1245888
Well Name: ID4-3
State Well ID: 010S006E18R001S

Figure F-8



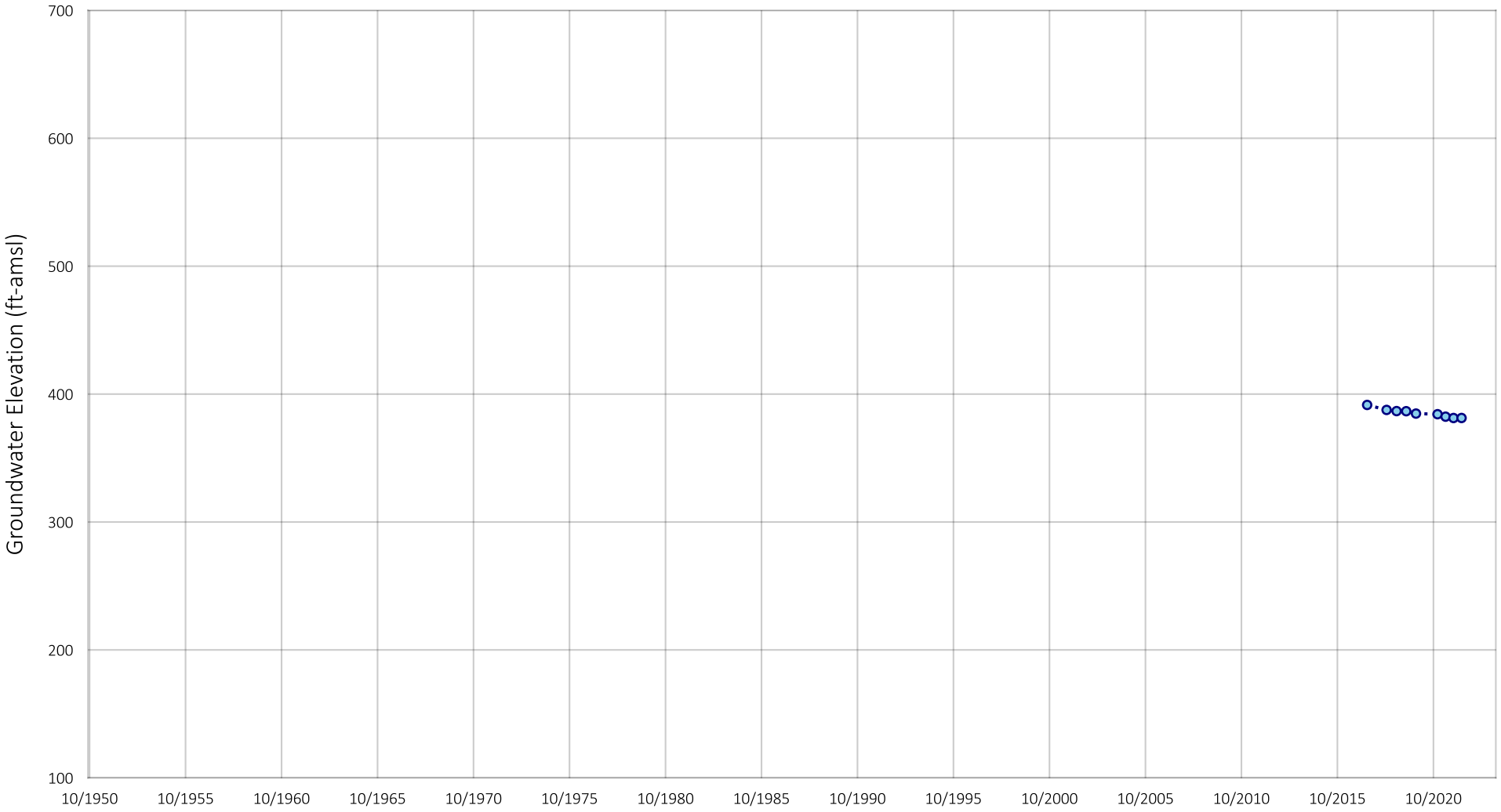
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Historical Groundwater Level Elevation
BSWM ID: 1245868
Well Name: Evans
State Well ID: 010S006E21E001S

Figure F-9



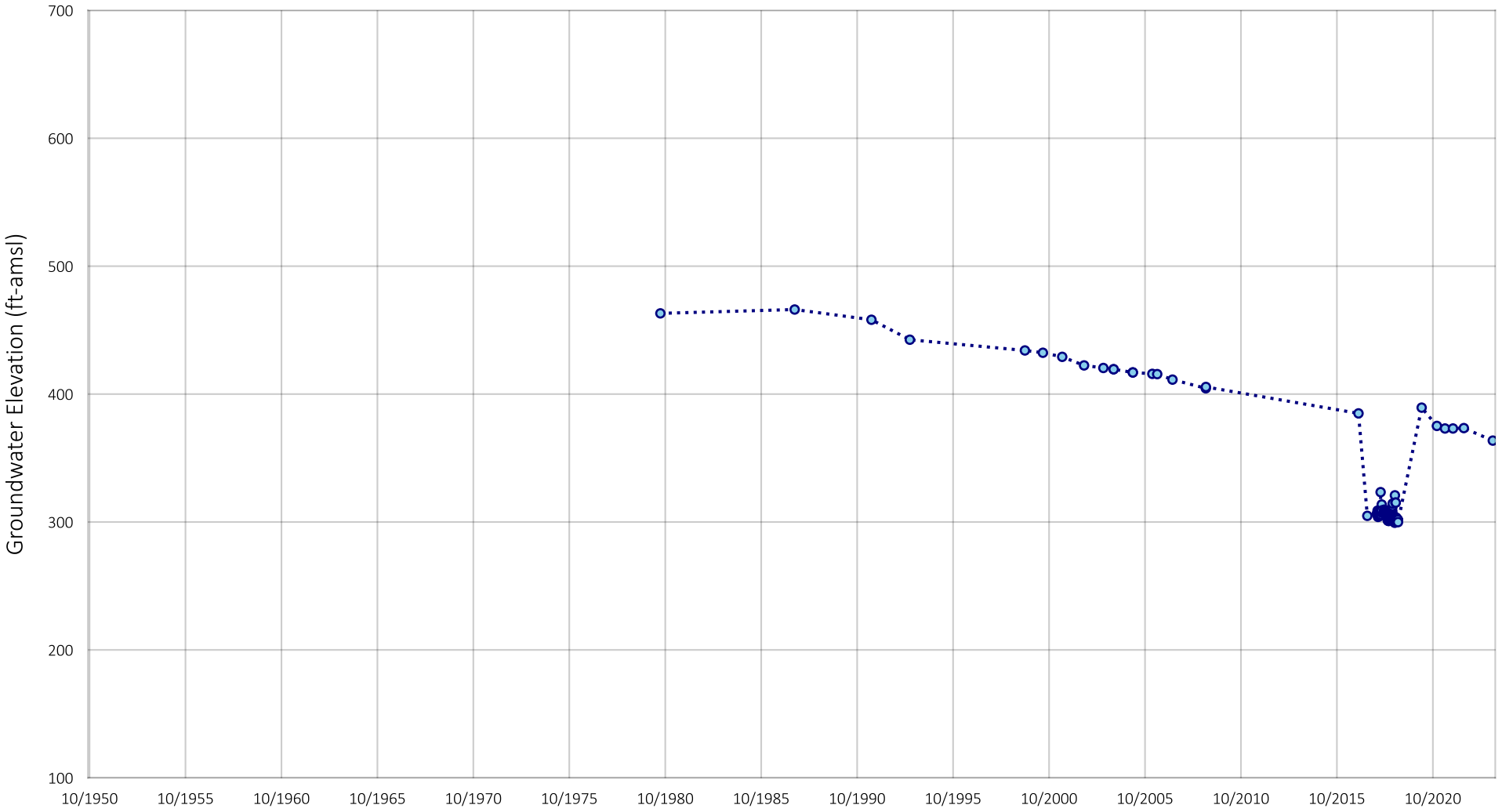
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Historical Groundwater Level Elevation
BSWM ID: 1245930
Well Name: White Well
State Well ID: 010S006E29A001S

Figure F-10



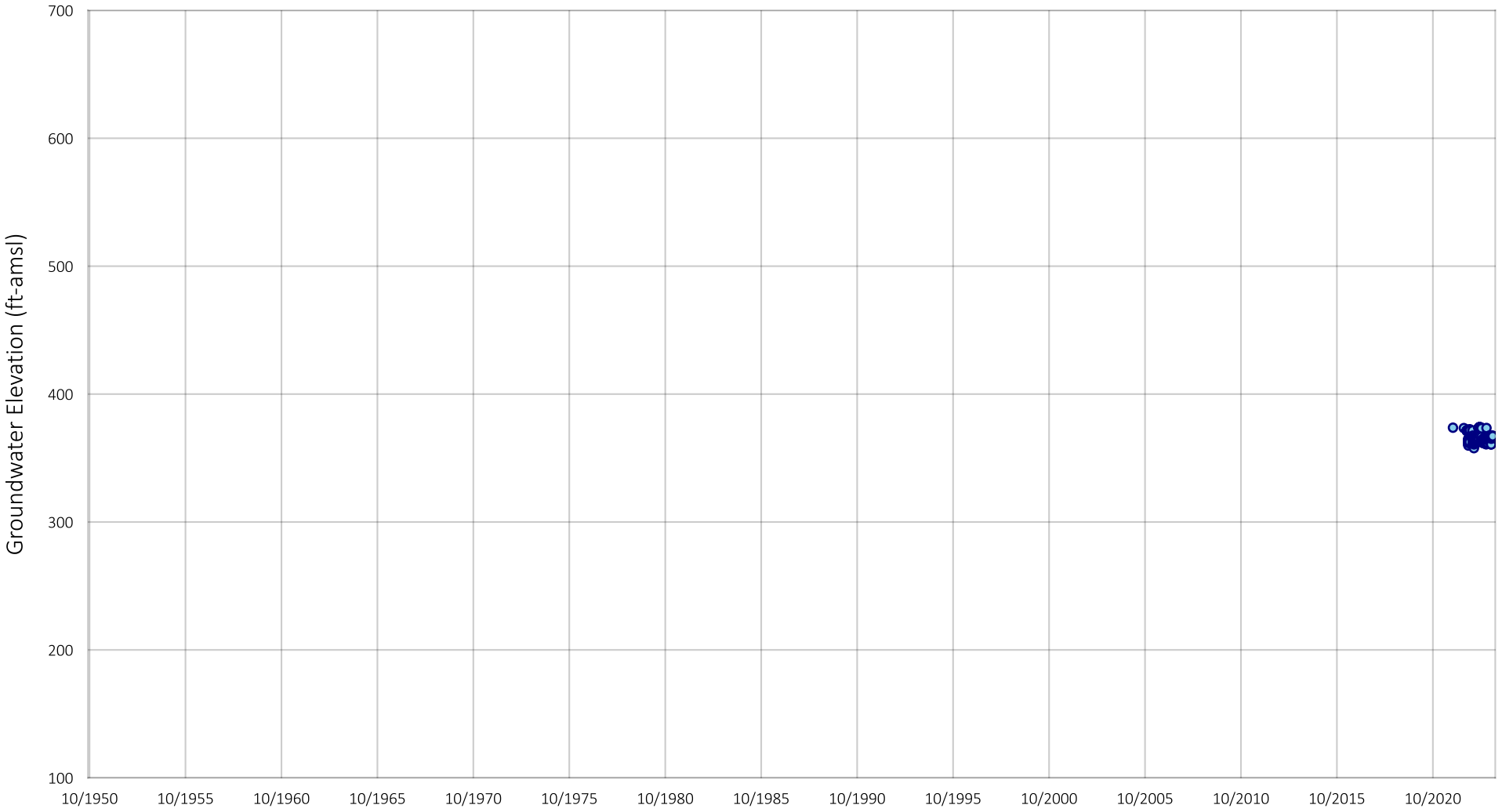
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Historical Groundwater Level Elevation
BSWM ID: 1245889
Well Name: ID4-4
State Well ID: 010S006E29K002S

Figure F-11



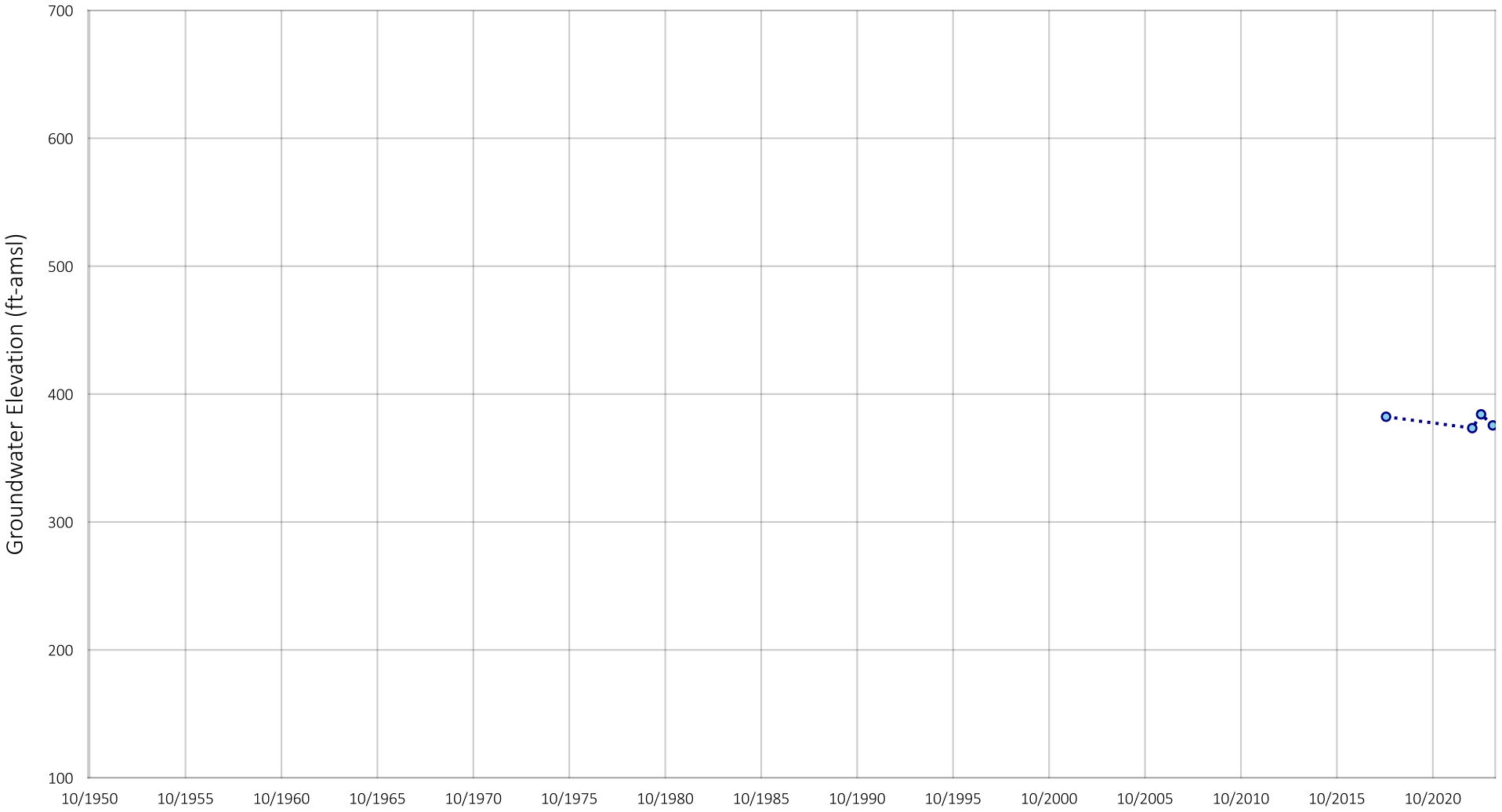
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Historical Groundwater Level Elevation
BSWM ID: 1245891
Well Name: ID4-9
State Well ID: 10S006E29K003S

Figure F-12



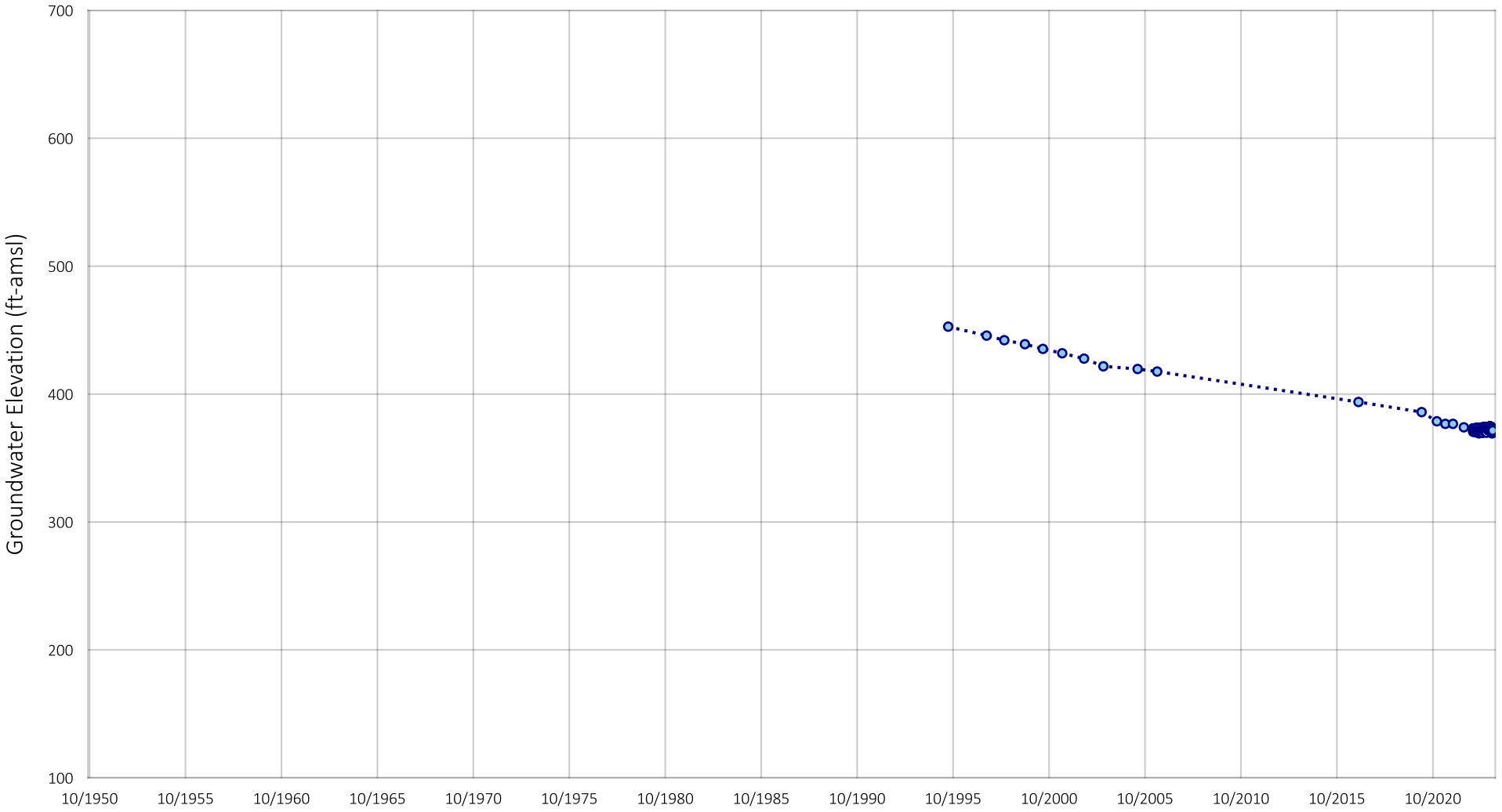
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Historical Groundwater Level Elevation
BSWM ID: 1245924
Well Name: Auxiliary 3
State Well ID: 010S005E25R002S

Figure F-13



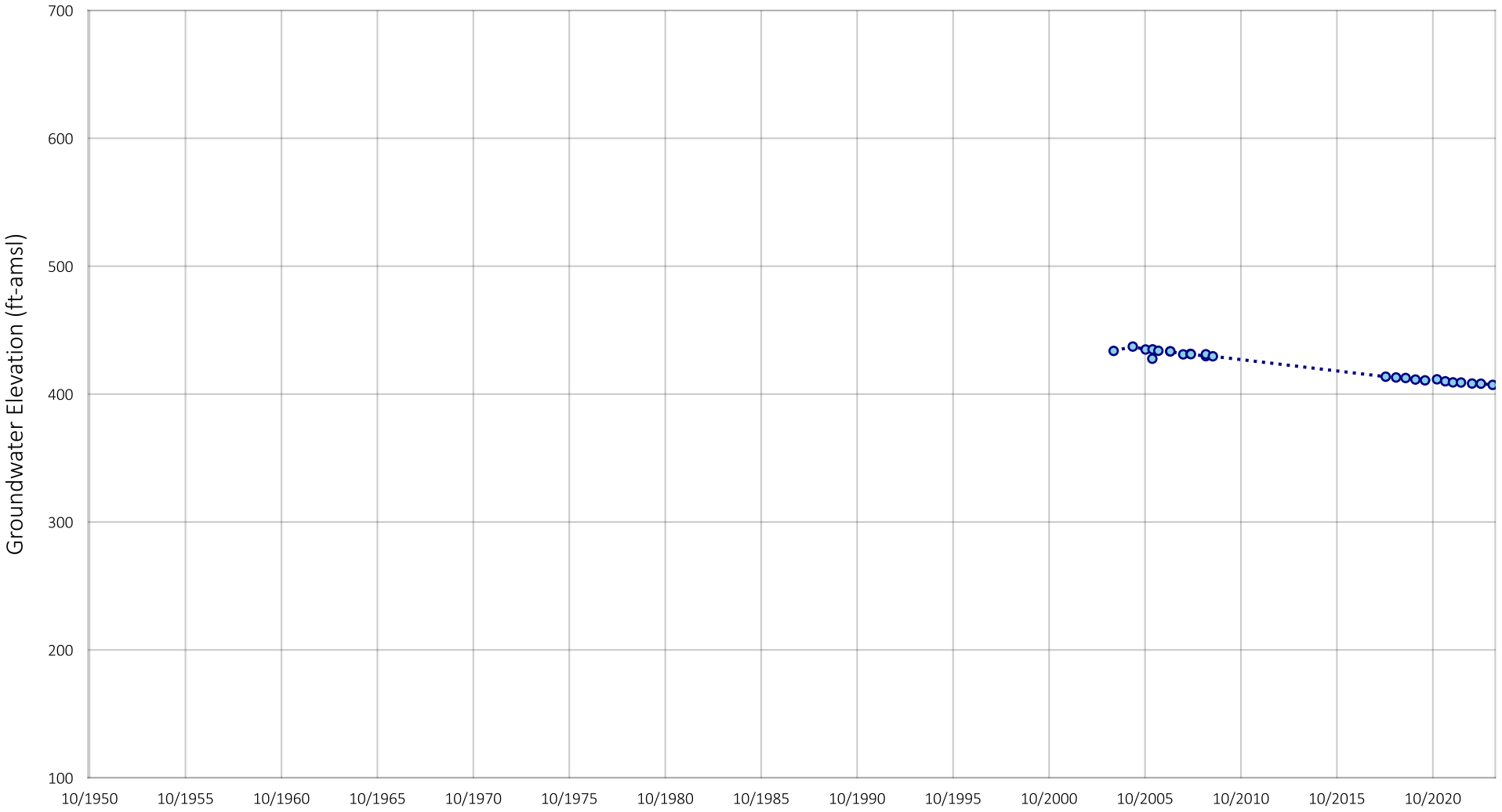
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Historical Groundwater Level Elevation
BSWM ID: 1245885
Well Name: ID4-11
State Well ID: 010S006E32D001S

Figure F-14



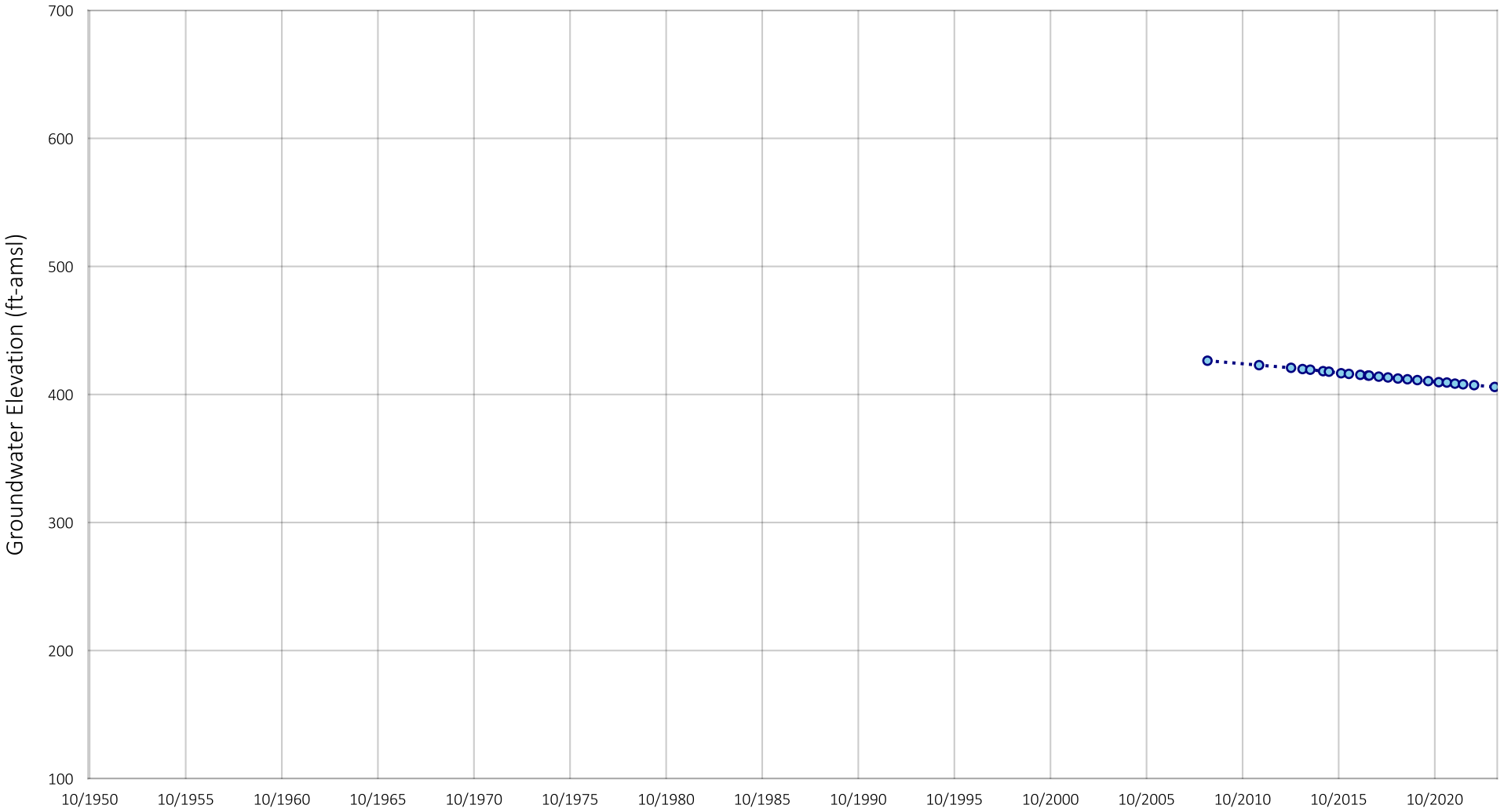
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Historical Groundwater Level Elevation
BSWM ID: 1245904
Well Name: Palleson
State Well ID: 010S006E33J001S

Figure F-15



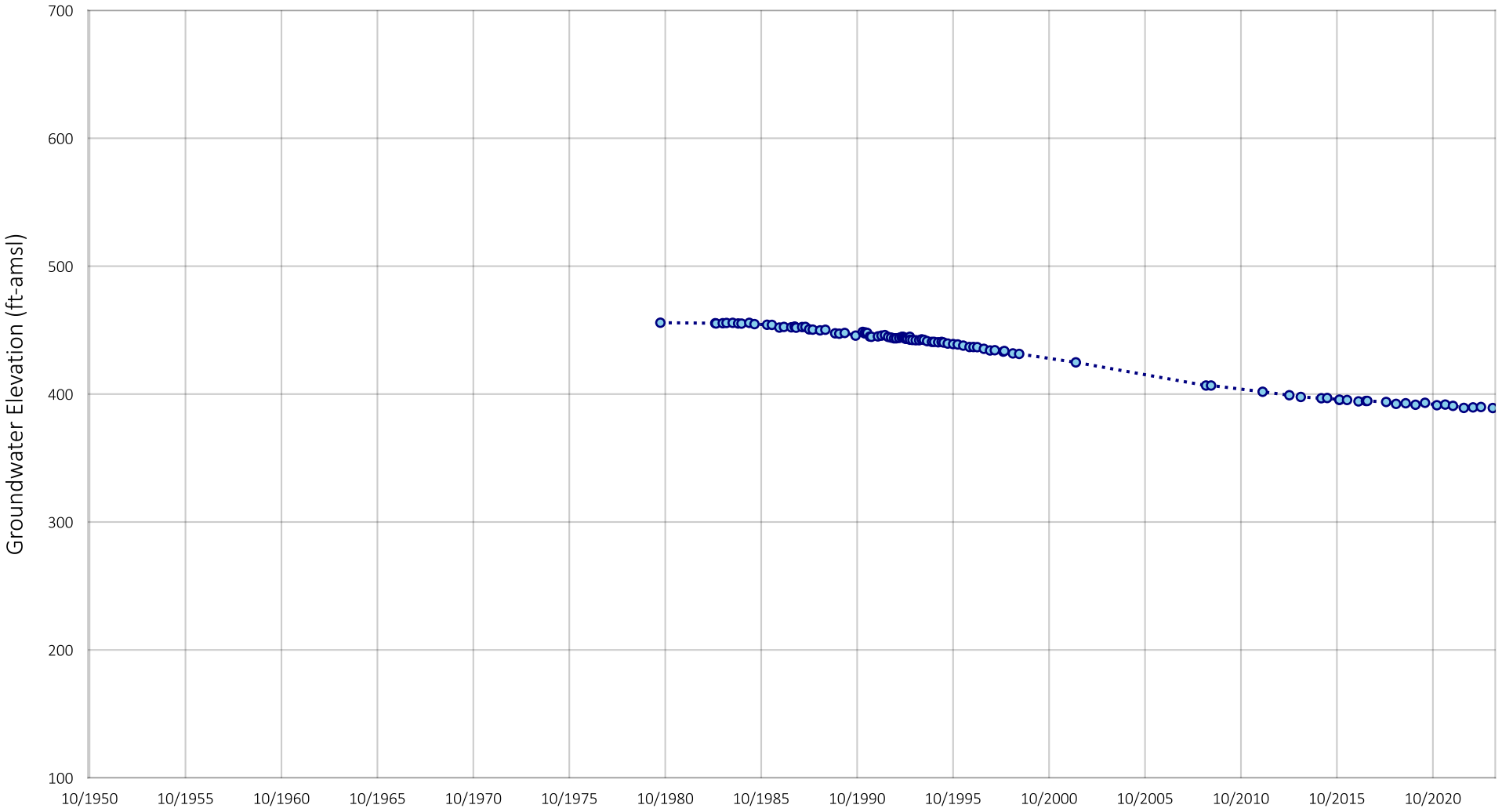
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Historical Groundwater Level Elevation
BSWM ID: 1245899
Well Name: MW-4
State Well ID: 010S006E35Q001S

Figure F-16



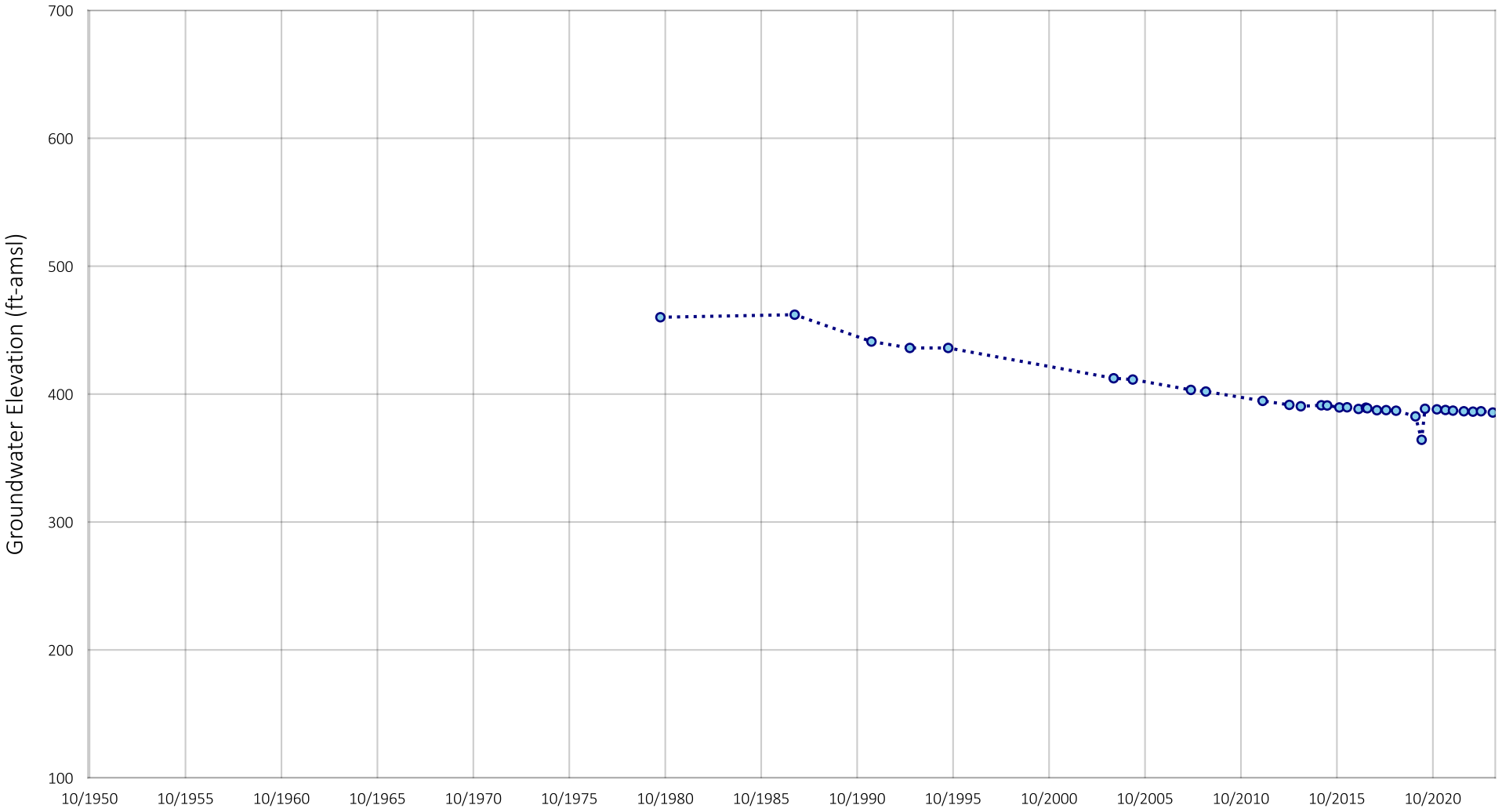
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Historical Groundwater Level Elevation
BSWM ID: 1245883
Well Name: ID4-1
State Well ID: 010S006E32R001S

Figure F-17



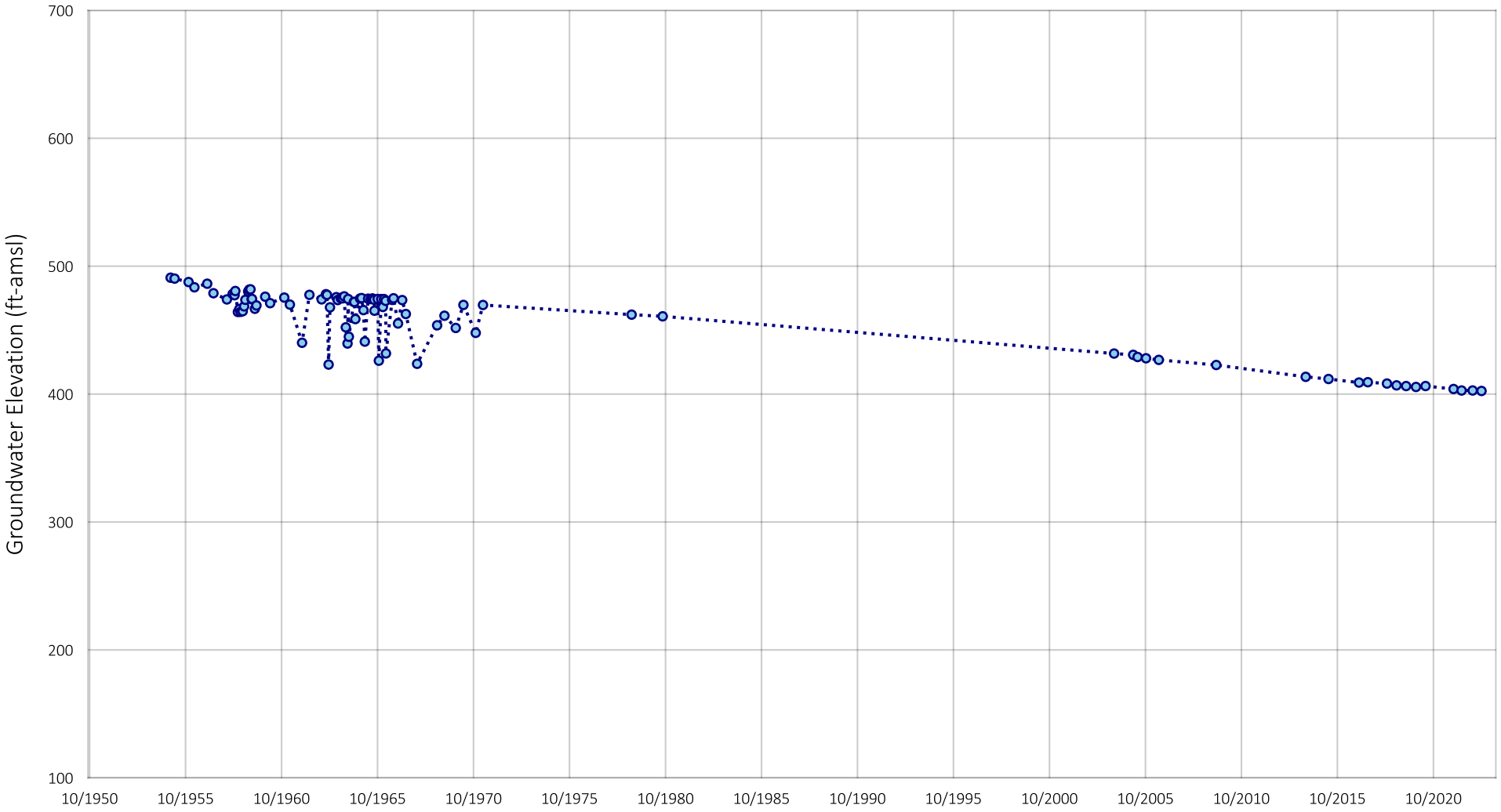
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Historical Groundwater Level Elevation
BSWM ID: 1245890
Well Name: ID4-5
State Well ID: 010S006E33Q001S

Figure F-18



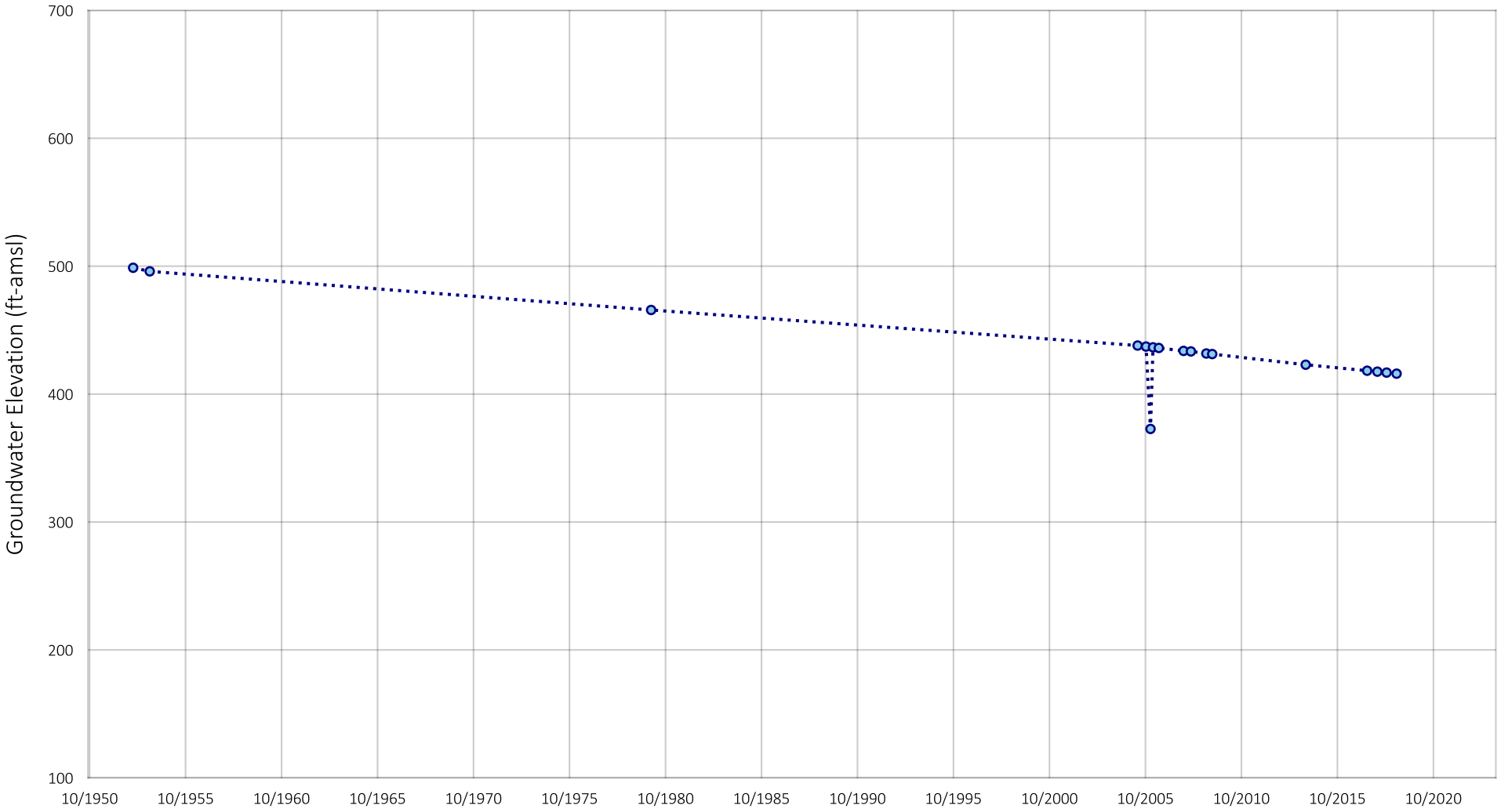
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Historical Groundwater Level Elevation
BSWM ID: 1245851
Well Name: Airport 2
State Well ID: 010S006E35N001S

Figure F-19



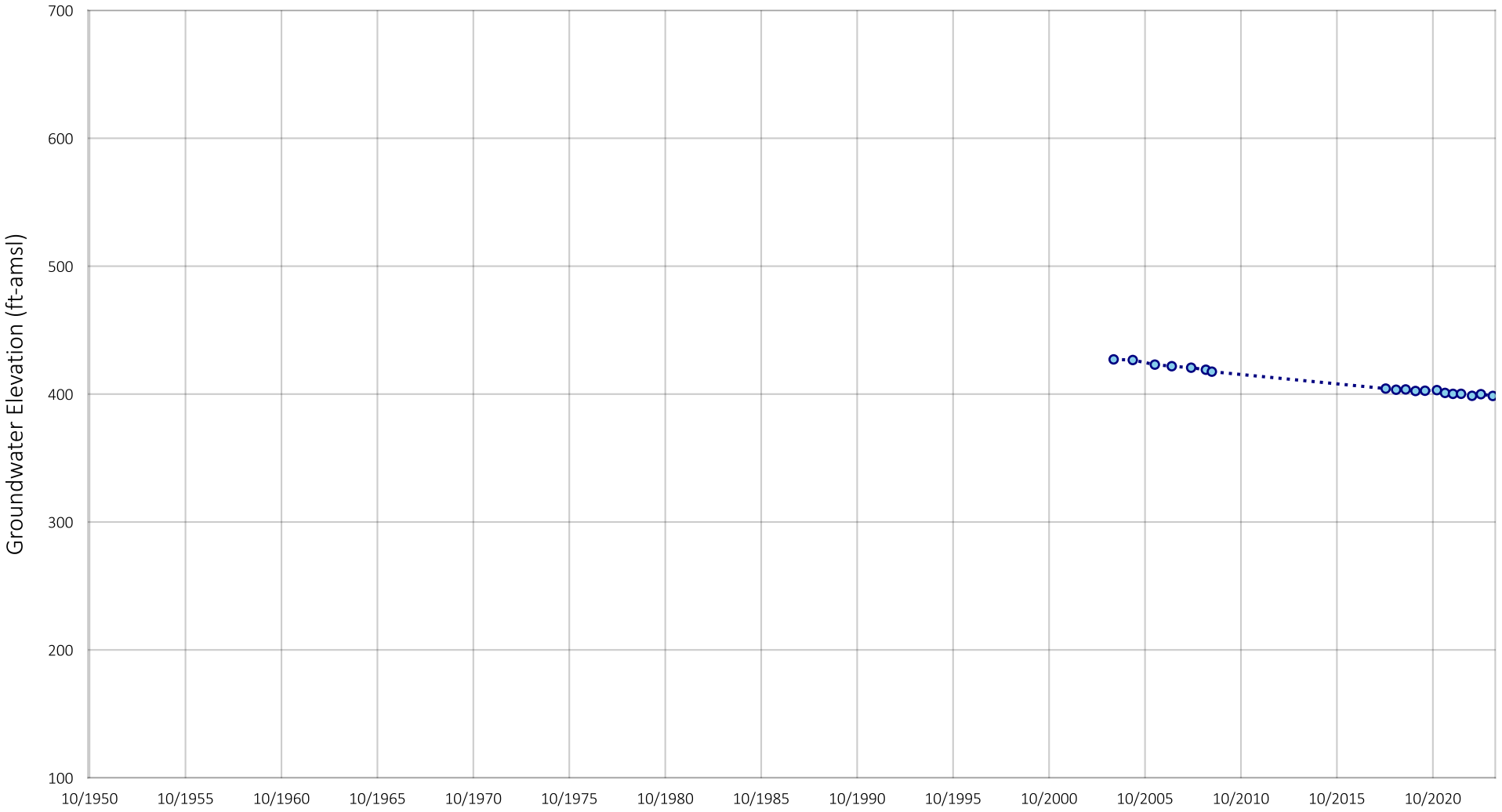
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Historical Groundwater Level Elevation
BSWM ID: 1245870
Well Name: Gabrych #2
State Well ID: 011S006E01C001S

Figure F-20



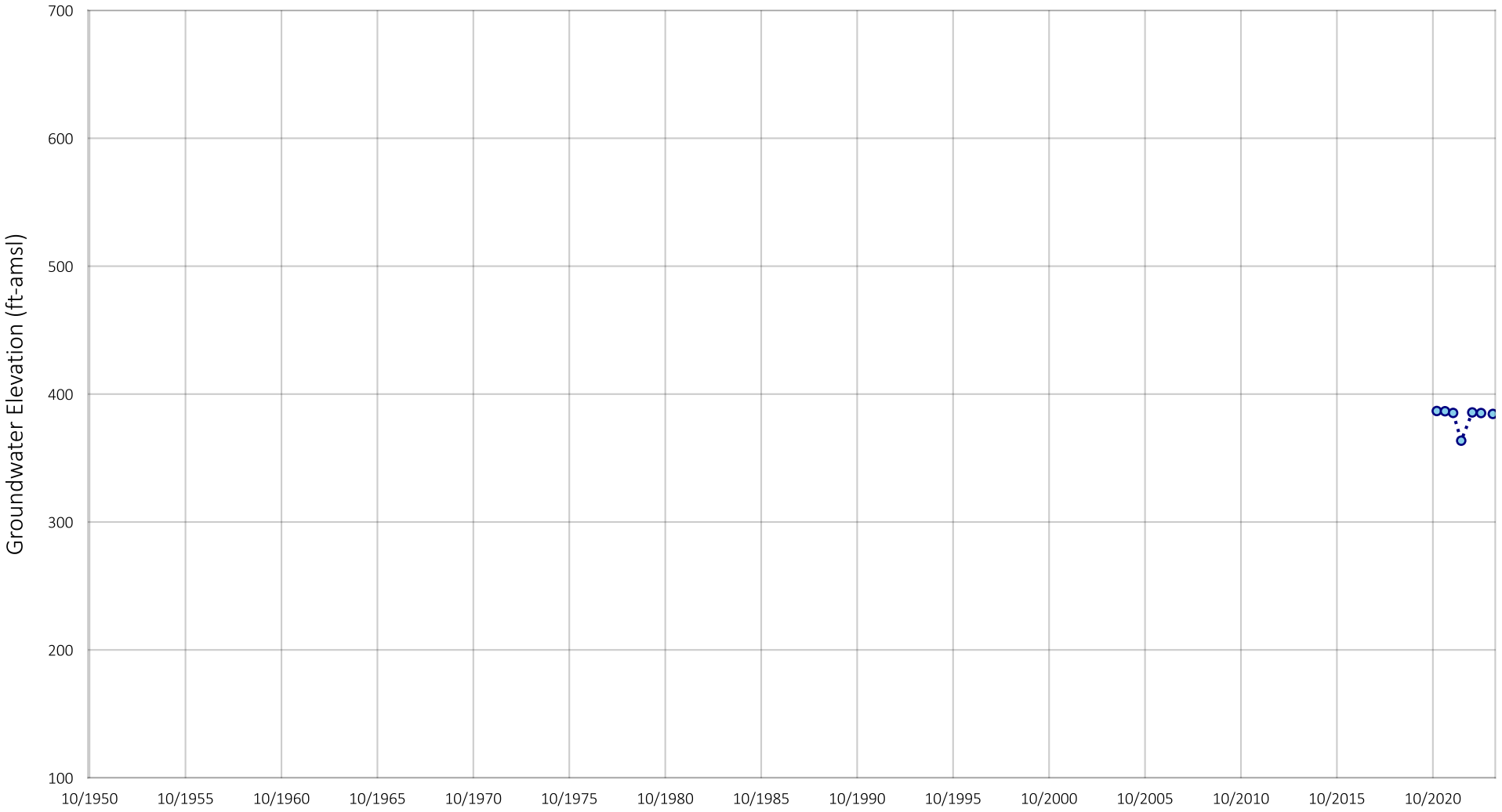
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Historical Groundwater Level Elevation
BSWM ID: 1245862
Well Name: Cameron 2
State Well ID: 011S006E04F001S

Figure F-21



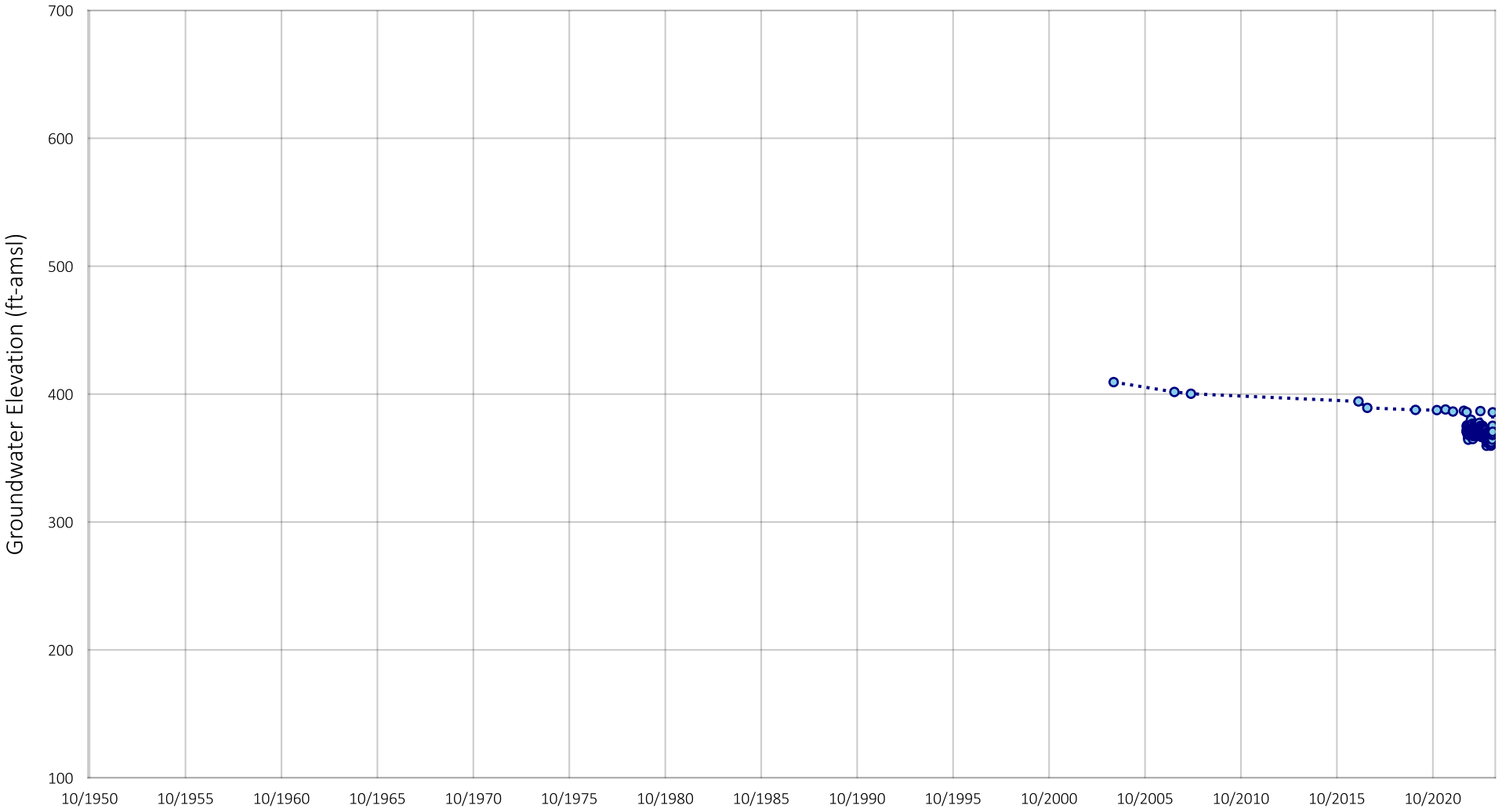
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Historical Groundwater Level Elevation
BSWM ID: 1245860
Well Name: BSR Well 6
State Well ID: 011S006E09B002S

Figure F-22



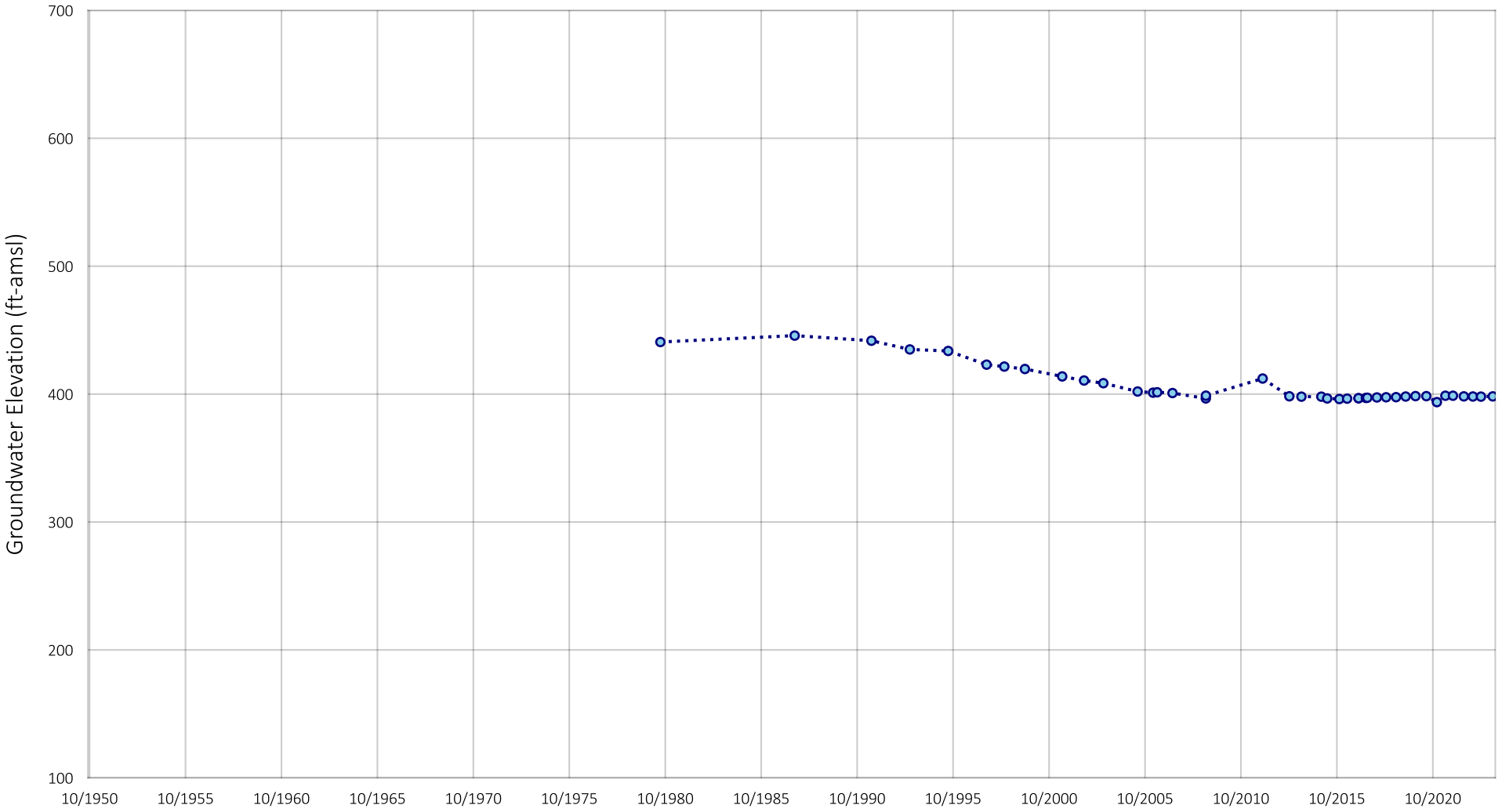
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Historical Groundwater Level Elevation
BSWM ID: 1245893
Well Name: ID5-5
State Well ID: 011S006E09E001S

Figure F-23



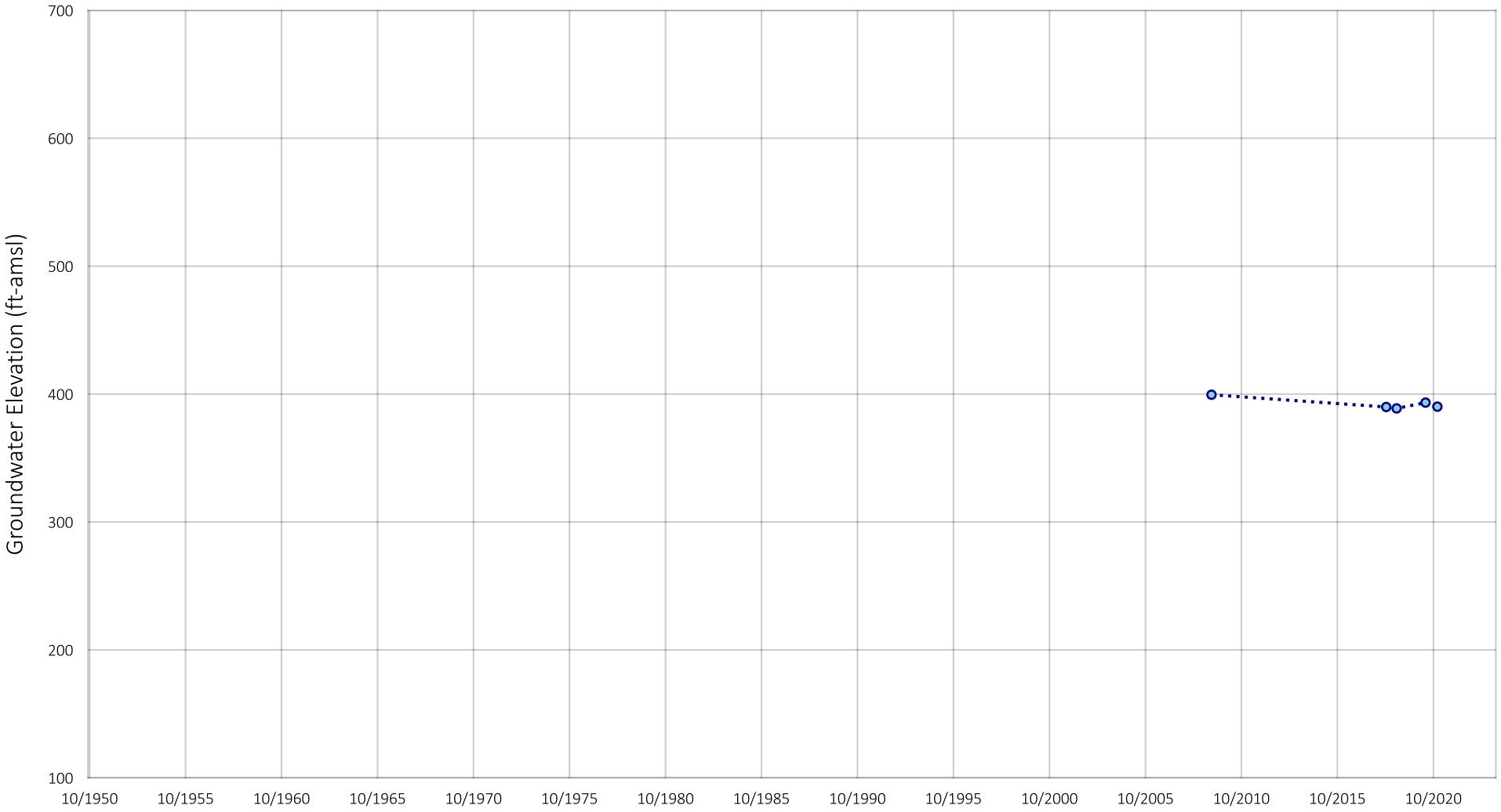
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Historical Groundwater Level Elevation
BSWM ID: 1245887
Well Name: ID4-2
State Well ID: 011S006E07K003S

Figure F-24



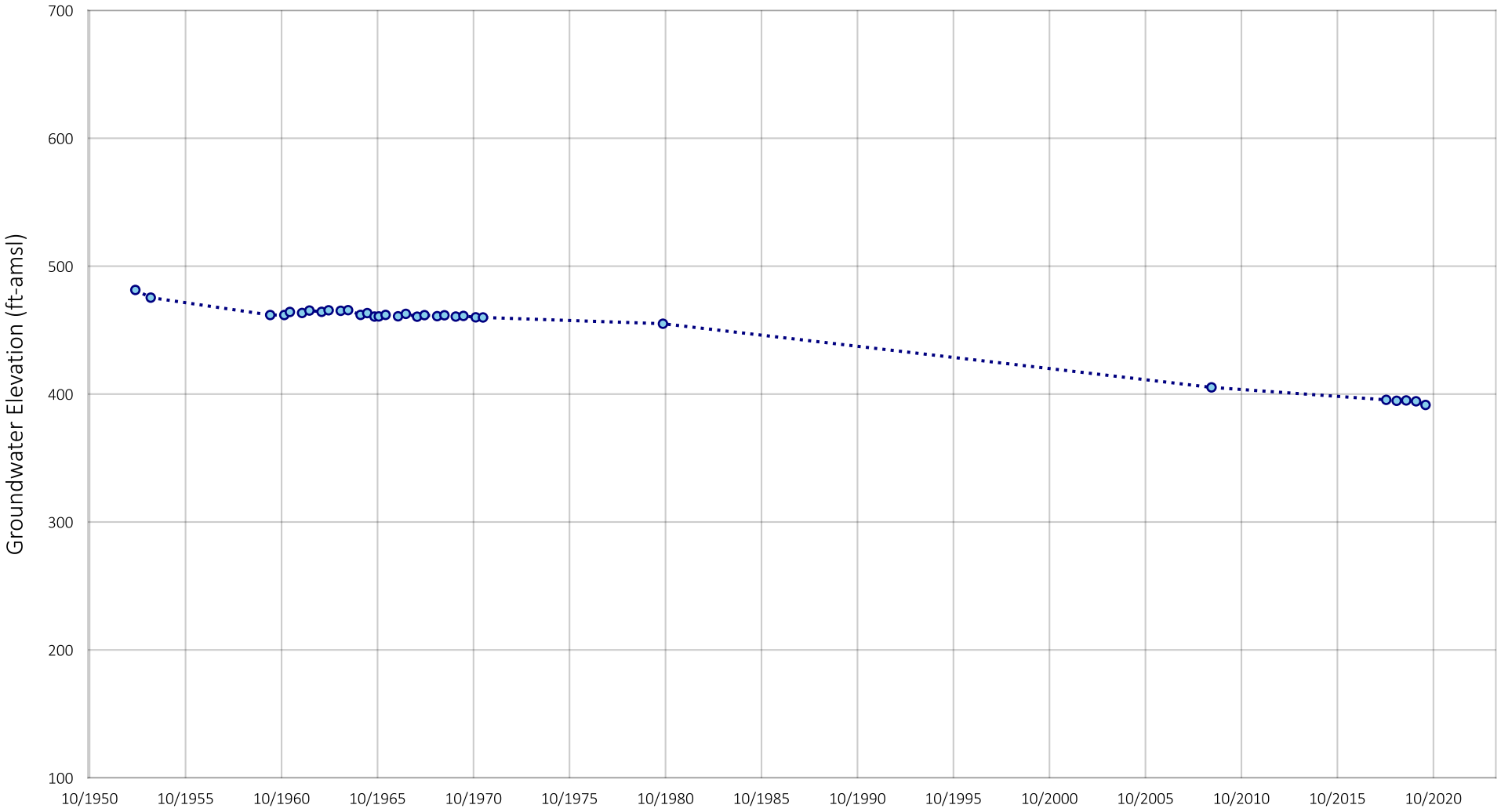
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Historical Groundwater Level Elevation
BSWM ID: 1245850
Well Name: Abandoned Motel-2
State Well ID: 011S006E10N004S

Figure F-25



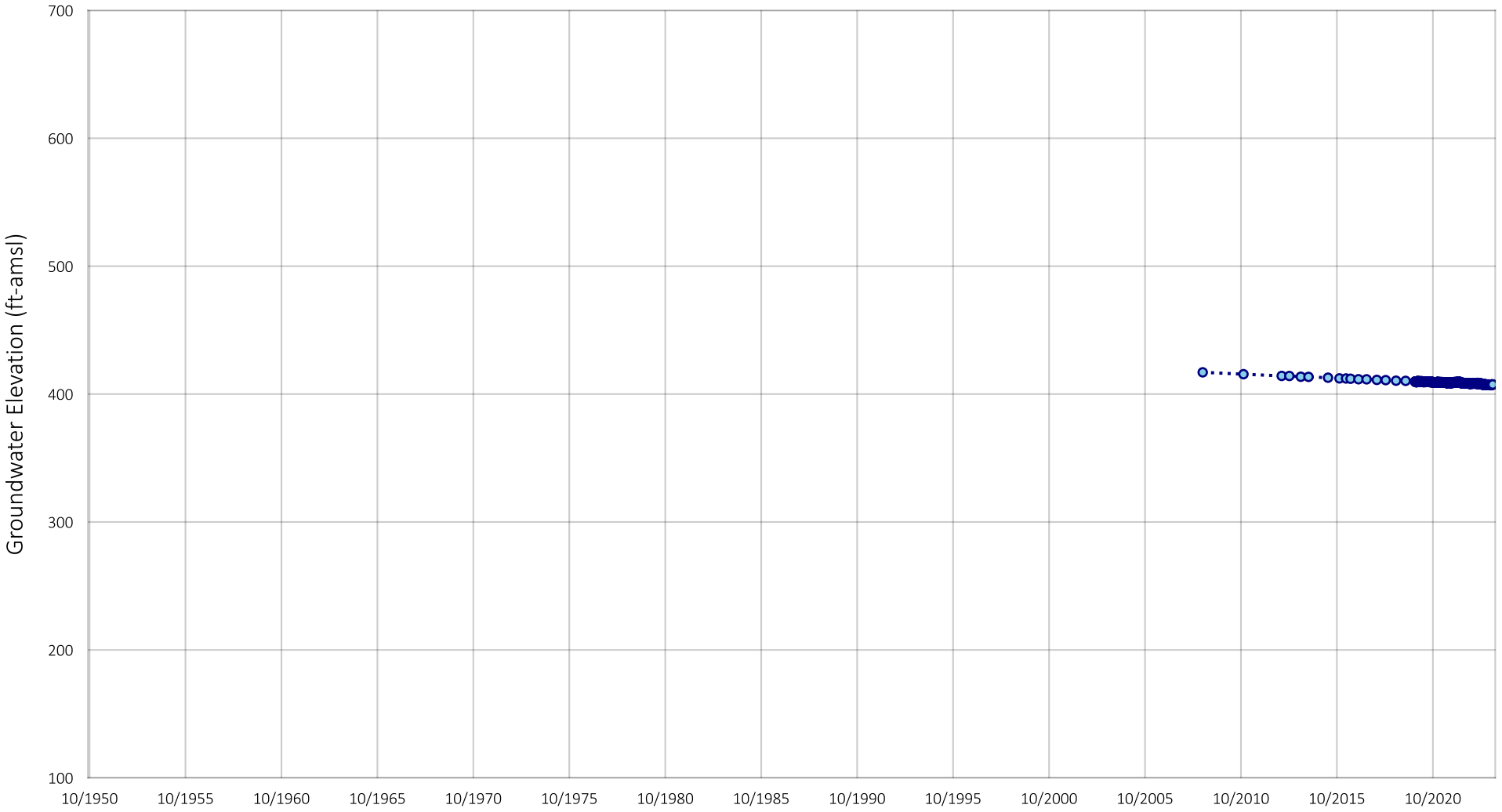
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Historical Groundwater Level Elevation
BSWM ID: 1245849
Well Name: Abandoned Motel-1
State Well ID: 011S006E10N001S

Figure F-26



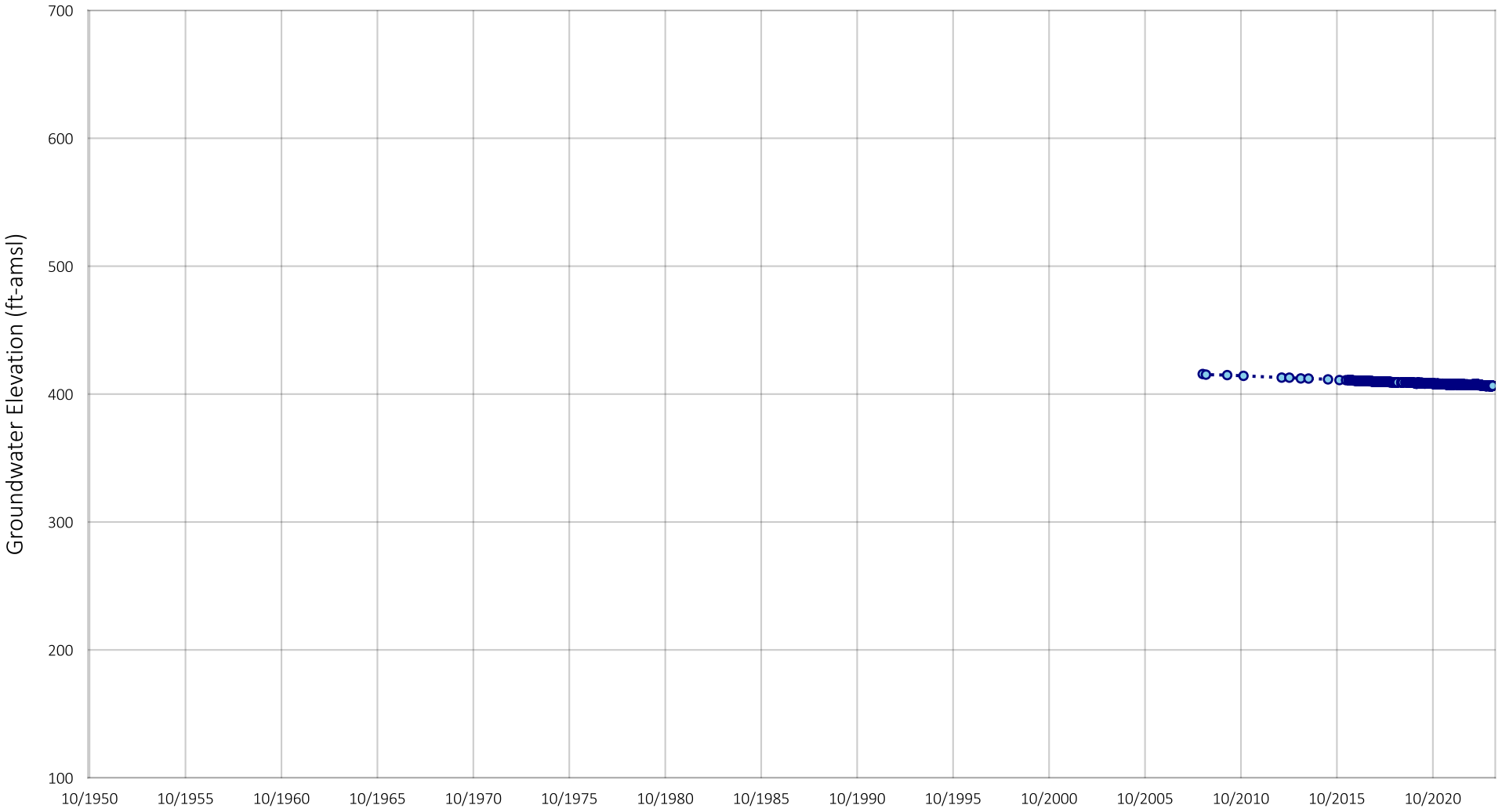
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Historical Groundwater Level Elevation
BSWM ID: 1245900
Well Name: MW-5A (East-Lower)
State Well ID: 011S007E07R001S

Figure F-27



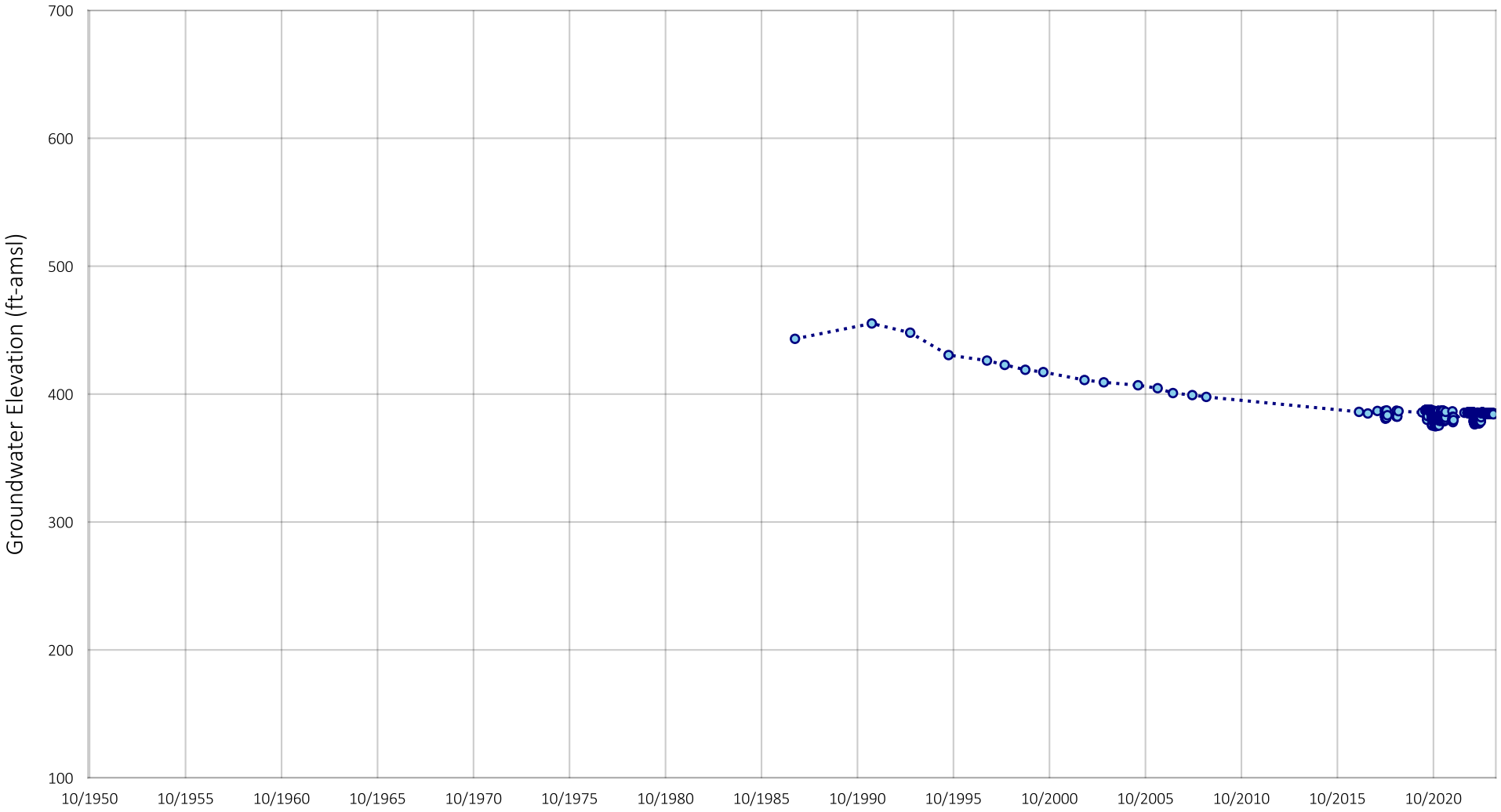
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Historical Groundwater Level Elevation
BSWM ID: 1245901
Well Name: MW-5B (West-Upper)
State Well ID: 011S007E07R002S

Figure F-28



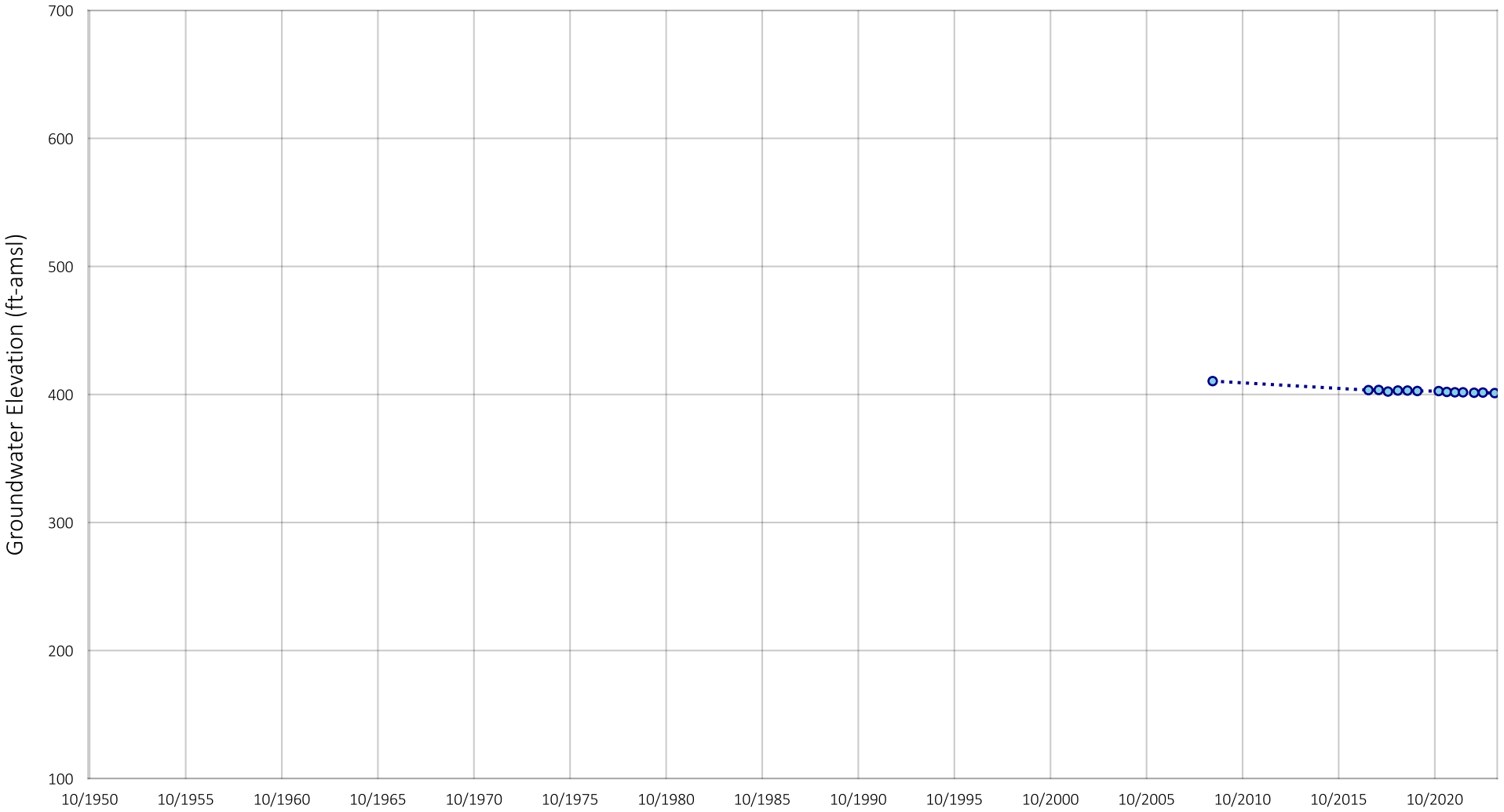
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Historical Groundwater Level Elevation
BSWM ID: 1245879
Well Name: ID1-12
State Well ID: 011S006E16A002S

Figure F-29



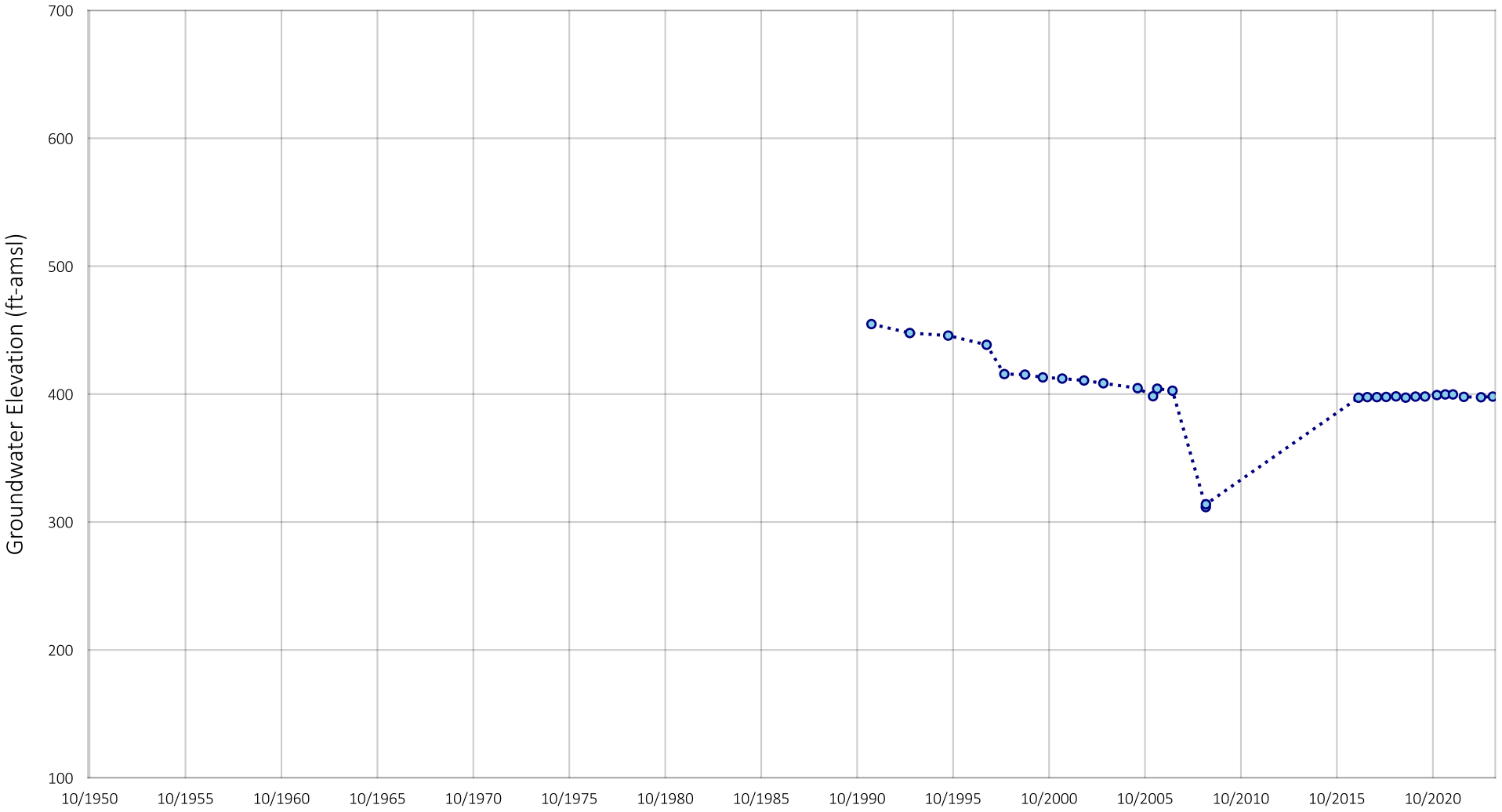
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Historical Groundwater Level Elevation
BSWM ID: 1245865
Well Name: County Yard (SD DOT)
State Well ID: 011S006E15G001S

Figure F-30



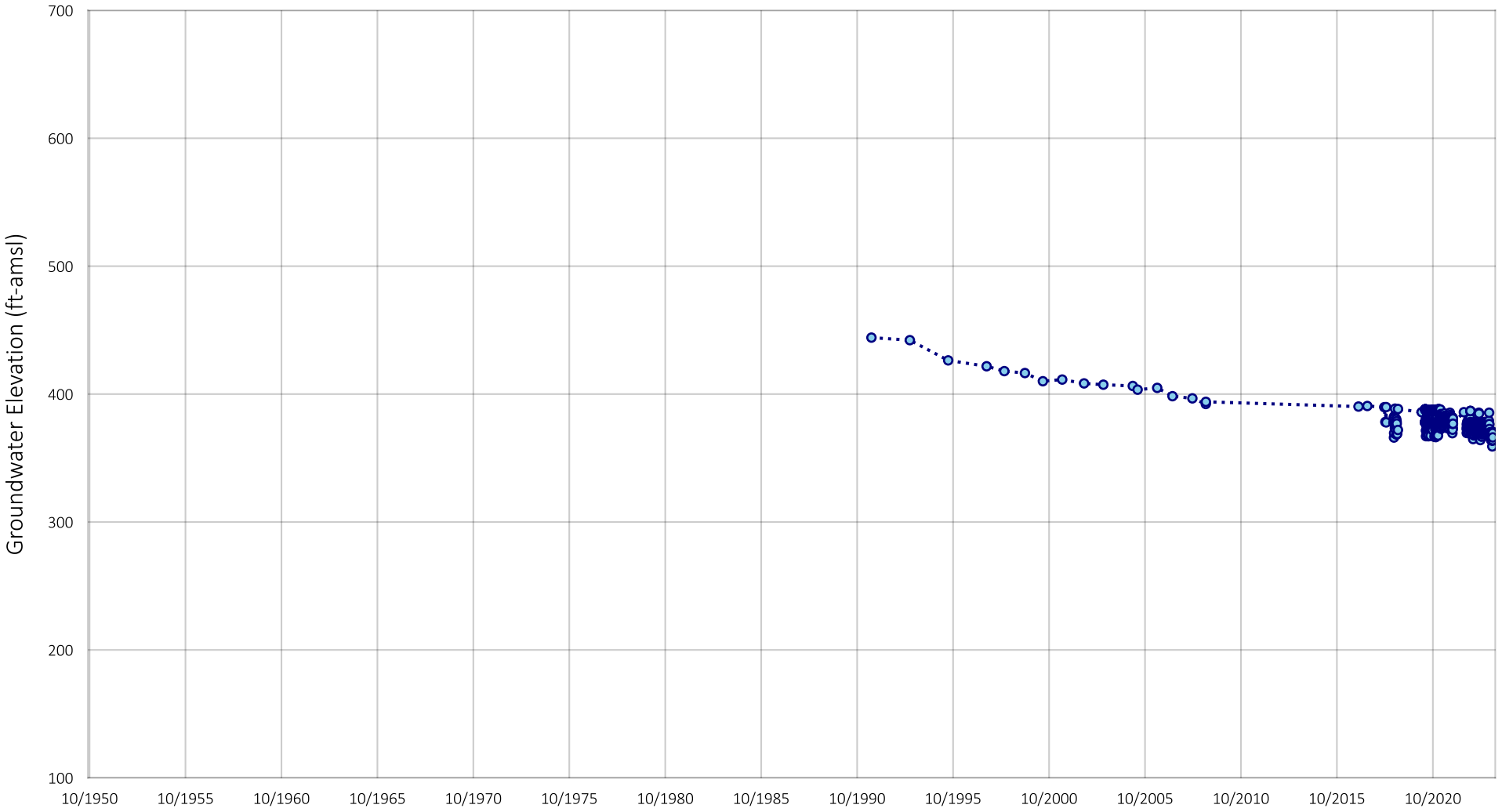
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Historical Groundwater Level Elevation
BSWM ID: 1245884
Well Name: ID4-10
State Well ID: 011S006E18L001S

Figure F-31



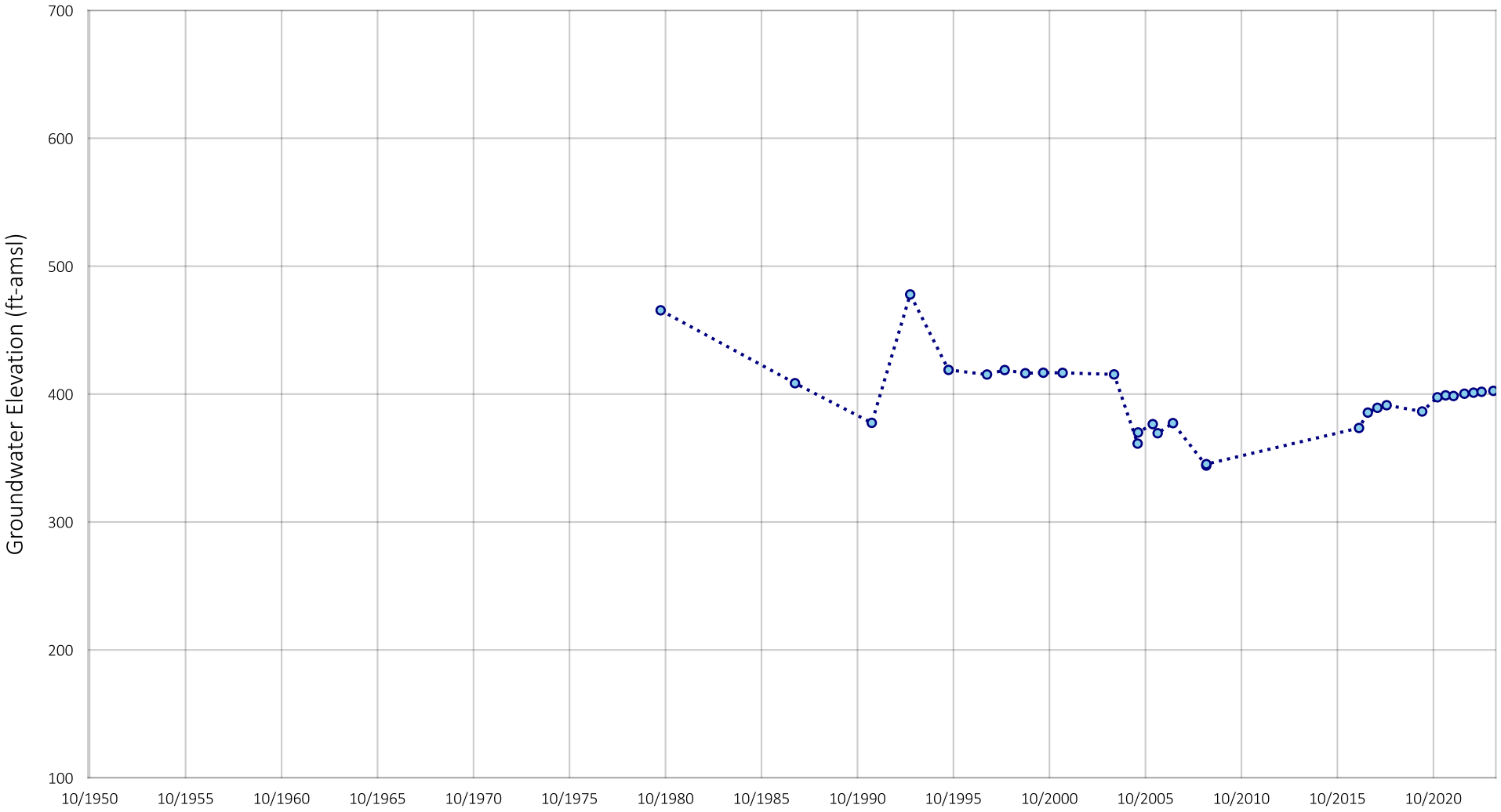
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Historical Groundwater Level Elevation
BSWM ID: 1245880
Well Name: ID1-16
State Well ID: 011S006E16N001S

Figure F-32



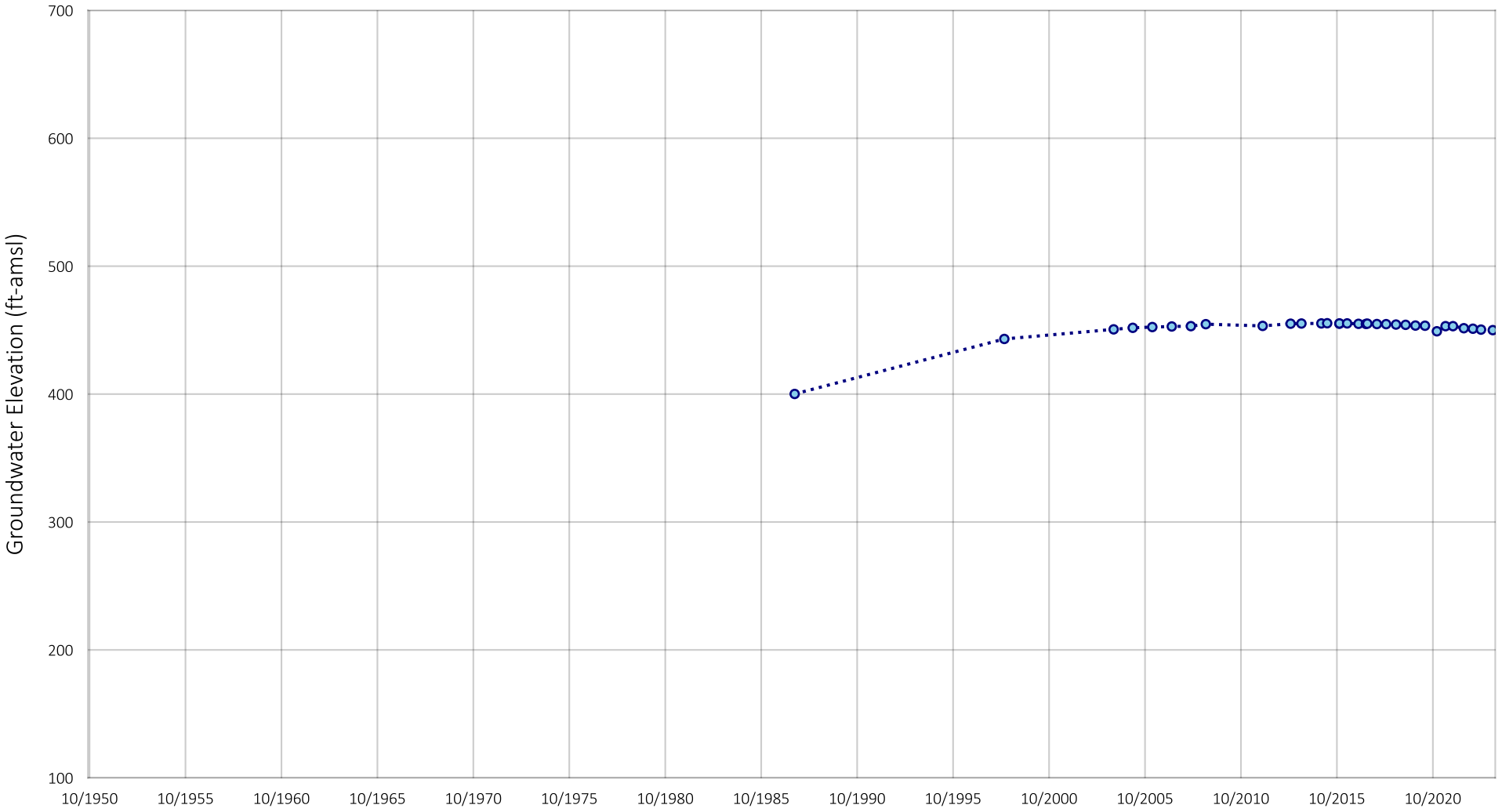
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Historical Groundwater Level Elevation
BSWM ID: 1245878
Well Name: ID1-10
State Well ID: 011S006E22D001S

Figure F-33



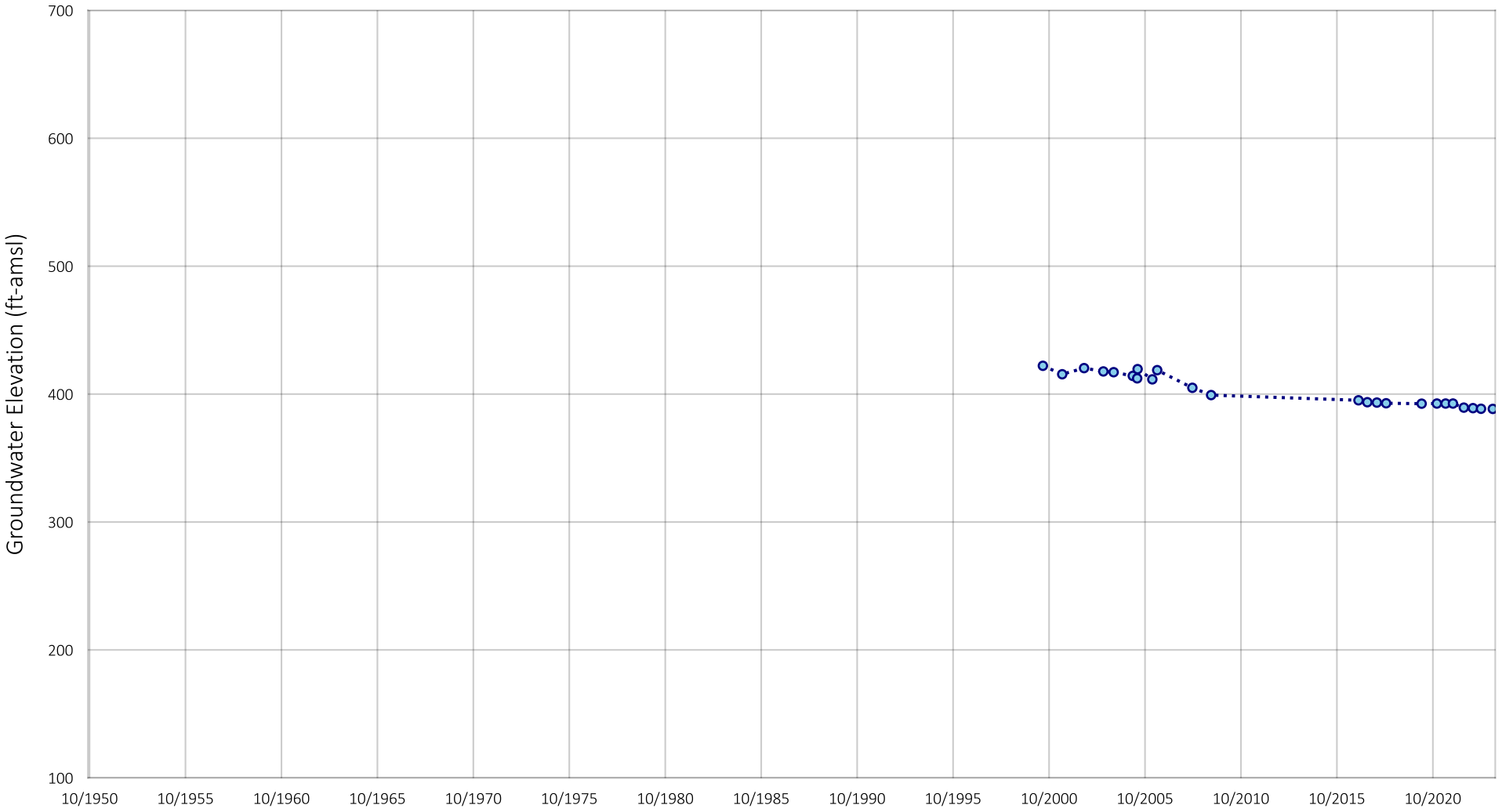
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Historical Groundwater Level Elevation
BSWM ID: 1245903
Well Name: Paddock
State Well ID: 011S006E22B001S

Figure F-34



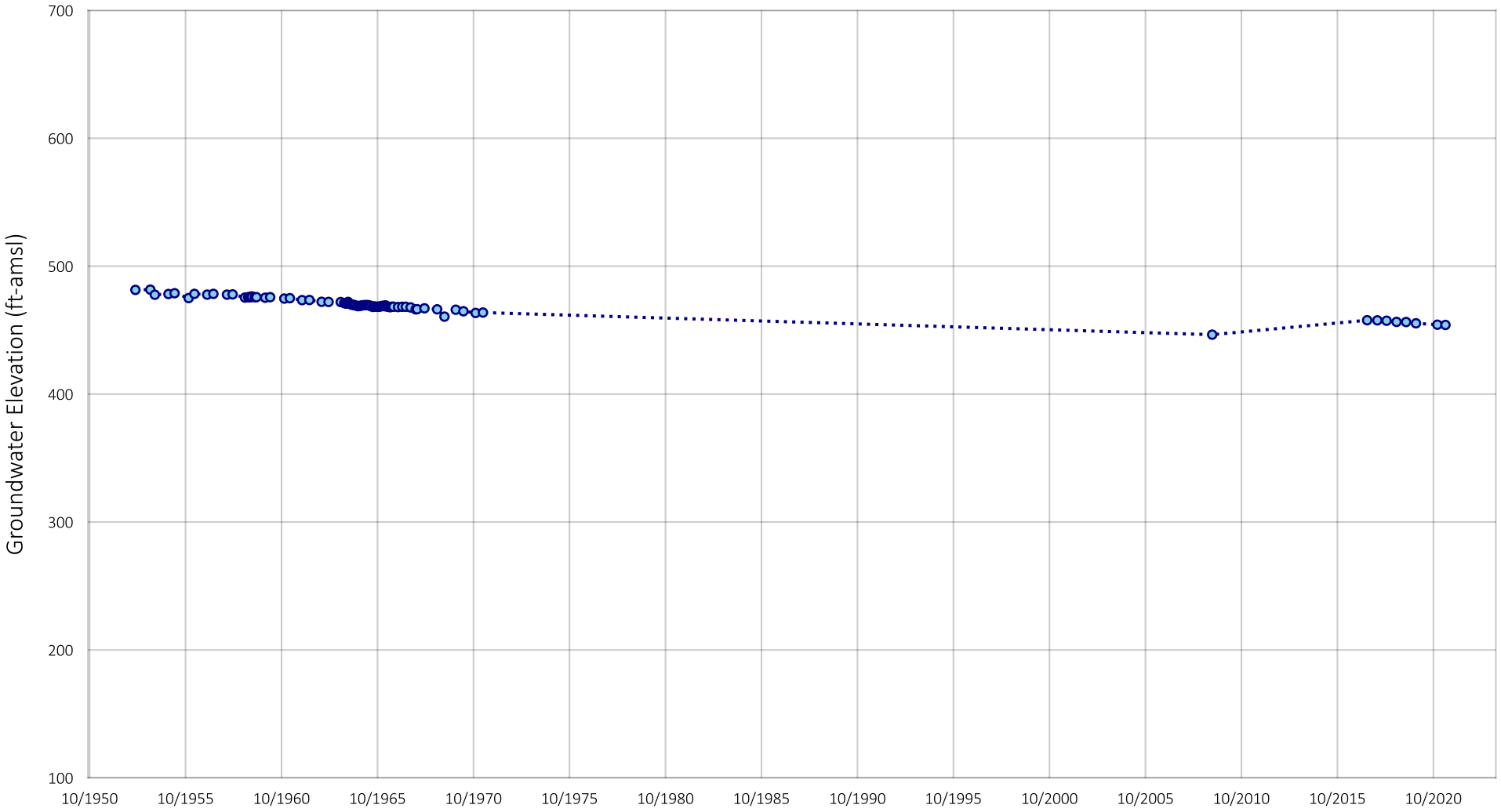
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Historical Groundwater Level Elevation
BSWM ID: 1245931
Well Name: ID4-20 (Wilcox)
State Well ID: 011S006E20A001S

Figure F-35



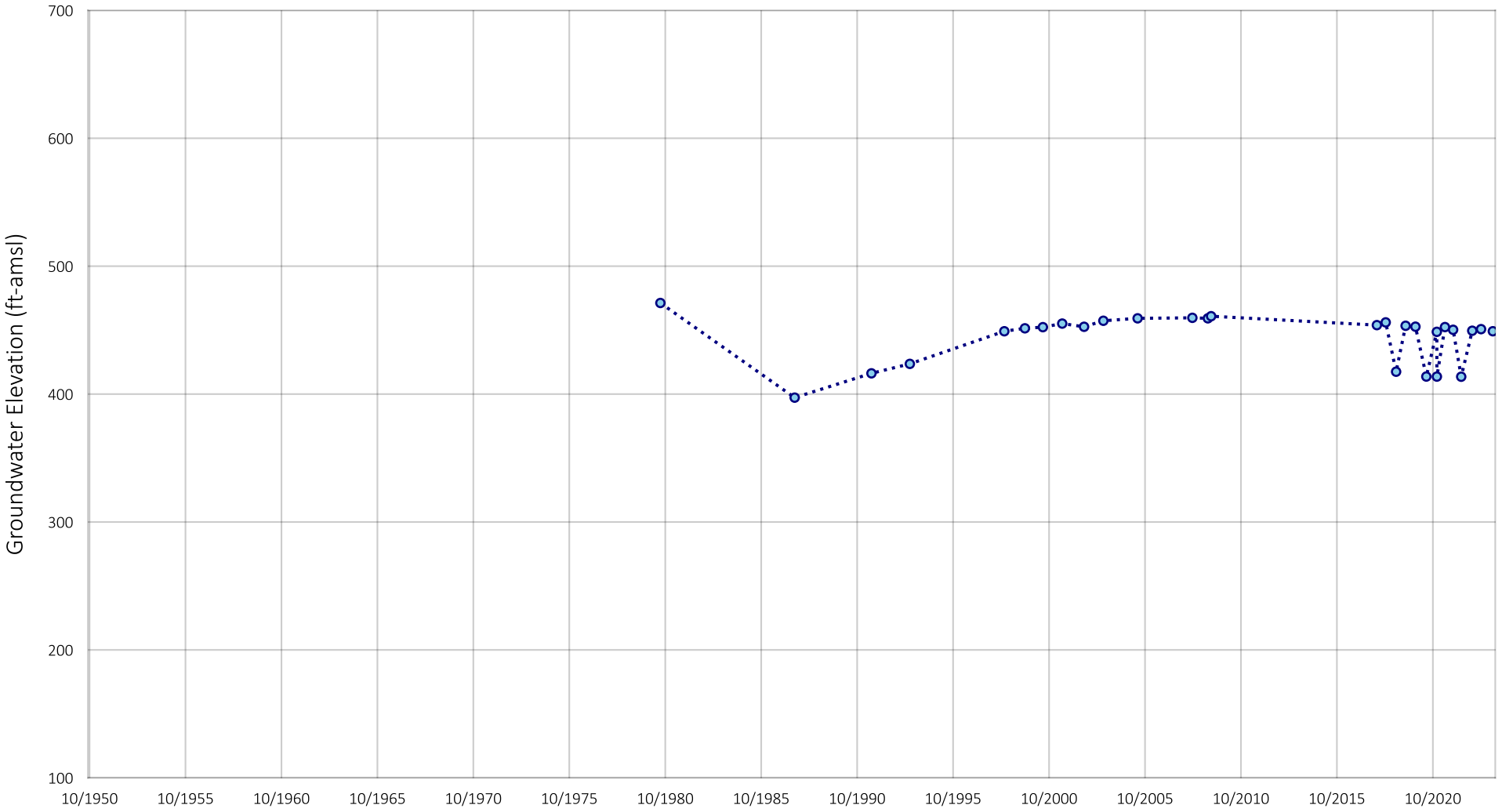
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Historical Groundwater Level Elevation
BSWM ID: 1245856
Well Name: Bakko
State Well ID: 011S006E22A001S

Figure F-36



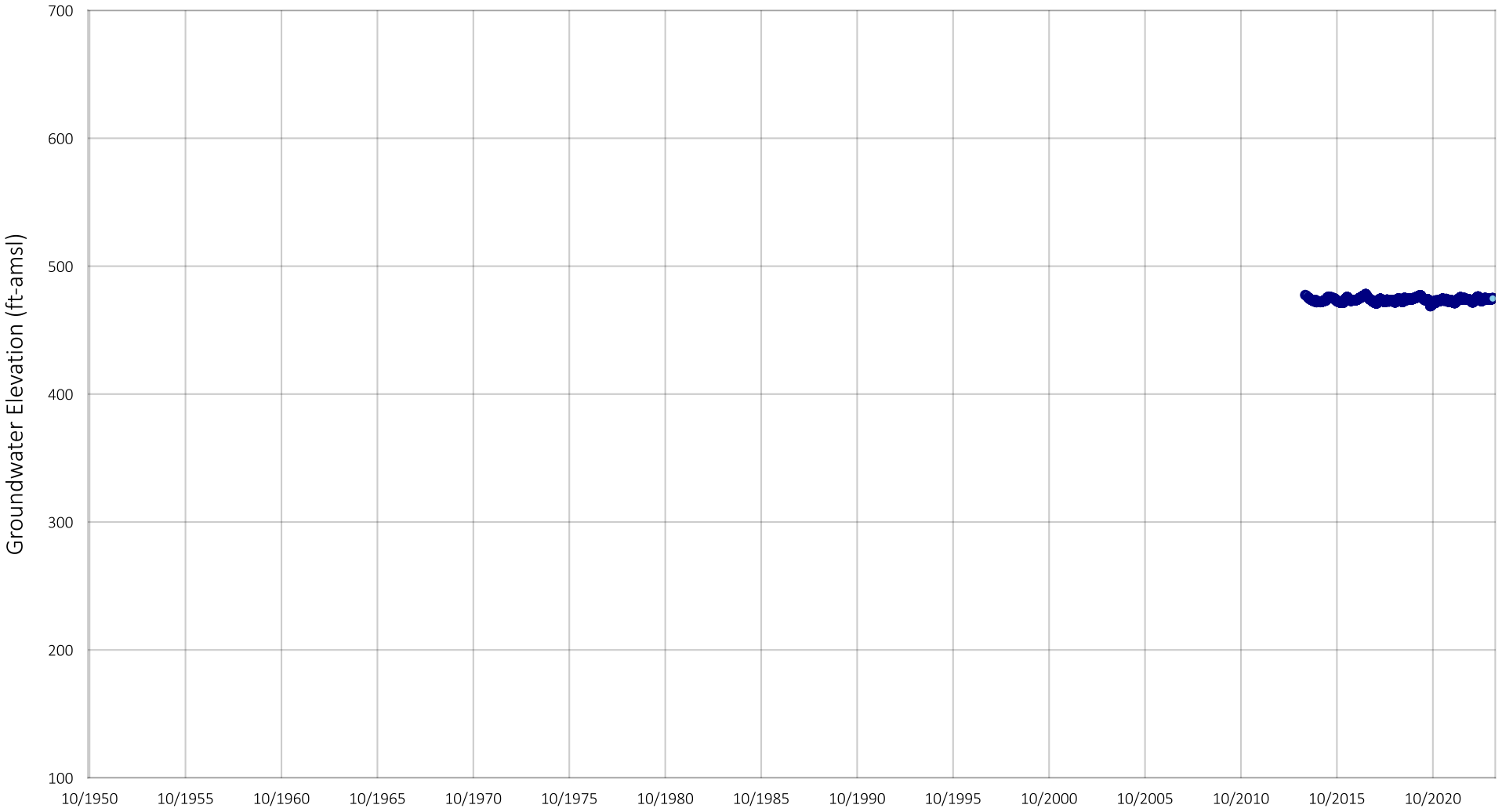
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Historical Groundwater Level Elevation
BSWM ID: 1245895
Well Name: La Casa
State Well ID: 011S006E23E001S

Figure F-37



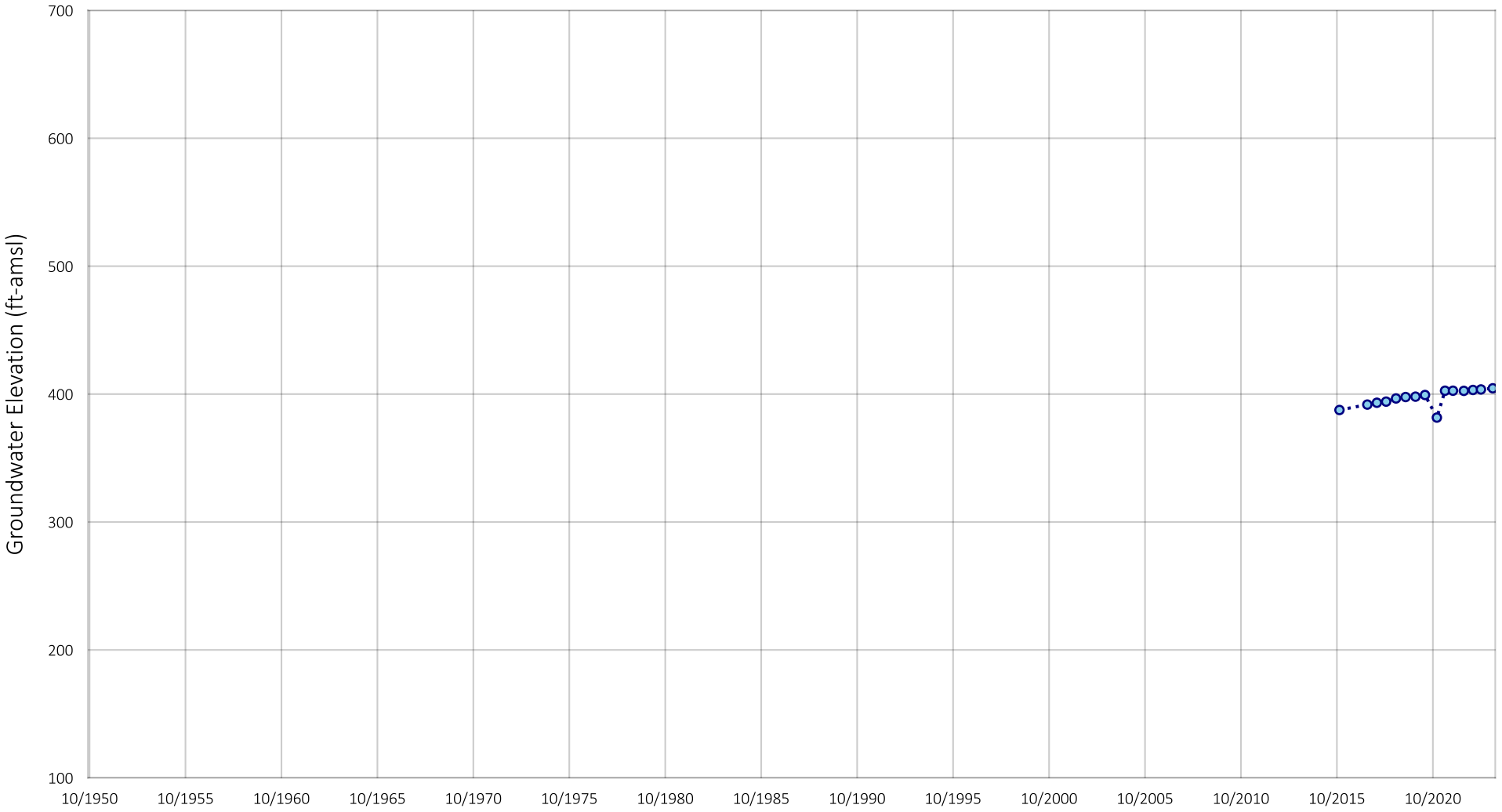
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Historical Groundwater Level Elevation
BSWM ID: 1245932
Well Name: WWTP-1
State Well ID: 011S006E23H001S

Figure F-38



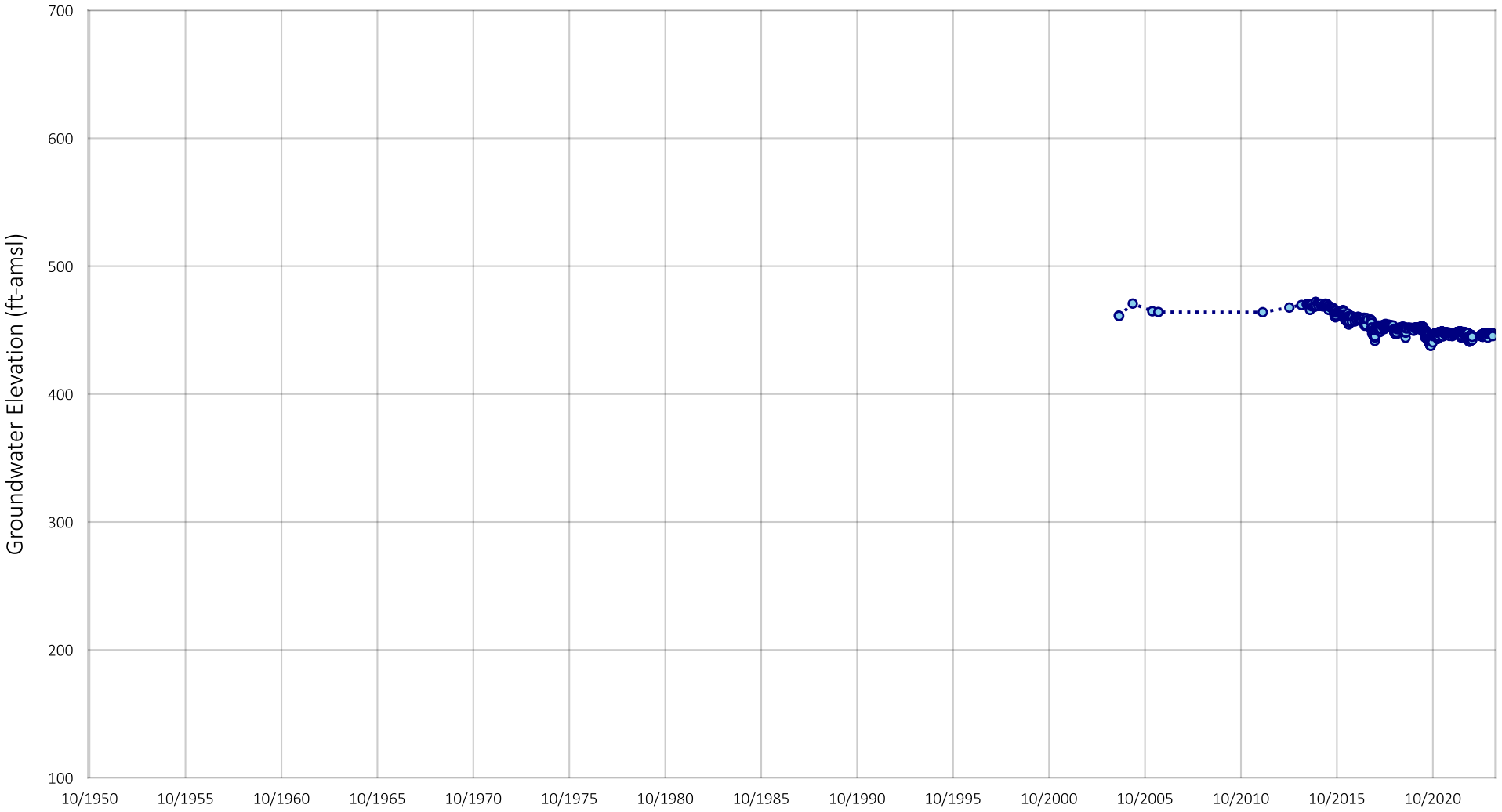
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Historical Groundwater Level Elevation
BSWM ID: 1245853
Well Name: Anzio/Yaqui Pass
State Well ID: 011S006E22E001S

Figure F-39



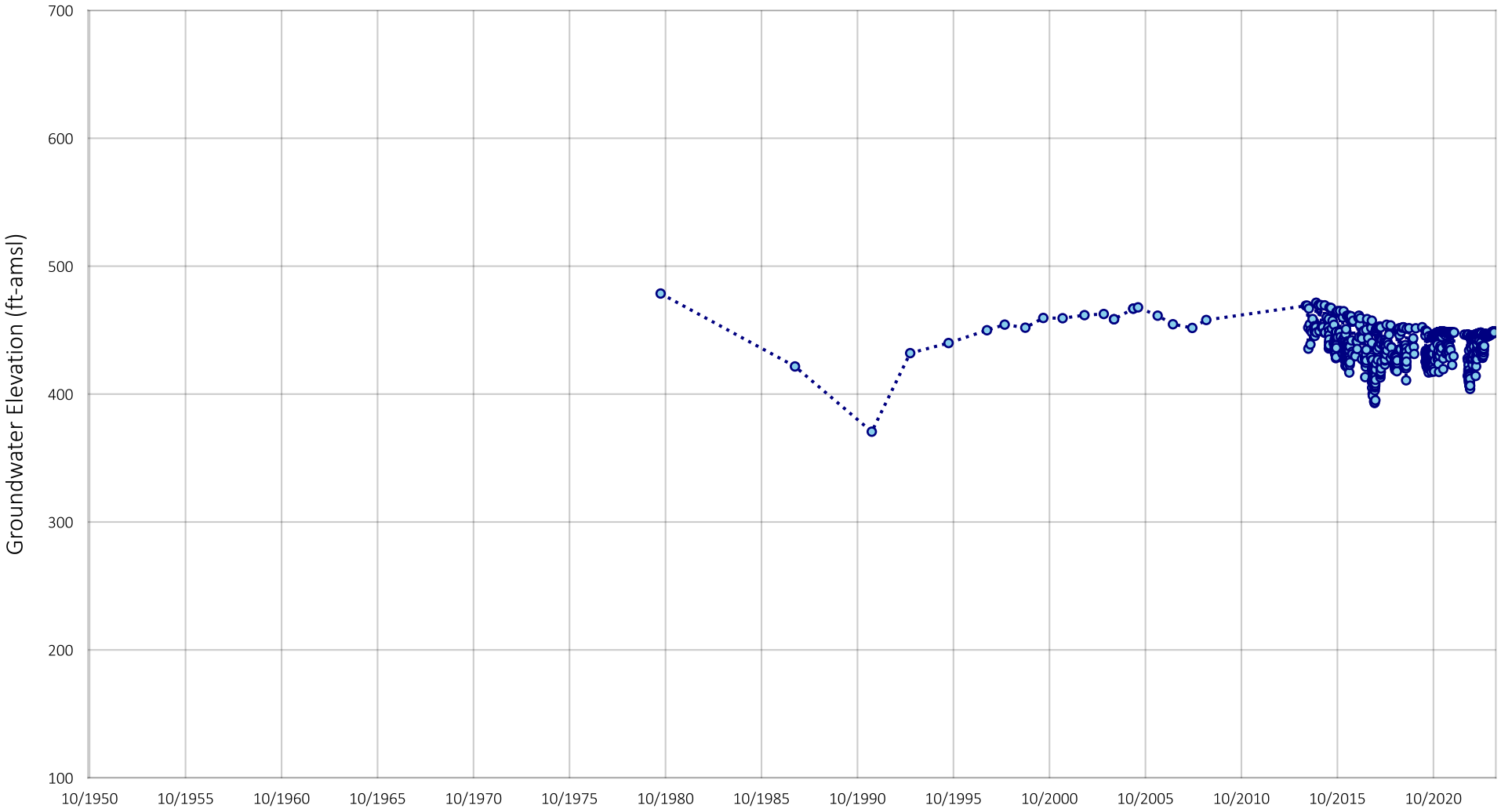
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Historical Groundwater Level Elevation
BSWM ID: 1245898
Well Name: MW-3
State Well ID: 011S006E23J002S

Figure F-40



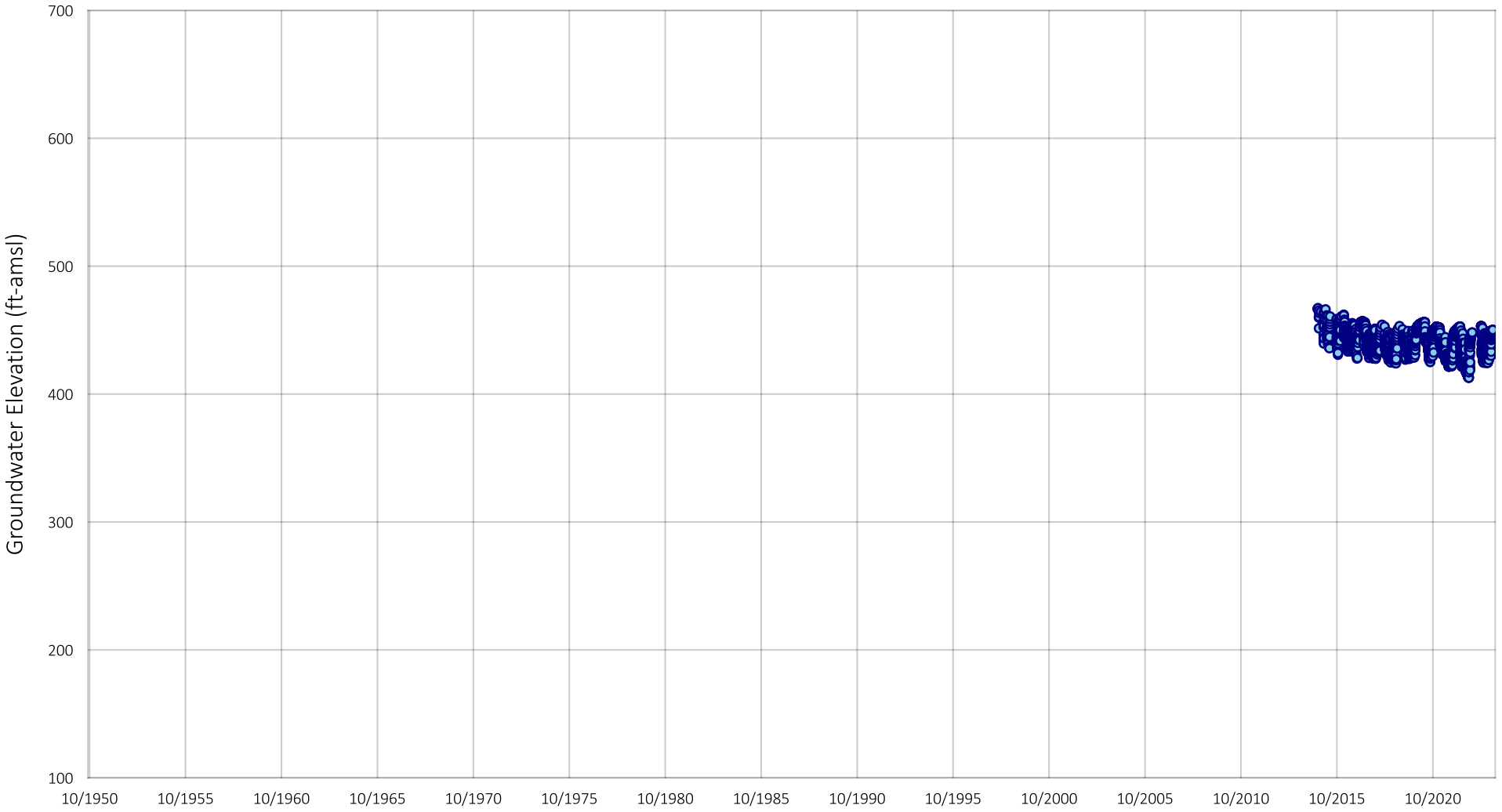
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Historical Groundwater Level Elevation
BSWM ID: 1245882
Well Name: ID1-8
State Well ID: 011S006E23J001S

Figure F-41



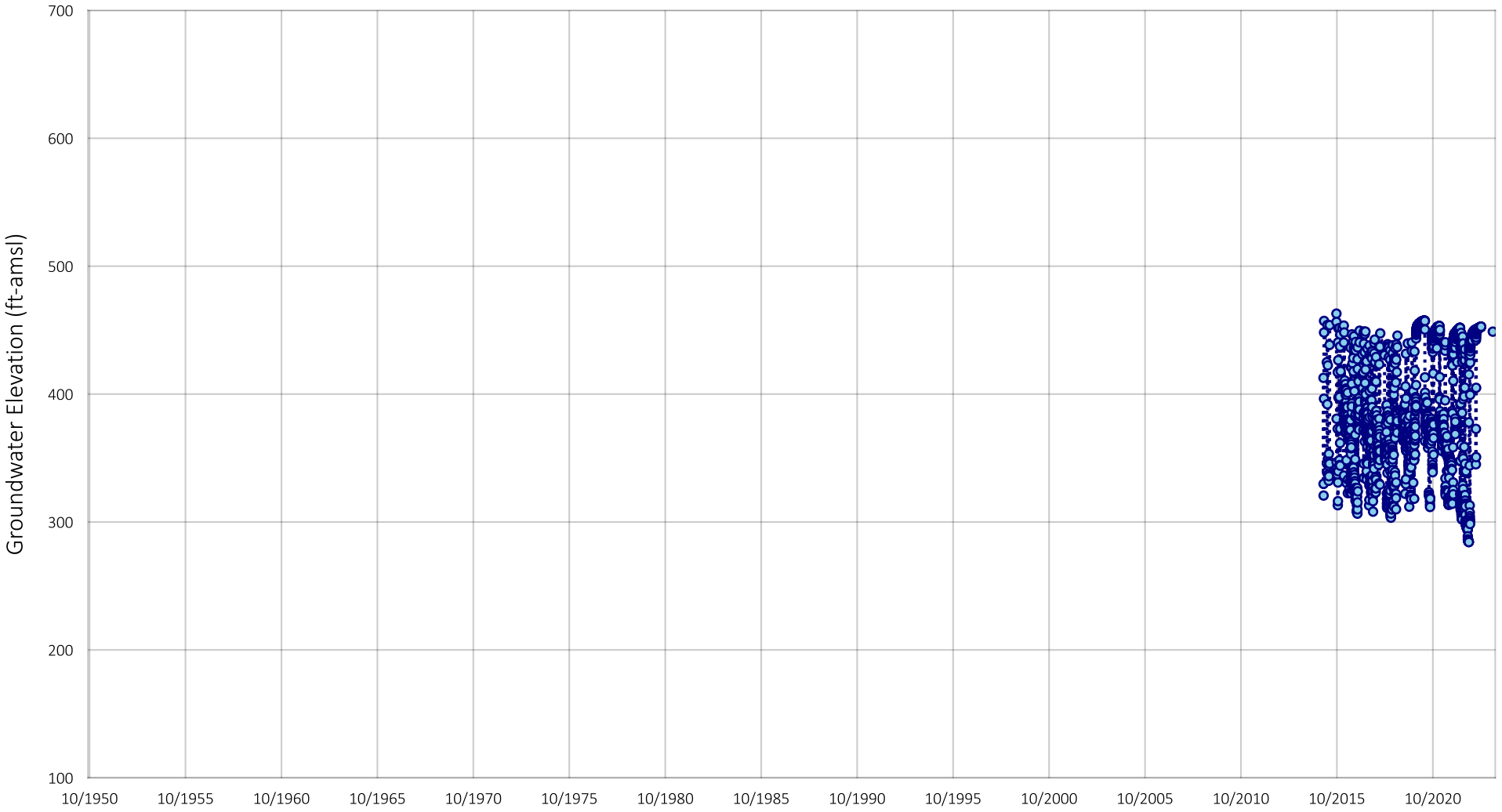
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Historical Groundwater Level Elevation
BSWM ID: 1245894
Well Name: JC Well
State Well ID: 011S006E24Q001S

Figure F-42



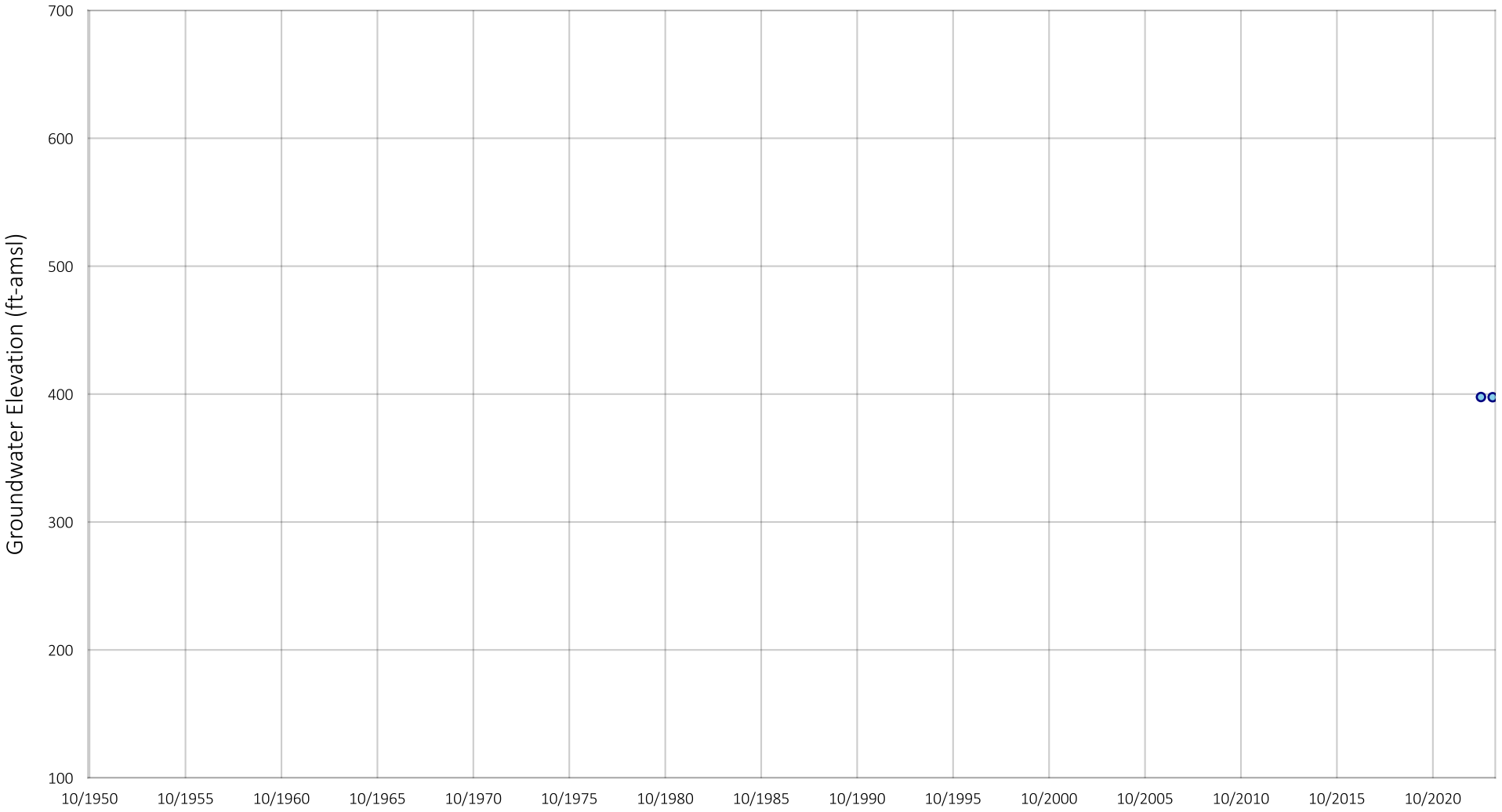
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Historical Groundwater Level Elevation
BSWM ID: 1245910
Well Name: RH-4
State Well ID: 011S006E24Q002S

Figure F-43



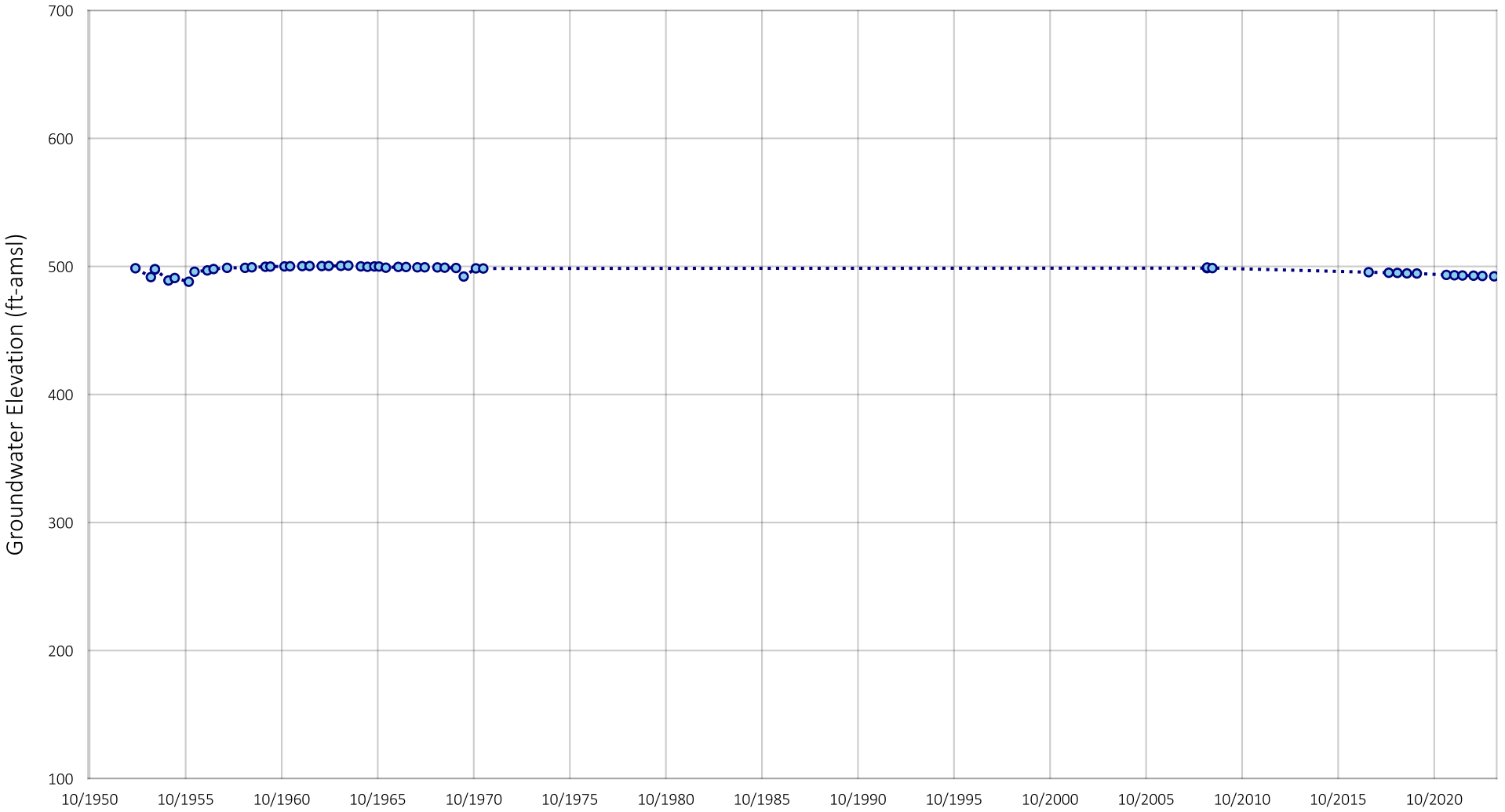
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Historical Groundwater Level Elevation
BSWM ID: 1245836
Well Name: Terry Well (011S006E20R001S)
State Well ID: 011S006E20R001S

Figure F-44



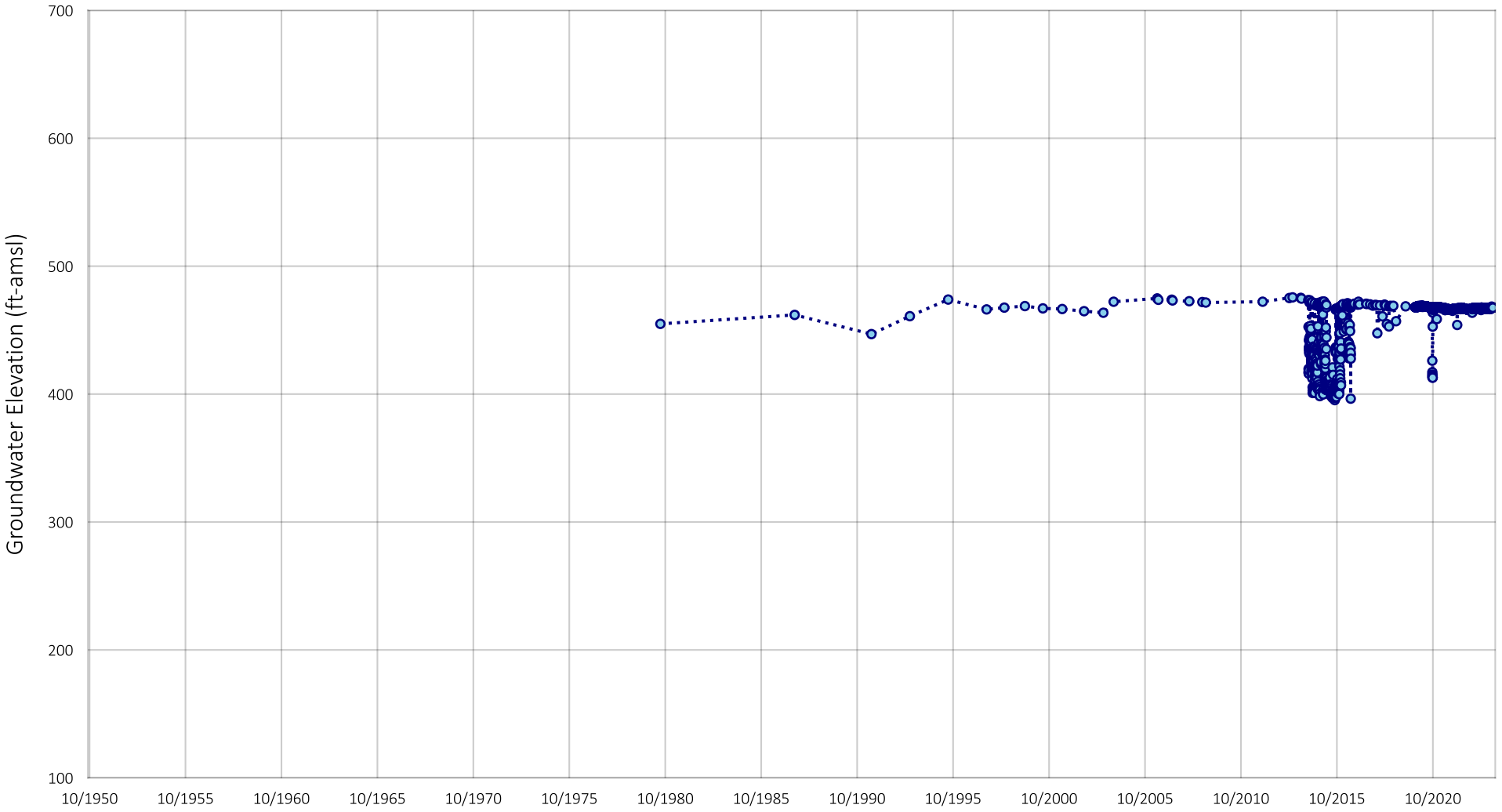
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Historical Groundwater Level Elevation
BSWM ID: 1245859
Well Name: Bing Crosby Well (Sky Ranch)
State Well ID: 011S007E20P001S

Figure F-45



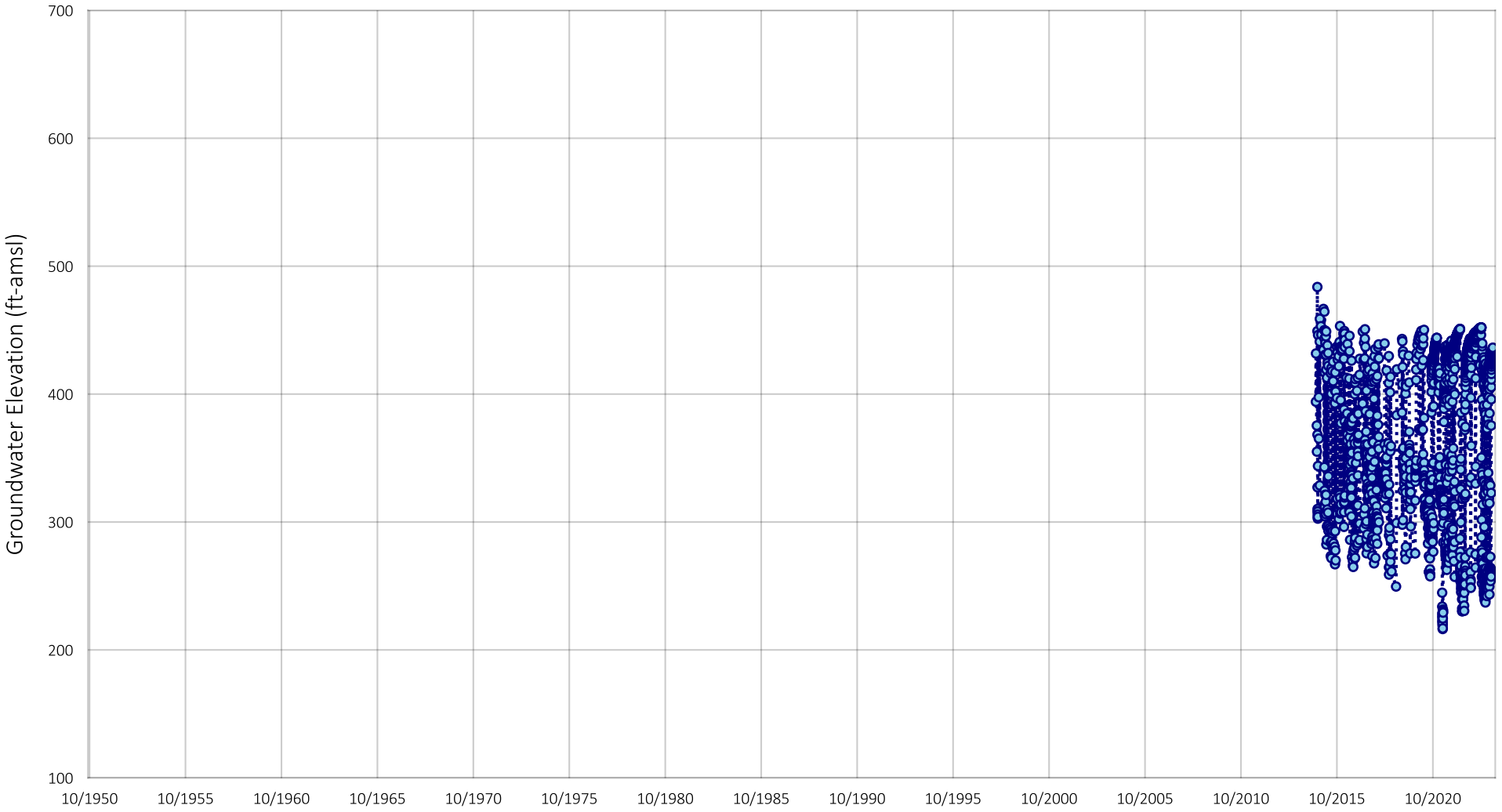
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Historical Groundwater Level Elevation
BSWM ID: 1245877
Well Name: RH-1 (ID1-1)
State Well ID: 011S006E25A001S

Figure F-46



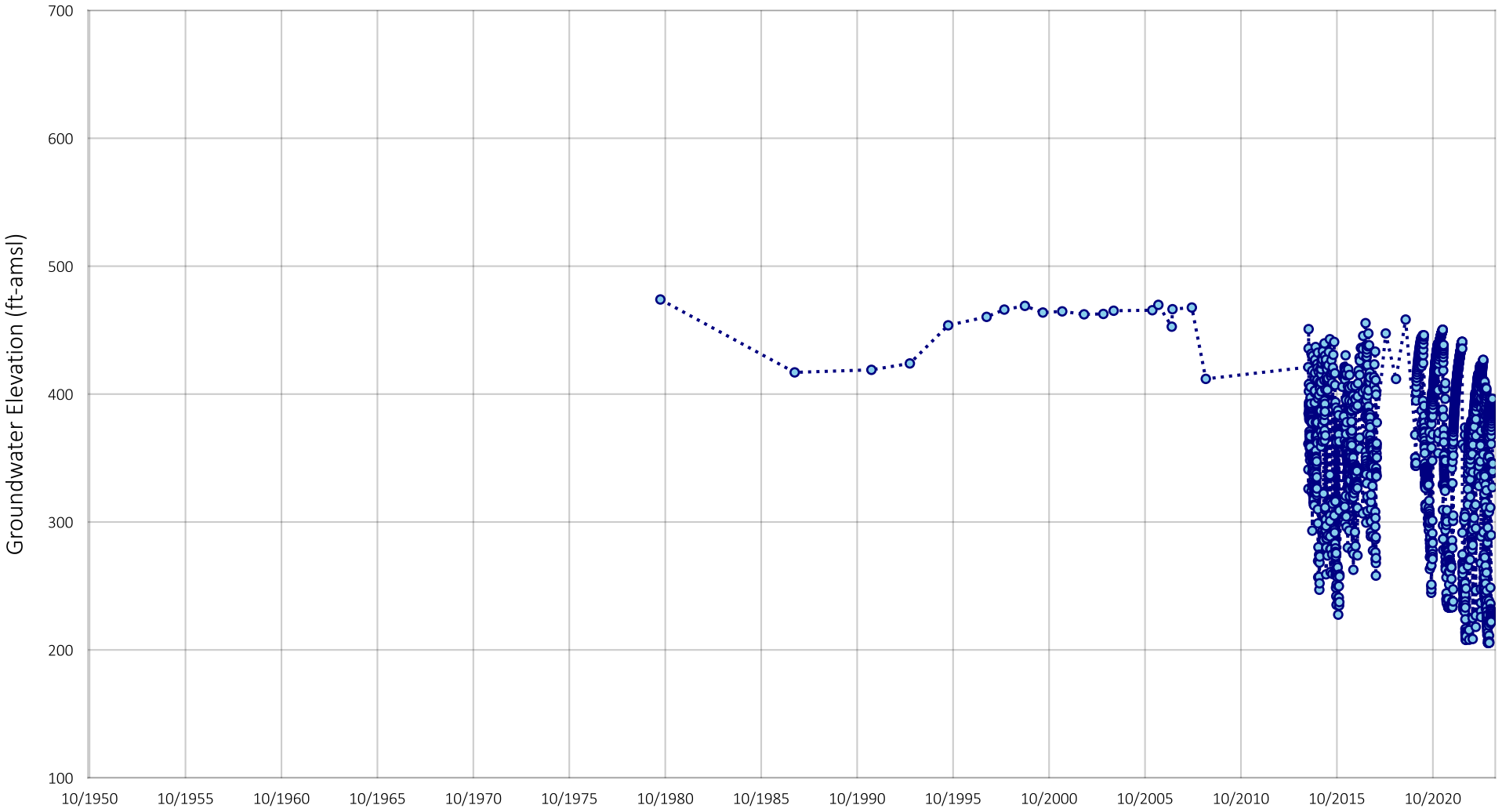
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Historical Groundwater Level Elevation
BSWM ID: 1245909
Well Name: RH-3
State Well ID: 011S006E25C002S

Figure F-47



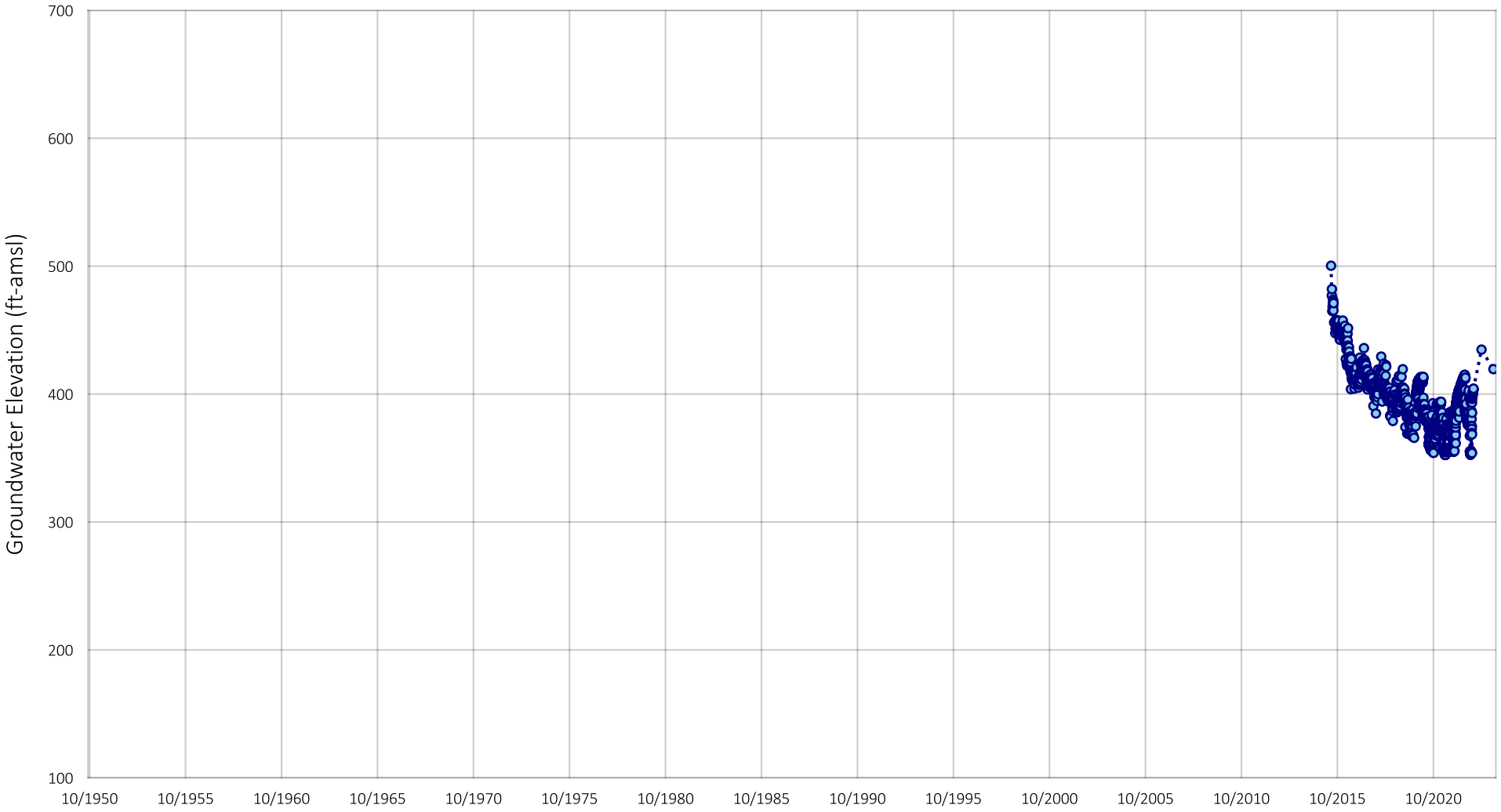
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Historical Groundwater Level Elevation
BSWM ID: 1245881
Well Name: RH-2 (ID1-2)
State Well ID: 011S006E25C001S

Figure F-48



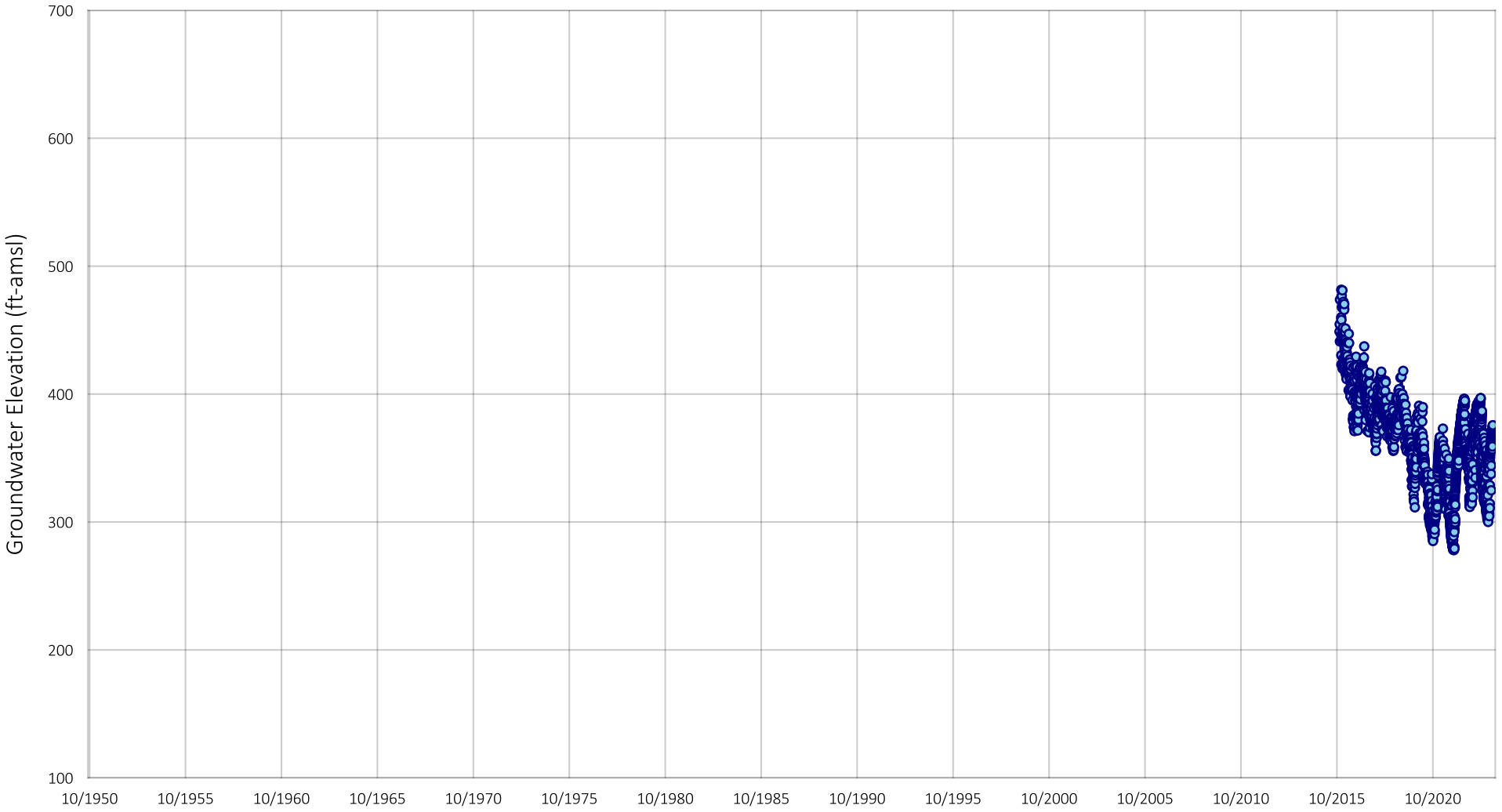
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Historical Groundwater Level Elevation
BSWM ID: 1245911
Well Name: RH-5
State Well ID: 011S006E26B001S

Figure F-49



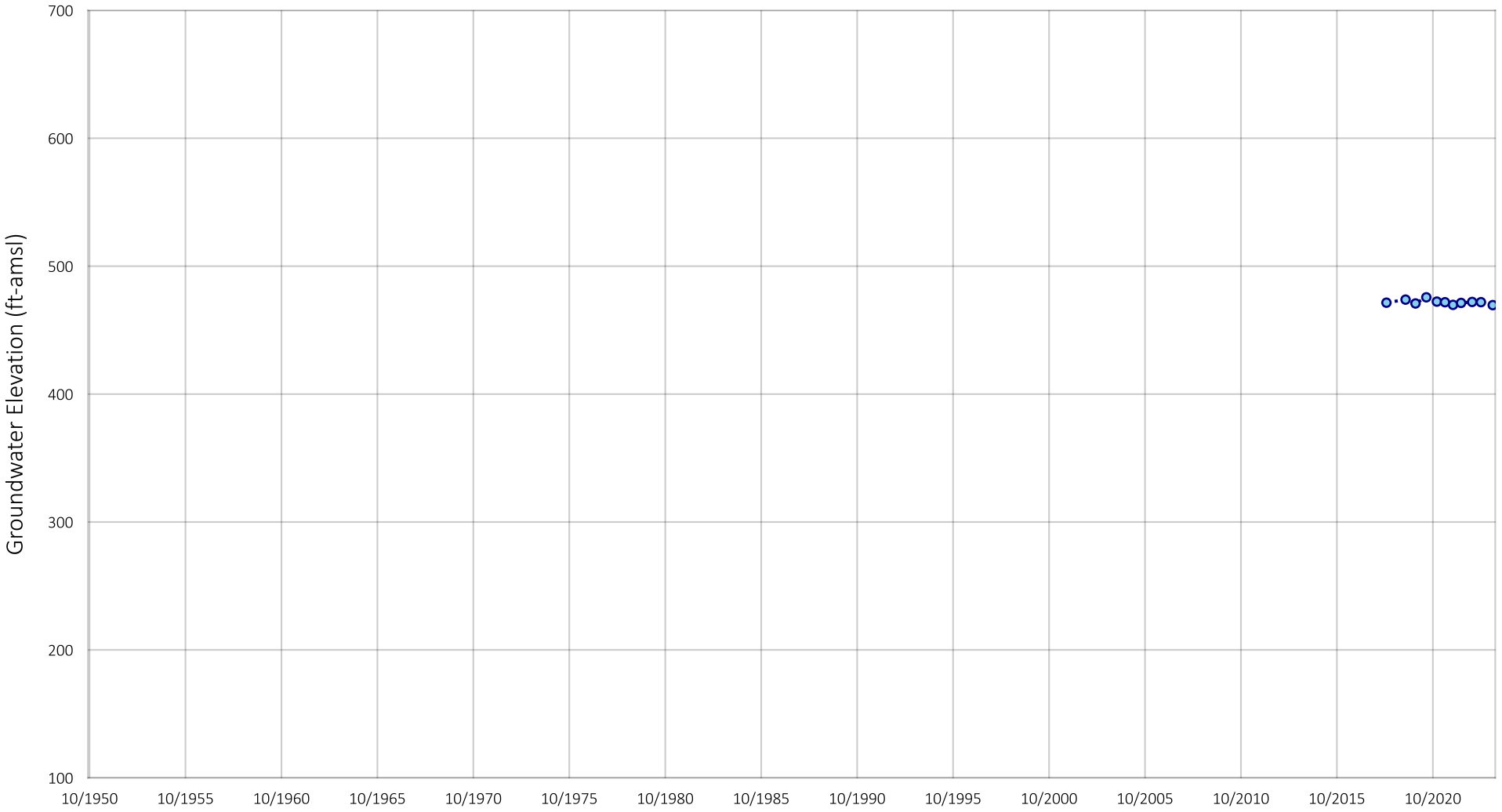
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Historical Groundwater Level Elevation
BSWM ID: 1245912
Well Name: RH-6
State Well ID: 011S006E26H001S

Figure F-50



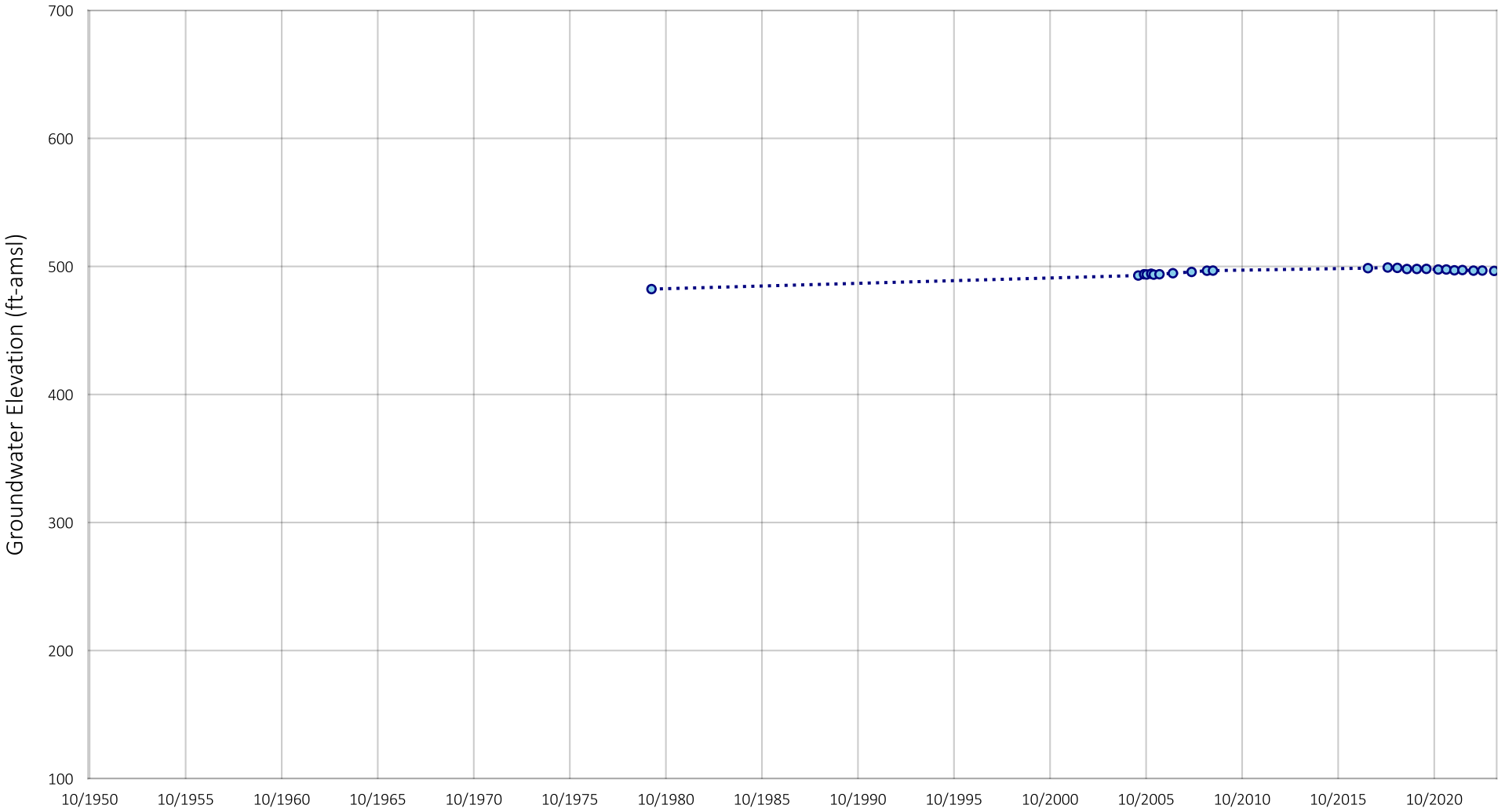
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Historical Groundwater Level Elevation
BSWM ID: 1245852
Well Name: Air Ranch Well 4
State Well ID: 011S007E30L001S

Figure F-51



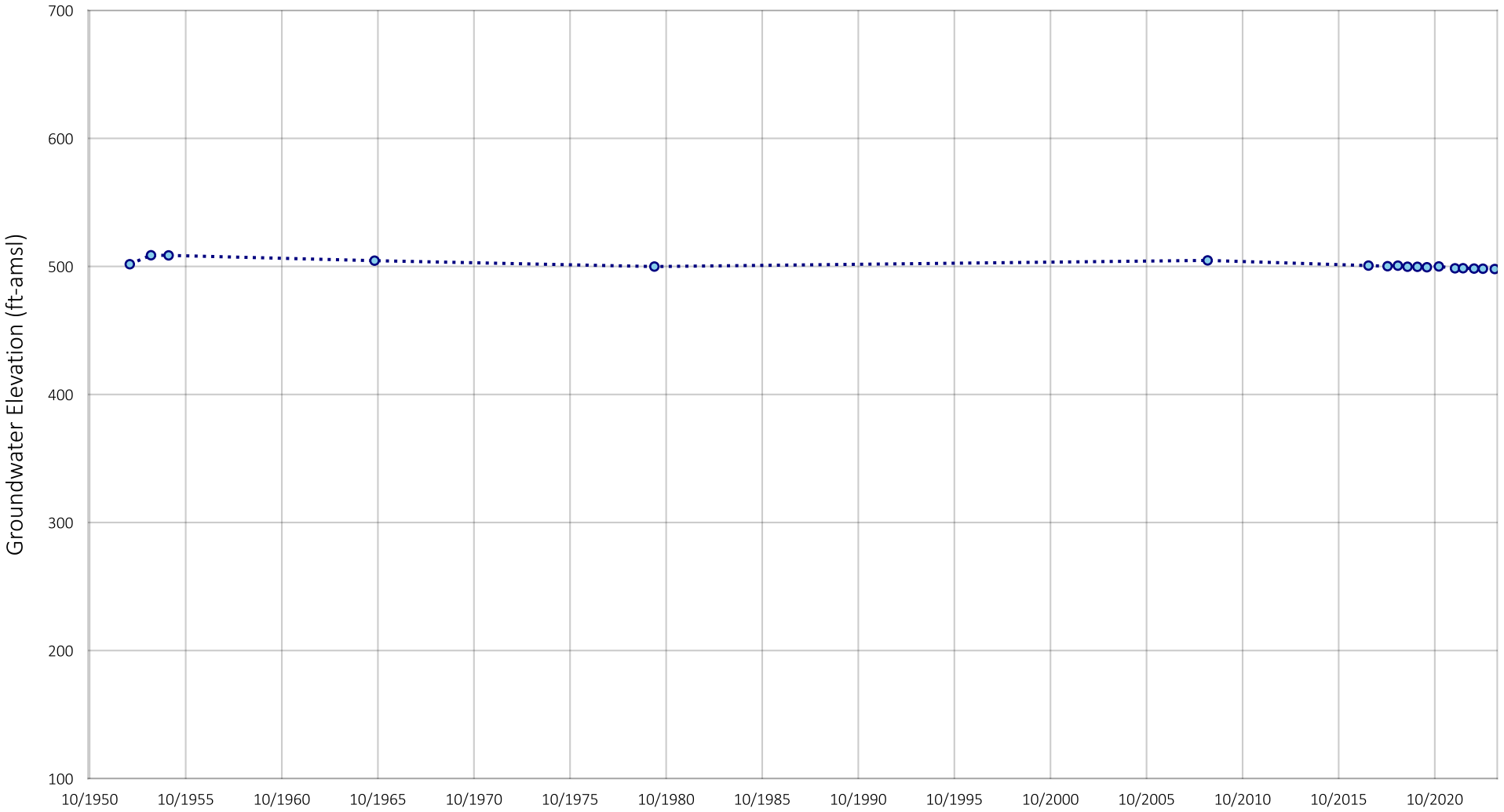
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Historical Groundwater Level Elevation
BSWM ID: 1245854
Well Name: Army Well
State Well ID: 011S006E34A001S

Figure F-52



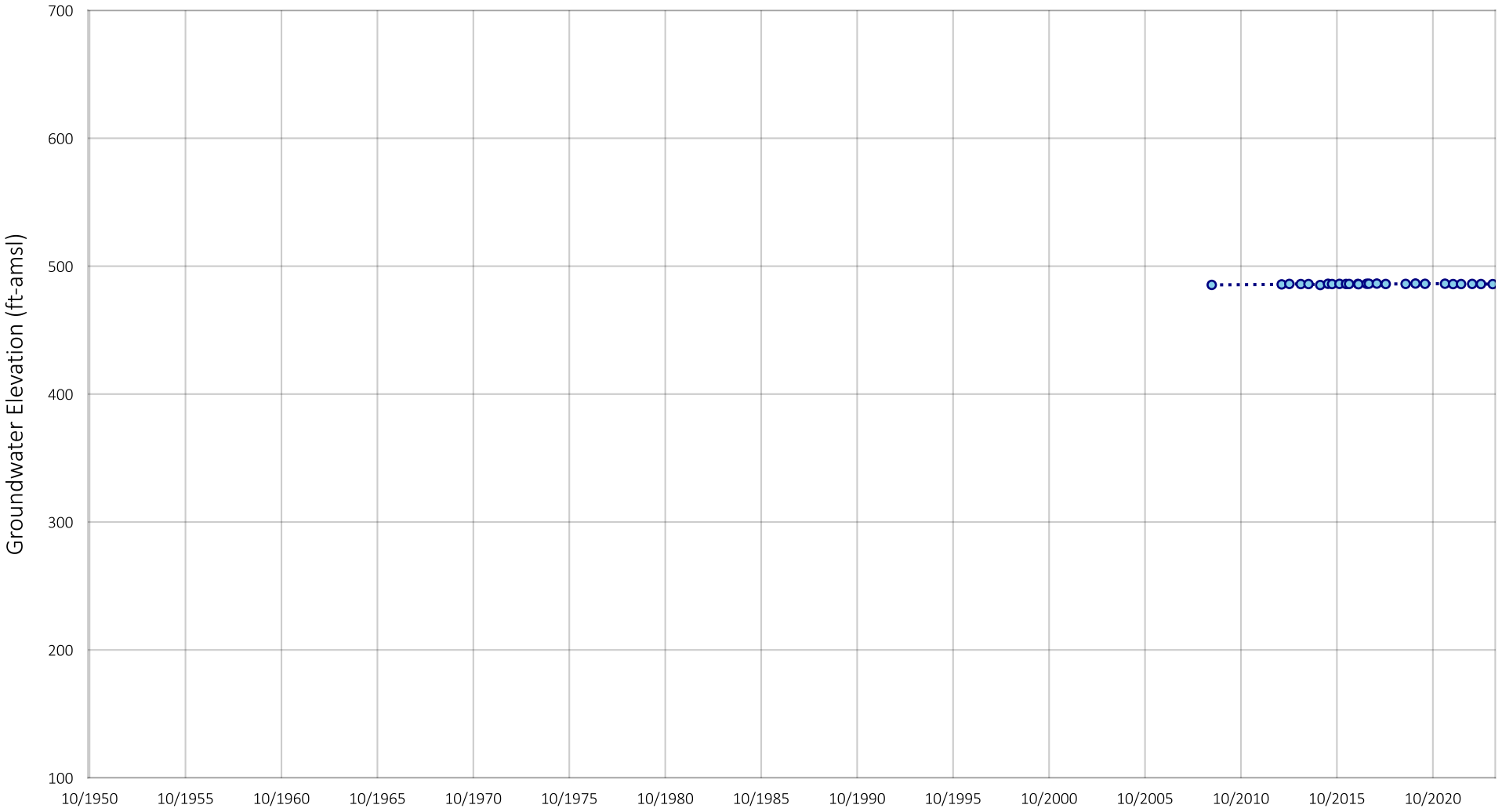
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Historical Groundwater Level Elevation
BSWM ID: 1245875
Well Name: Hayden (32Q1)
State Well ID: 011S007E32Q001S

Figure F-53



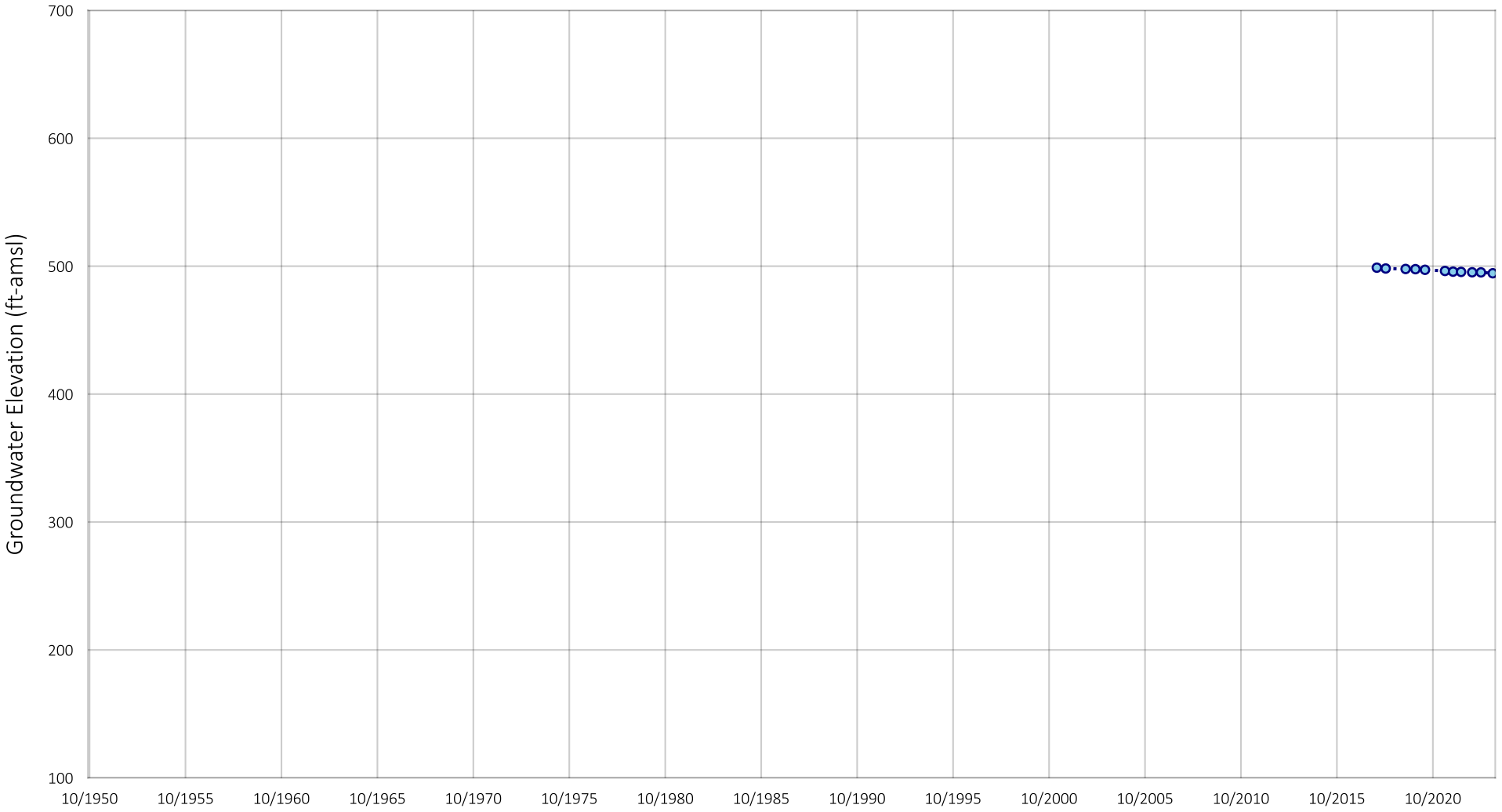
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

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:

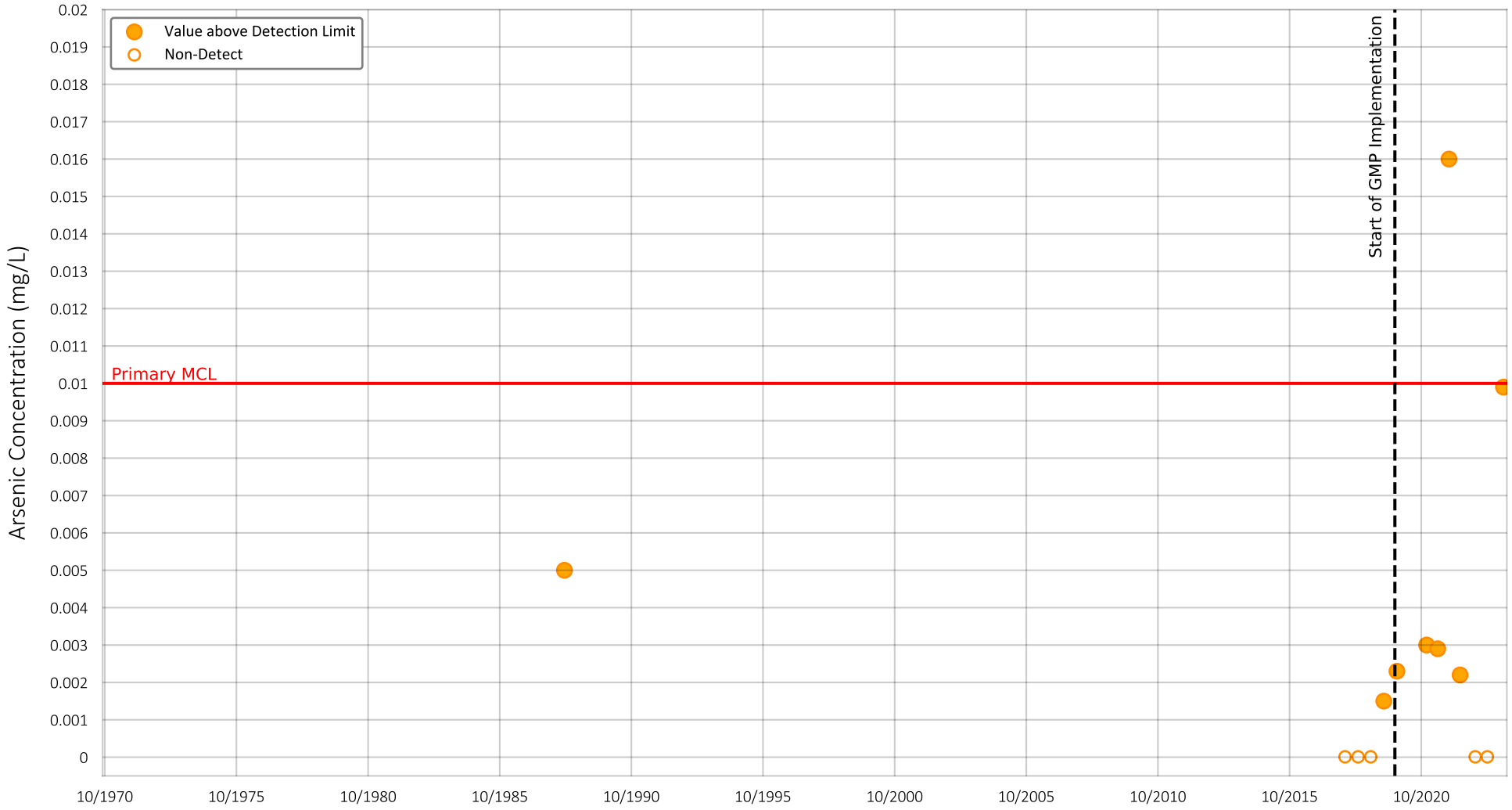
WEST YOST
Water. Engineered.

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



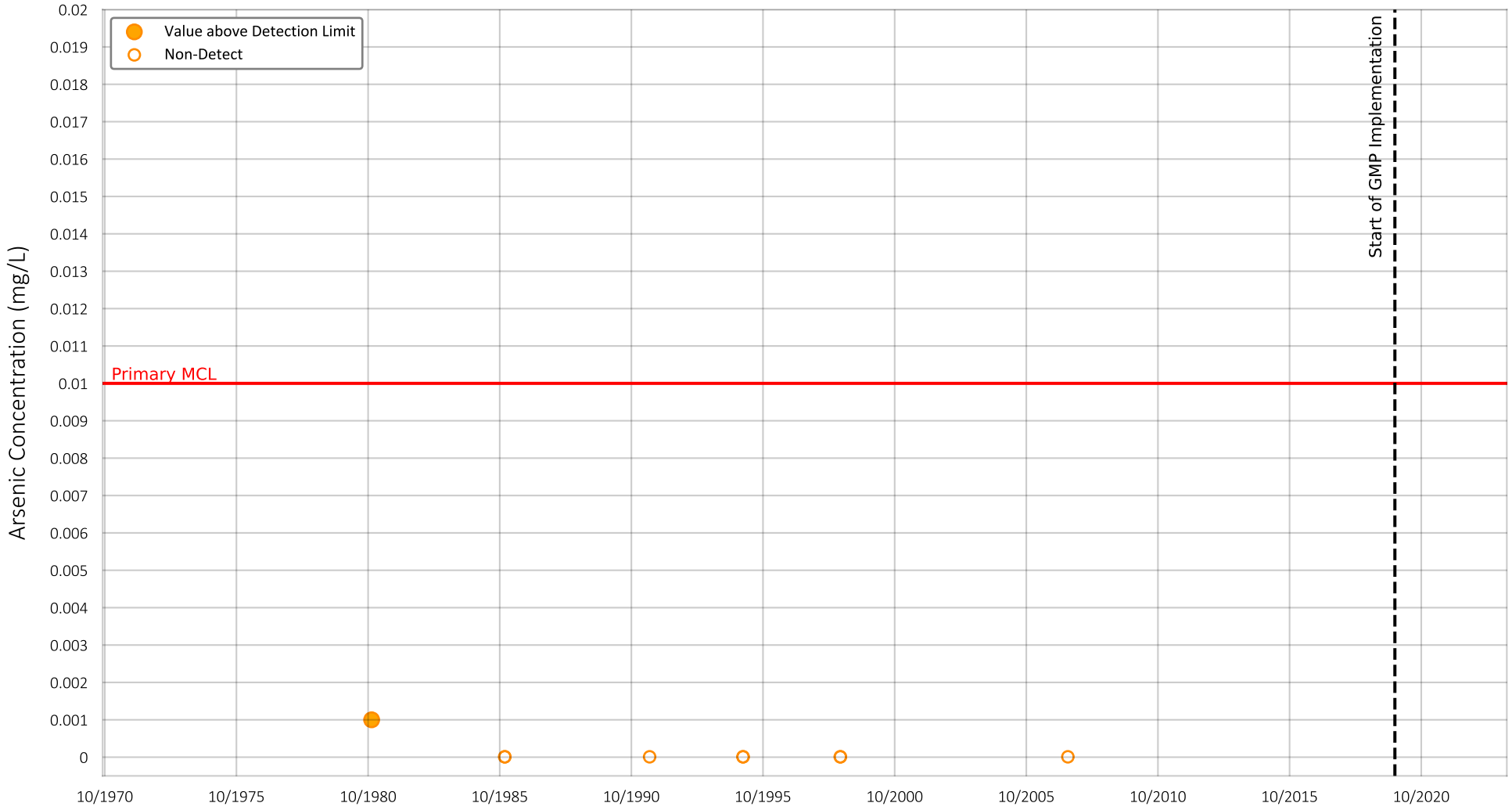
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Arsenic Concentration
Well Name: RH-1 (ID1-1)
State Well ID: 011S006E25A001S
Well Depth (ft): 600
Perforated Interval (ft): 180 - 580

Figure G-1



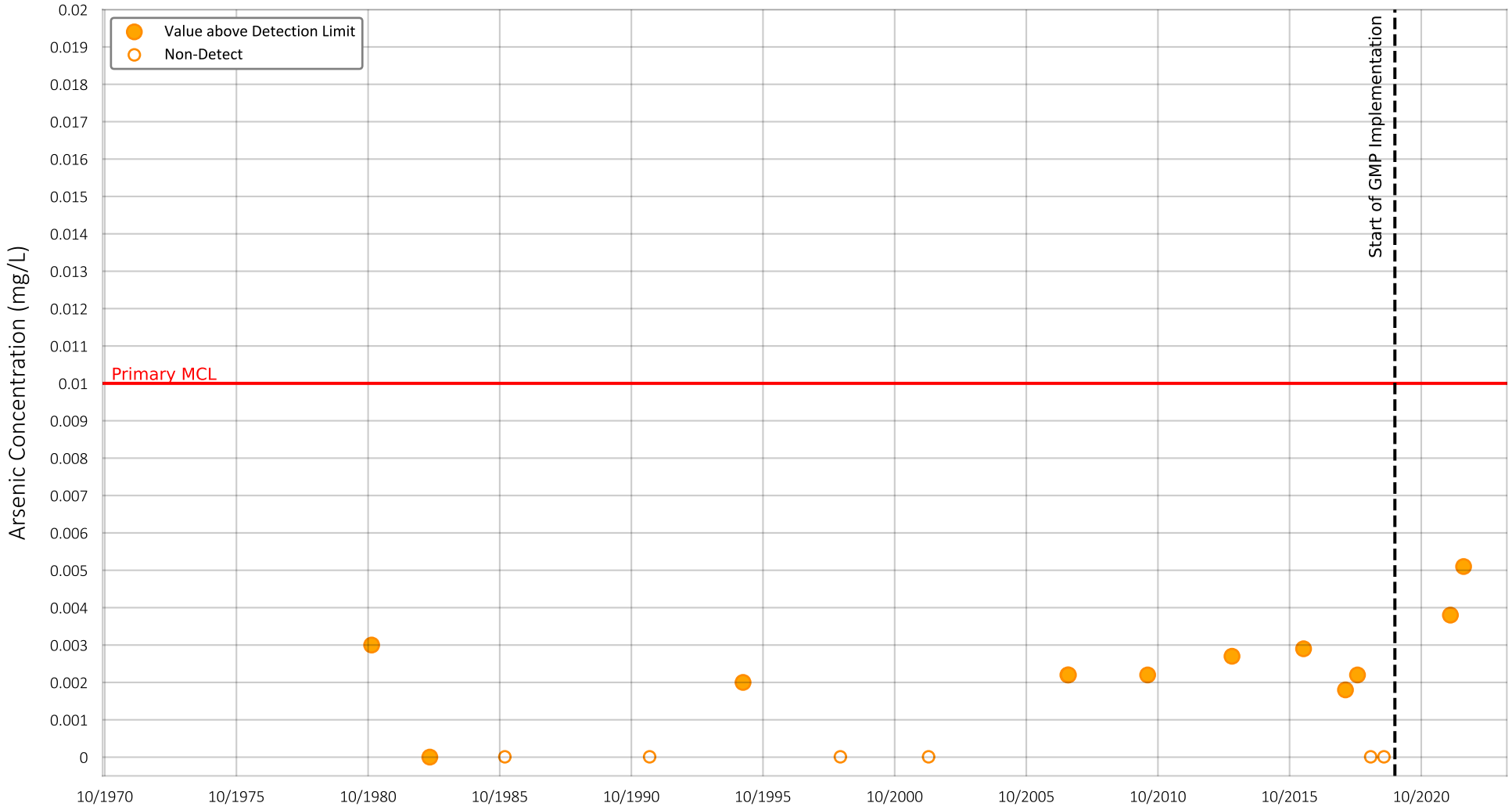
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Arsenic Concentration
Well Name: ID4-3
State Well ID: 010S006E18R001S
Well Depth (ft): 621
Perforated Interval (ft): no data - no data

Figure G-2



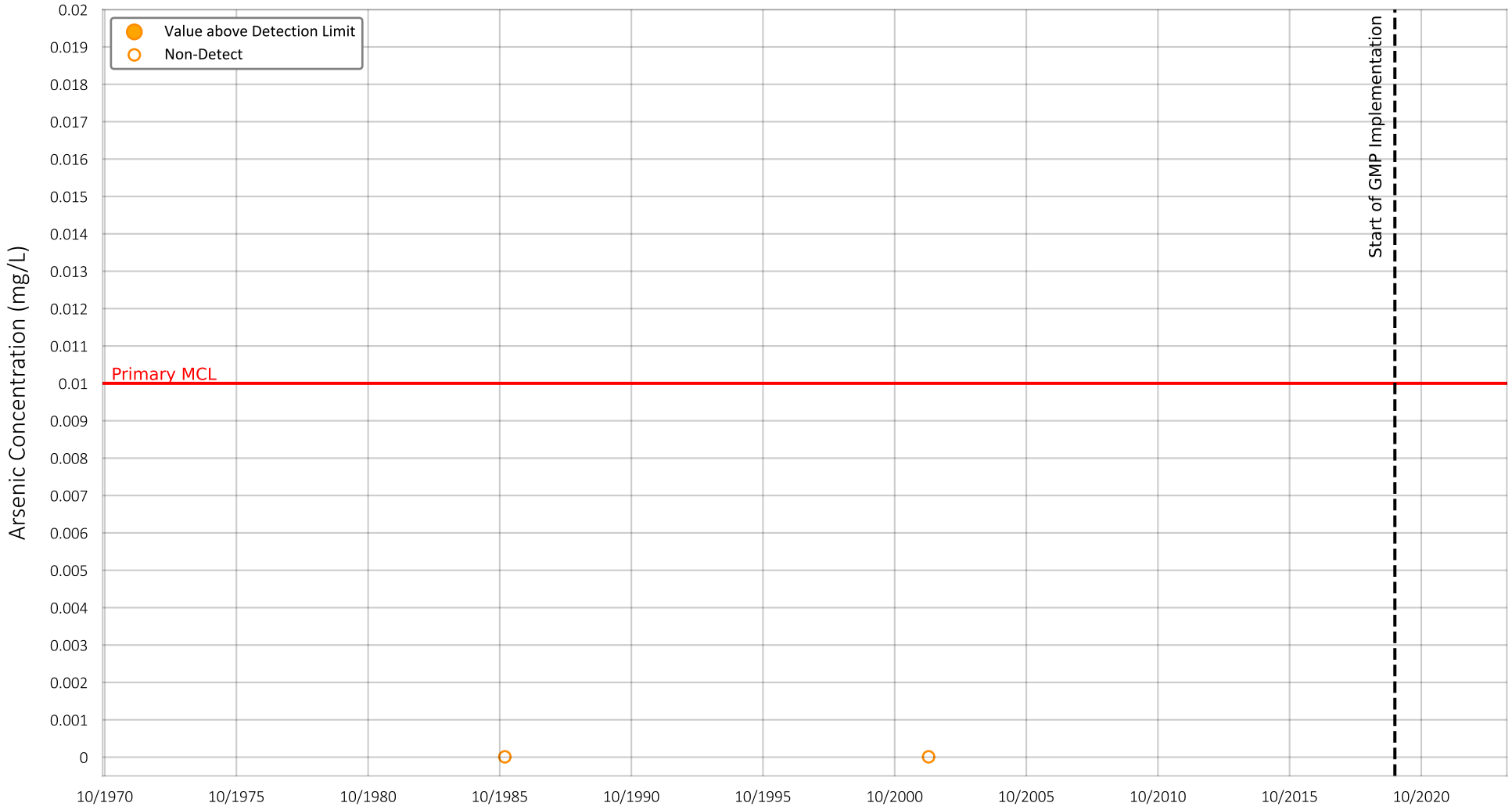
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Arsenic Concentration
Well Name: ID4-4
State Well ID: 010S006E29K002S
Well Depth (ft): 802
Perforated Interval (ft): 470 - 786

Figure G-3



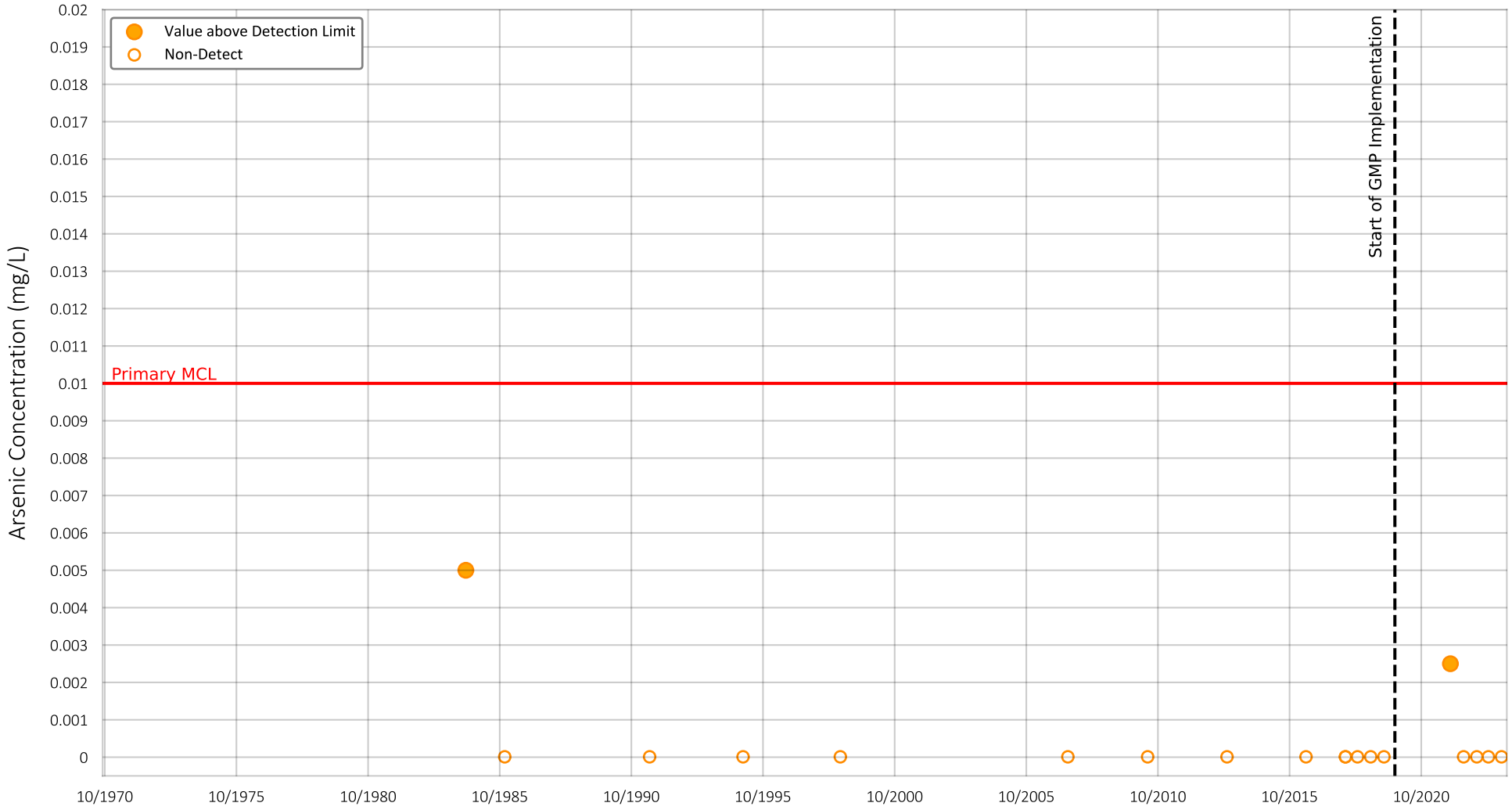
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

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



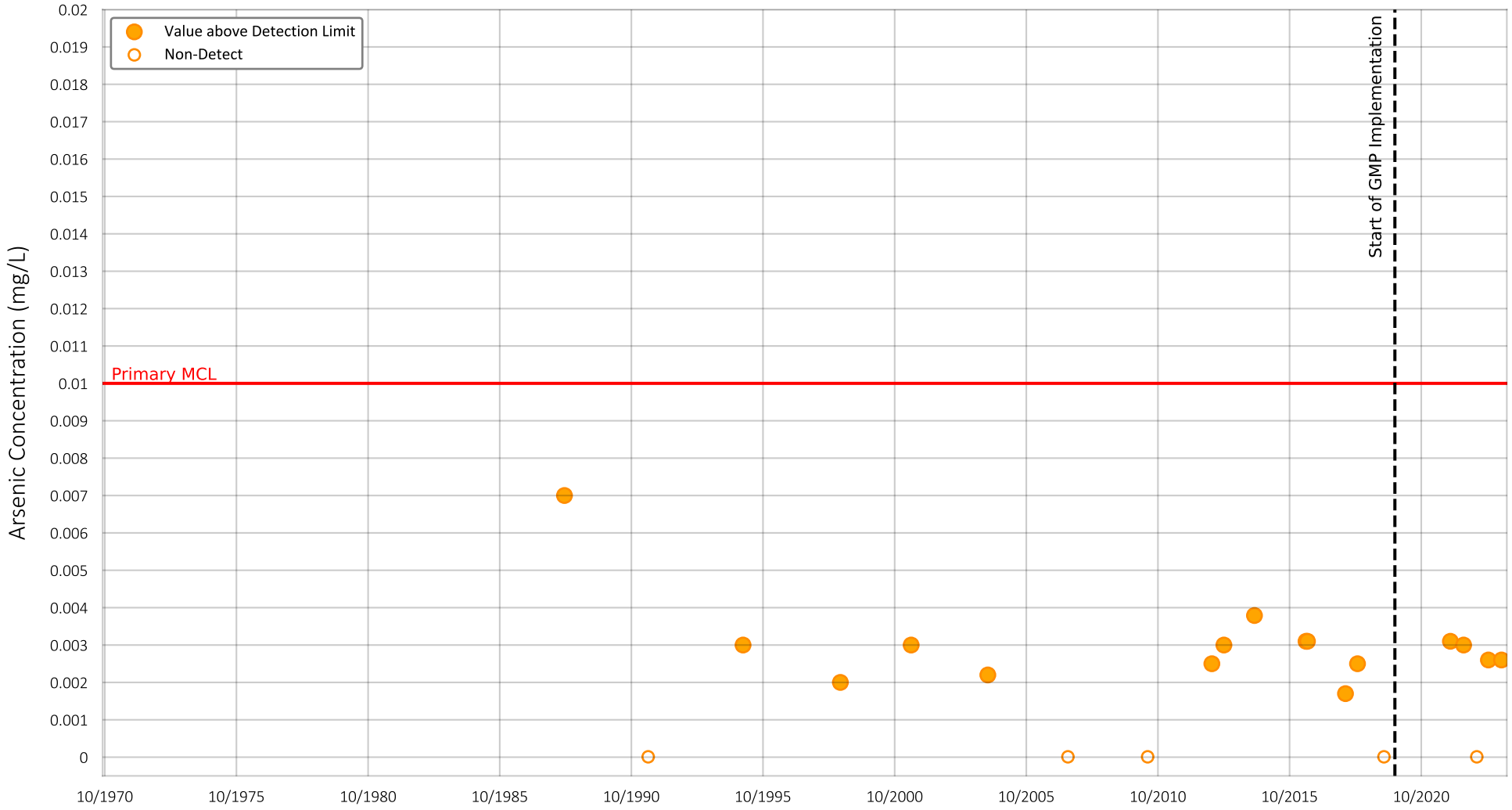
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Arsenic Concentration
Well Name: ID4-18
State Well ID: 010S006E18J001S
Well Depth (ft): 570
Perforated Interval (ft): 240 - 560

Figure G-5



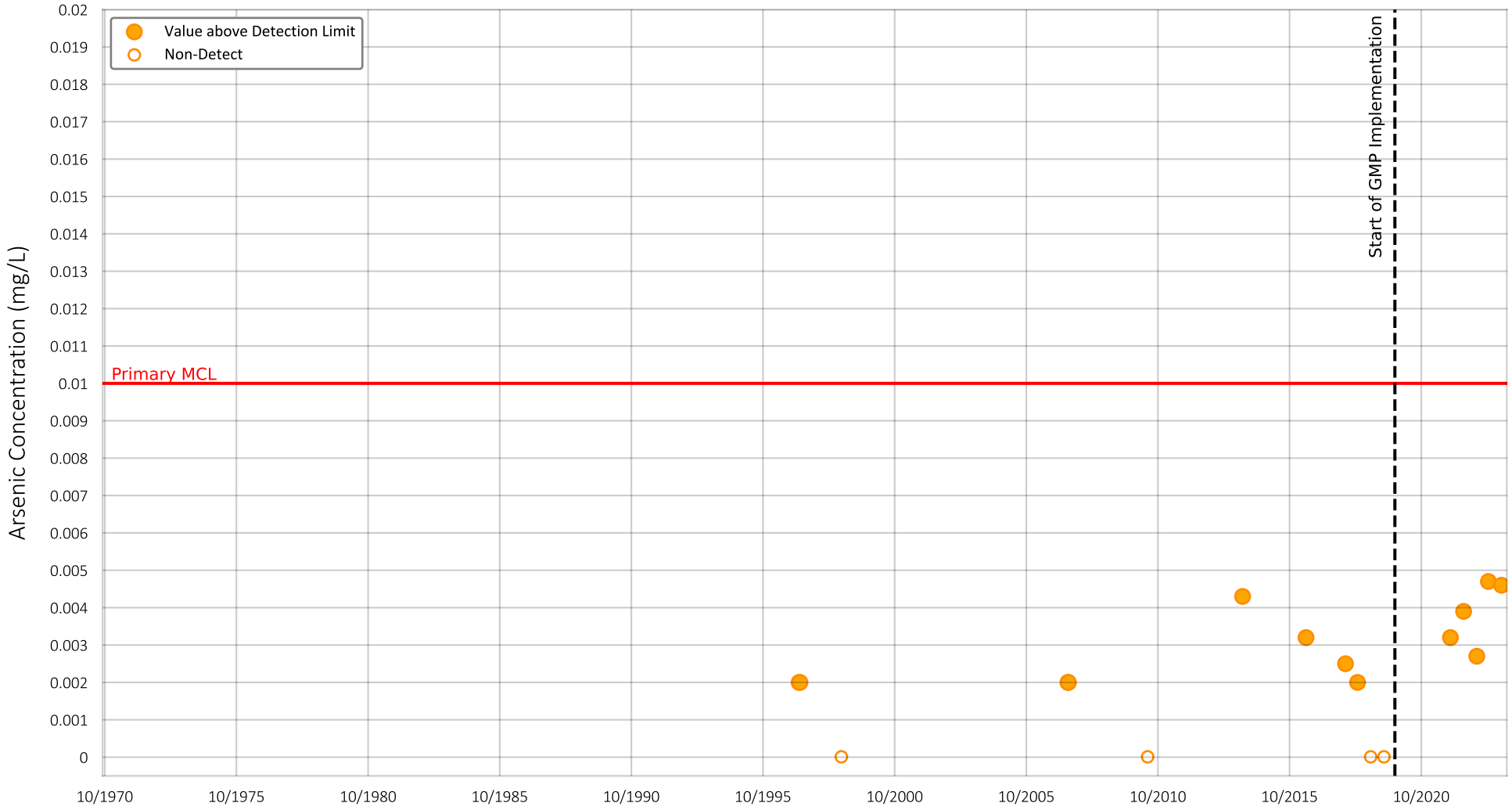
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Arsenic Concentration
Well Name: ID1-12
State Well ID: 011S006E16A002S
Well Depth (ft): 580
Perforated Interval (ft): 248 - 568

Figure G-6



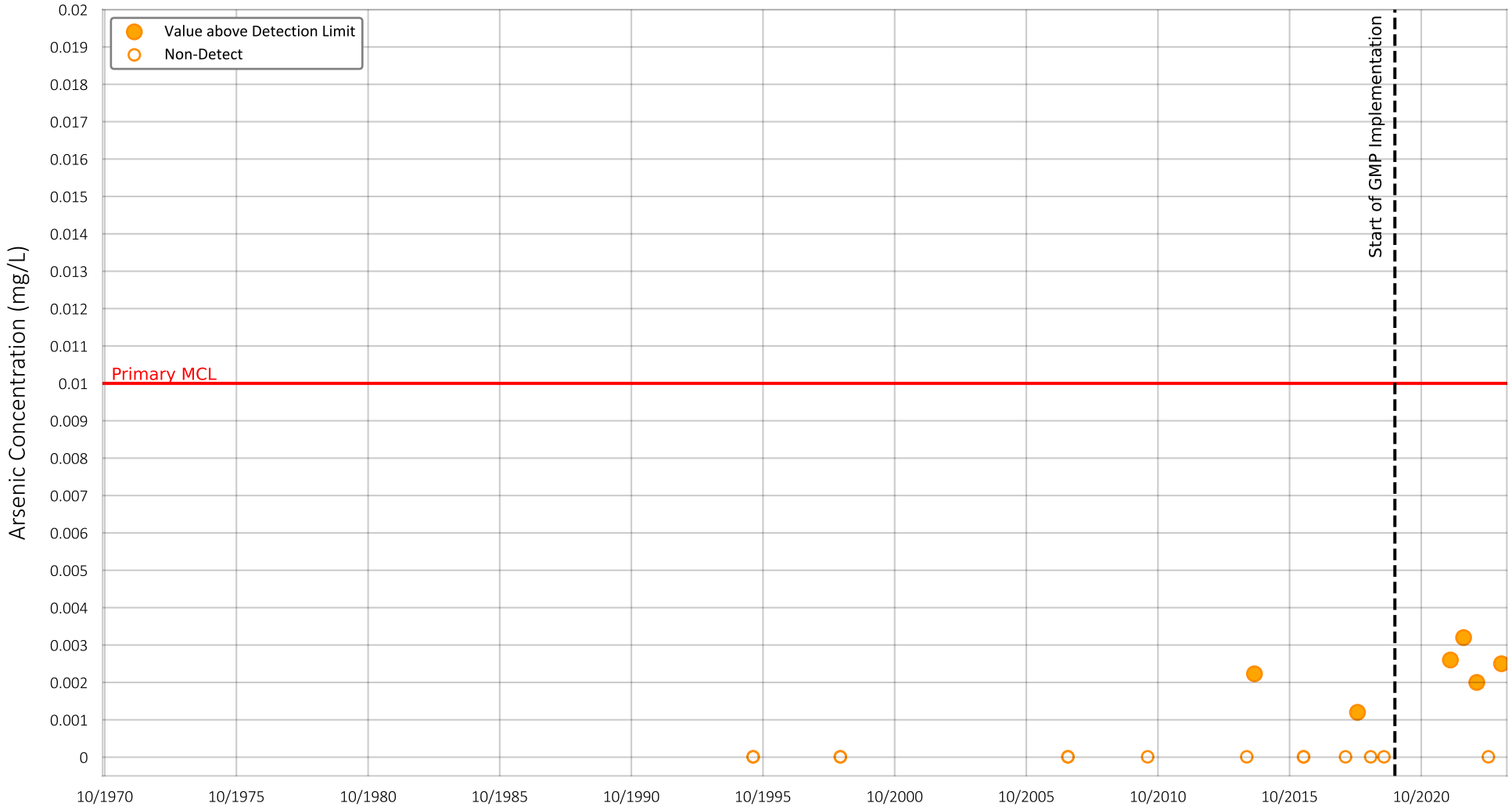
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Arsenic Concentration
Well Name: ID1-16
State Well ID: 011S006E16N001S
Well Depth (ft): 705
Perforated Interval (ft): 160 - 549

Figure G-7



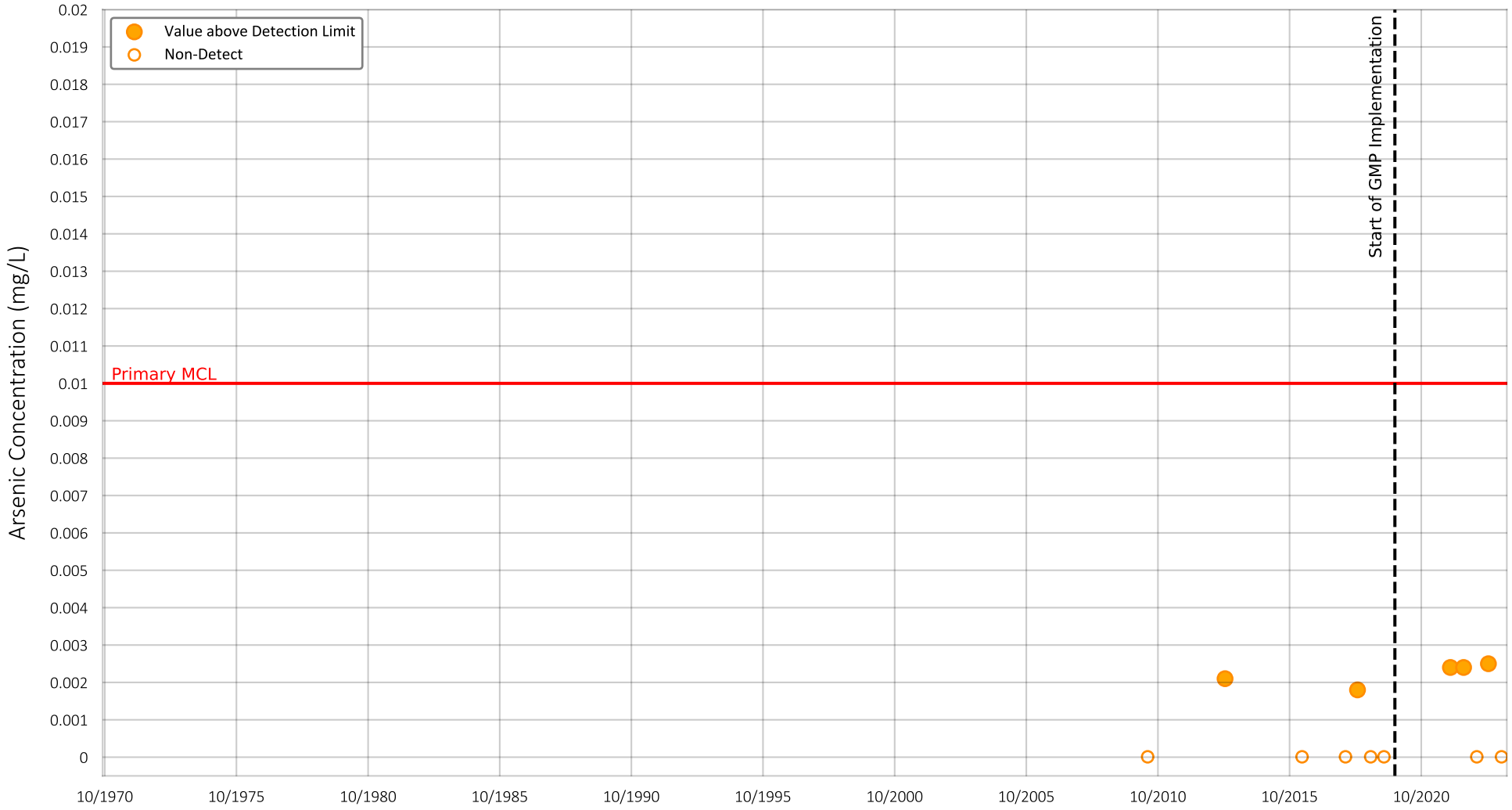
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Arsenic Concentration
Well Name: ID4-11
State Well ID: 010S006E32D001S
Well Depth (ft): 770
Perforated Interval (ft): 450 - 760

Figure G-8



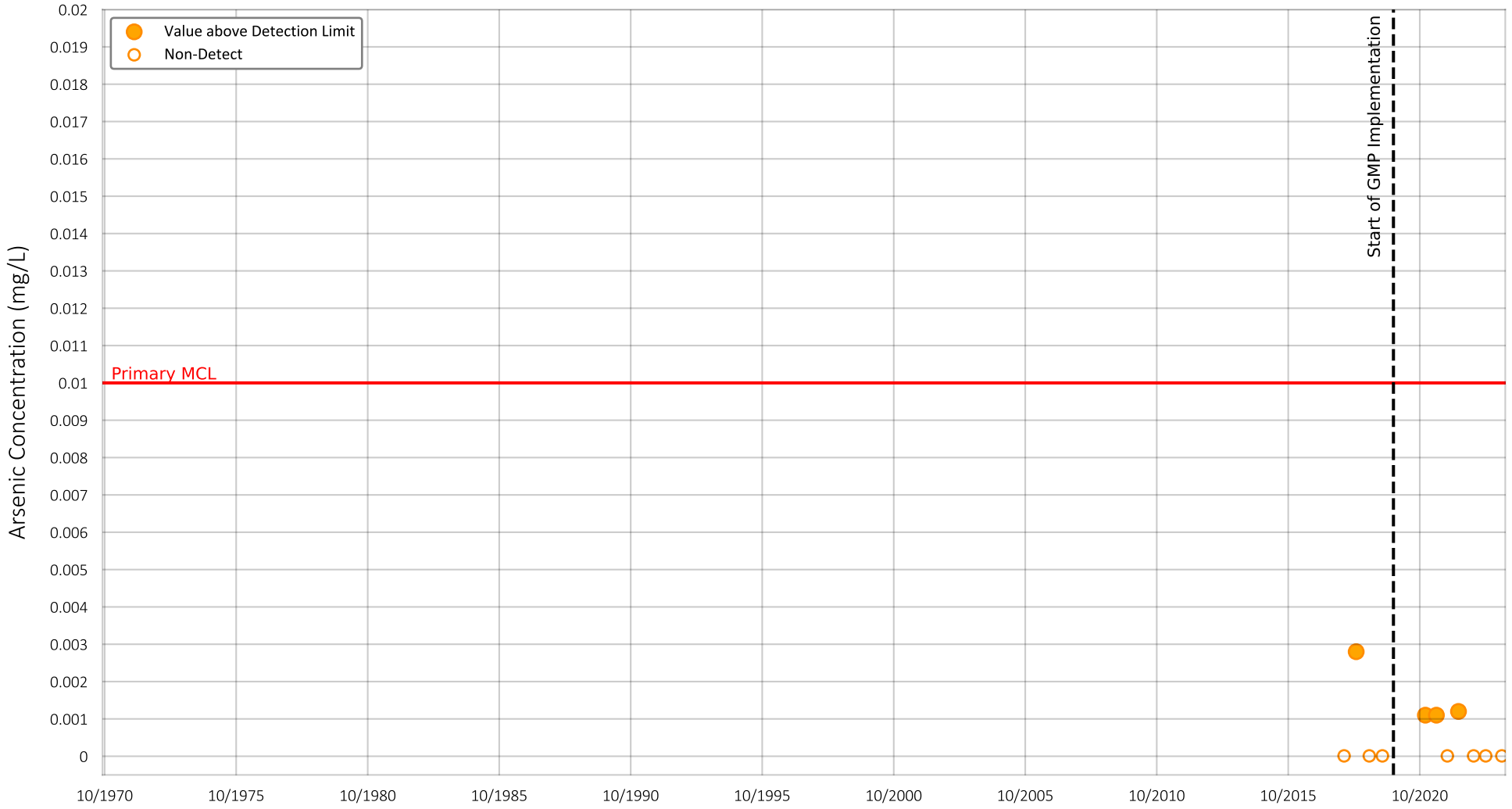
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Arsenic Concentration
Well Name: ID5-5
State Well ID: 011S006E09E001S
Well Depth (ft): 700
Perforated Interval (ft): 400 - 700

Figure G-9



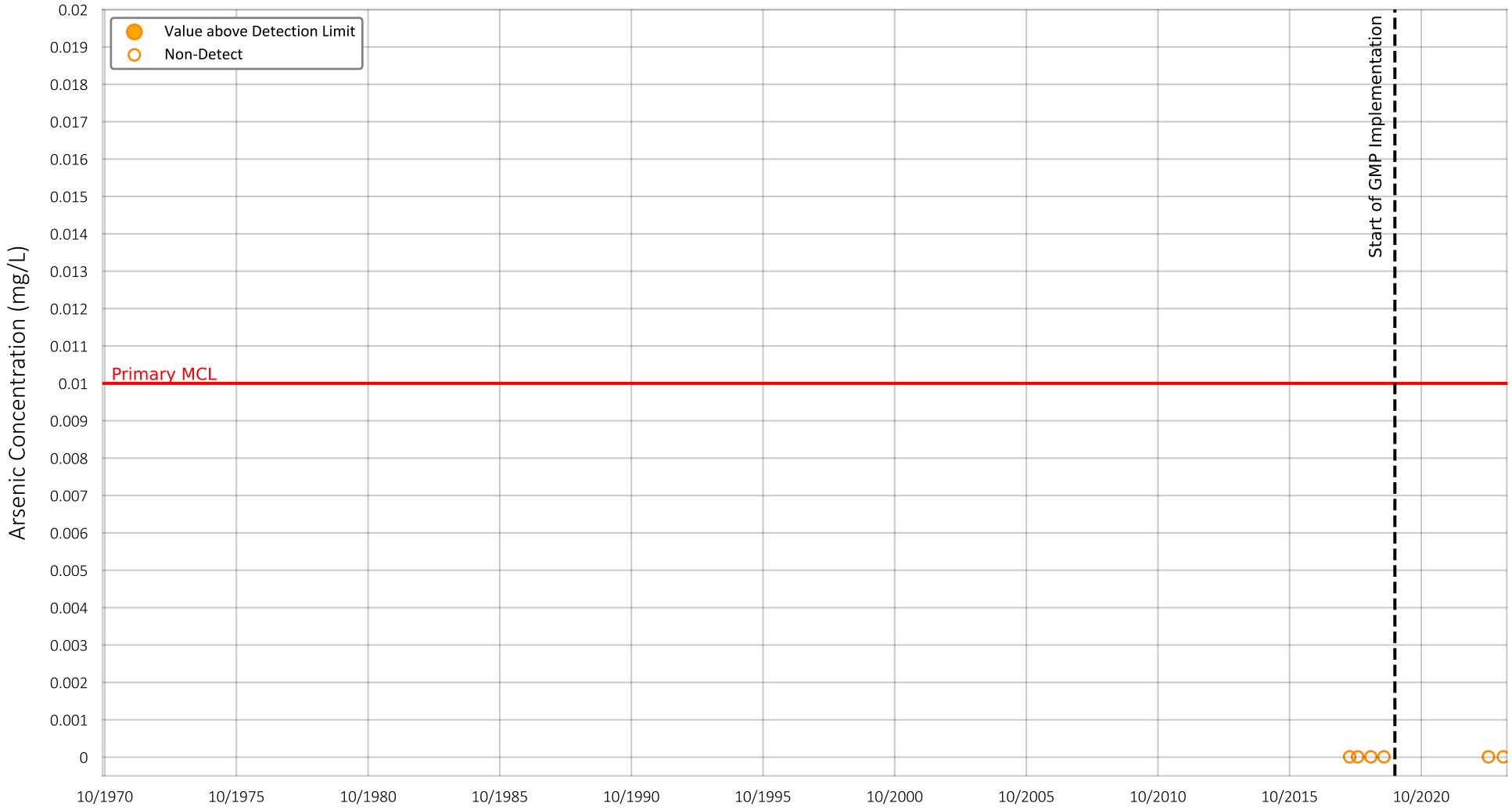
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Arsenic Concentration
Well Name: MW-3
State Well ID: 011S006E23J002S
Well Depth (ft): 325
Perforated Interval (ft): 175 - 331

Figure G-10



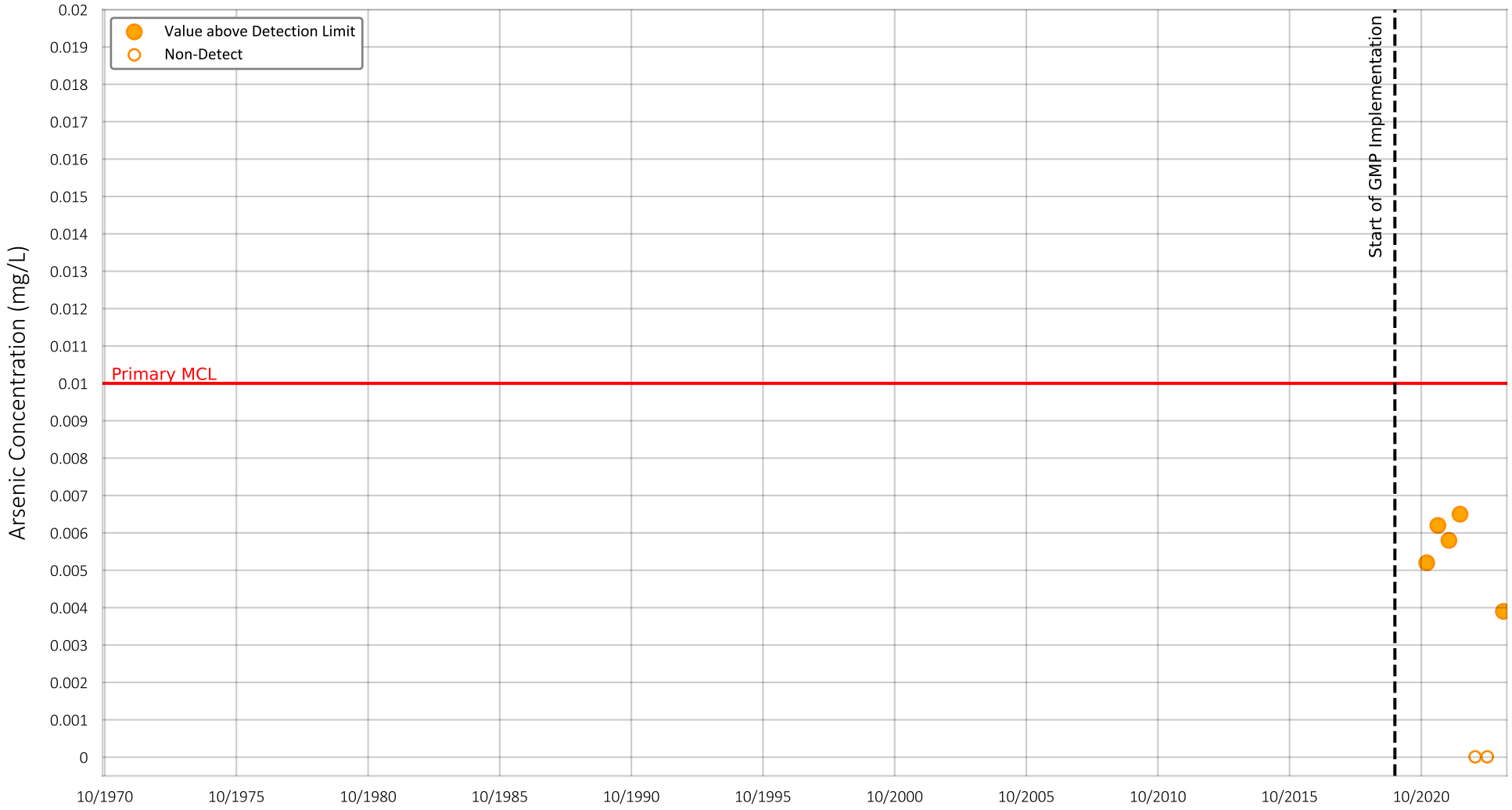
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Arsenic Concentration
Well Name: Fortiner #1 (Allegre 1)
State Well ID: 010S006E09N001S
Well Depth (ft): 560
Perforated Interval (ft): 250 - 607

Figure G-11



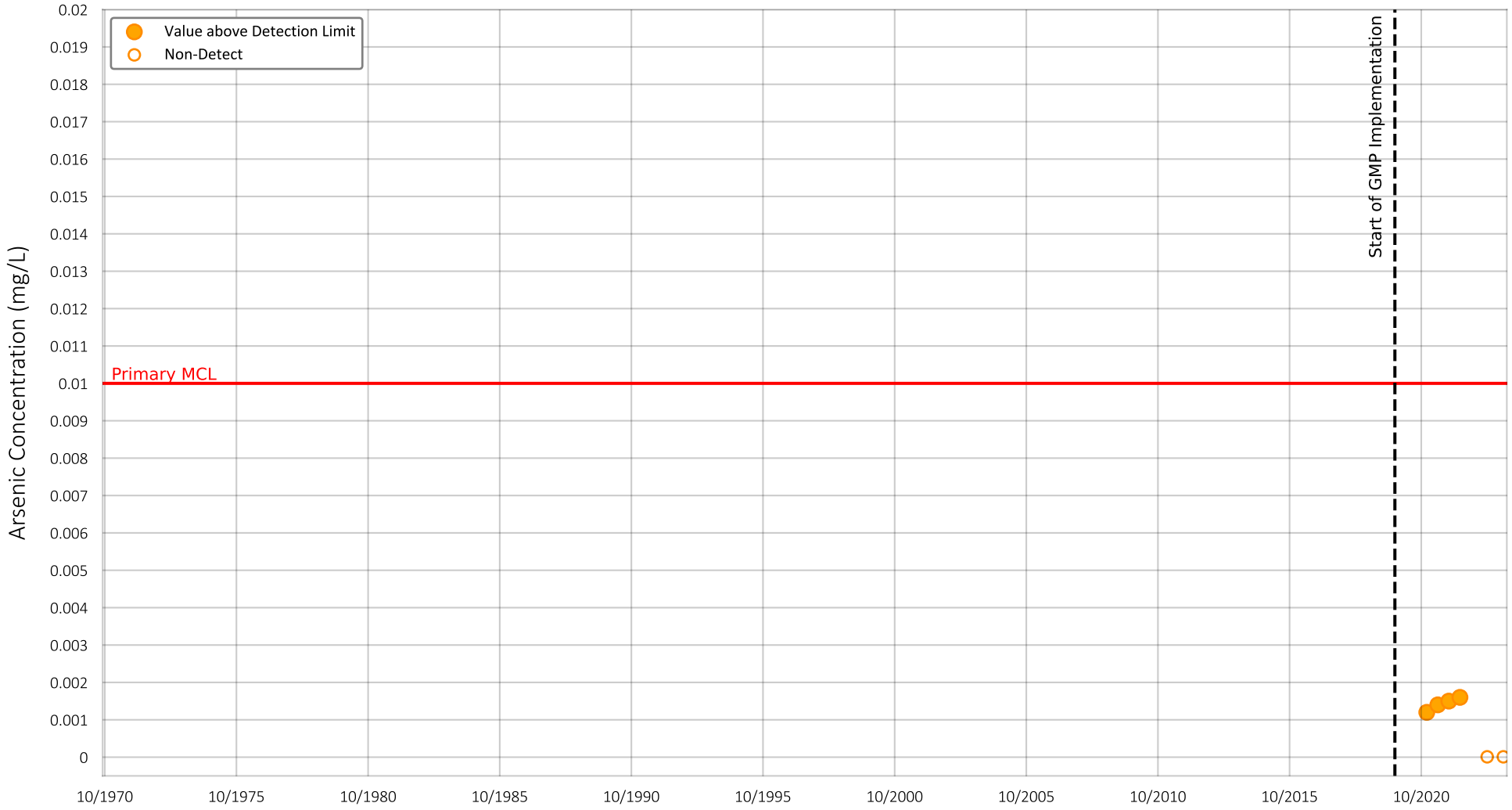
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Arsenic Concentration
Well Name: Air Ranch Well 4
State Well ID: 011S007E30L001S
Well Depth (ft): 380
Perforated Interval (ft): 120 - 380

Figure G-12



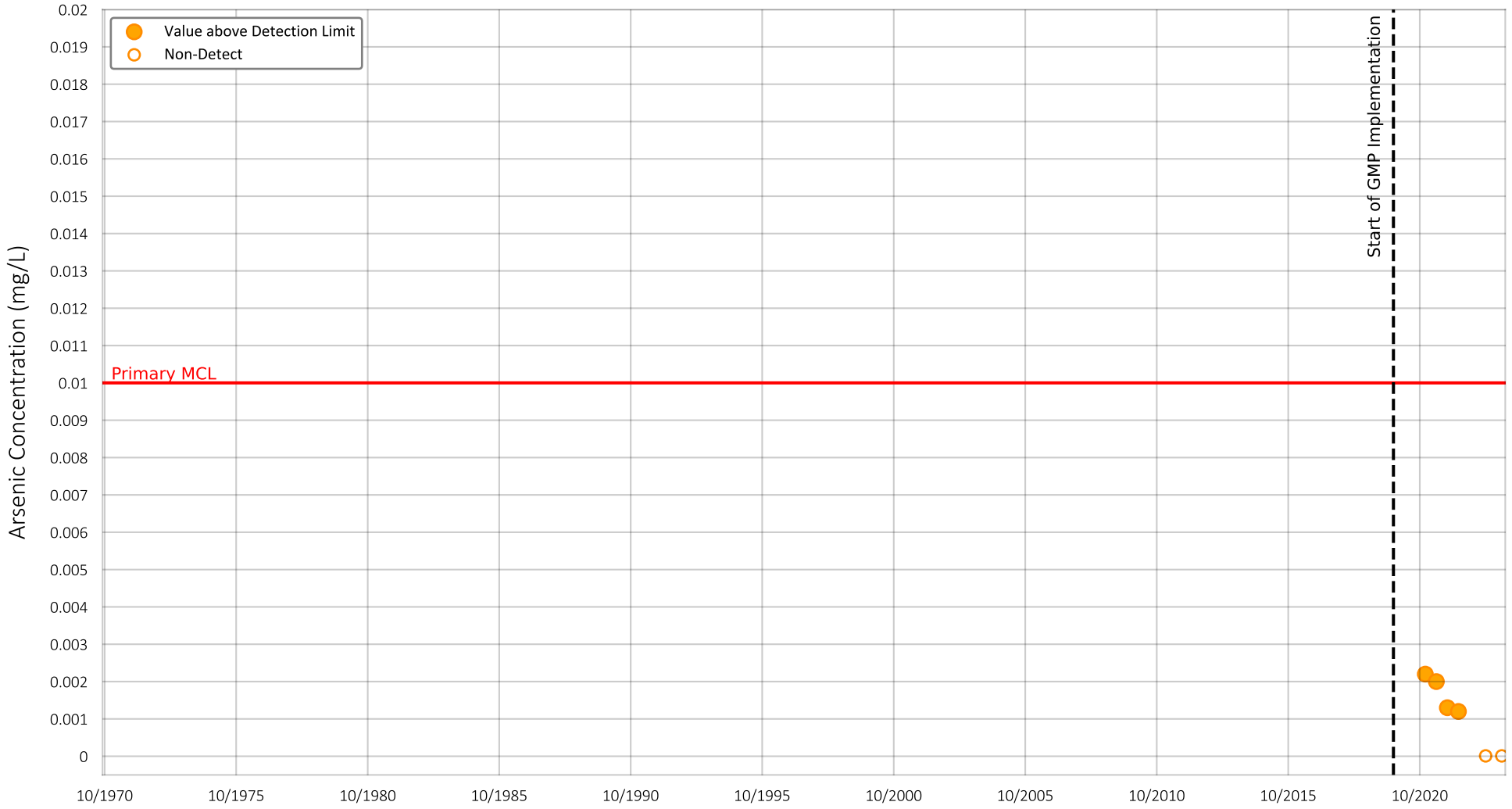
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Arsenic Concentration
Well Name: MW-5A (East-Lower)
State Well ID: 011S007E07R001S
Well Depth (ft): 345
Perforated Interval (ft): 50 - 160

Figure G-13



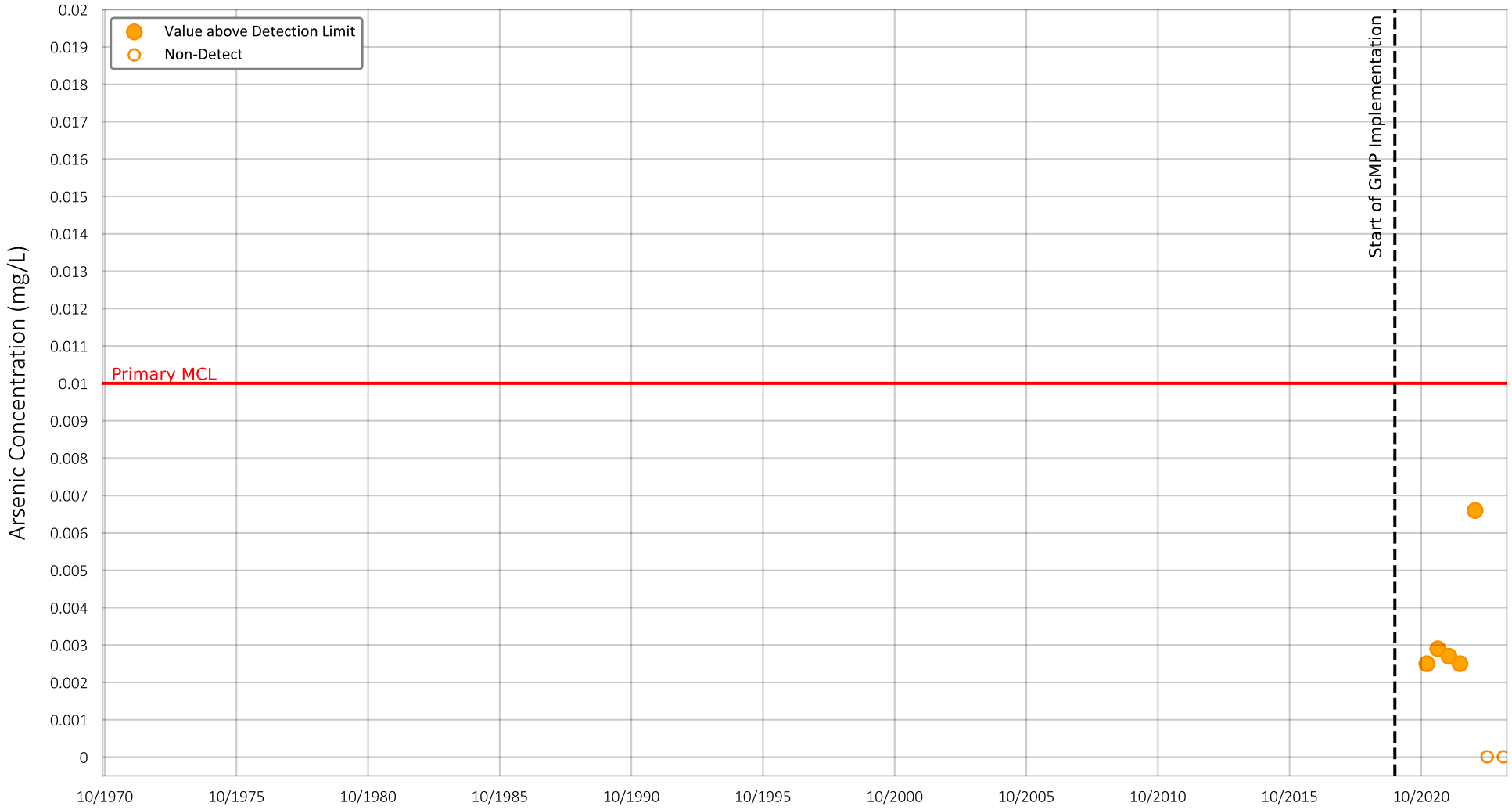
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Arsenic Concentration
Well Name: MW-5B (West-Upper)
State Well ID: 011S007E07R002S
Well Depth (ft): 160
Perforated Interval (ft): 45 - 340

Figure G-14



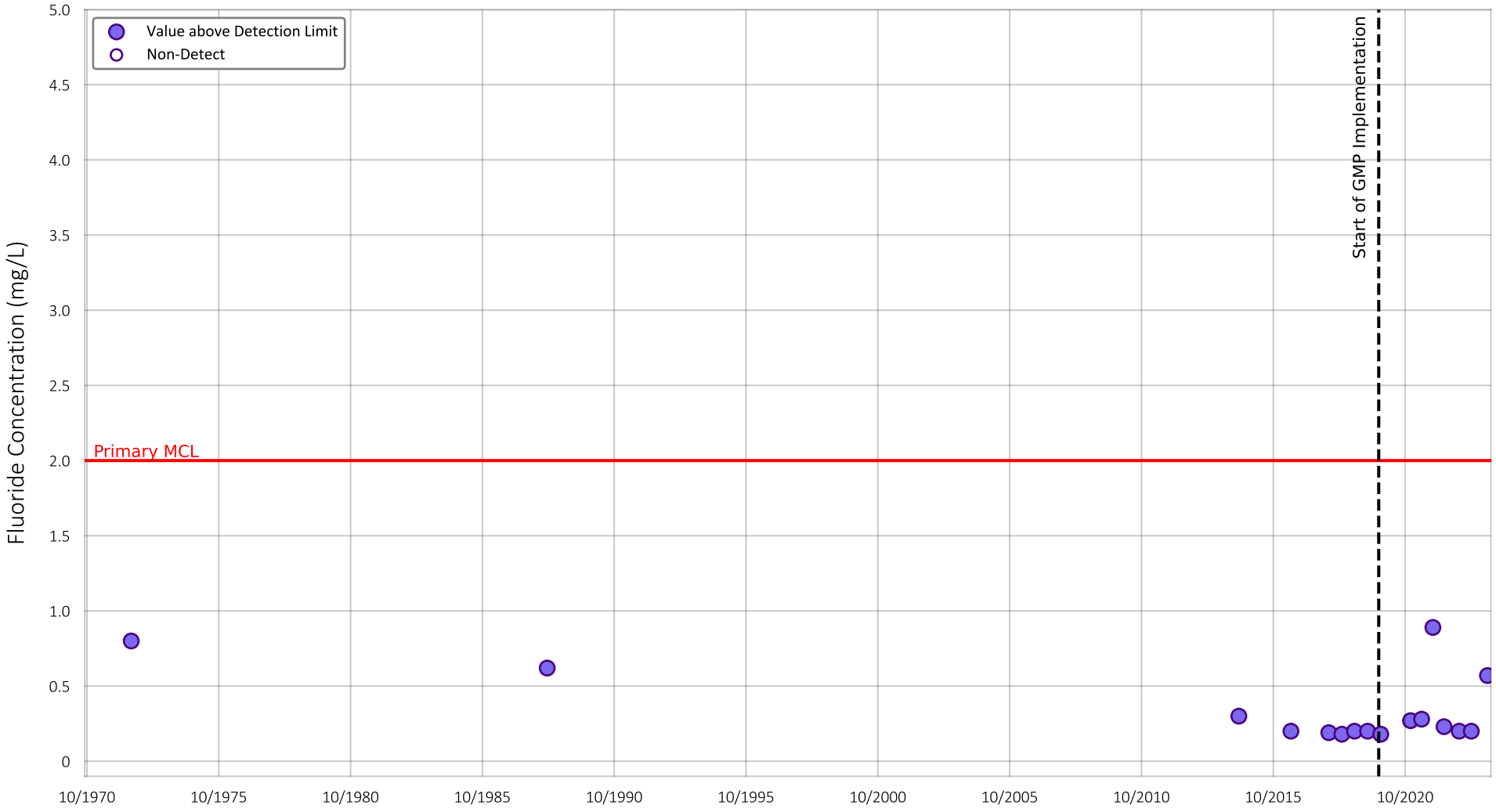
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Arsenic Concentration
Well Name: MW-1
State Well ID: 010S006E21A002S
Well Depth (ft): 900
Perforated Interval (ft): 800 - 890

Figure G-15



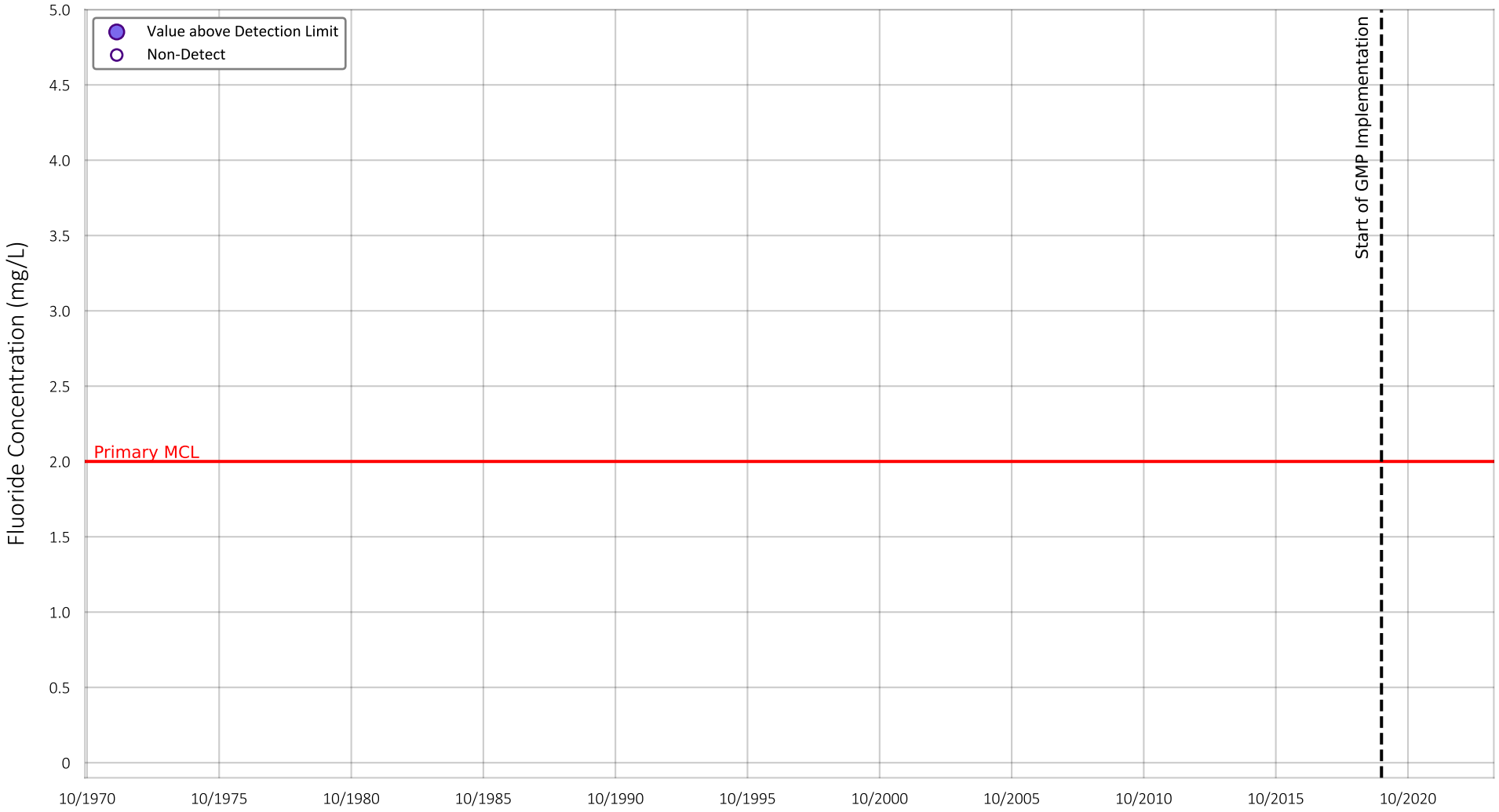
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Fluoride Concentration
Well Name: RH-1 (ID1-1)
State Well ID: 011S006E25A001S
Well Depth (ft): 600
Perforated Interval (ft): 180 - 580

Figure G-16



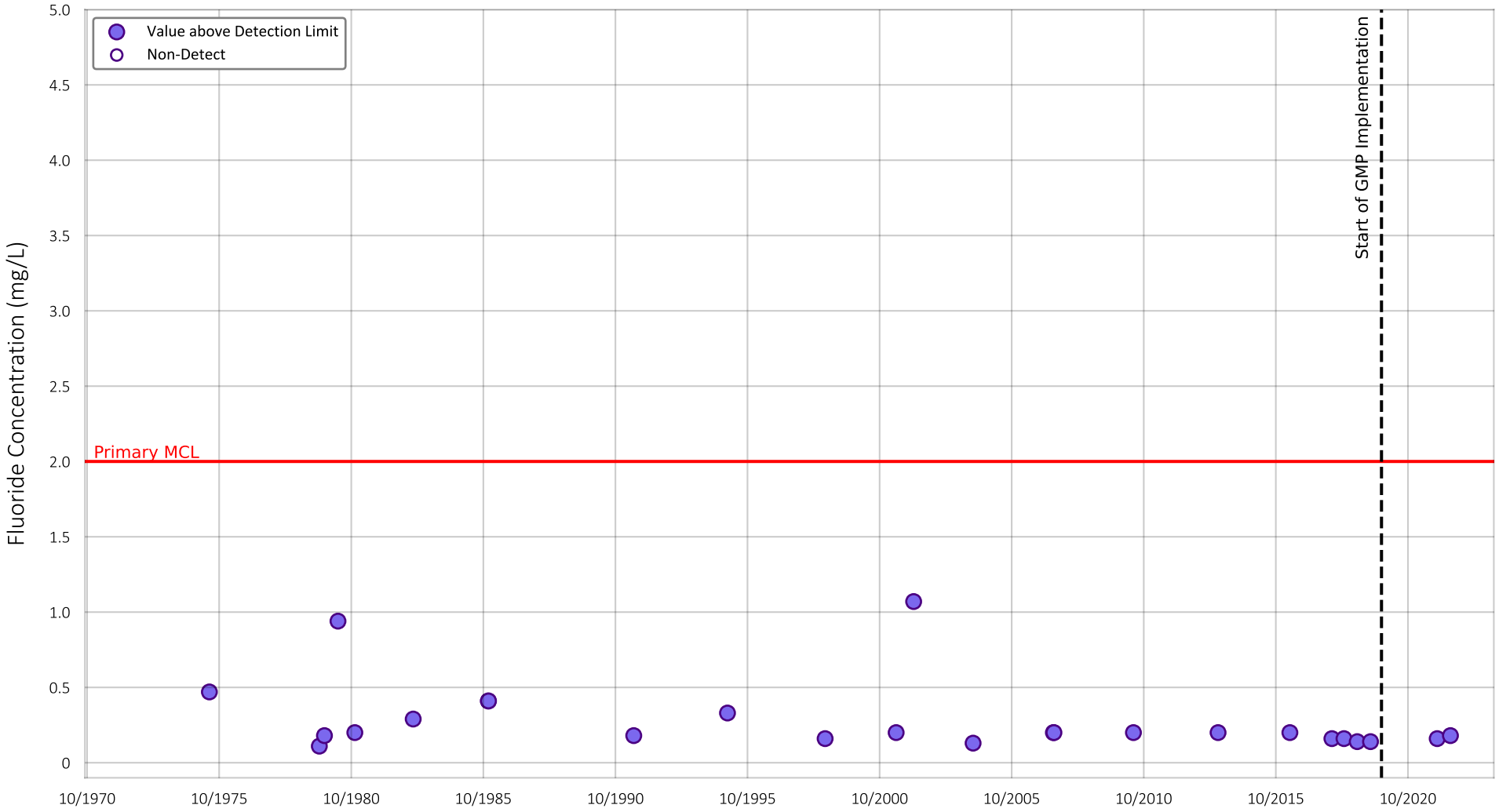
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Fluoride Concentration
Well Name: ID4-3
State Well ID: 010S006E18R001S
Well Depth (ft): 621
Perforated Interval (ft): no data - no data

Figure G-17



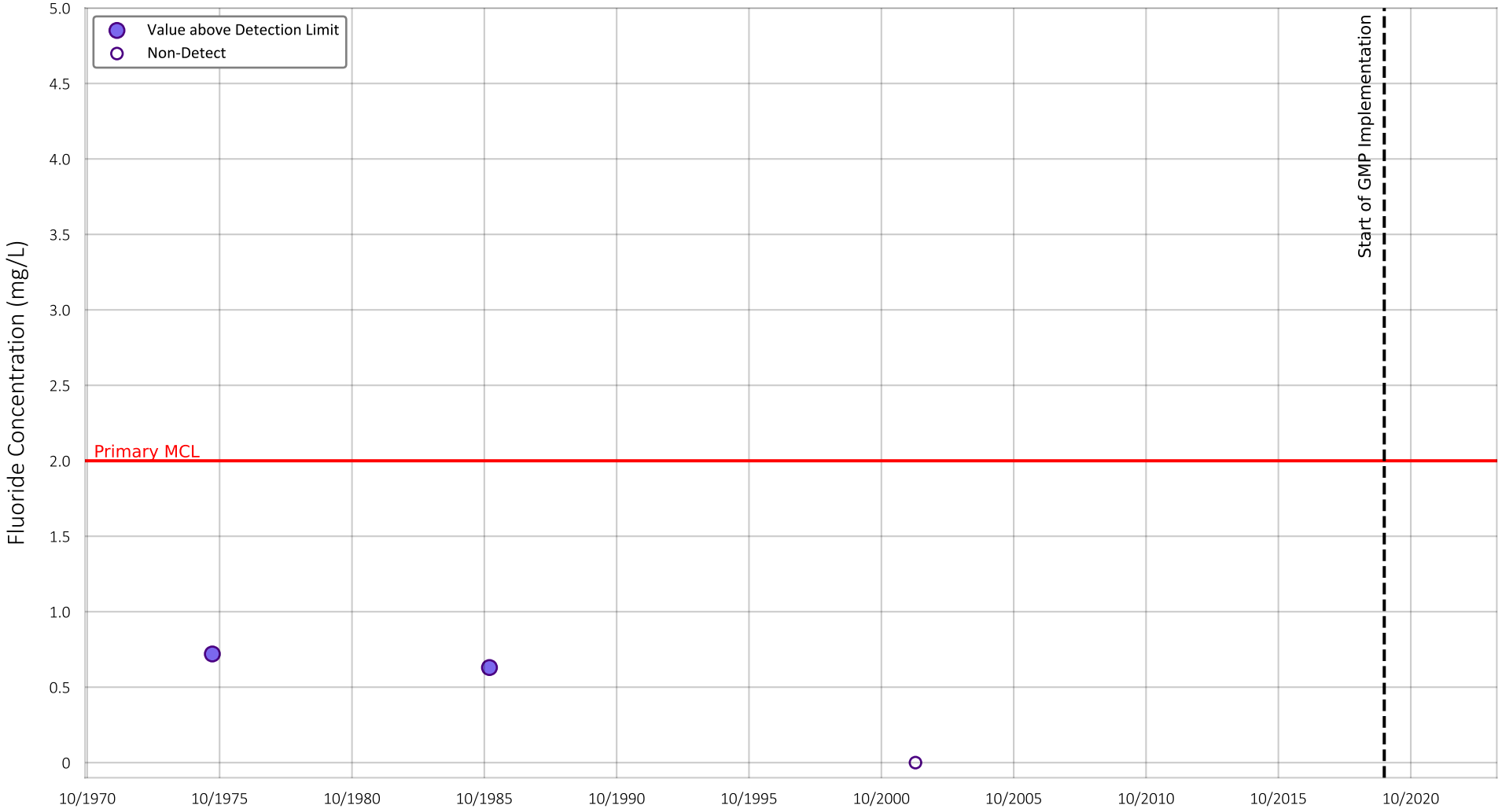
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Fluoride Concentration
Well Name: ID4-4
State Well ID: 010S006E29K002S
Well Depth (ft): 802
Perforated Interval (ft): 470 - 786

Figure G-18



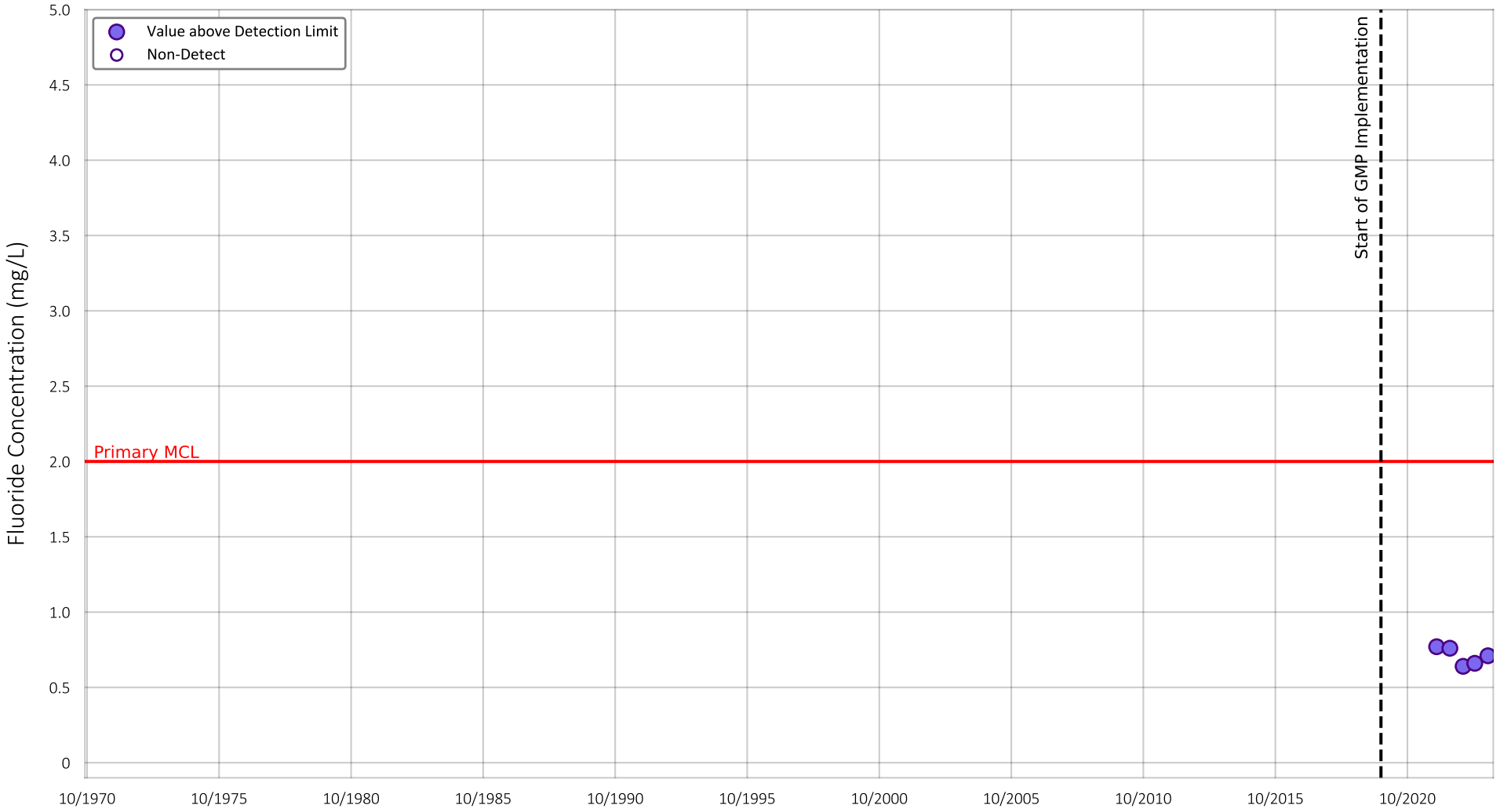
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

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



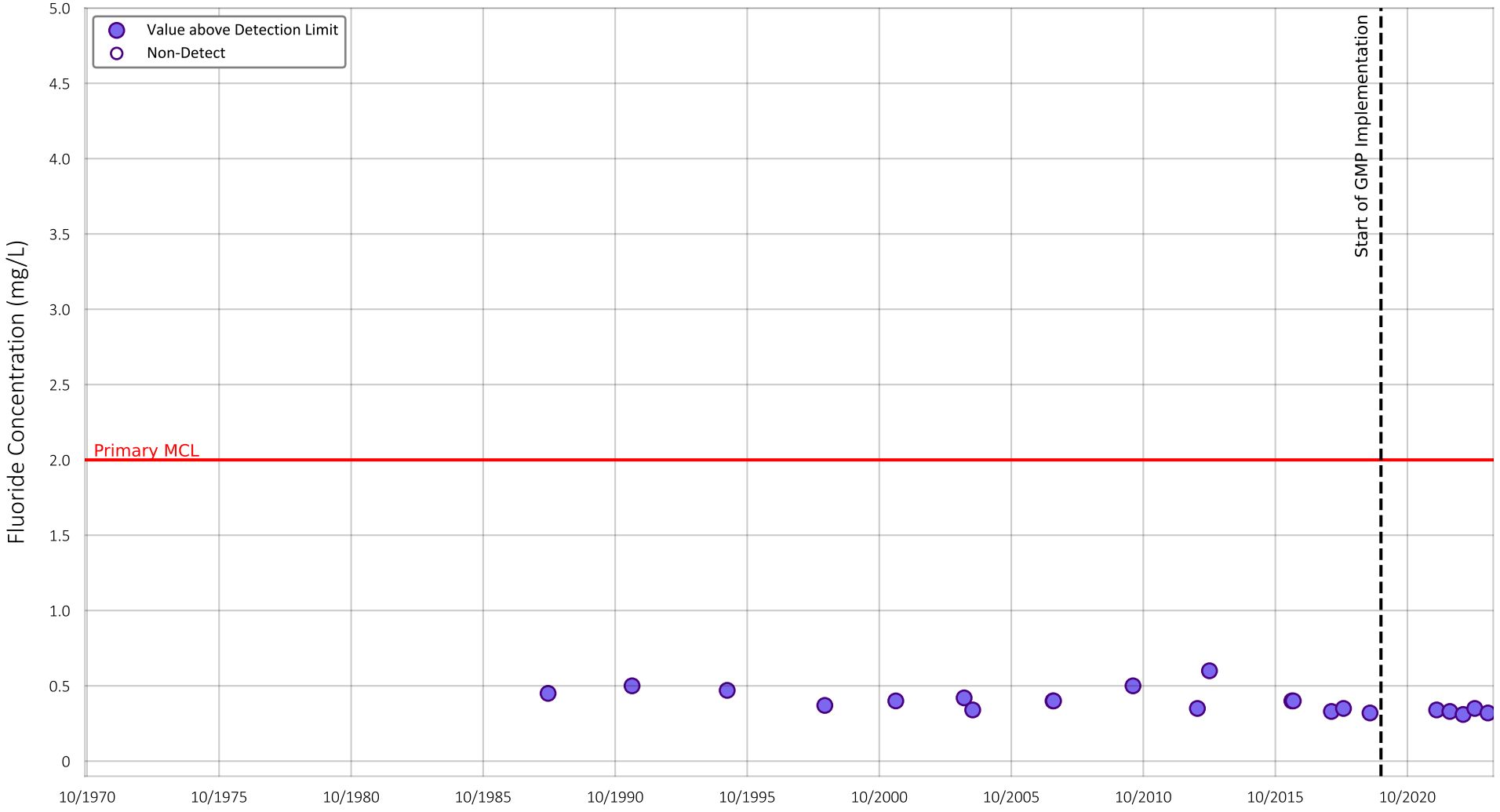
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Fluoride Concentration
Well Name: ID4-18
State Well ID: 010S006E18J001S
Well Depth (ft): 570
Perforated Interval (ft): 240 - 560

Figure G-20



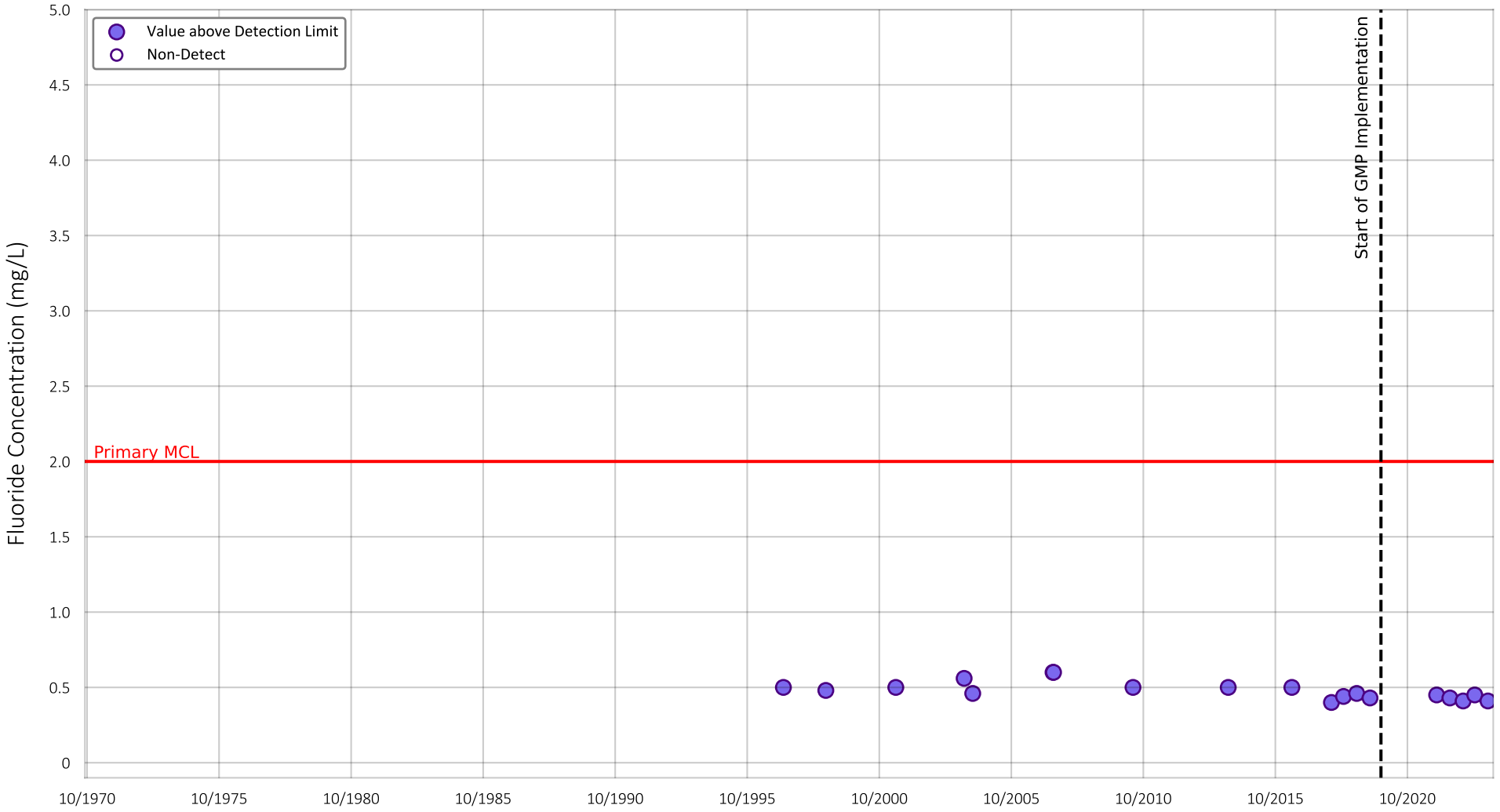
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Fluoride Concentration
Well Name: ID1-12
State Well ID: 011S006E16A002S
Well Depth (ft): 580
Perforated Interval (ft): 248 - 568

Figure G-21



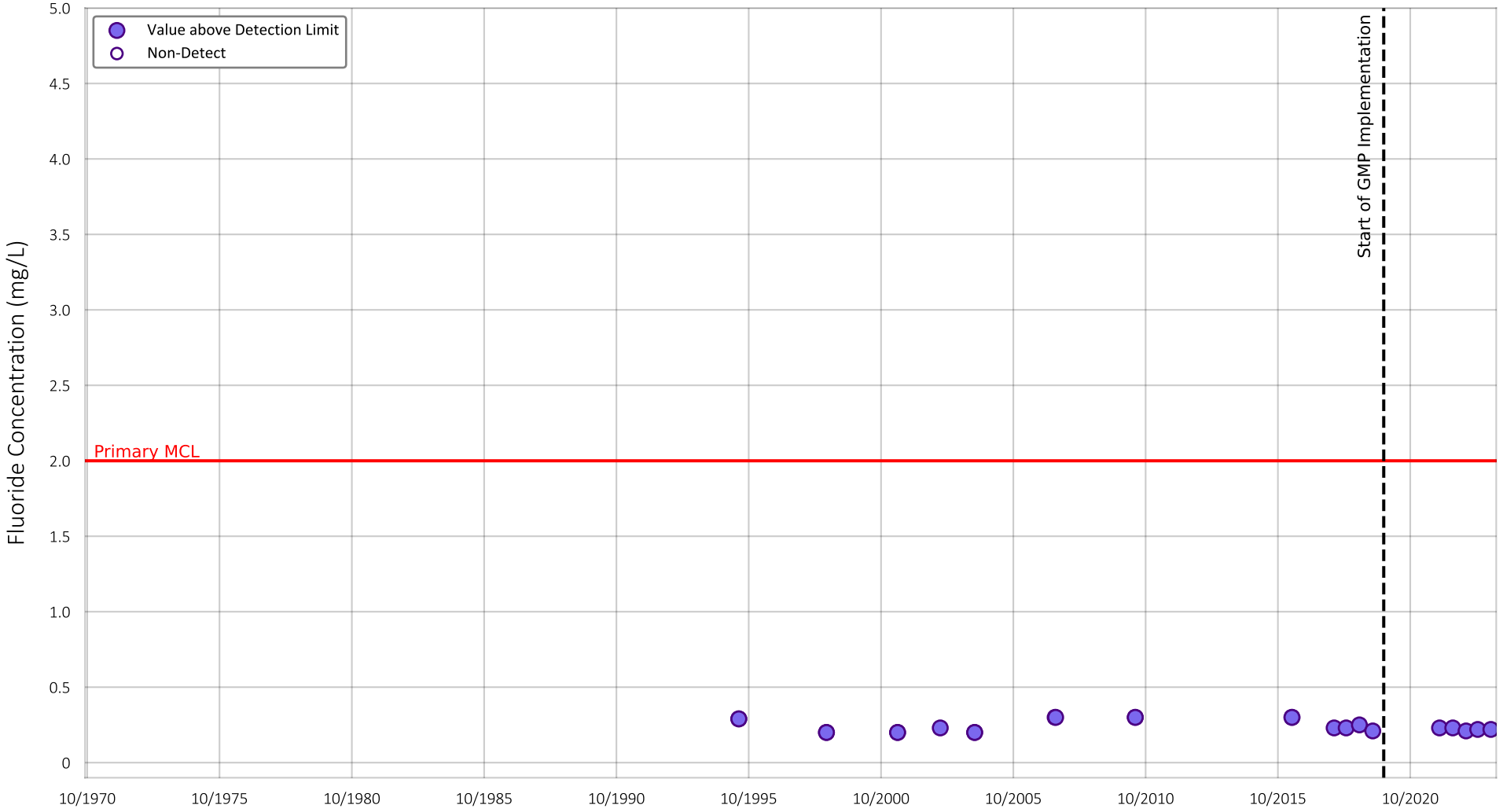
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Fluoride Concentration
Well Name: ID1-16
State Well ID: 011S006E16N001S
Well Depth (ft): 705
Perforated Interval (ft): 160 - 549

Figure G-22



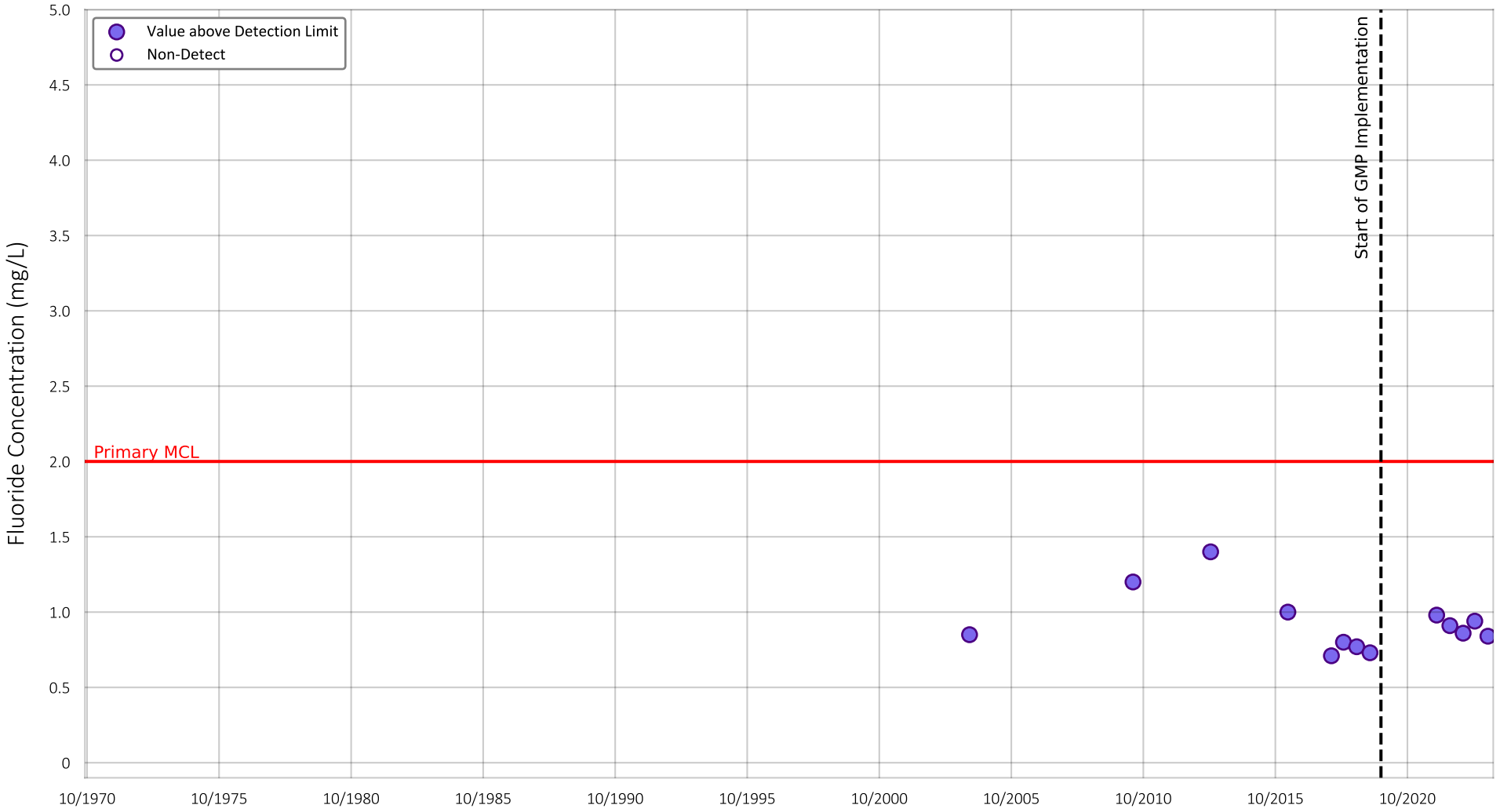
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Fluoride Concentration
Well Name: ID4-11
State Well ID: 010S006E32D001S
Well Depth (ft): 770
Perforated Interval (ft): 450 - 760

Figure G-23



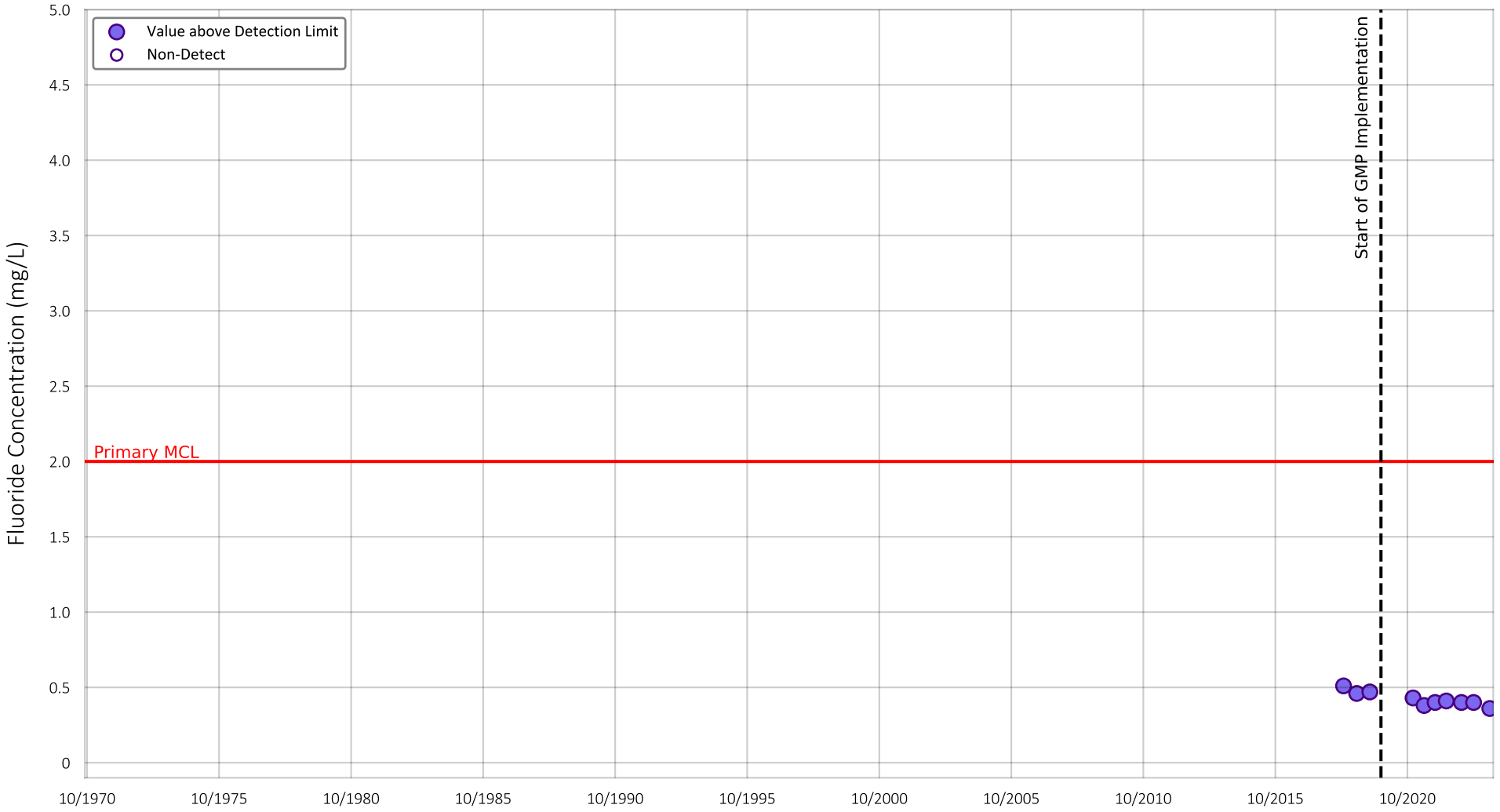
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Fluoride Concentration
Well Name: ID5-5
State Well ID: 011S006E09E001S
Well Depth (ft): 700
Perforated Interval (ft): 400 - 700

Figure G-24



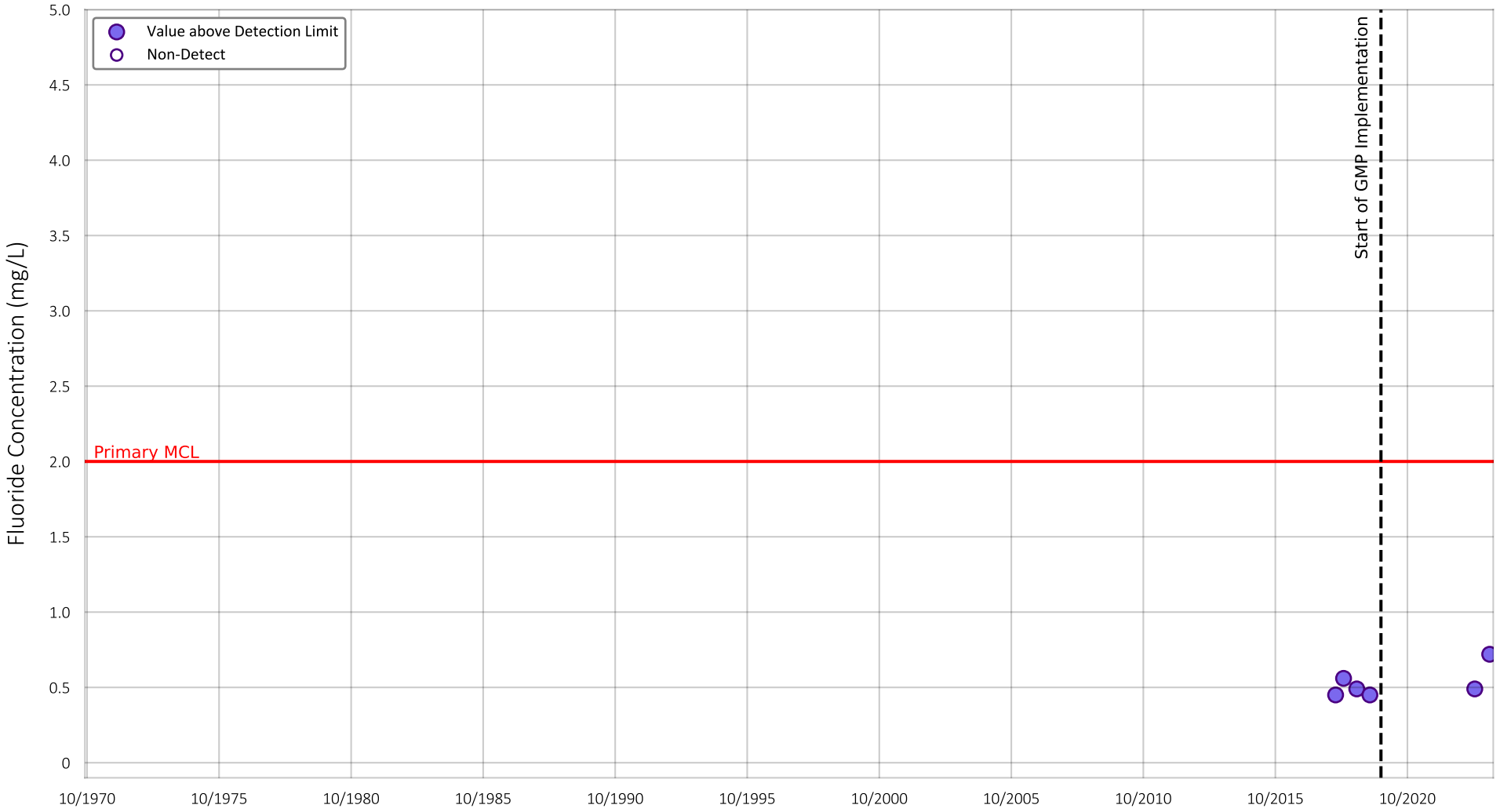
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Fluoride Concentration
Well Name: MW-3
State Well ID: 011S006E23J002S
Well Depth (ft): 325
Perforated Interval (ft): 175 - 331

Figure G-25



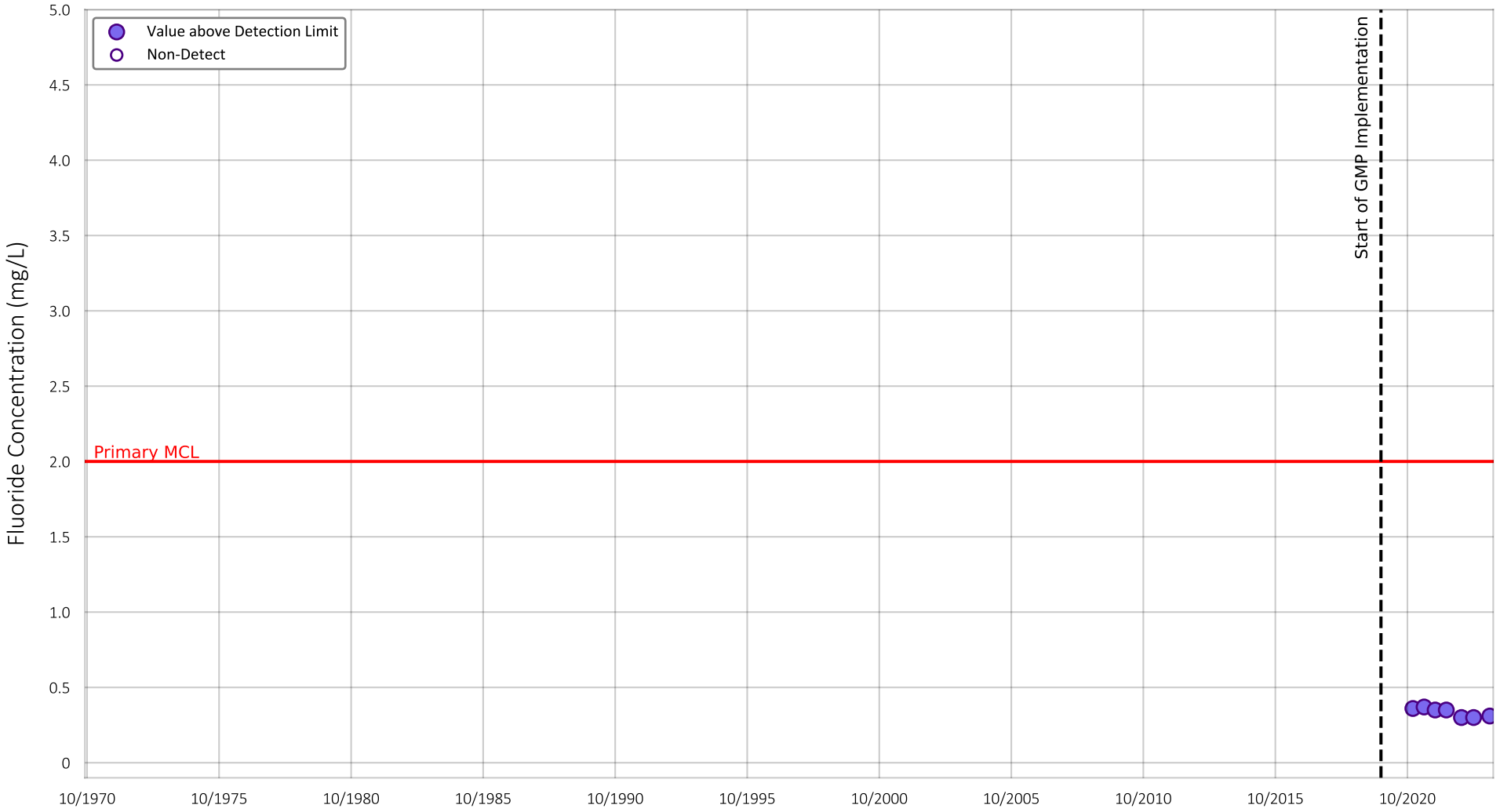
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Fluoride Concentration
Well Name: Fortiner #1 (Allegre 1)
State Well ID: 010S006E09N001S
Well Depth (ft): 560
Perforated Interval (ft): 250 - 607

Figure G-26



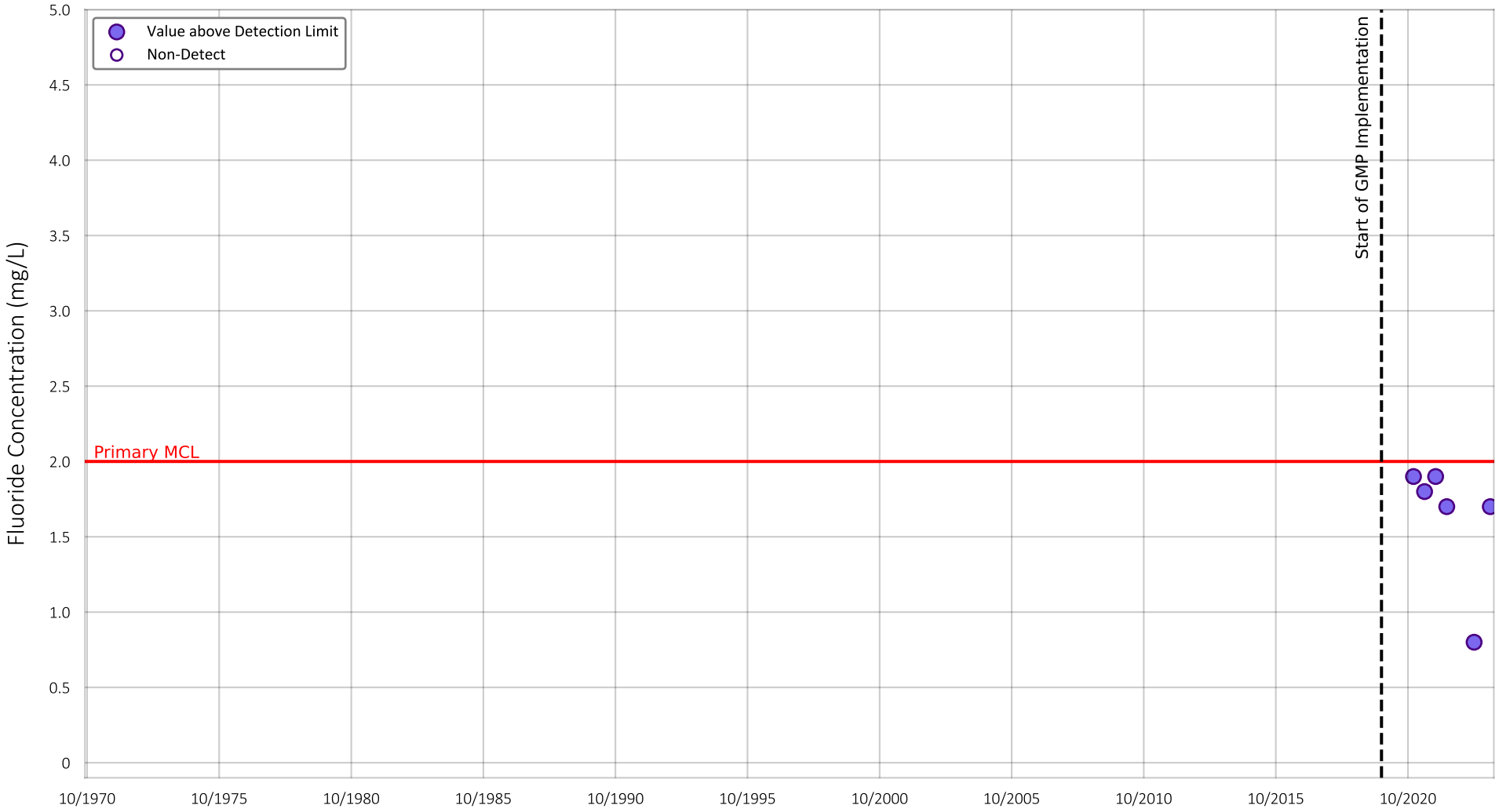
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Fluoride Concentration
Well Name: Air Ranch Well 4
State Well ID: 011S007E30L001S
Well Depth (ft): 380
Perforated Interval (ft): 120 - 380

Figure G-27



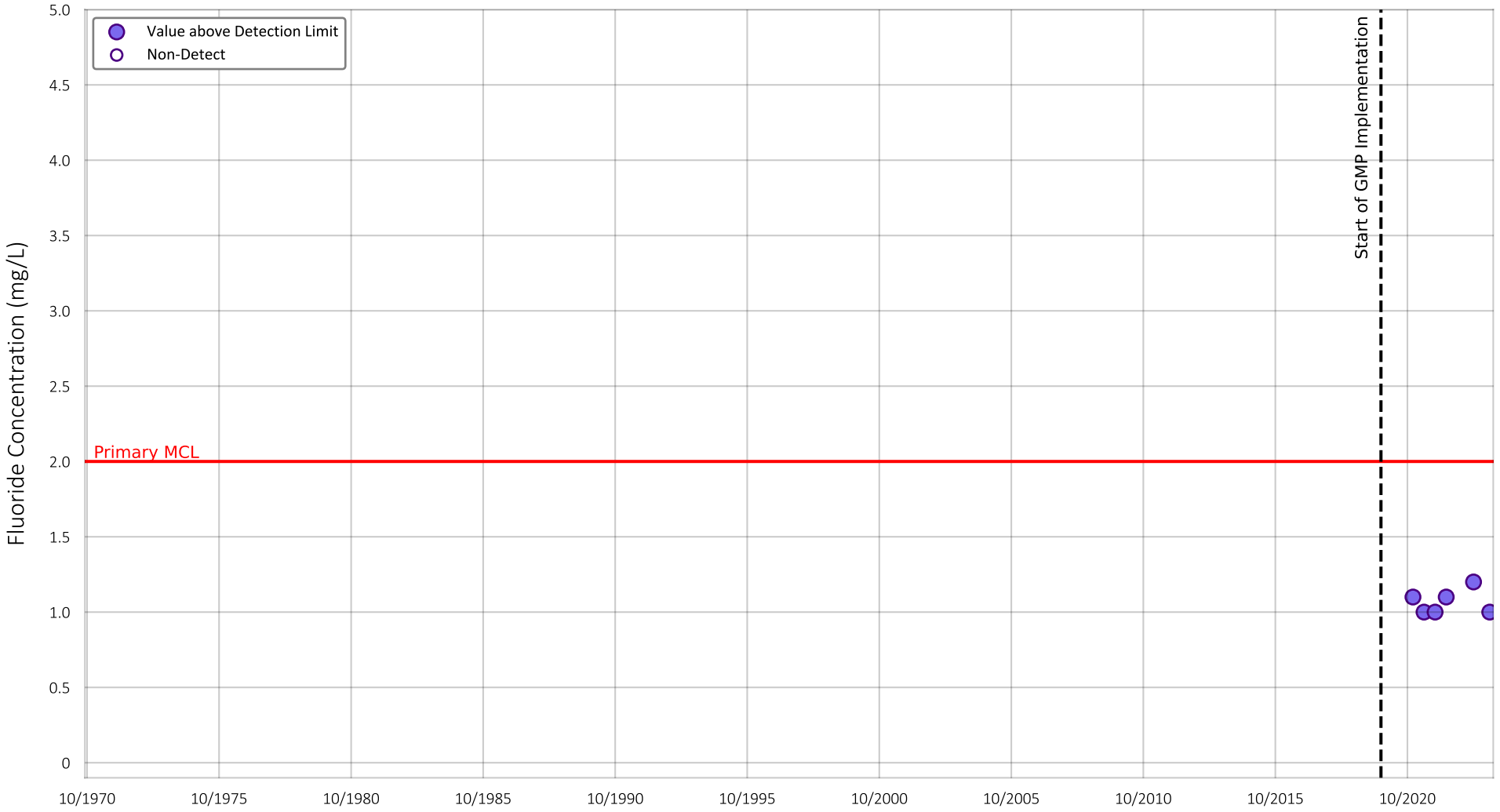
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Fluoride Concentration
Well Name: MW-5A (East-Lower)
State Well ID: 011S007E07R001S
Well Depth (ft): 345
Perforated Interval (ft): 50 - 160

Figure G-28



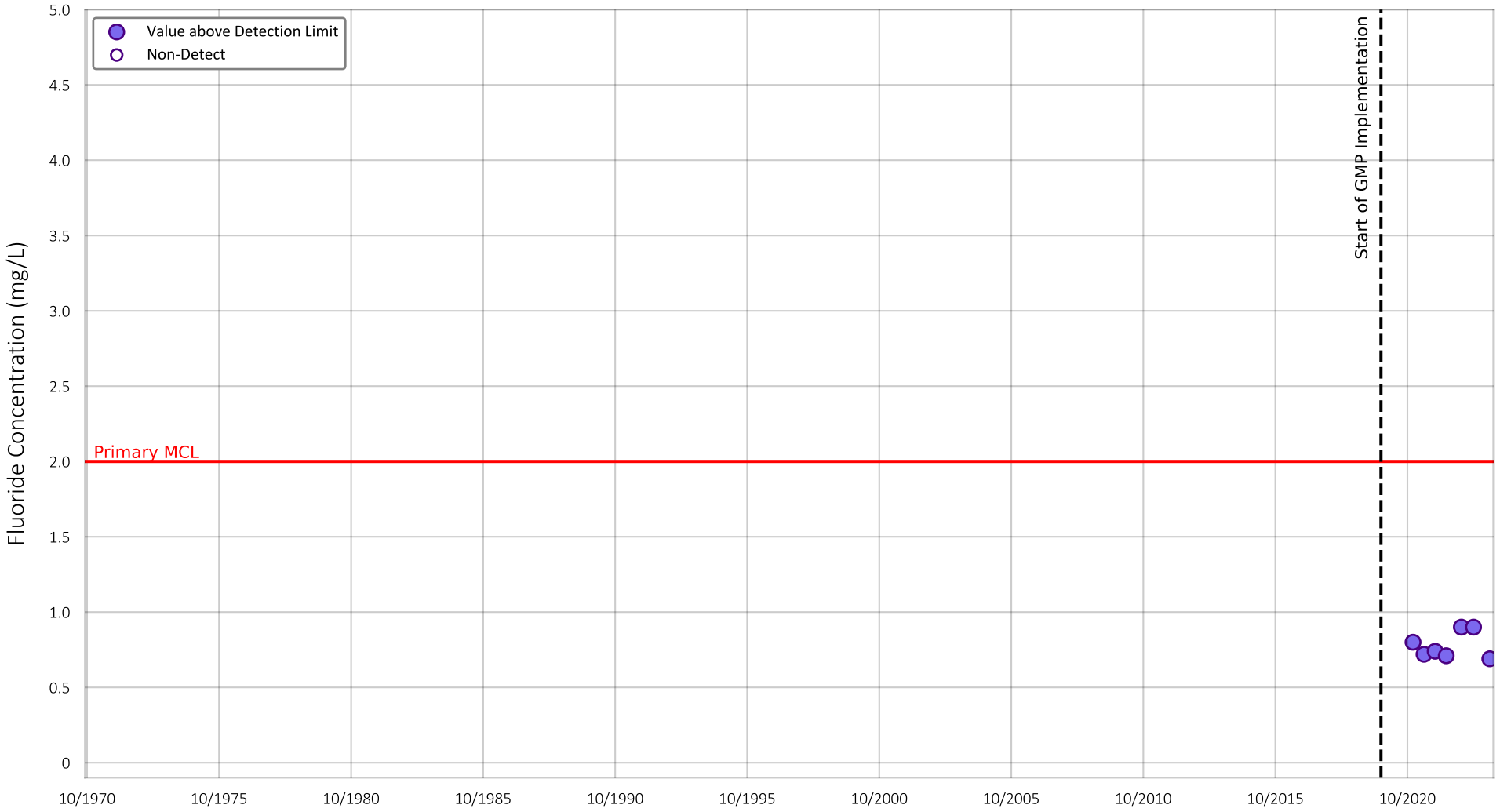
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Fluoride Concentration
Well Name: MW-5B (West-Upper)
State Well ID: 011S007E07R002S
Well Depth (ft): 160
Perforated Interval (ft): 45 - 340

Figure G-29



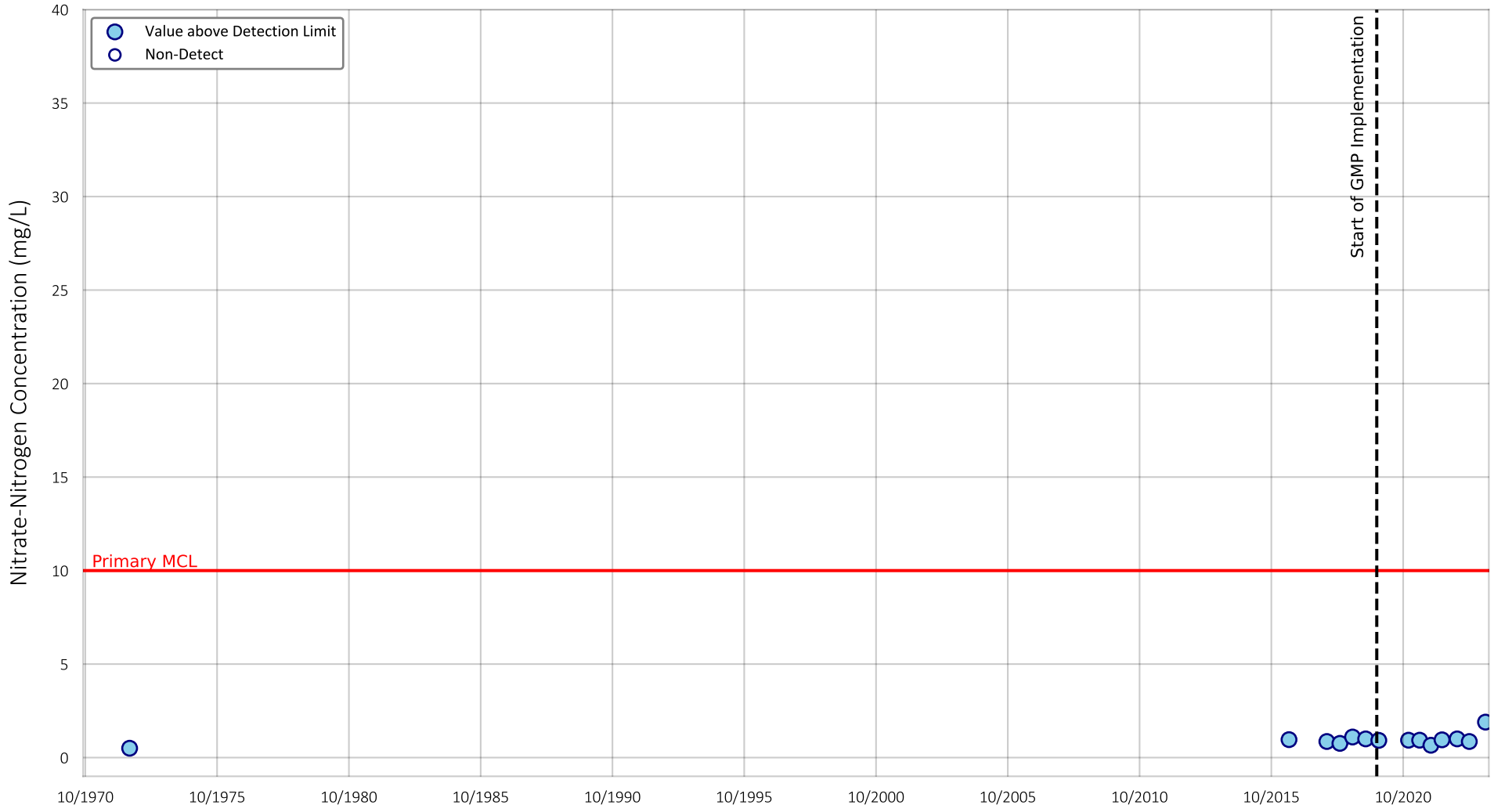
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Fluoride Concentration
Well Name: MW-1
State Well ID: 010S006E21A002S
Well Depth (ft): 900
Perforated Interval (ft): 800 - 890

Figure G-30



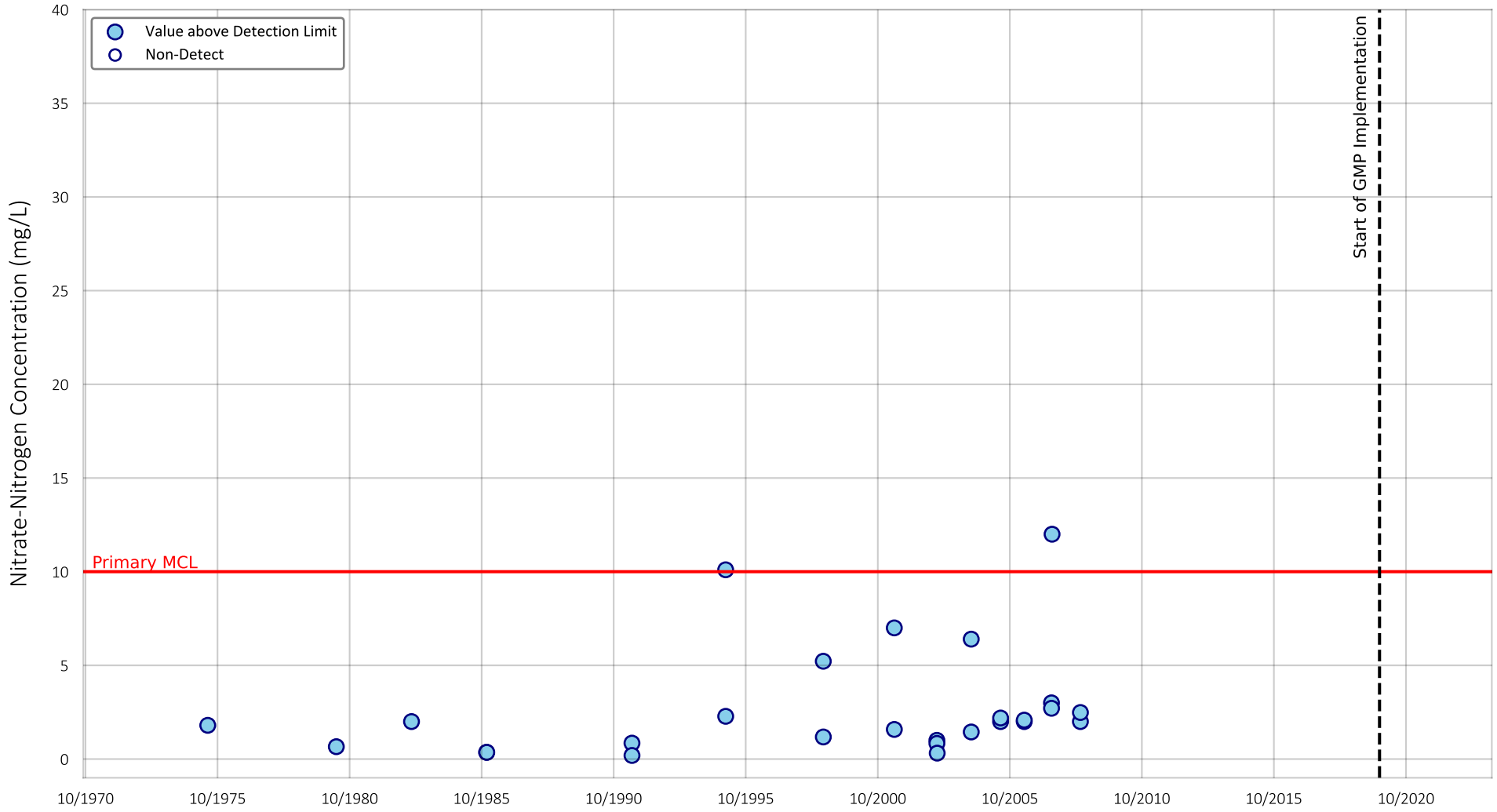
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

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



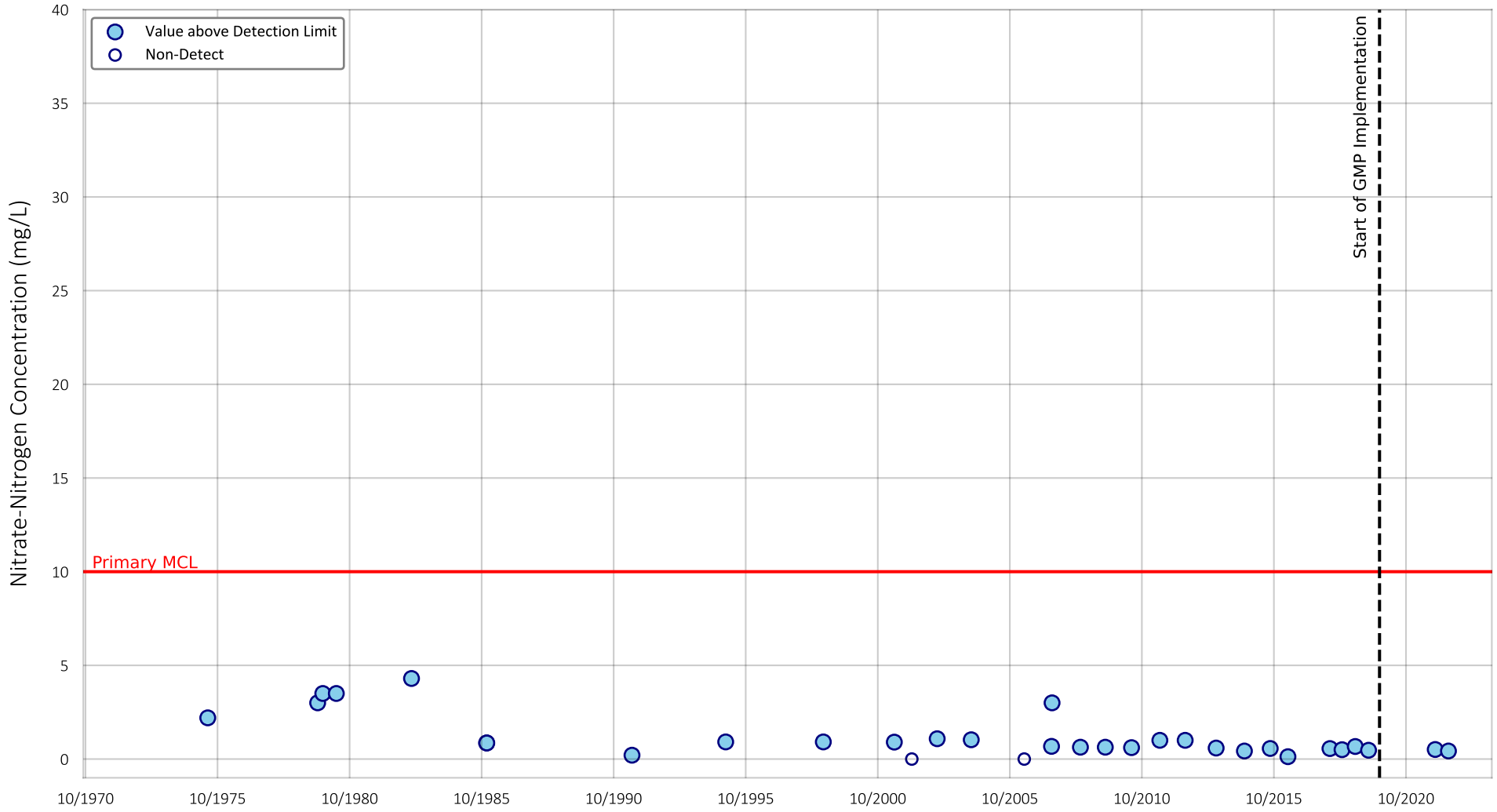
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

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



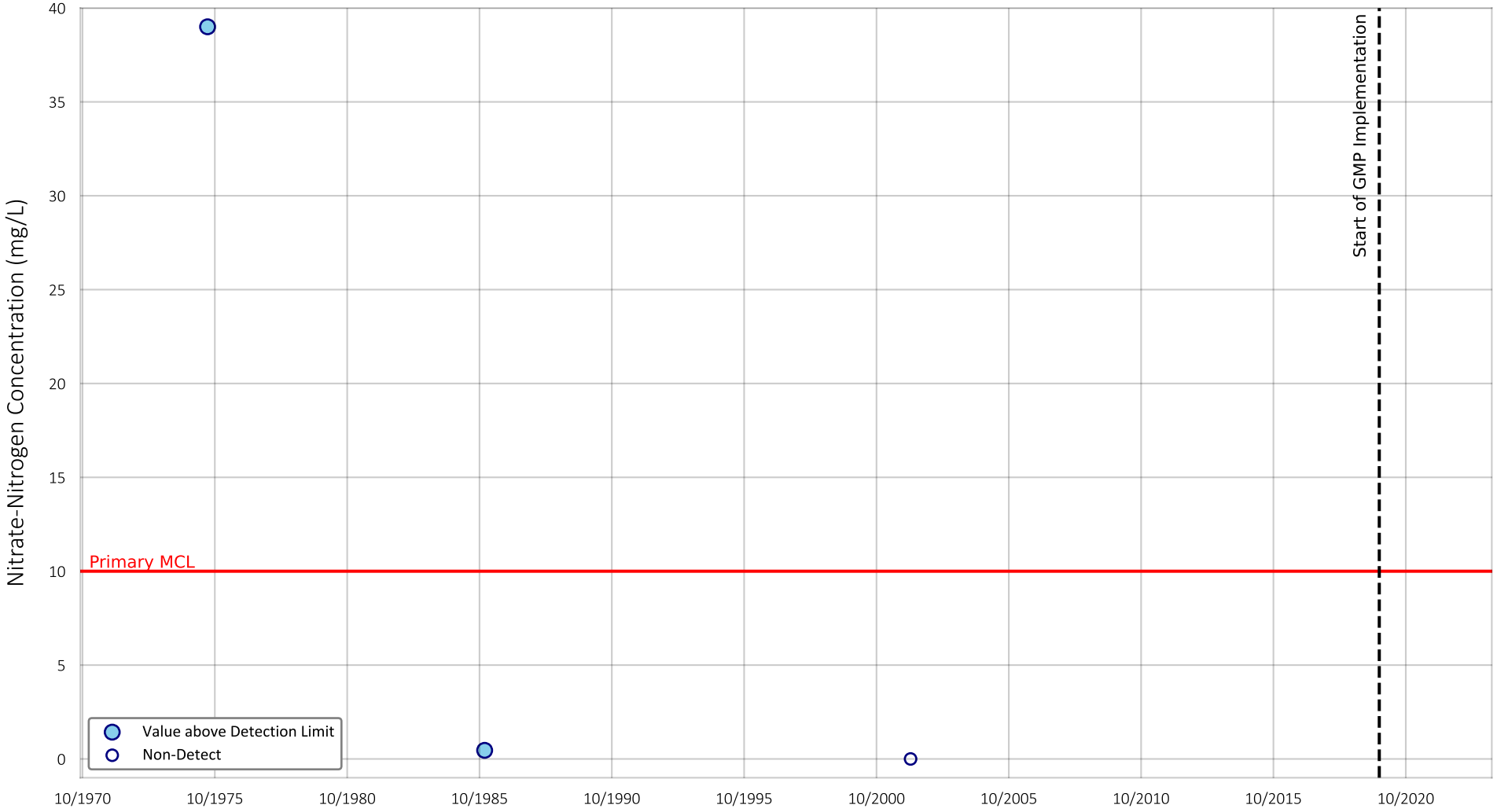
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Nitrate-Nitrogen Concentration
Well Name: ID4-4
State Well ID: 010S006E29K002S
Well Depth (ft): 802
Perforated Interval (ft): 470 - 786

Figure G-33



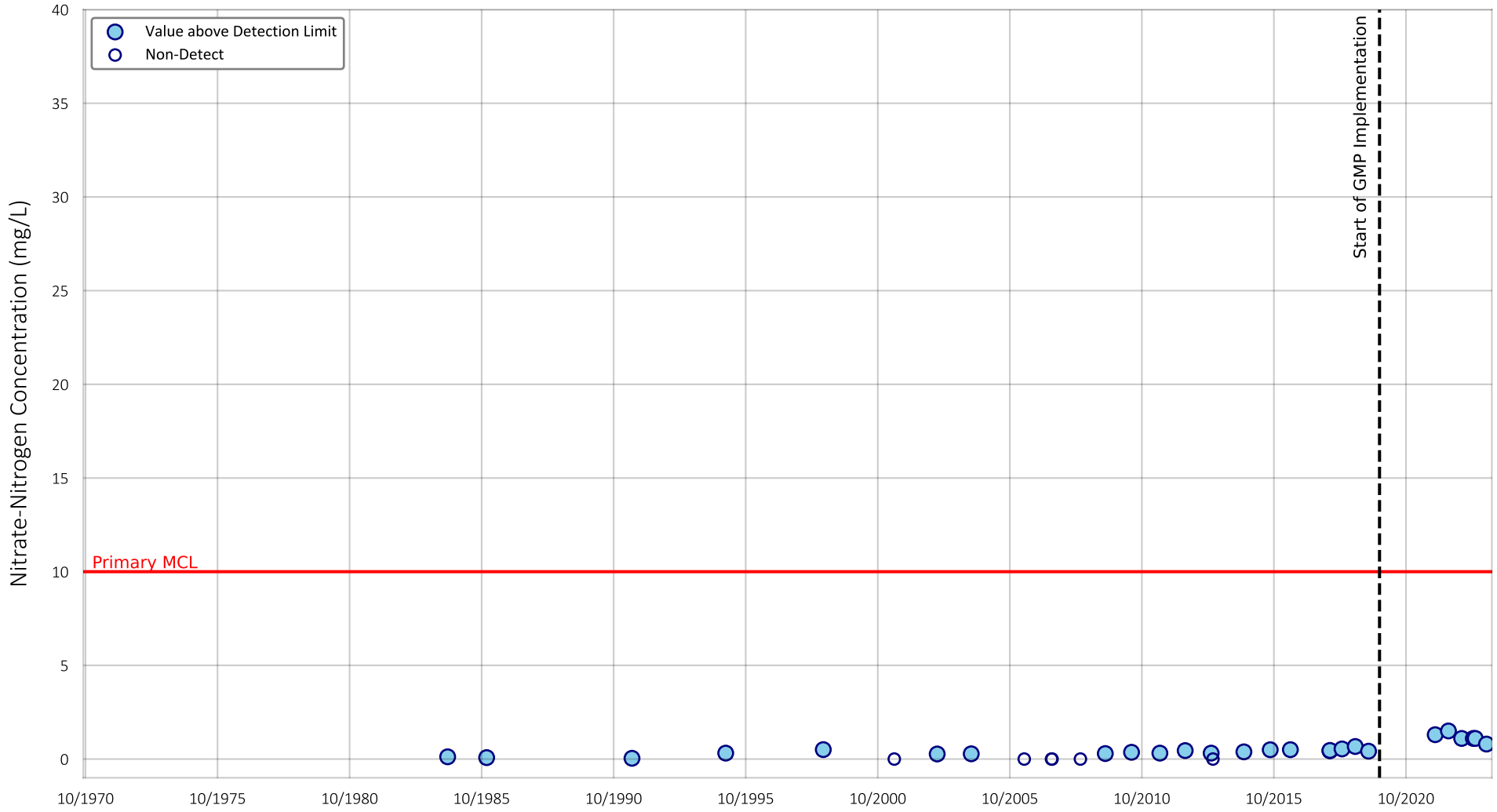
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

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



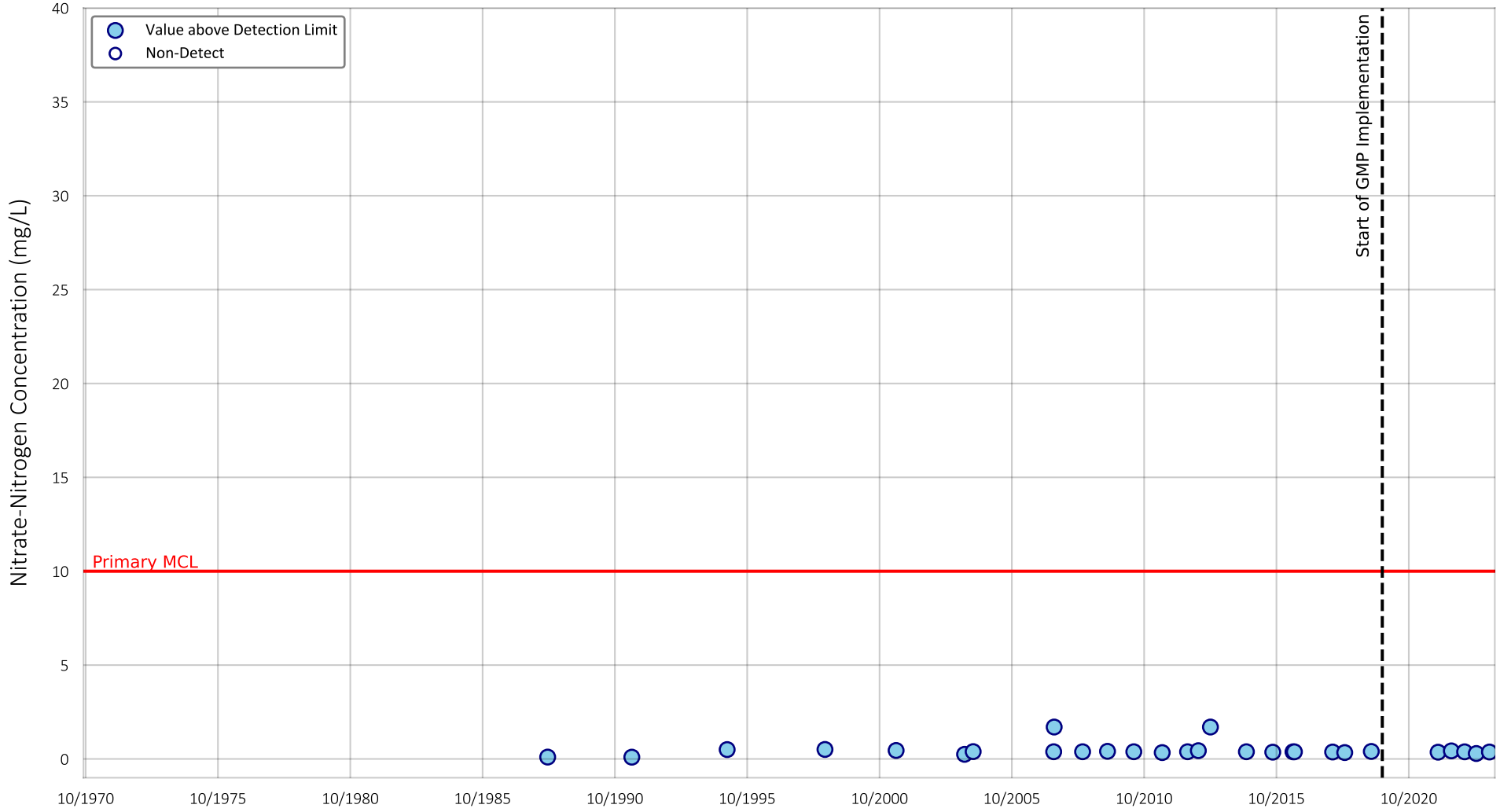
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Nitrate-Nitrogen Concentration
Well Name: ID4-18
State Well ID: 010S006E18J001S
Well Depth (ft): 570
Perforated Interval (ft): 240 - 560

Figure G-35



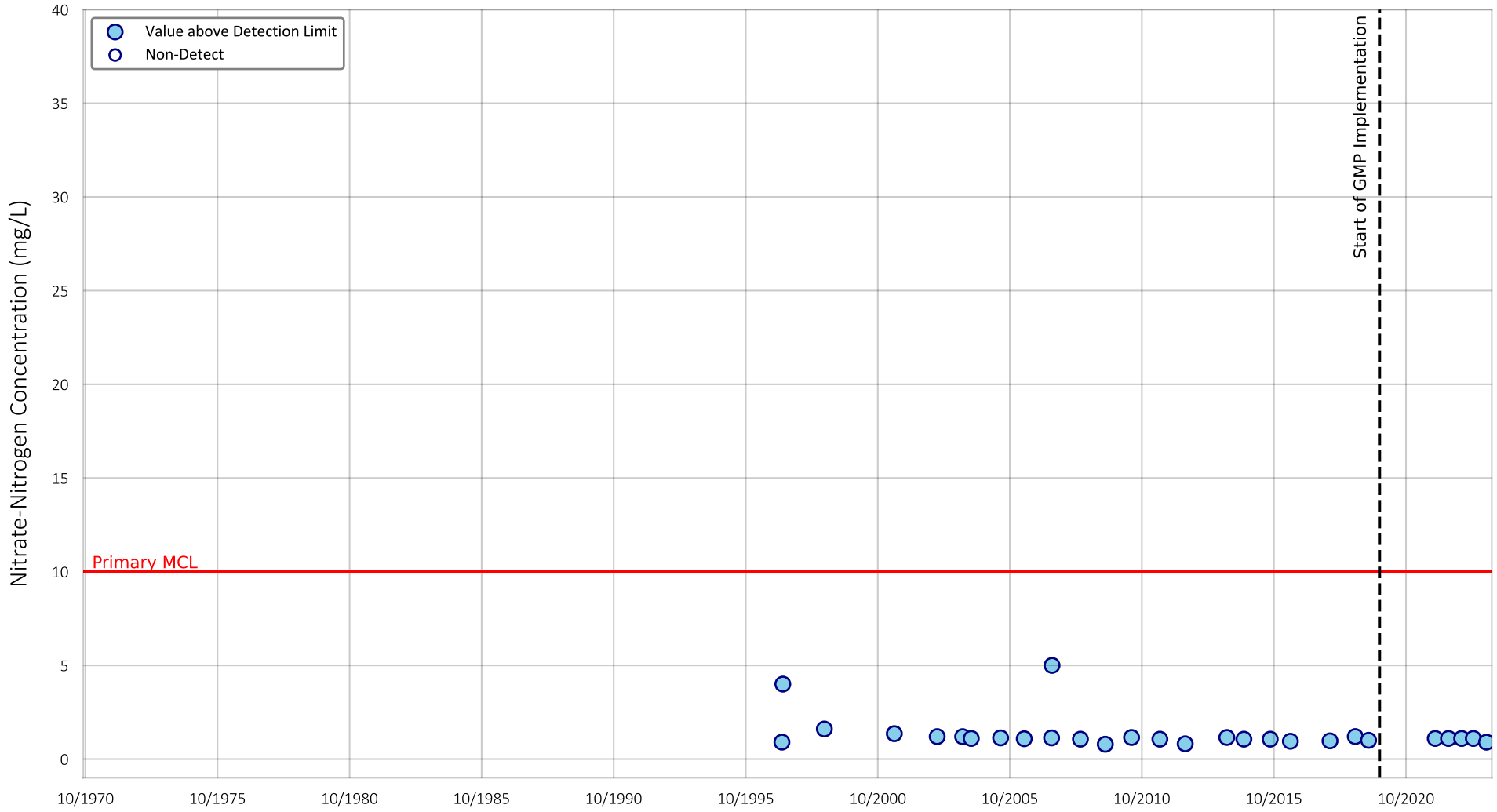
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Nitrate-Nitrogen Concentration
Well Name: ID1-12
State Well ID: 011S006E16A002S
Well Depth (ft): 580
Perforated Interval (ft): 248 - 568

Figure G-36



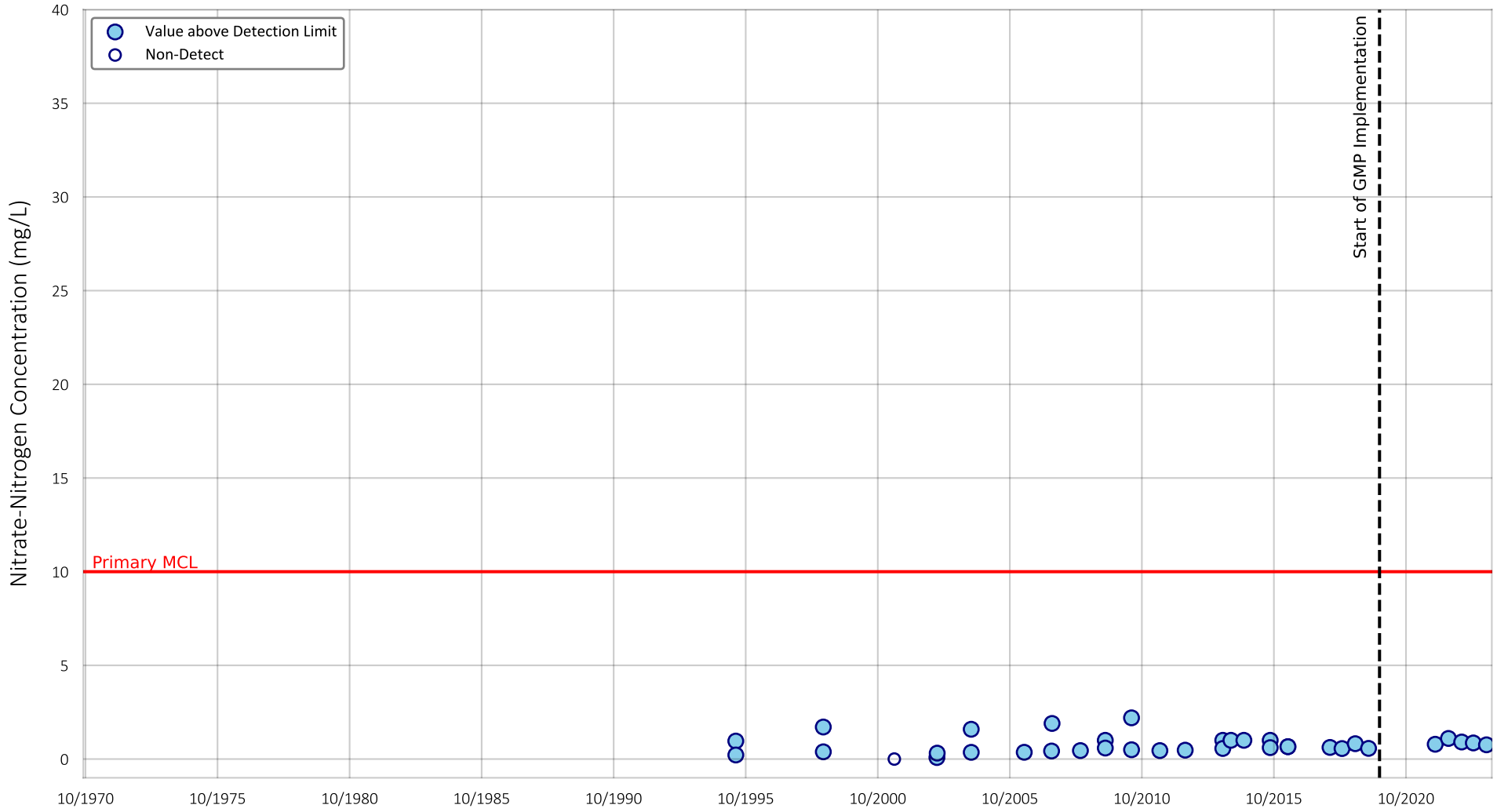
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Nitrate-Nitrogen Concentration
Well Name: ID1-16
State Well ID: 011S006E16N001S
Well Depth (ft): 705
Perforated Interval (ft): 160 - 549

Figure G-37



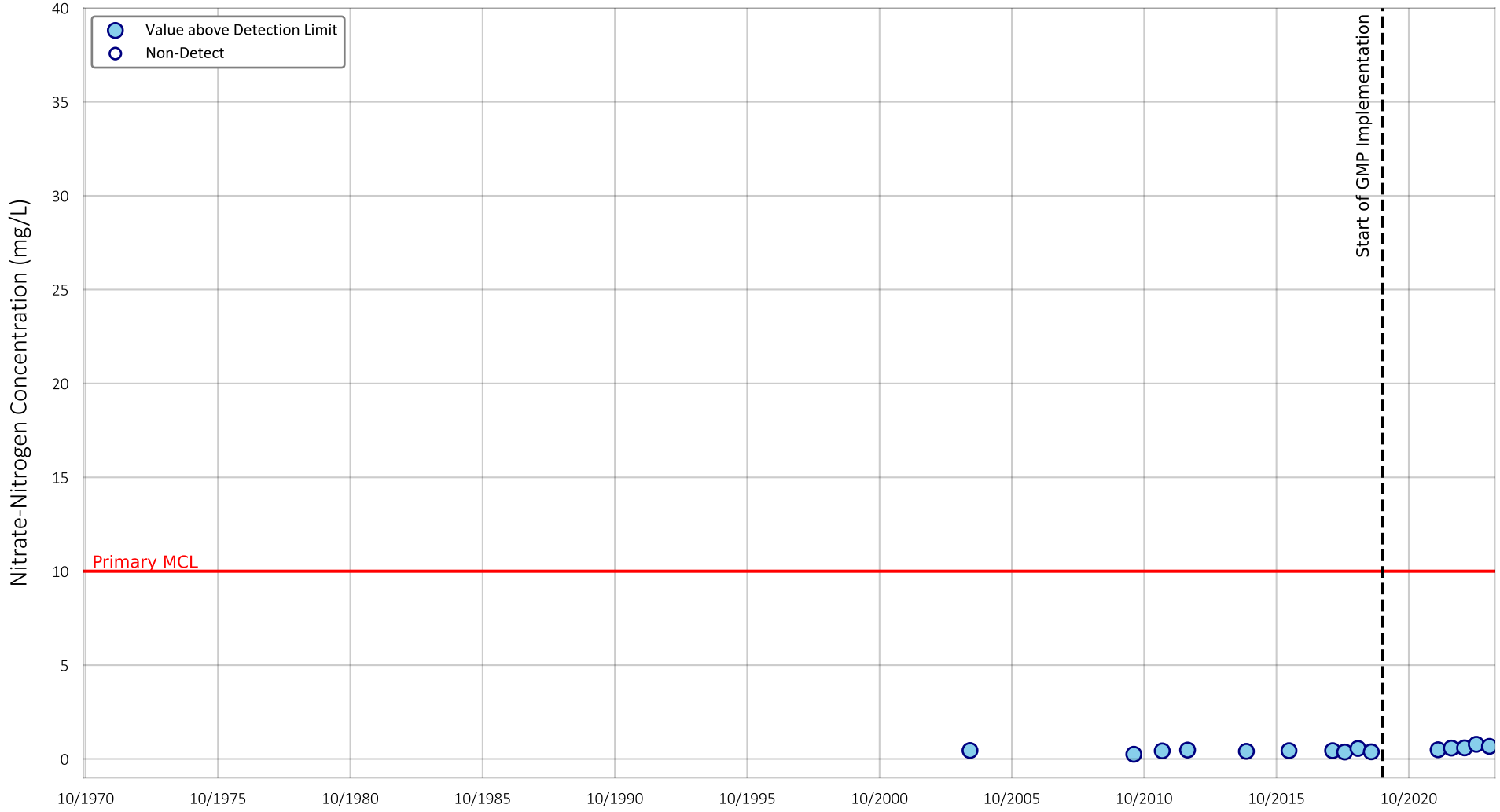
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Nitrate-Nitrogen Concentration
Well Name: ID4-11
State Well ID: 010S006E32D001S
Well Depth (ft): 770
Perforated Interval (ft): 450 - 760

Figure G-38



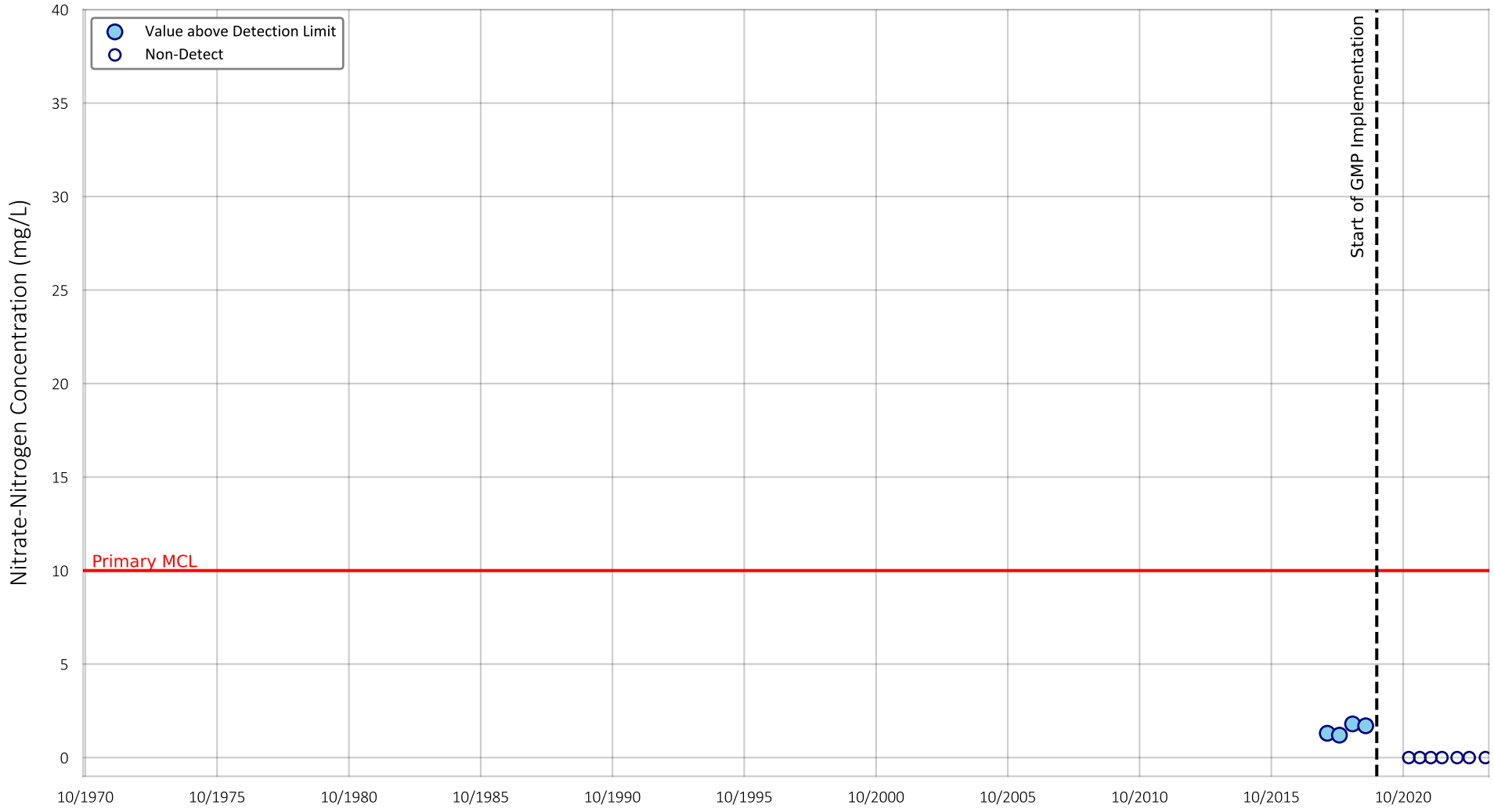
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Nitrate-Nitrogen Concentration
Well Name: ID5-5
State Well ID: 011S006E09E001S
Well Depth (ft): 700
Perforated Interval (ft): 400 - 700

Figure G-39



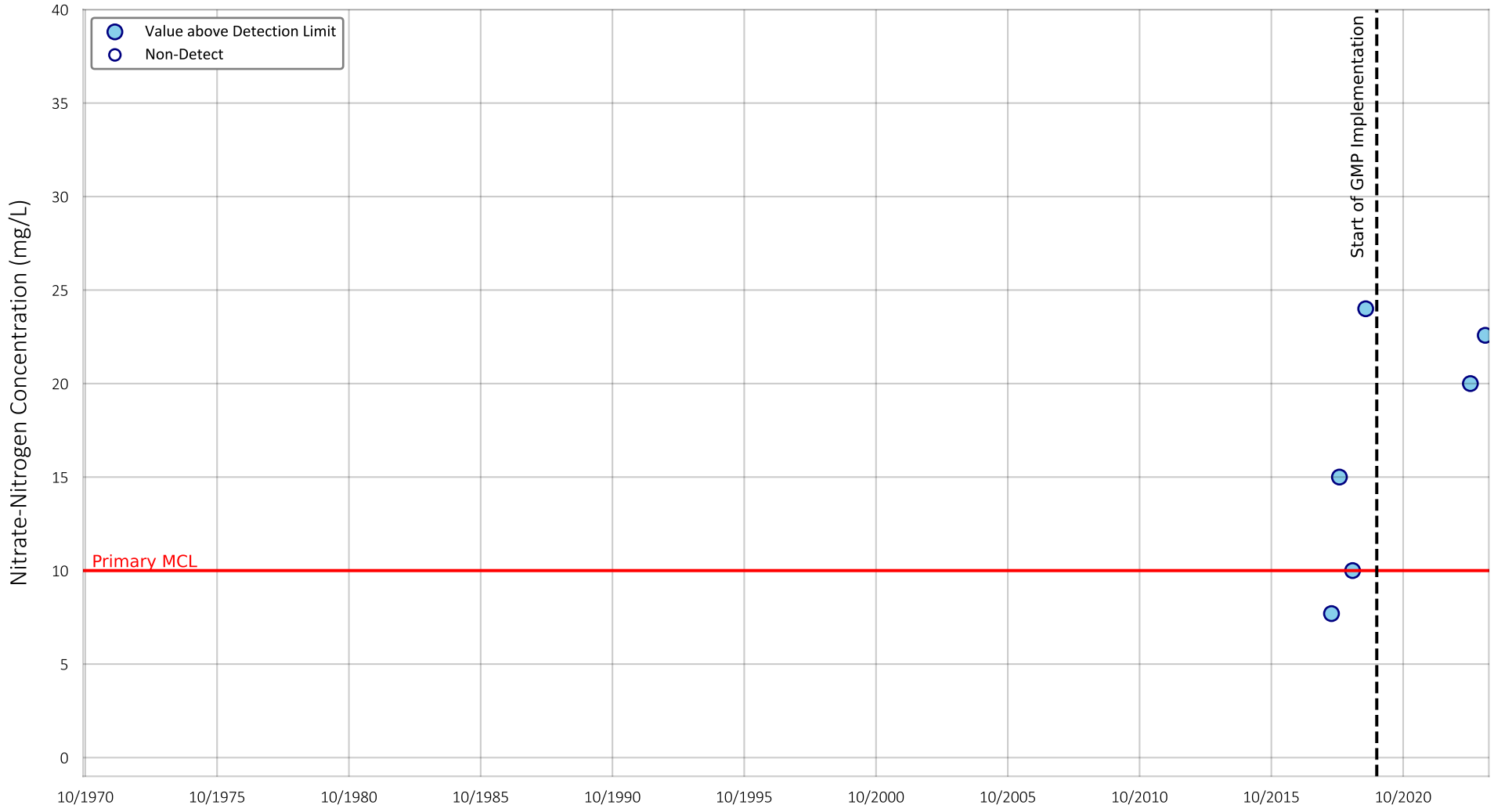
Location of Well in Borrego Springs

Nitrate-Nitrogen Concentration
Well Name: MW-3
State Well ID: 011S006E23J002S
Well Depth (ft): 325
Perforated Interval (ft): 175 - 331

Figure G-40

Prepared by:

WEST YOST
Water. Engineered.



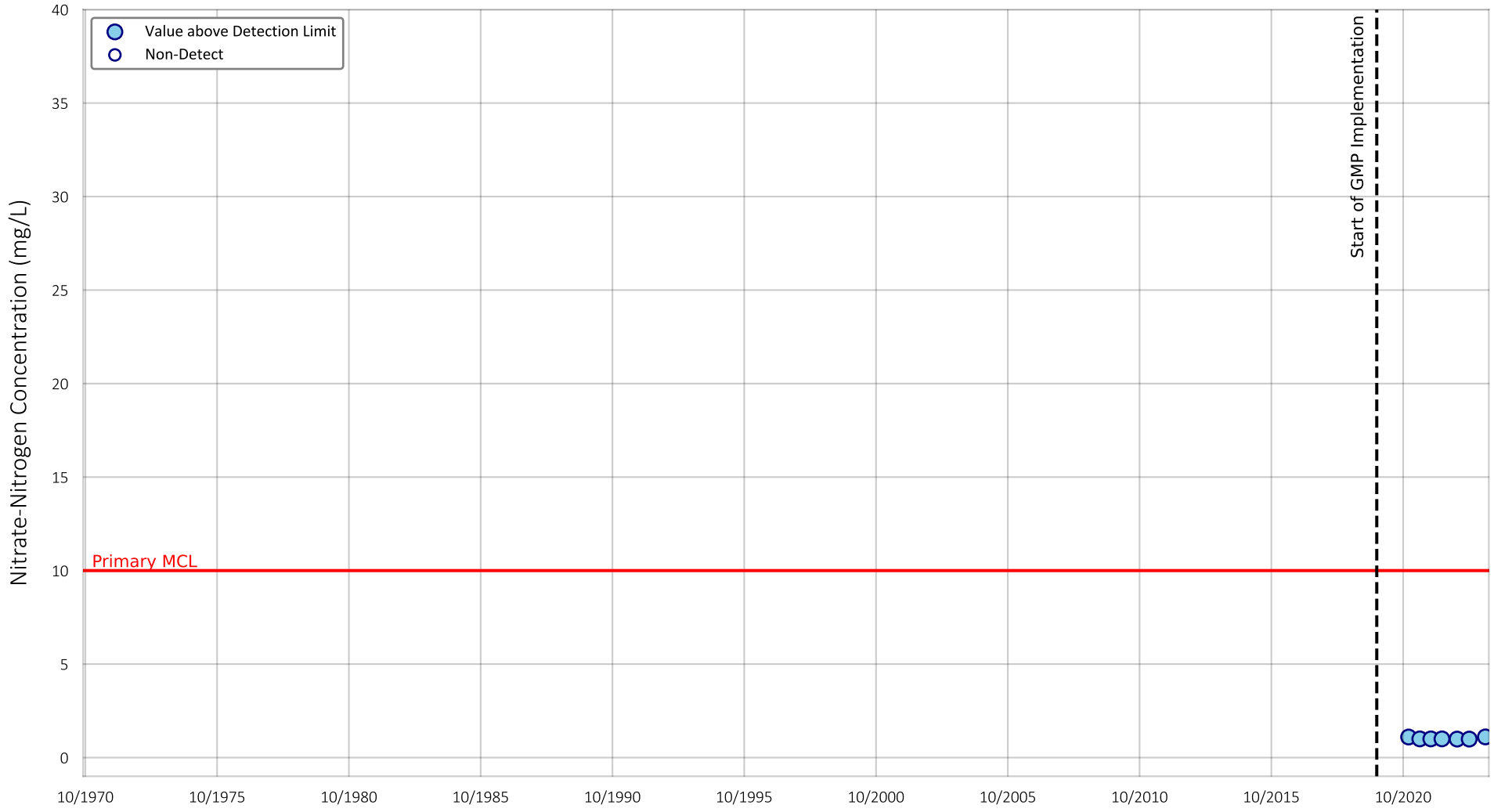
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

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



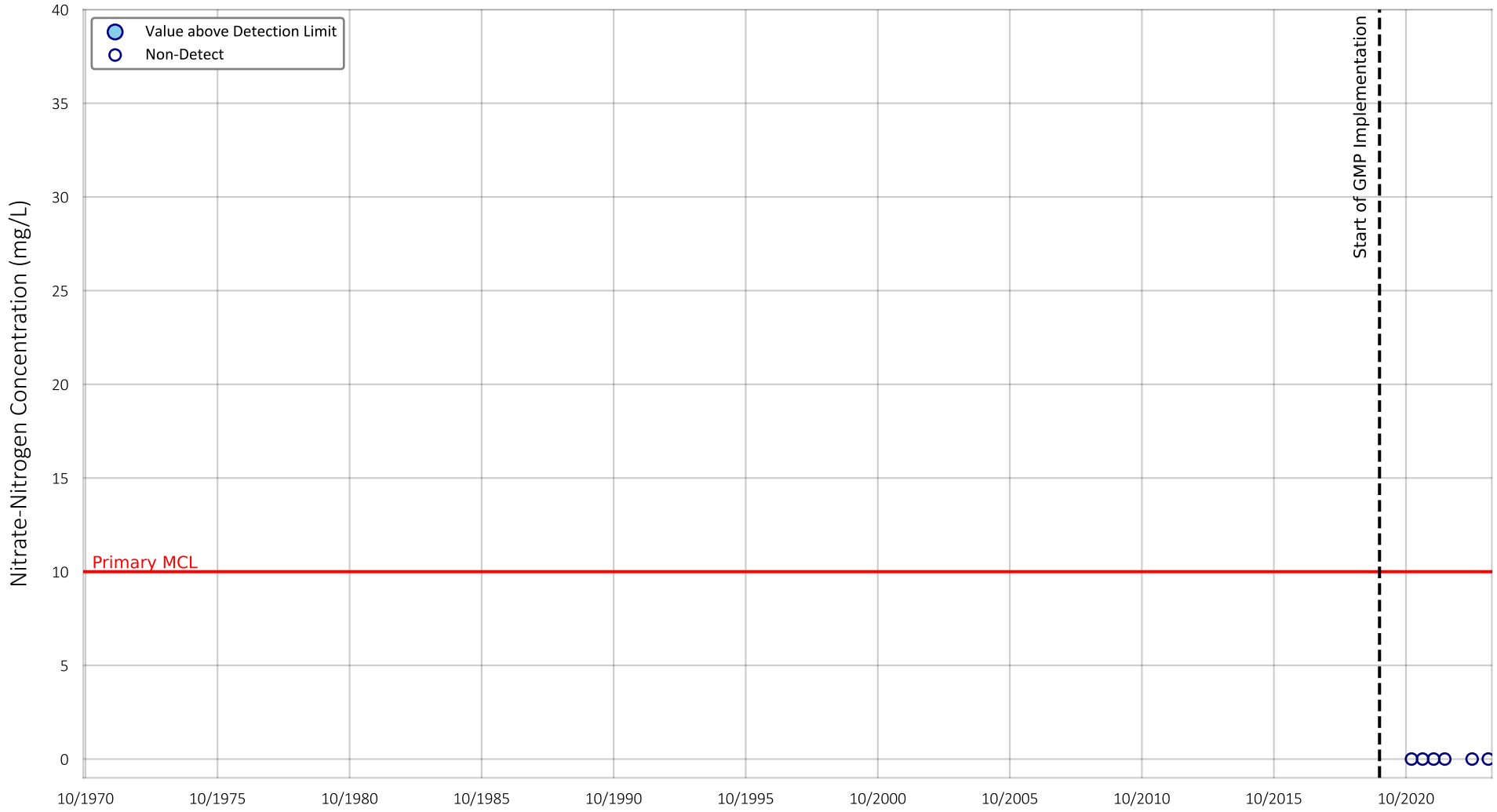
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

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



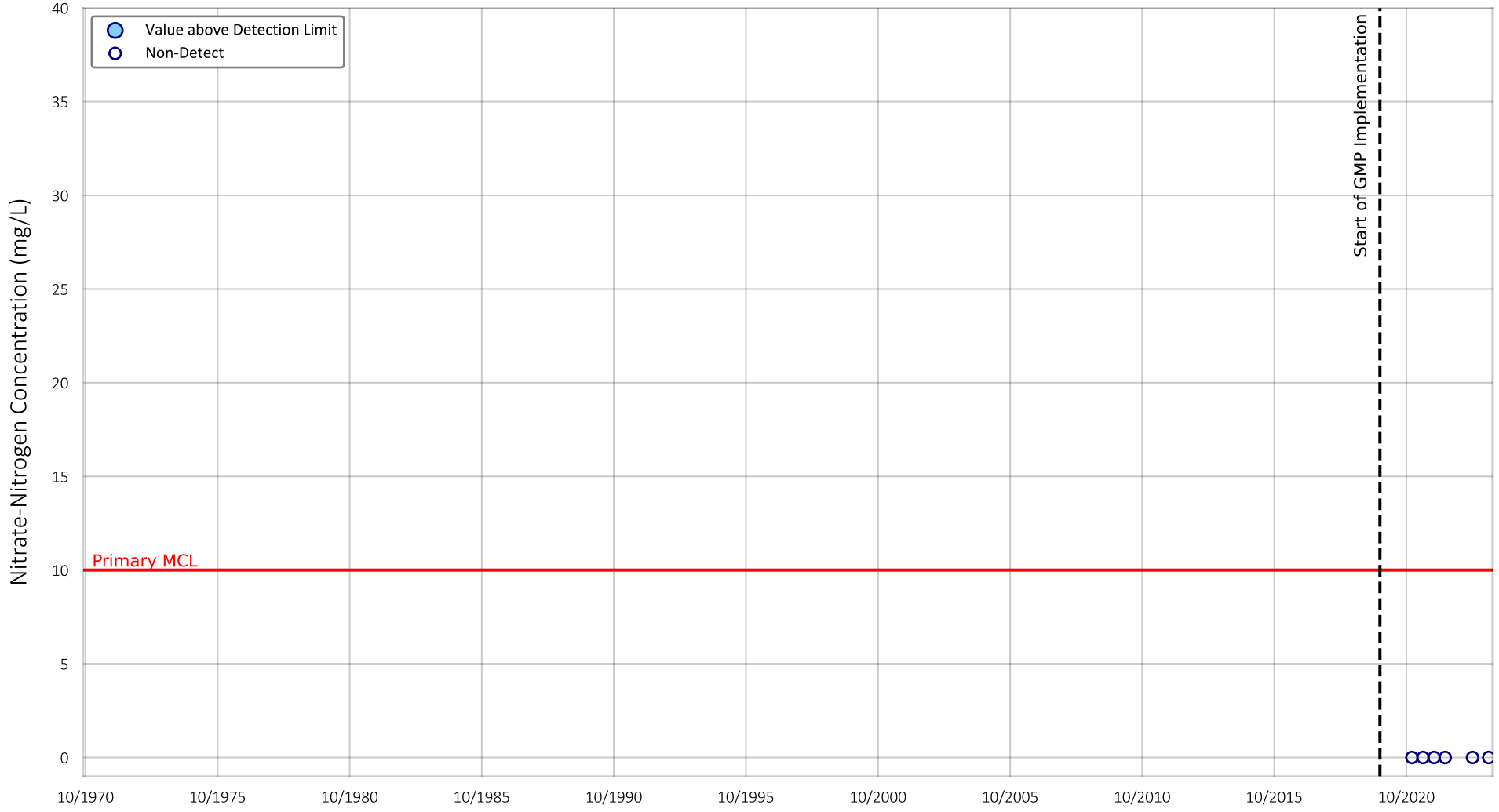
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

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



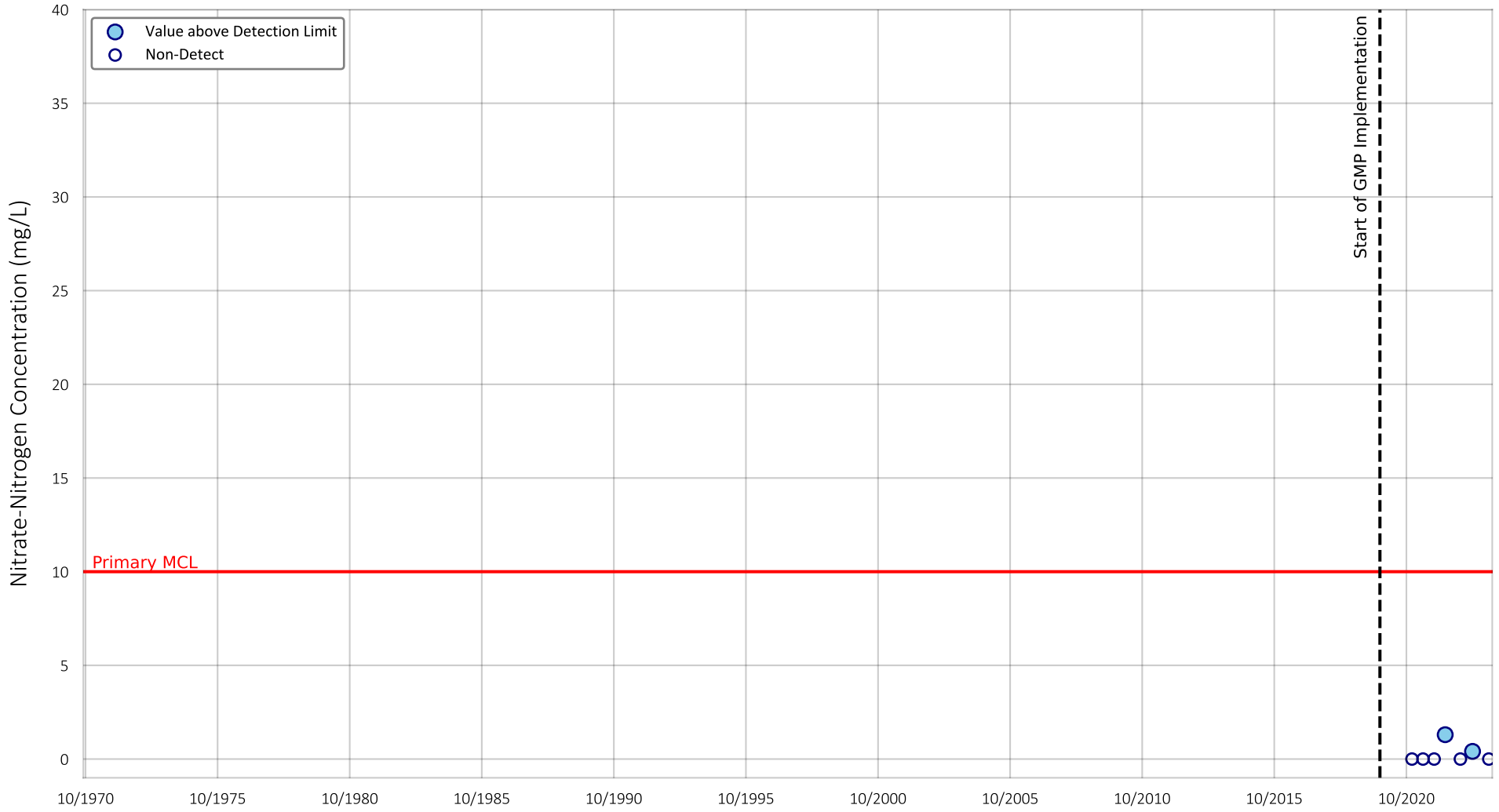
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

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



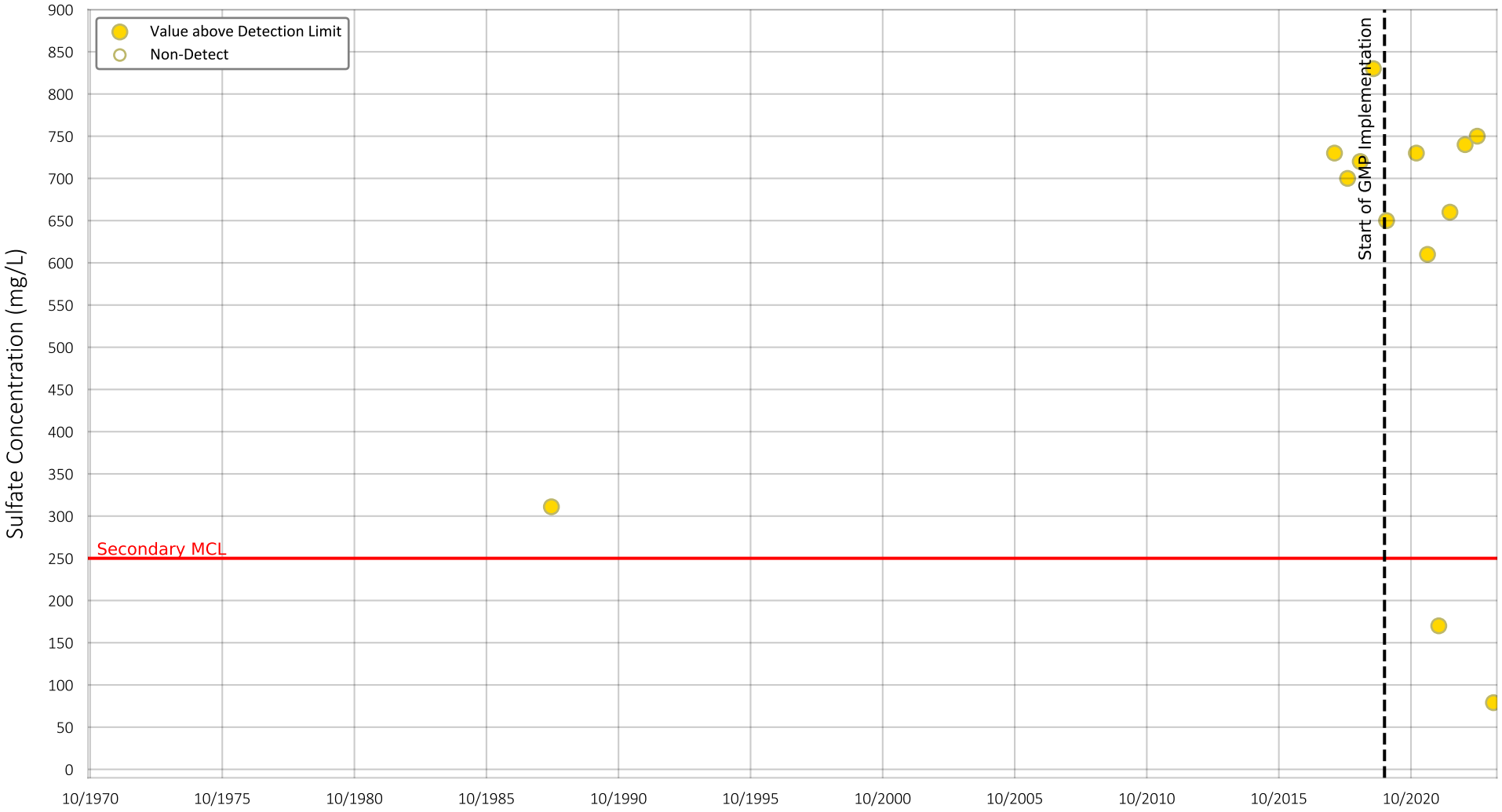
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Nitrate-Nitrogen Concentration
Well Name: MW-1
State Well ID: 010S006E21A002S
Well Depth (ft): 900
Perforated Interval (ft): 800 - 890

Figure G-45



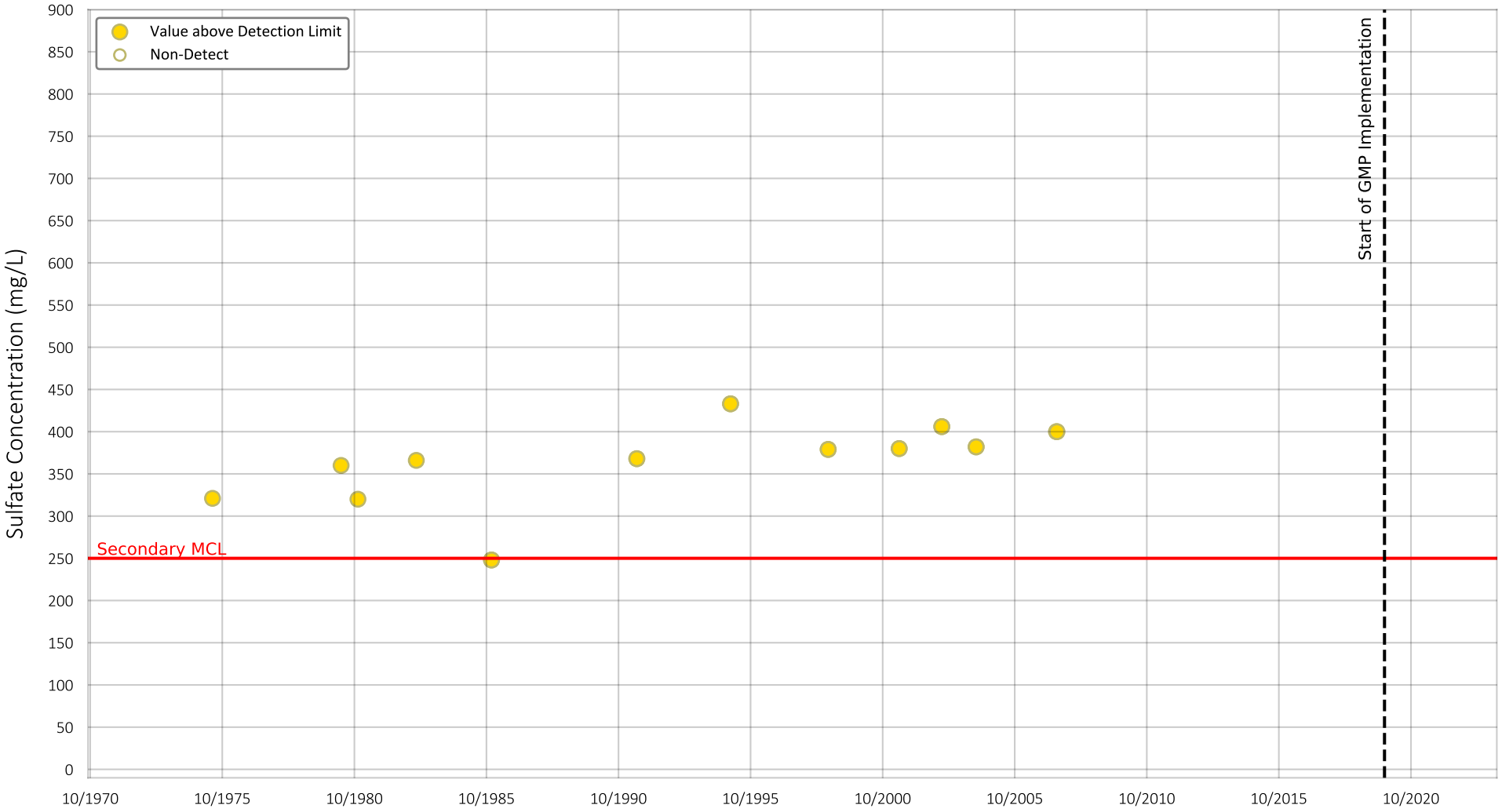
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Sulfate Concentration
Well Name: RH-1 (ID1-1)
State Well ID: 011S006E25A001S
Well Depth (ft): 600
Perforated Interval (ft): 180 - 580

Figure G-46



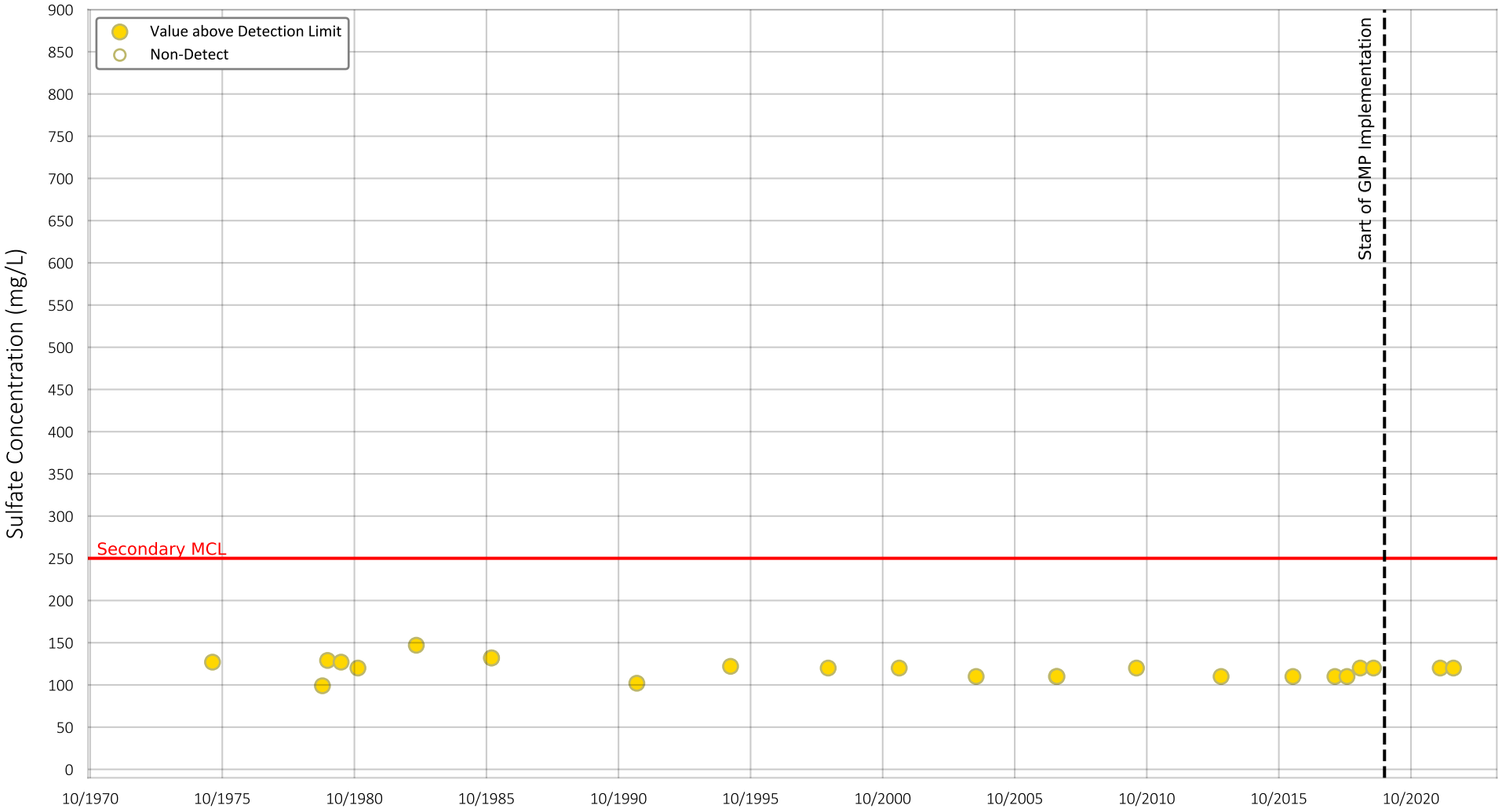
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Sulfate Concentration
Well Name: ID4-3
State Well ID: 010S006E18R001S
Well Depth (ft): 621
Perforated Interval (ft): no data - no data

Figure G-47



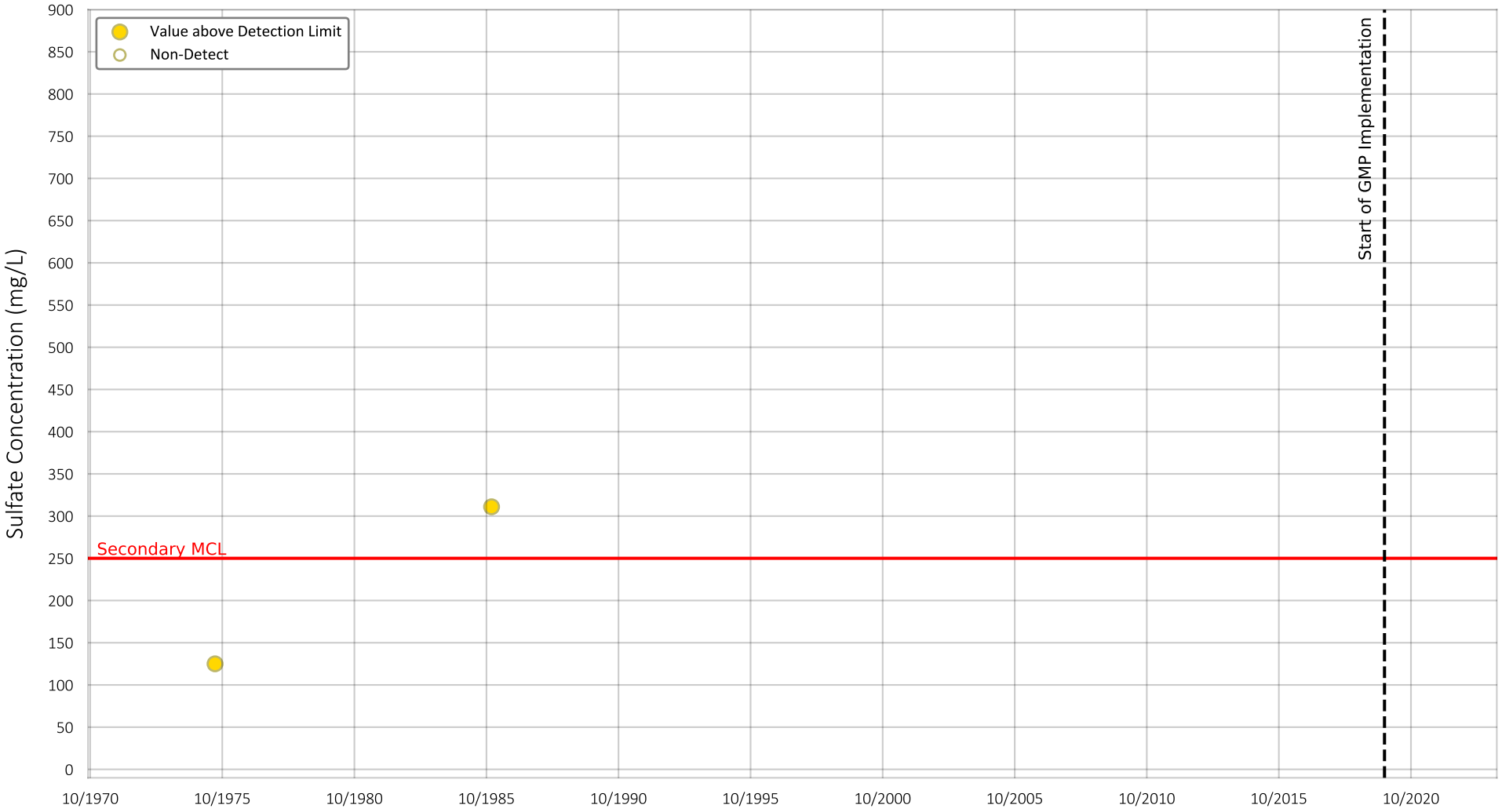
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Sulfate Concentration
Well Name: ID4-4
State Well ID: 010S006E29K002S
Well Depth (ft): 802
Perforated Interval (ft): 470 - 786

Figure G-48



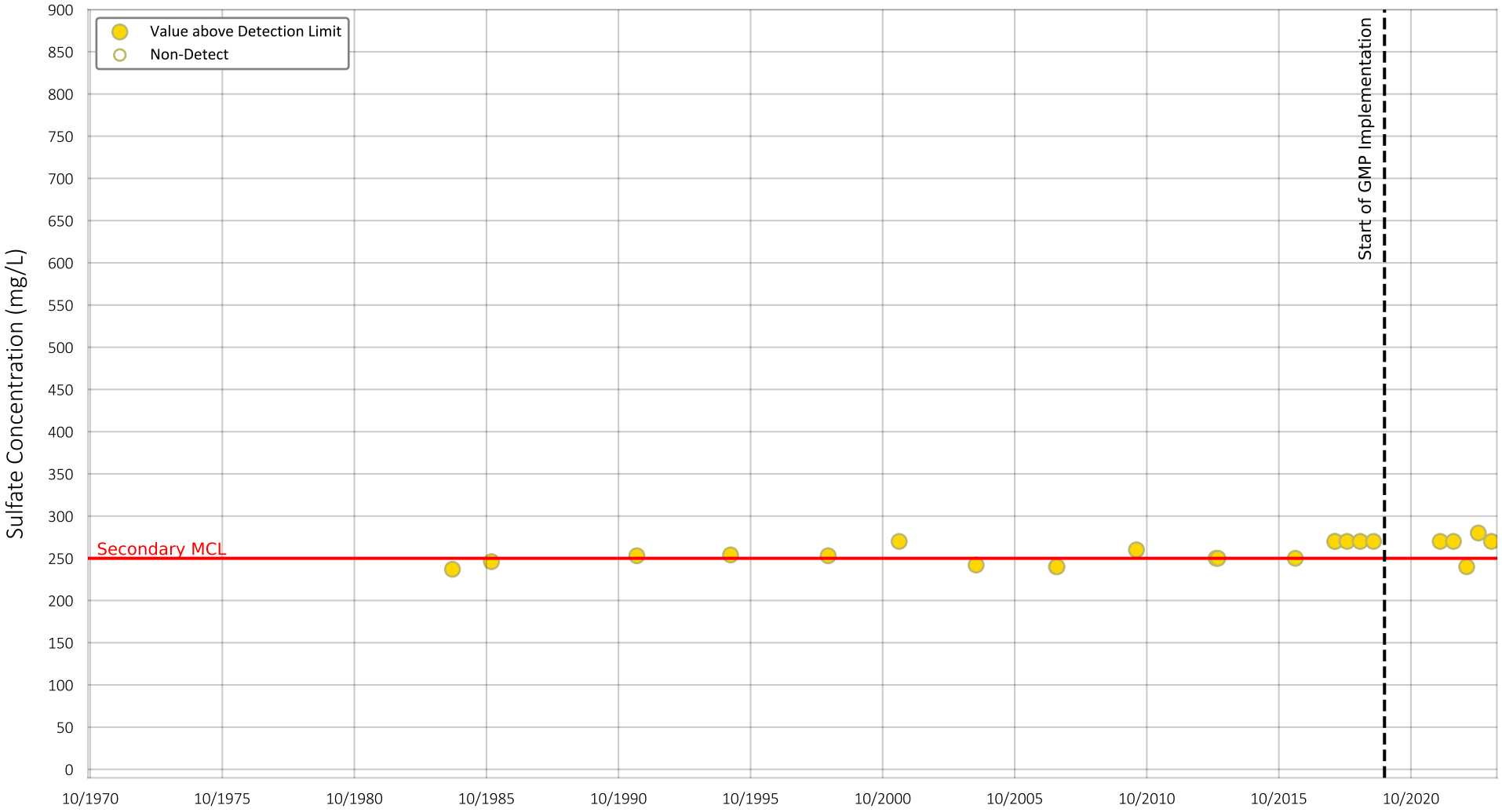
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

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



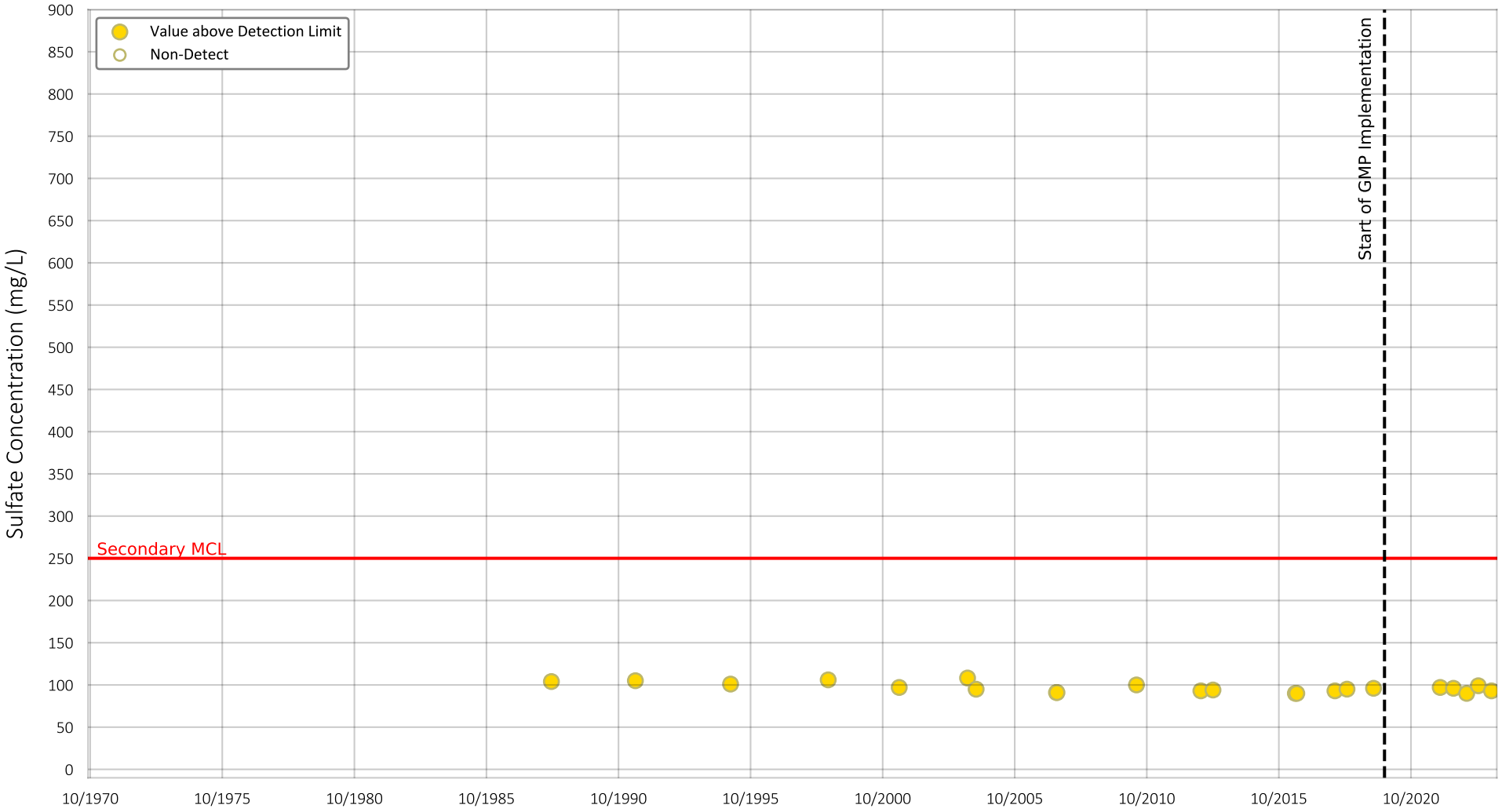
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Sulfate Concentration
Well Name: ID4-18
State Well ID: 010S006E18J001S
Well Depth (ft): 570
Perforated Interval (ft): 240 - 560

Figure G-50



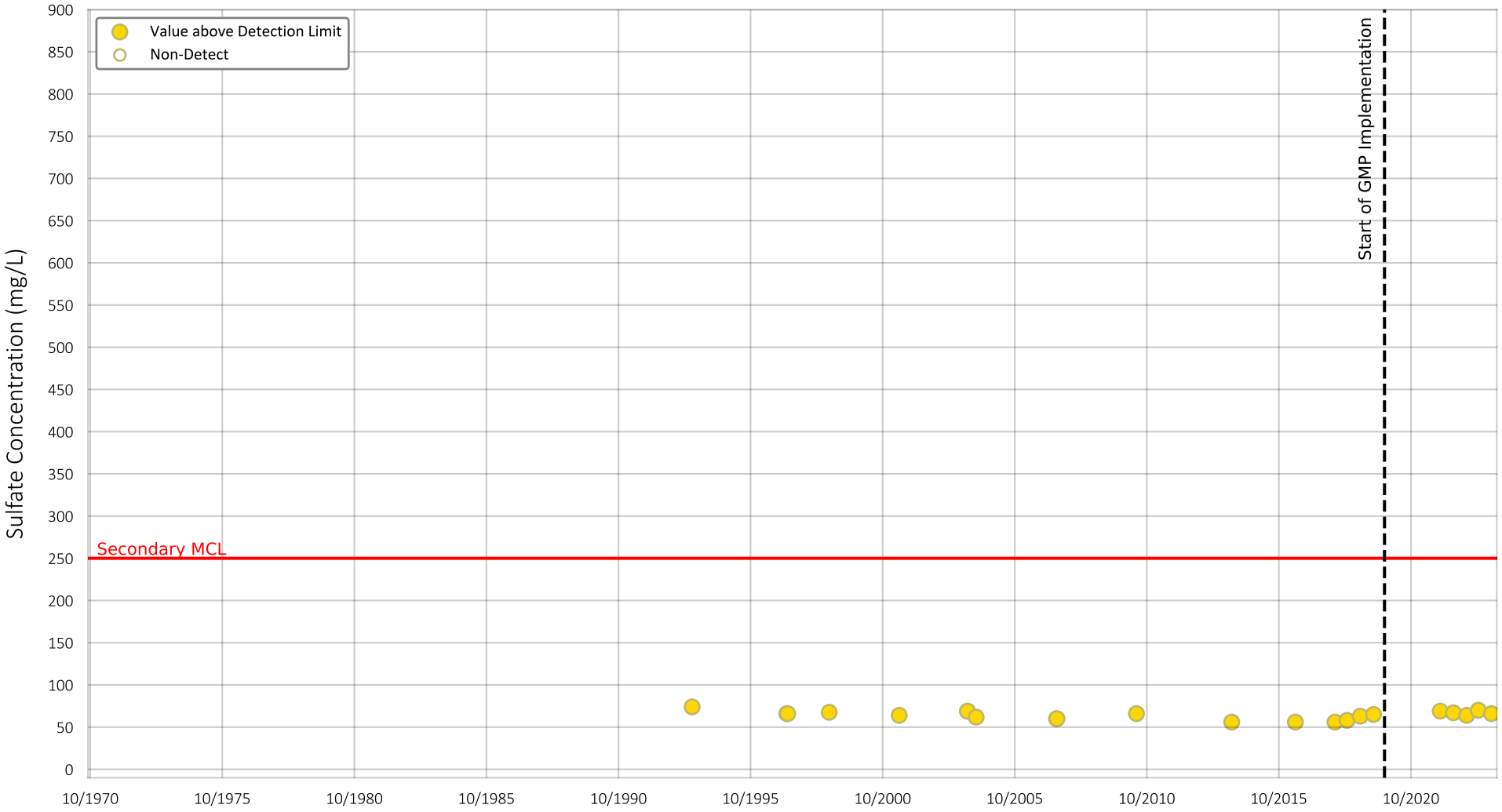
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Sulfate Concentration
Well Name: ID1-12
State Well ID: 011S006E16A002S
Well Depth (ft): 580
Perforated Interval (ft): 248 - 568

Figure G-51



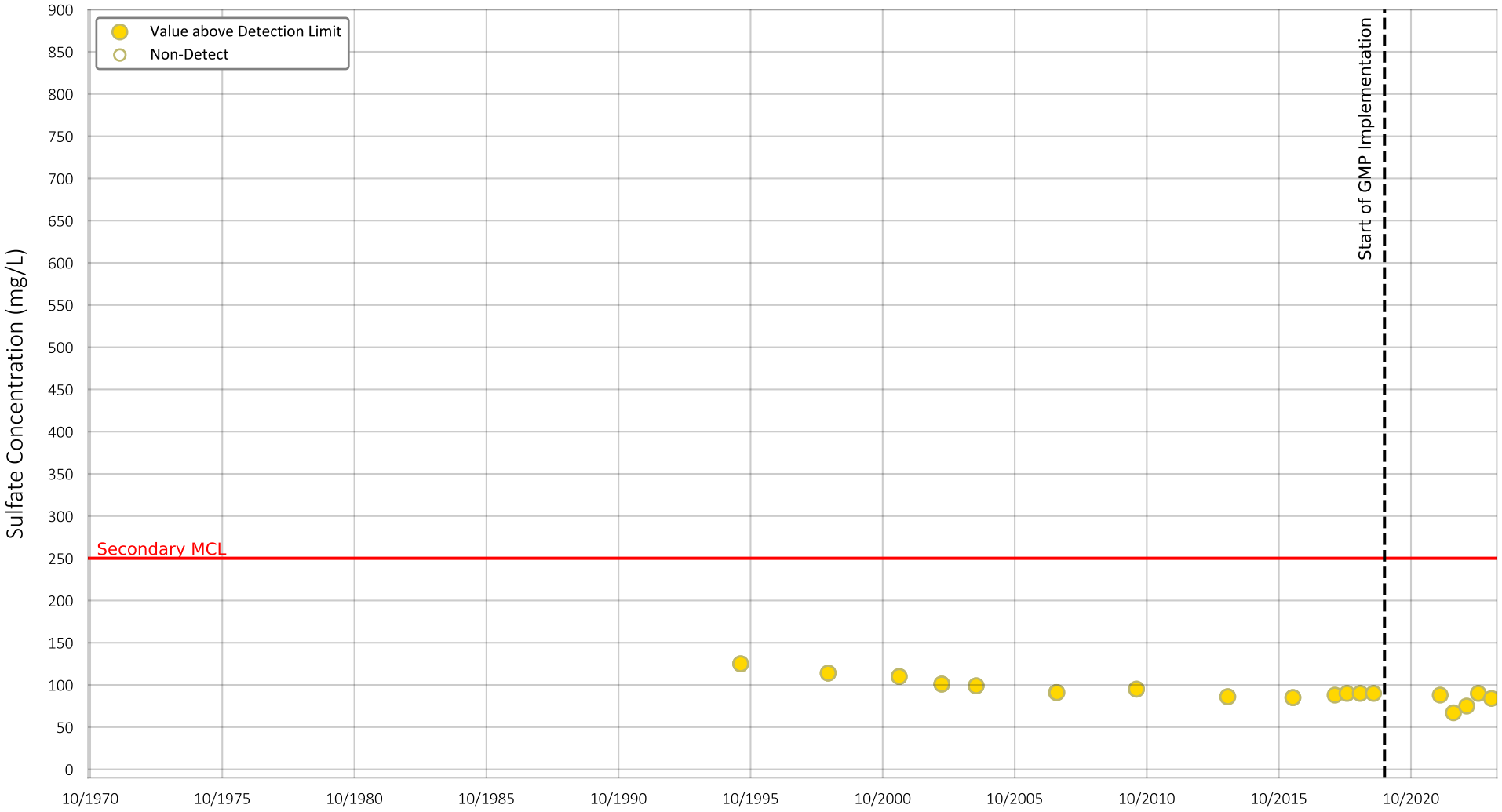
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Sulfate Concentration
Well Name: ID1-16
State Well ID: 011S006E16N001S
Well Depth (ft): 705
Perforated Interval (ft): 160 - 549

Figure G-52



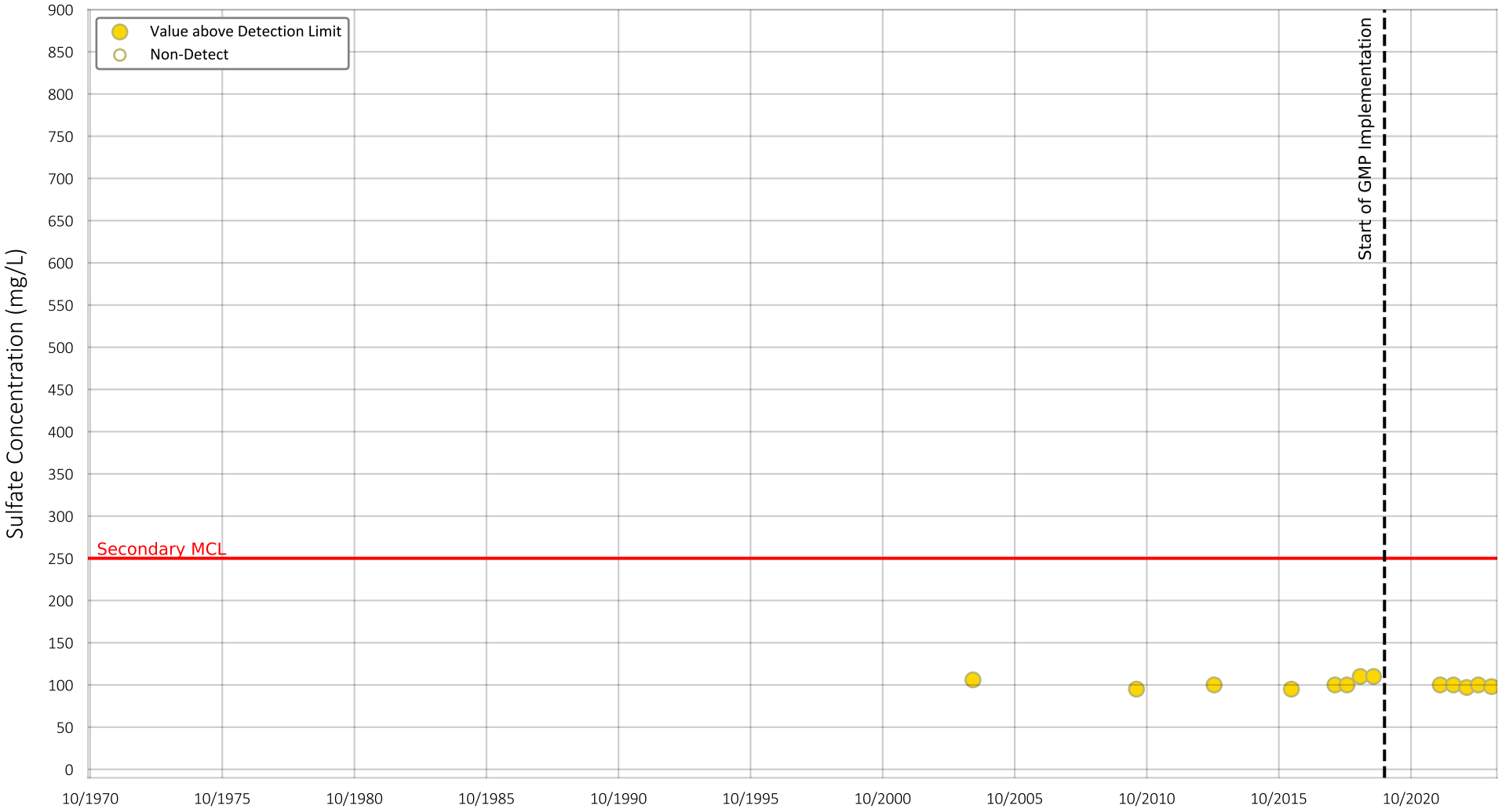
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Sulfate Concentration
Well Name: ID4-11
State Well ID: 010S006E32D001S
Well Depth (ft): 770
Perforated Interval (ft): 450 - 760

Figure G-53



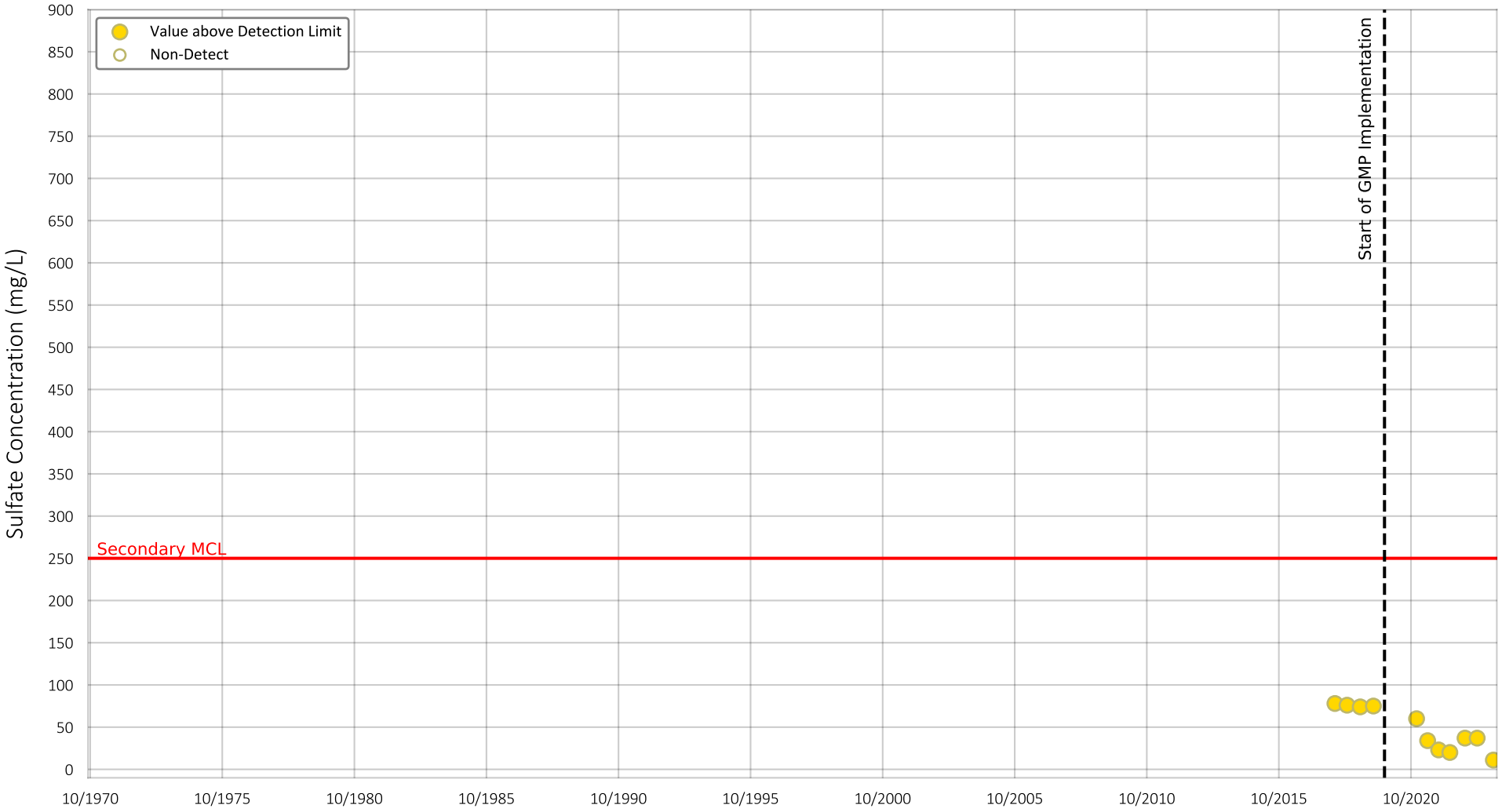
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Sulfate Concentration
Well Name: ID5-5
State Well ID: 011S006E09E001S
Well Depth (ft): 700
Perforated Interval (ft): 400 - 700

Figure G-54



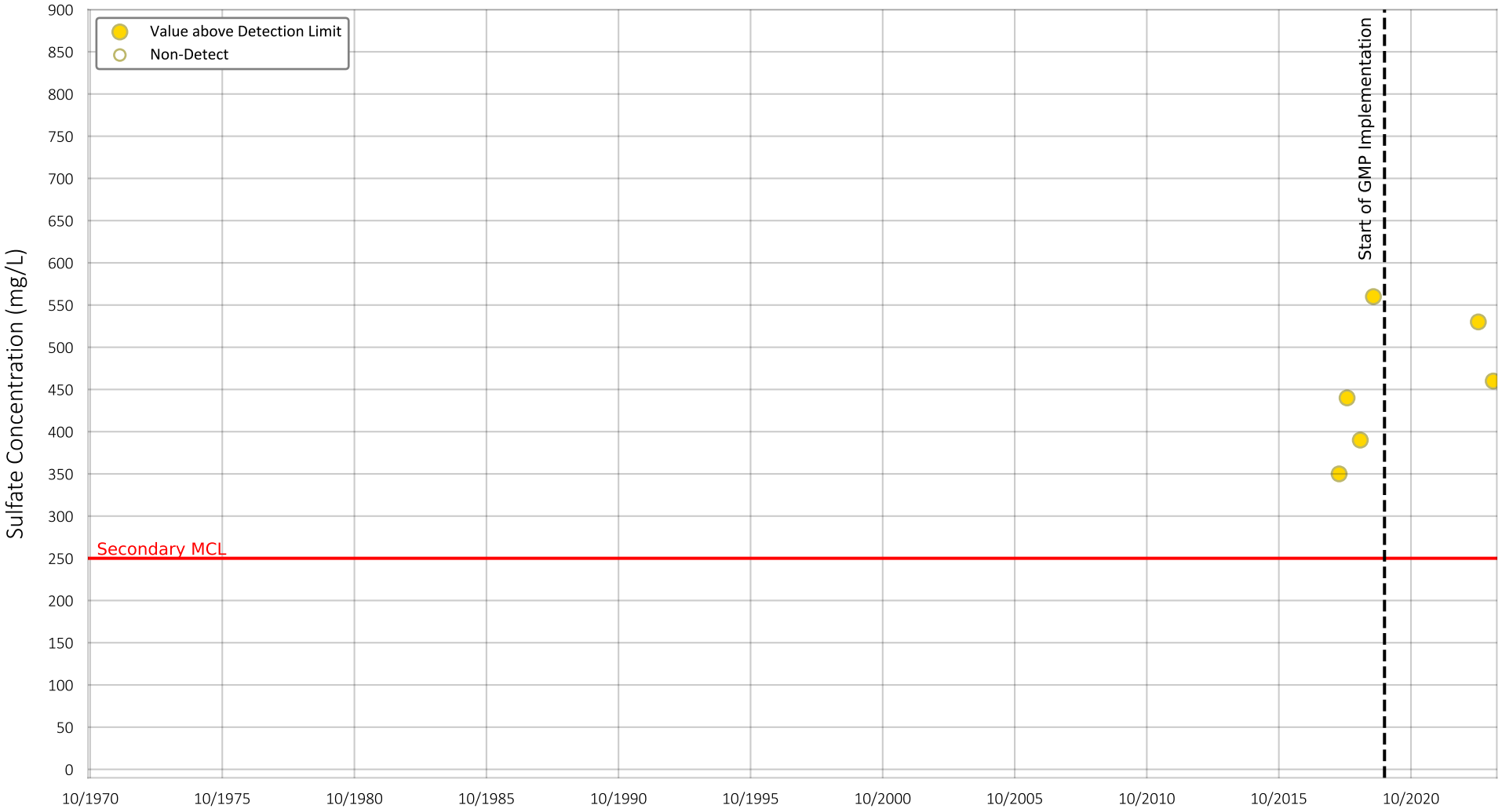
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Sulfate Concentration
Well Name: MW-3
State Well ID: 011S006E23J002S
Well Depth (ft): 325
Perforated Interval (ft): 175 - 331

Figure G-55



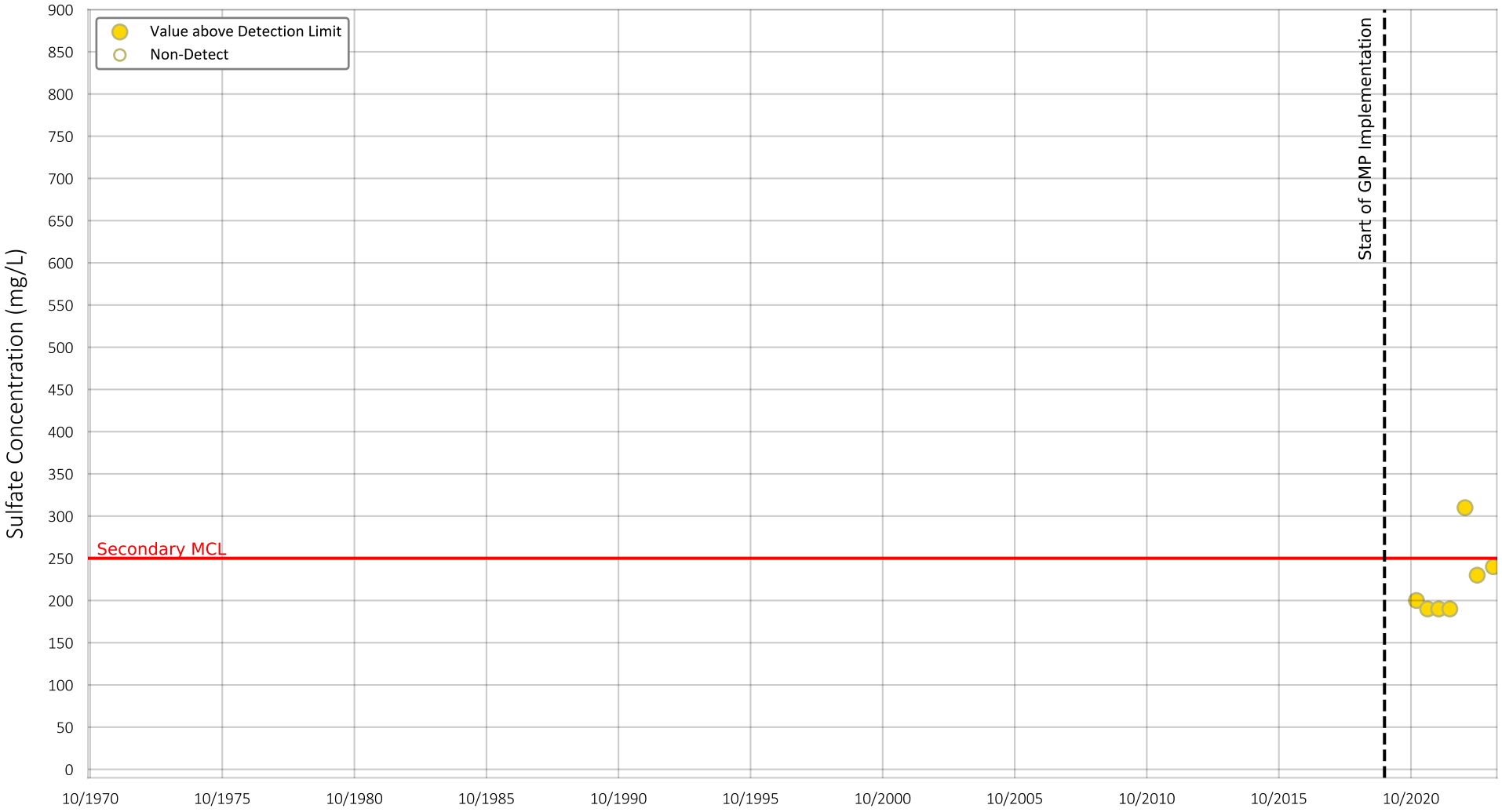
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Sulfate Concentration
Well Name: Fortiner #1 (Allegre 1)
State Well ID: 010S006E09N001S
Well Depth (ft): 560
Perforated Interval (ft): 250 - 607

Figure G-56



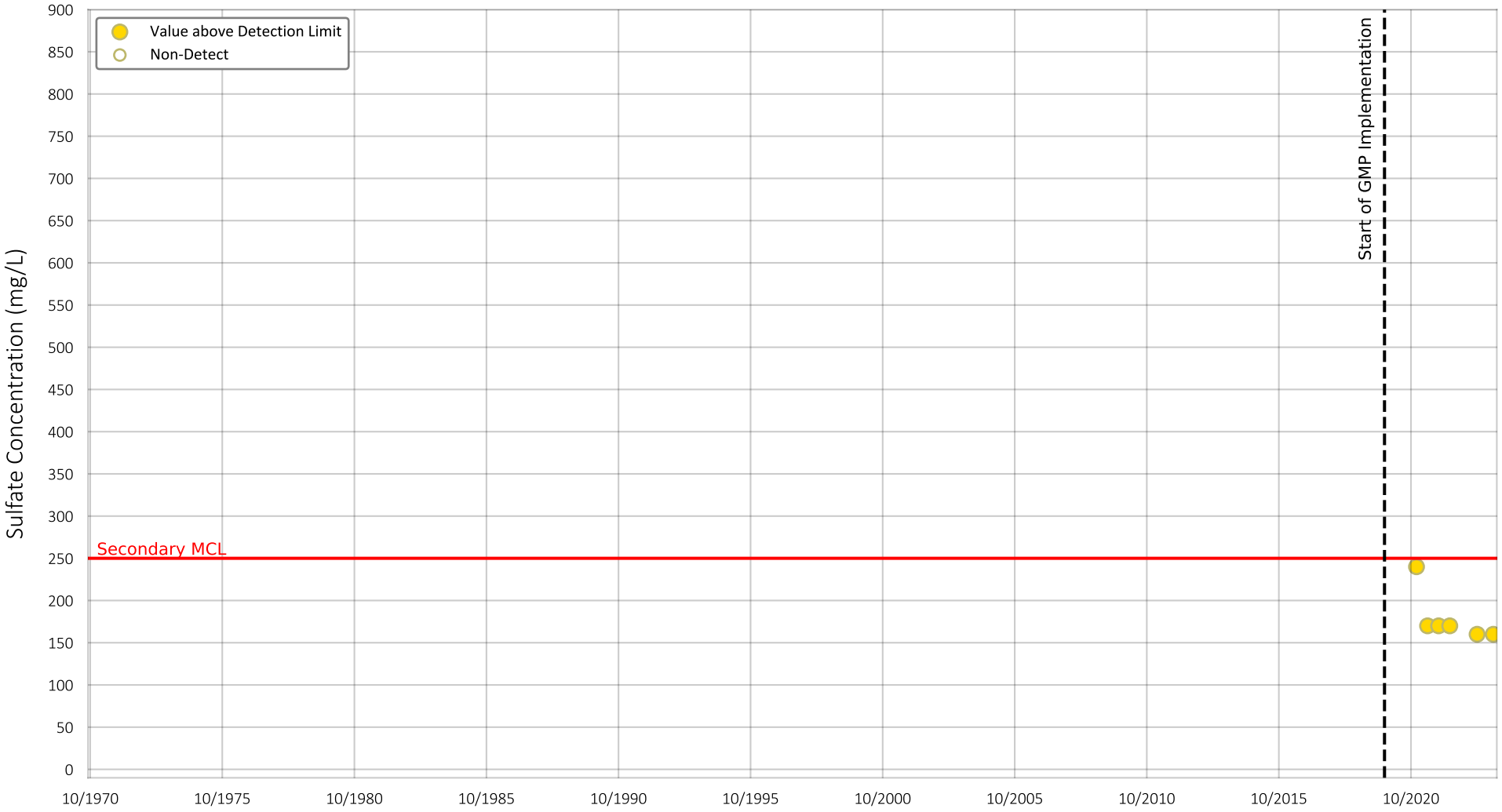
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Sulfate Concentration
Well Name: Air Ranch Well 4
State Well ID: 011S007E30L001S
Well Depth (ft): 380
Perforated Interval (ft): 120 - 380

Figure G-57



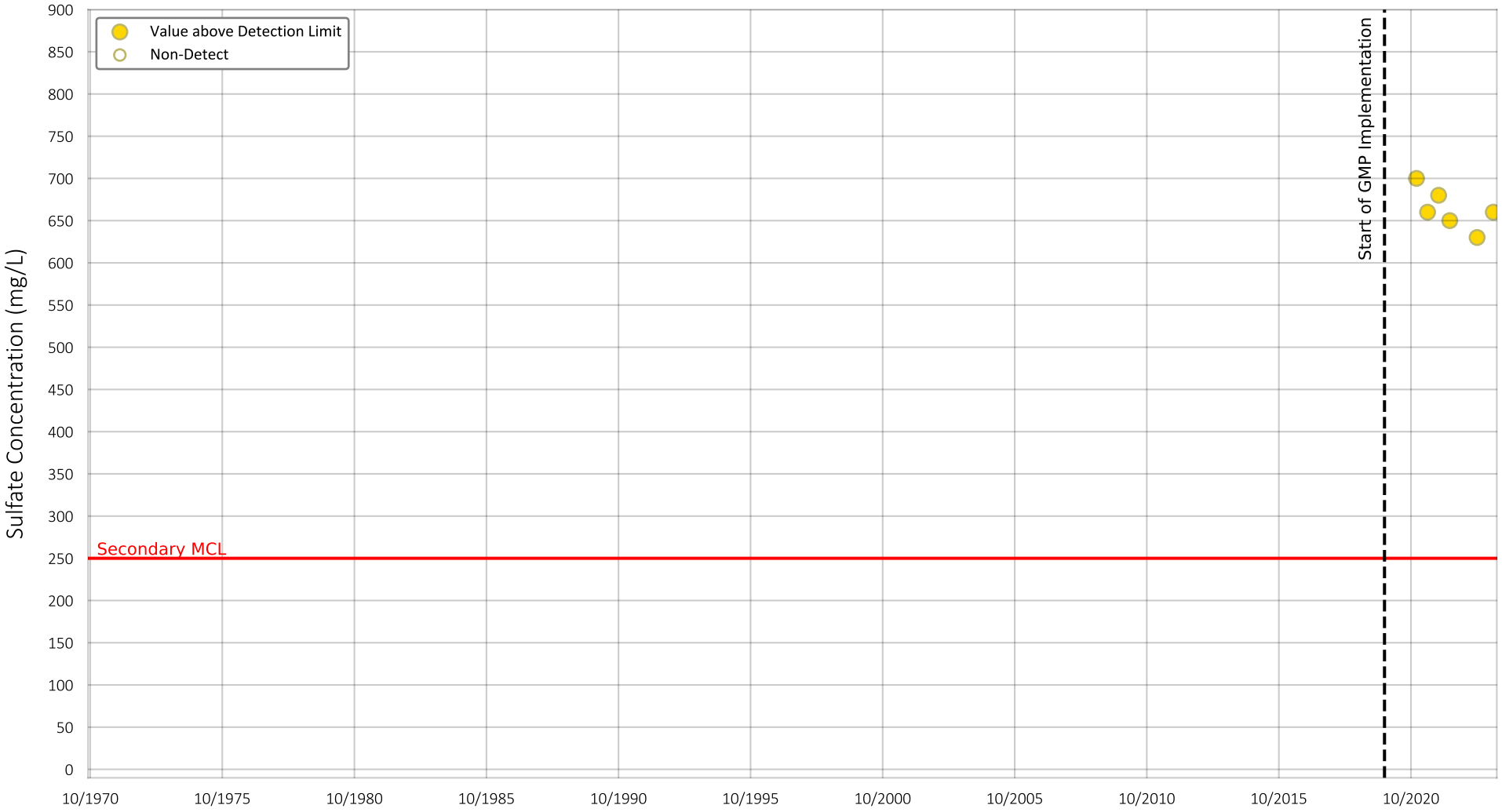
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Sulfate Concentration
Well Name: MW-5A (East-Lower)
State Well ID: 011S007E07R001S
Well Depth (ft): 345
Perforated Interval (ft): 50 - 160

Figure G-58



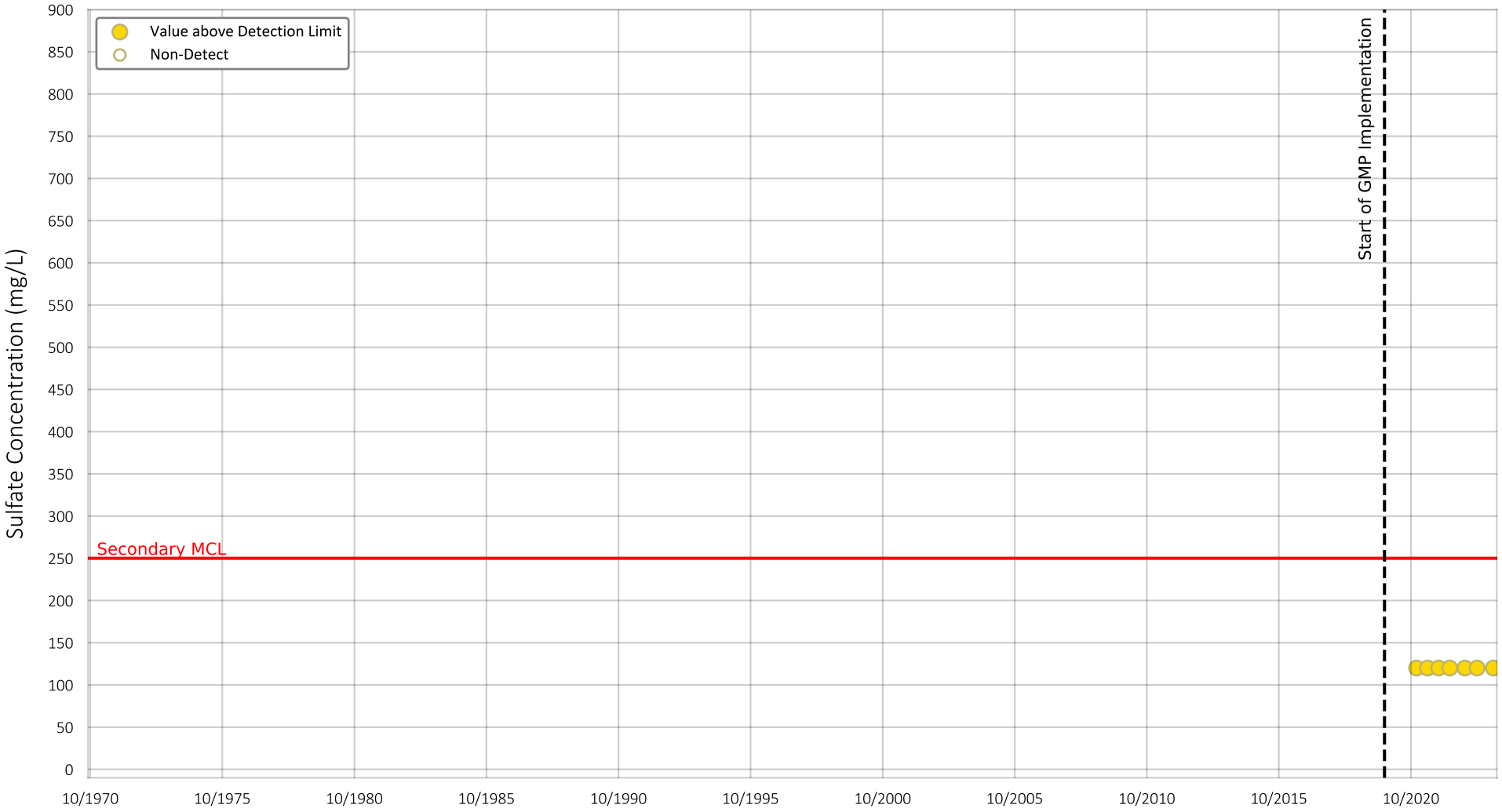
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Sulfate Concentration
Well Name: MW-5B (West-Upper)
State Well ID: 011S007E07R002S
Well Depth (ft): 160
Perforated Interval (ft): 45 - 340

Figure G-59



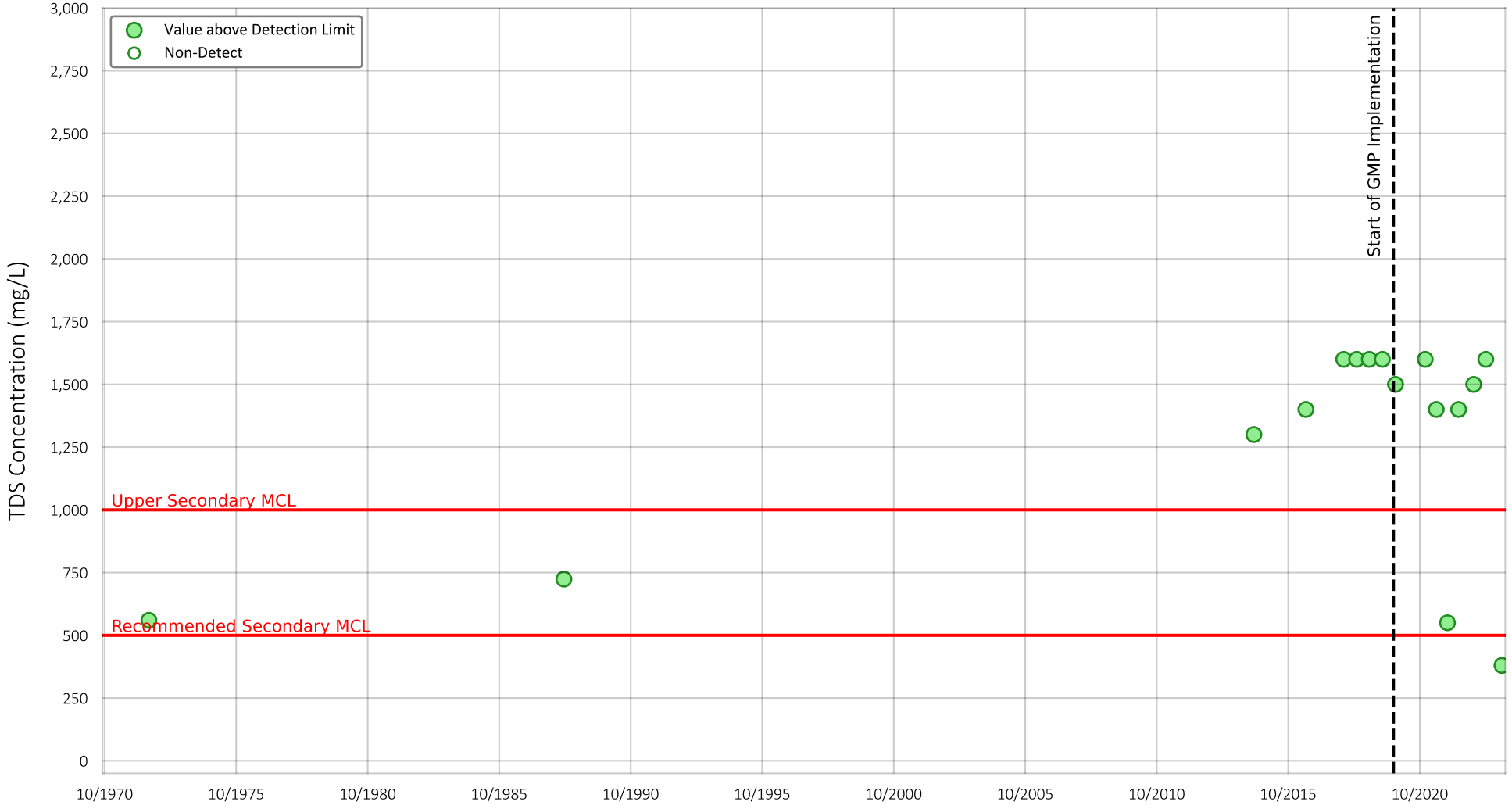
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

Sulfate Concentration
Well Name: MW-1
State Well ID: 010S006E21A002S
Well Depth (ft): 900
Perforated Interval (ft): 800 - 890

Figure G-60



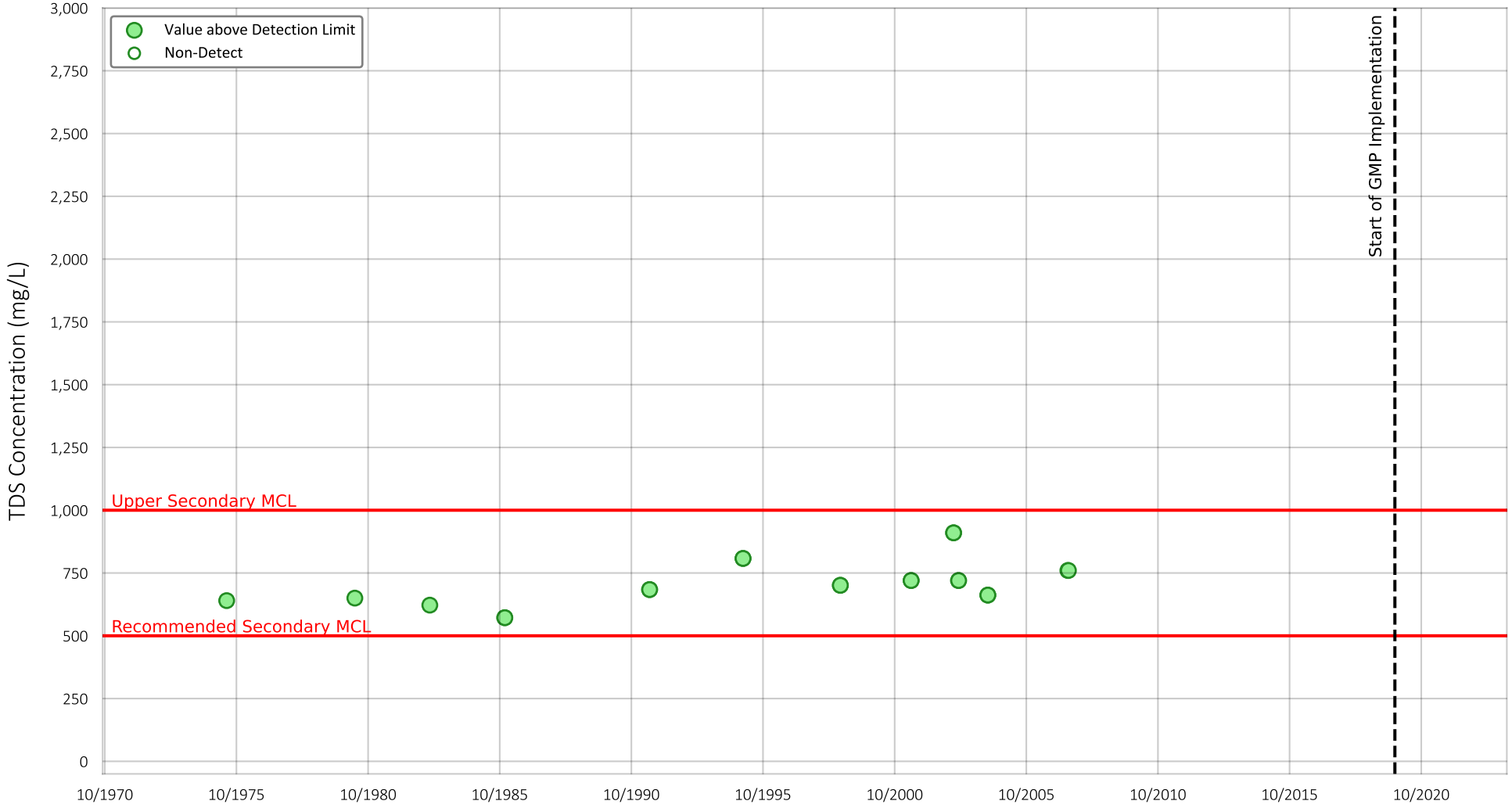
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

TDS Concentration
Well Name: RH-1 (ID1-1)
State Well ID: 011S006E25A001S
Well Depth (ft): 600
Perforated Interval (ft): 180 - 580

Figure G-61



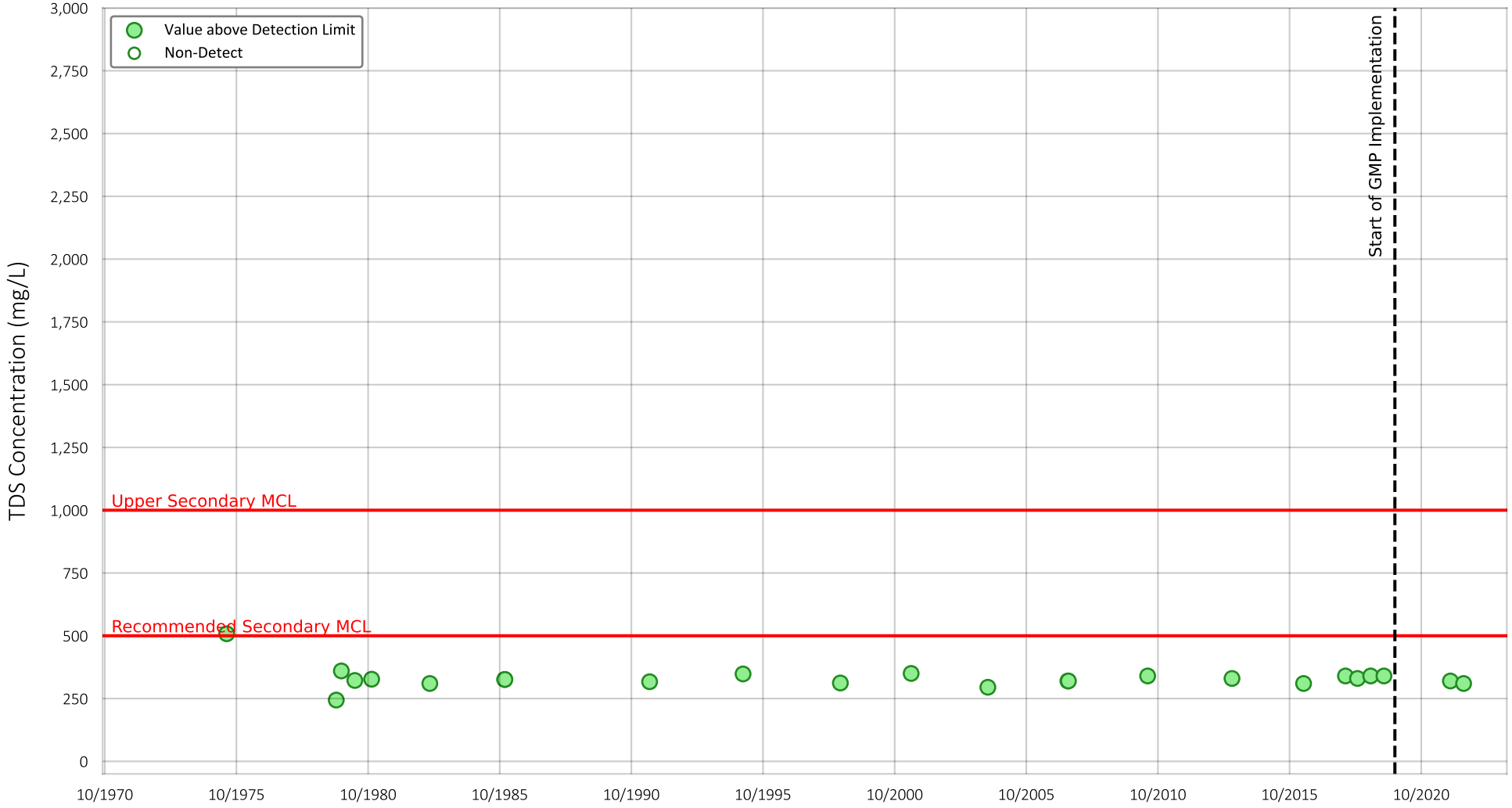
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

TDS Concentration
Well Name: ID4-3
State Well ID: 010S006E18R001S
Well Depth (ft): 621
Perforated Interval (ft): no data - no data

Figure G-62



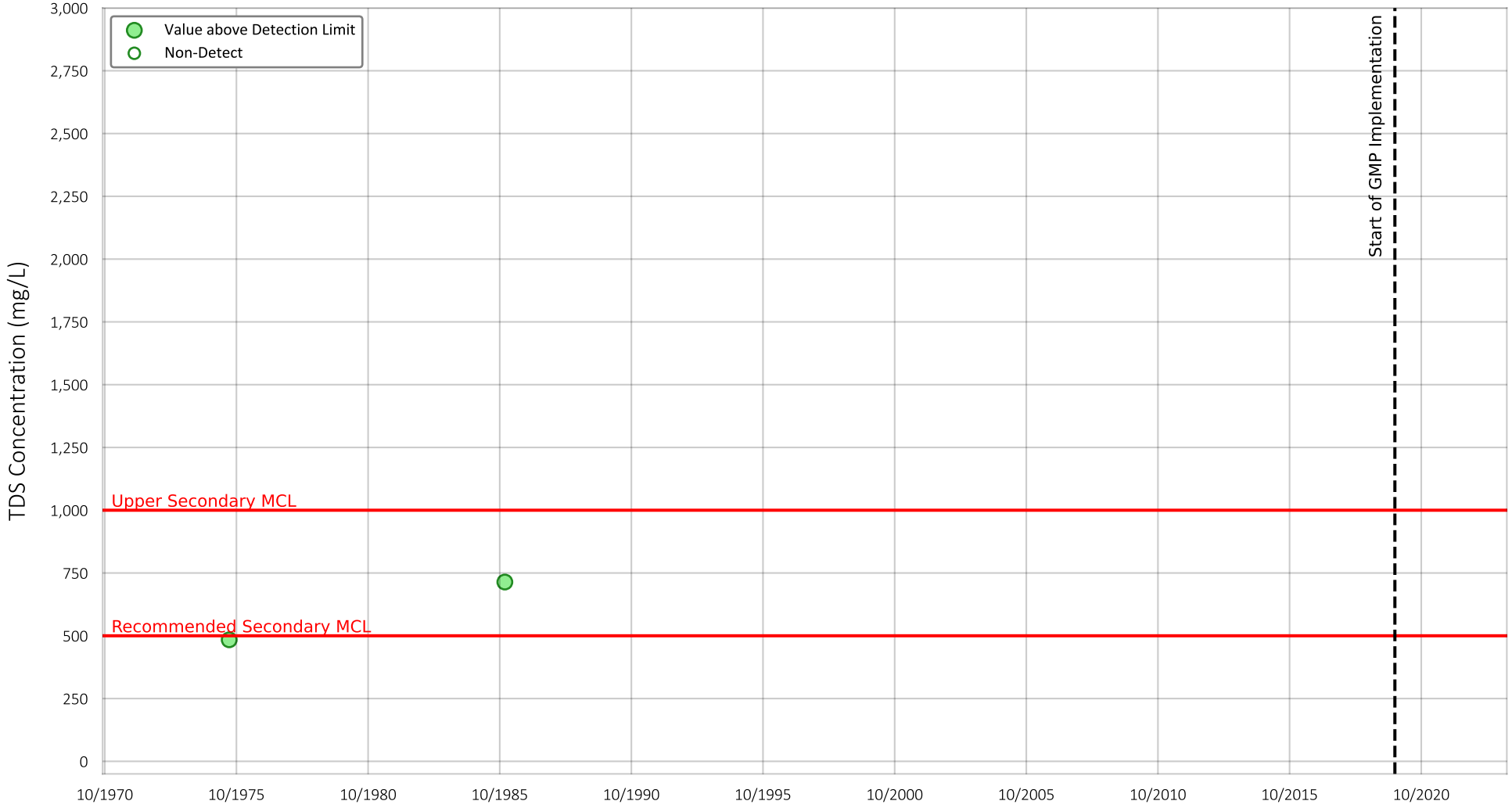
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

TDS Concentration
Well Name: ID4-4
State Well ID: 010S006E29K002S
Well Depth (ft): 802
Perforated Interval (ft): 470 - 786

Figure G-63



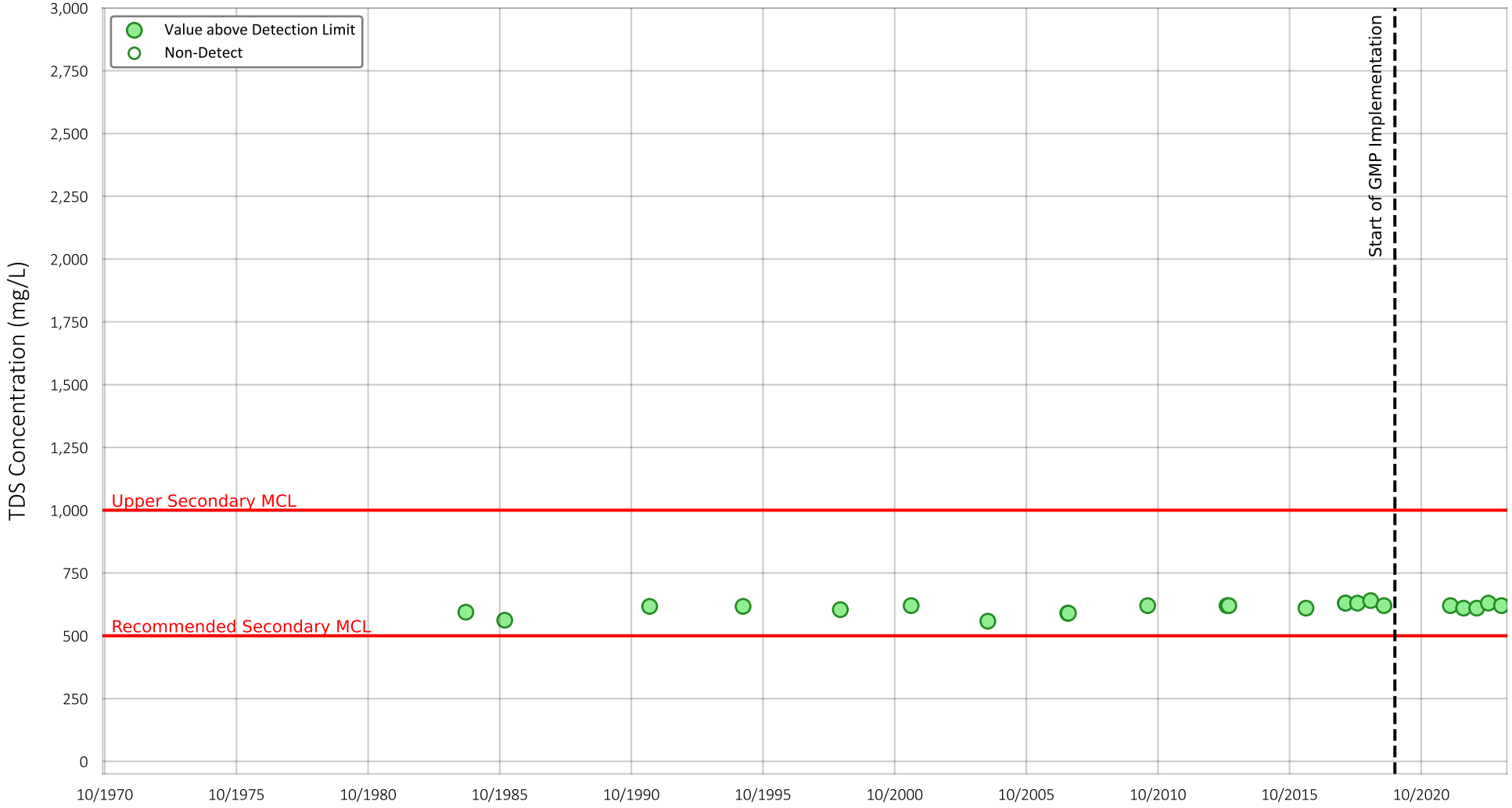
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

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



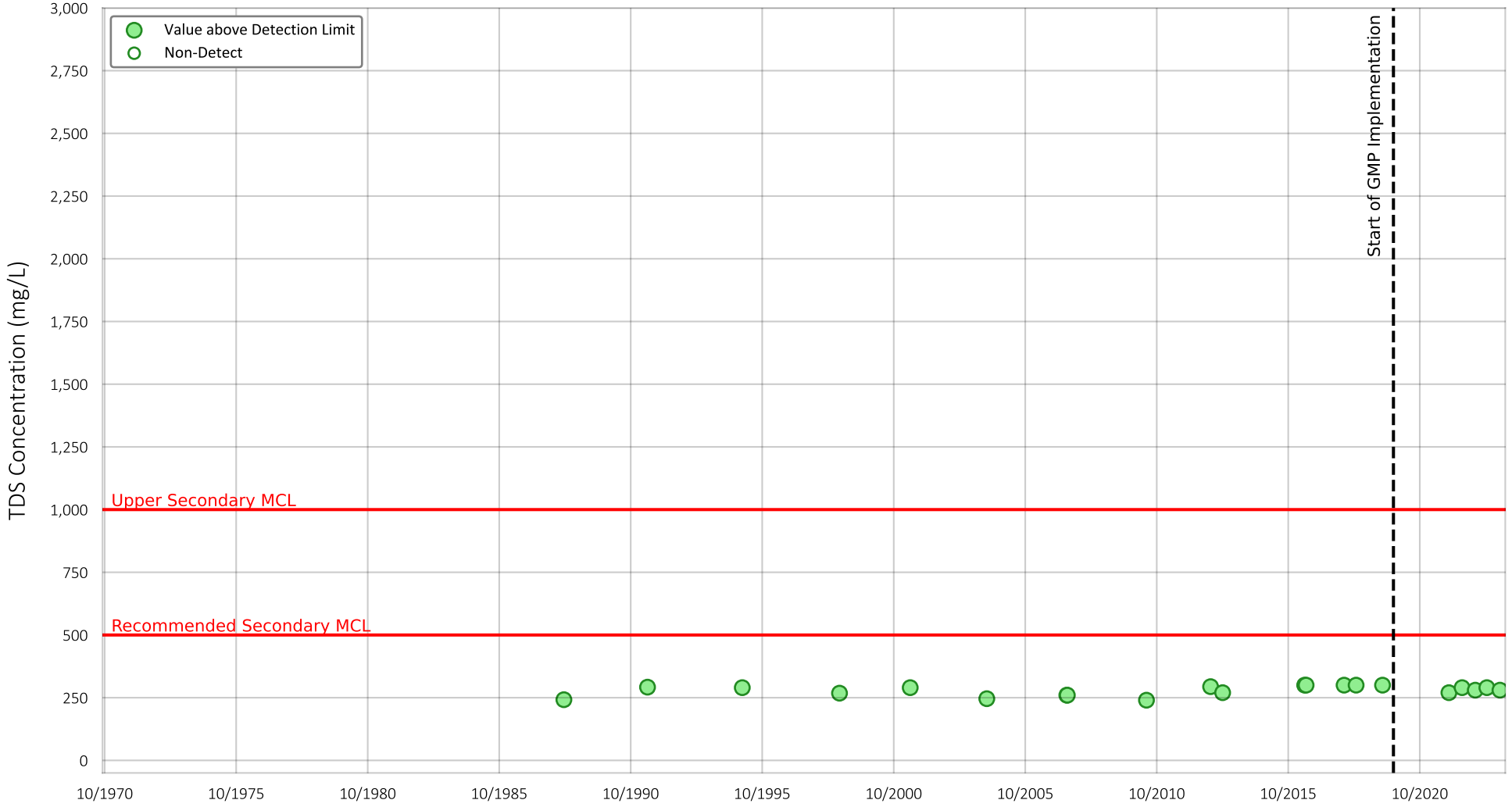
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

TDS Concentration
Well Name: ID4-18
State Well ID: 010S006E18J001S
Well Depth (ft): 570
Perforated Interval (ft): 240 - 560

Figure G-65



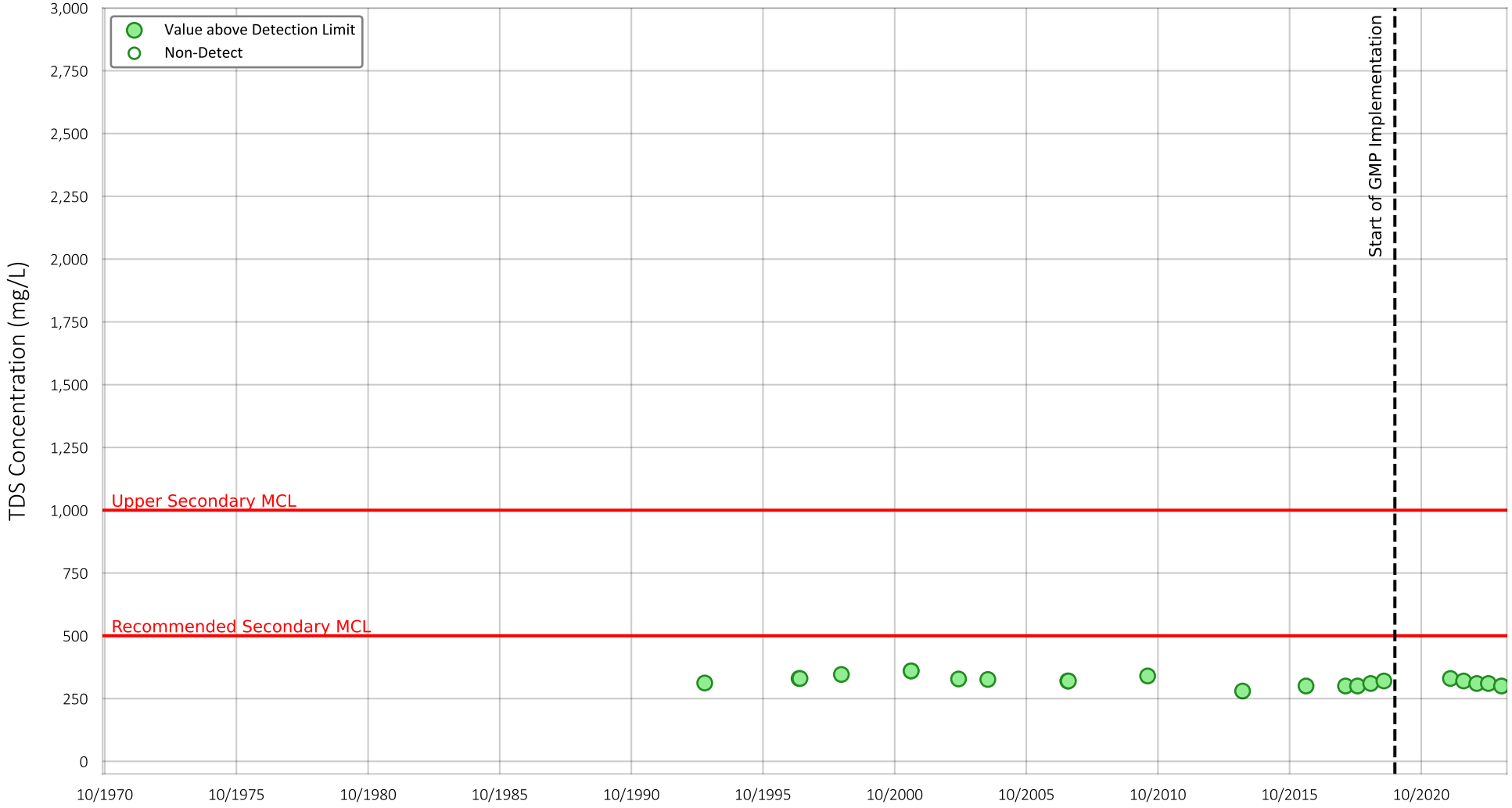
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

TDS Concentration
Well Name: ID1-12
State Well ID: 011S006E16A002S
Well Depth (ft): 580
Perforated Interval (ft): 248 - 568

Figure G-66



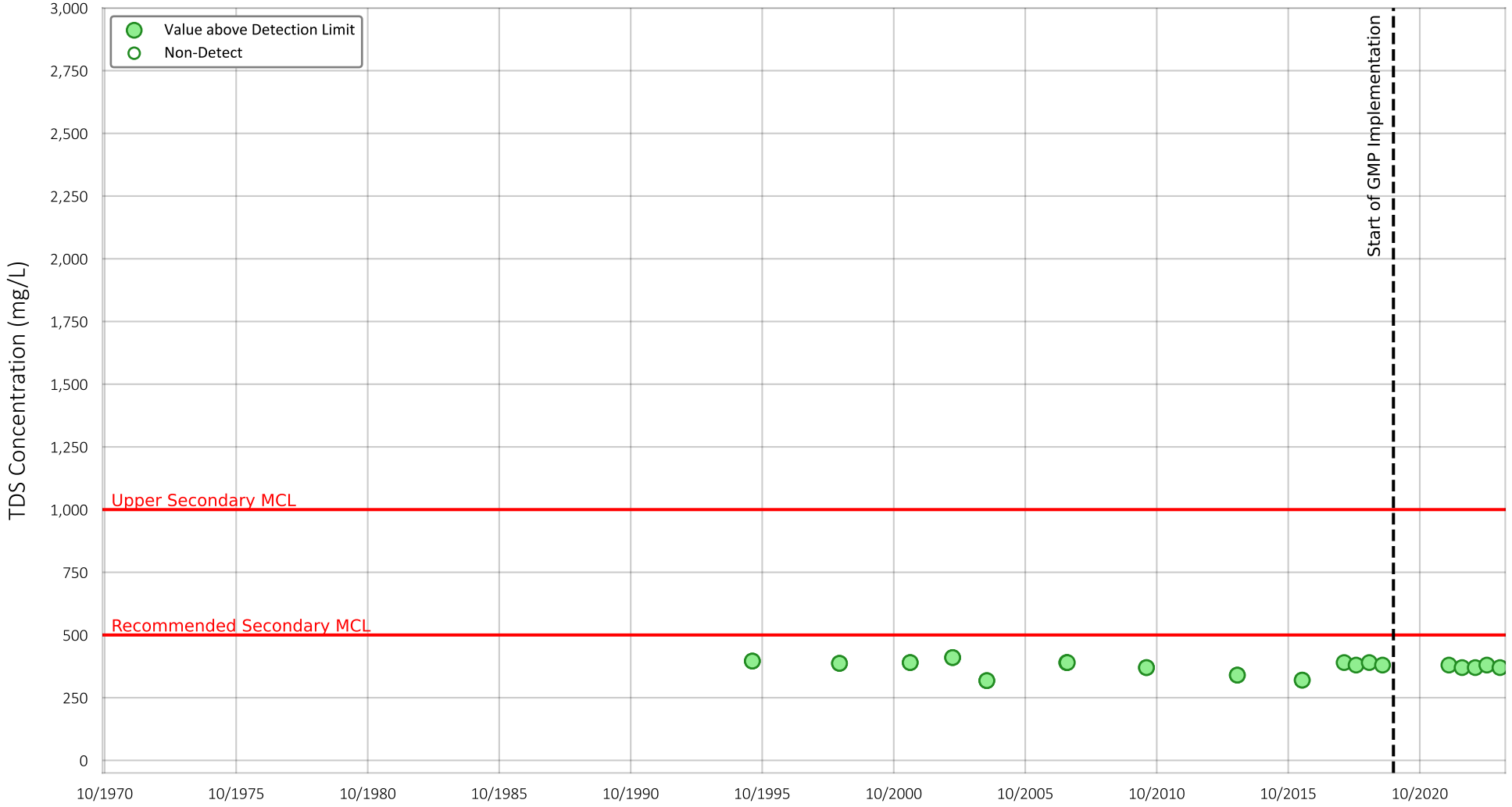
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

TDS Concentration
Well Name: ID1-16
State Well ID: 011S006E16N001S
Well Depth (ft): 705
Perforated Interval (ft): 160 - 549

Figure G-67



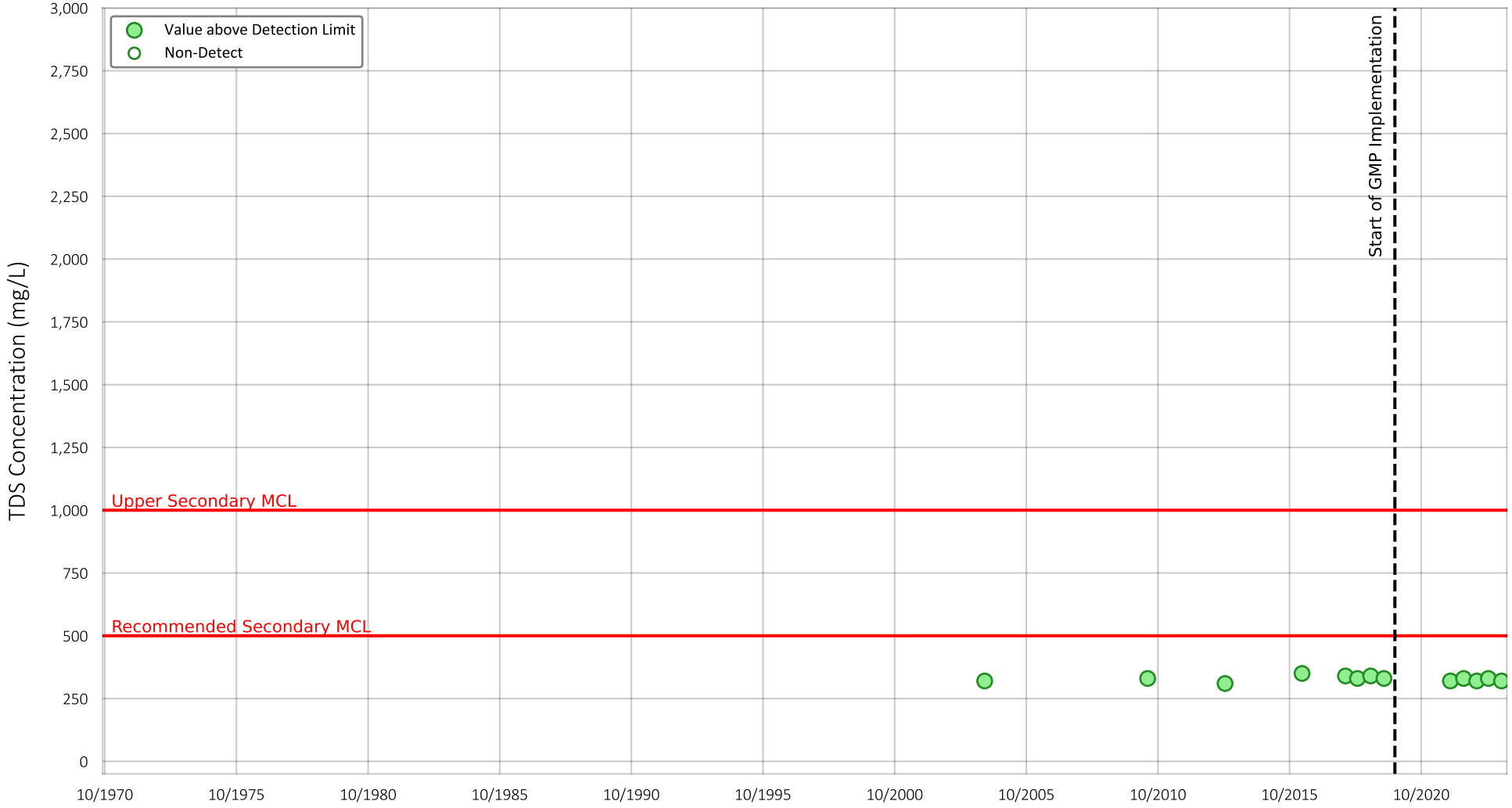
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

TDS Concentration
Well Name: ID4-11
State Well ID: 010S006E32D001S
Well Depth (ft): 770
Perforated Interval (ft): 450 - 760

Figure G-68



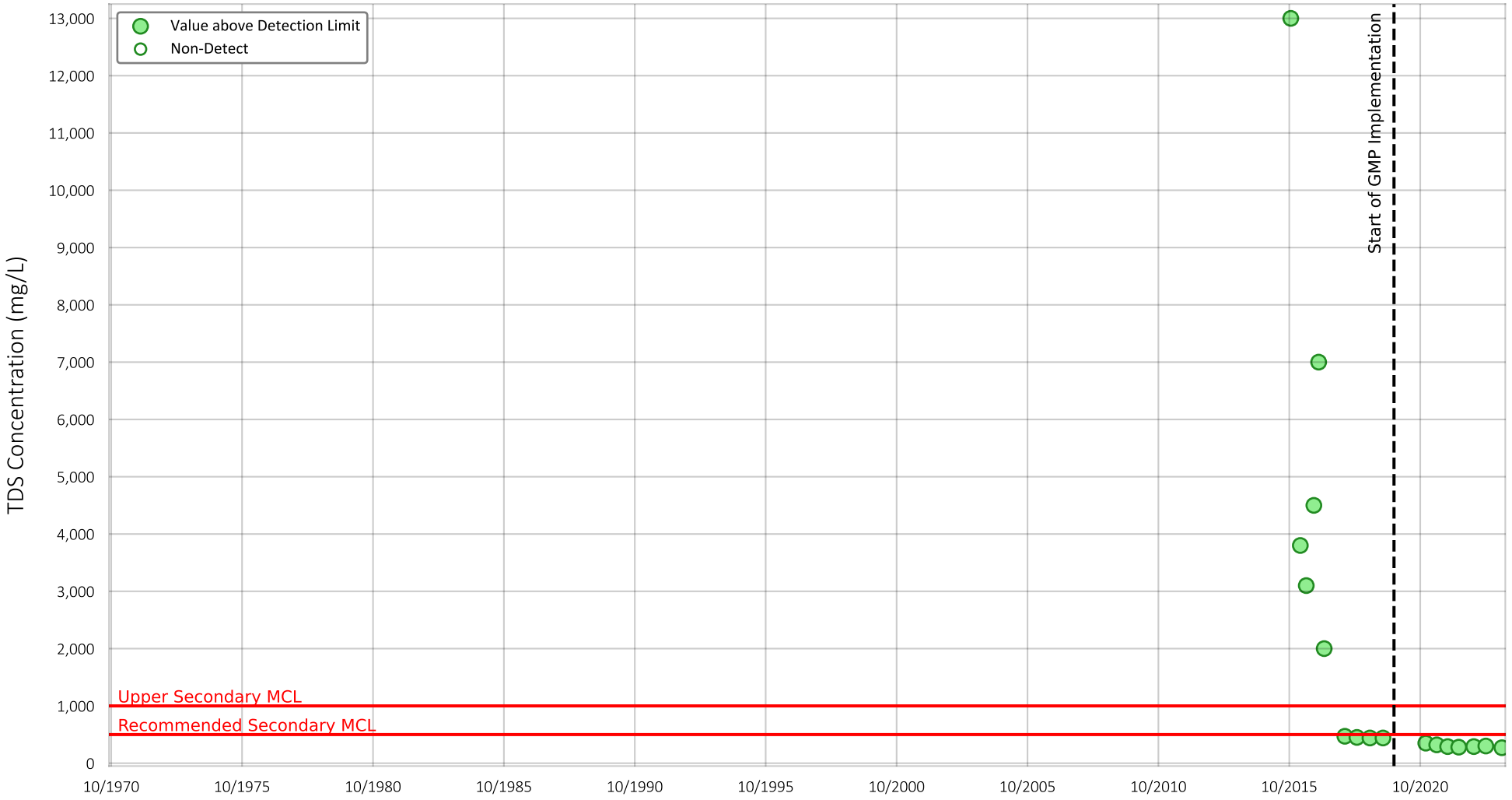
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

TDS Concentration
Well Name: ID5-5
State Well ID: 011S006E09E001S
Well Depth (ft): 700
Perforated Interval (ft): 400 - 700

Figure G-69



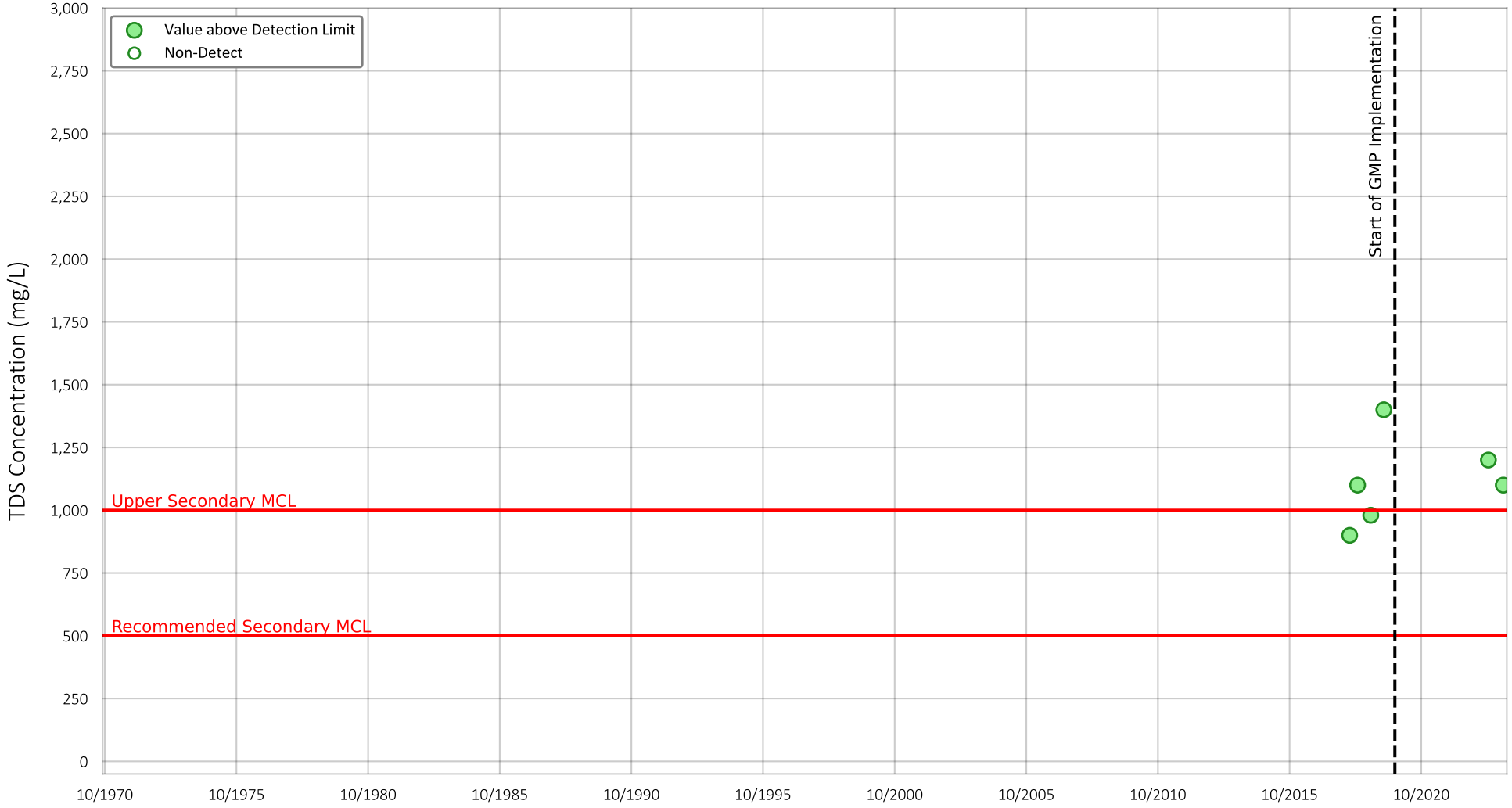
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

TDS Concentration
Well Name: MW-3
State Well ID: 011S006E23J002S
Well Depth (ft): 325
Perforated Interval (ft): 175 - 331

Figure G-70



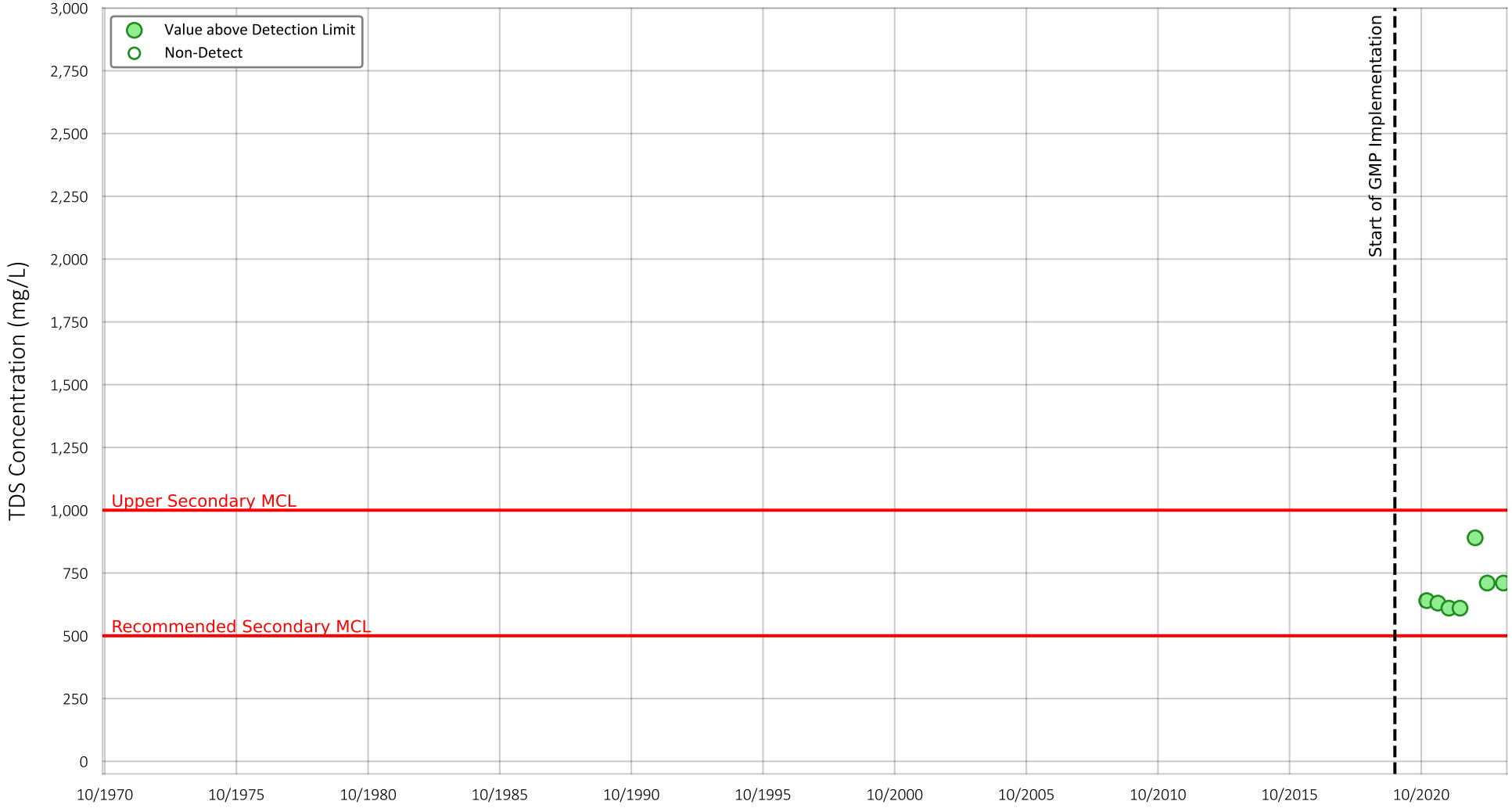
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

TDS Concentration
Well Name: Fortiner #1 (Allegre 1)
State Well ID: 010S006E09N001S
Well Depth (ft): 560
Perforated Interval (ft): 250 - 607

Figure G-71



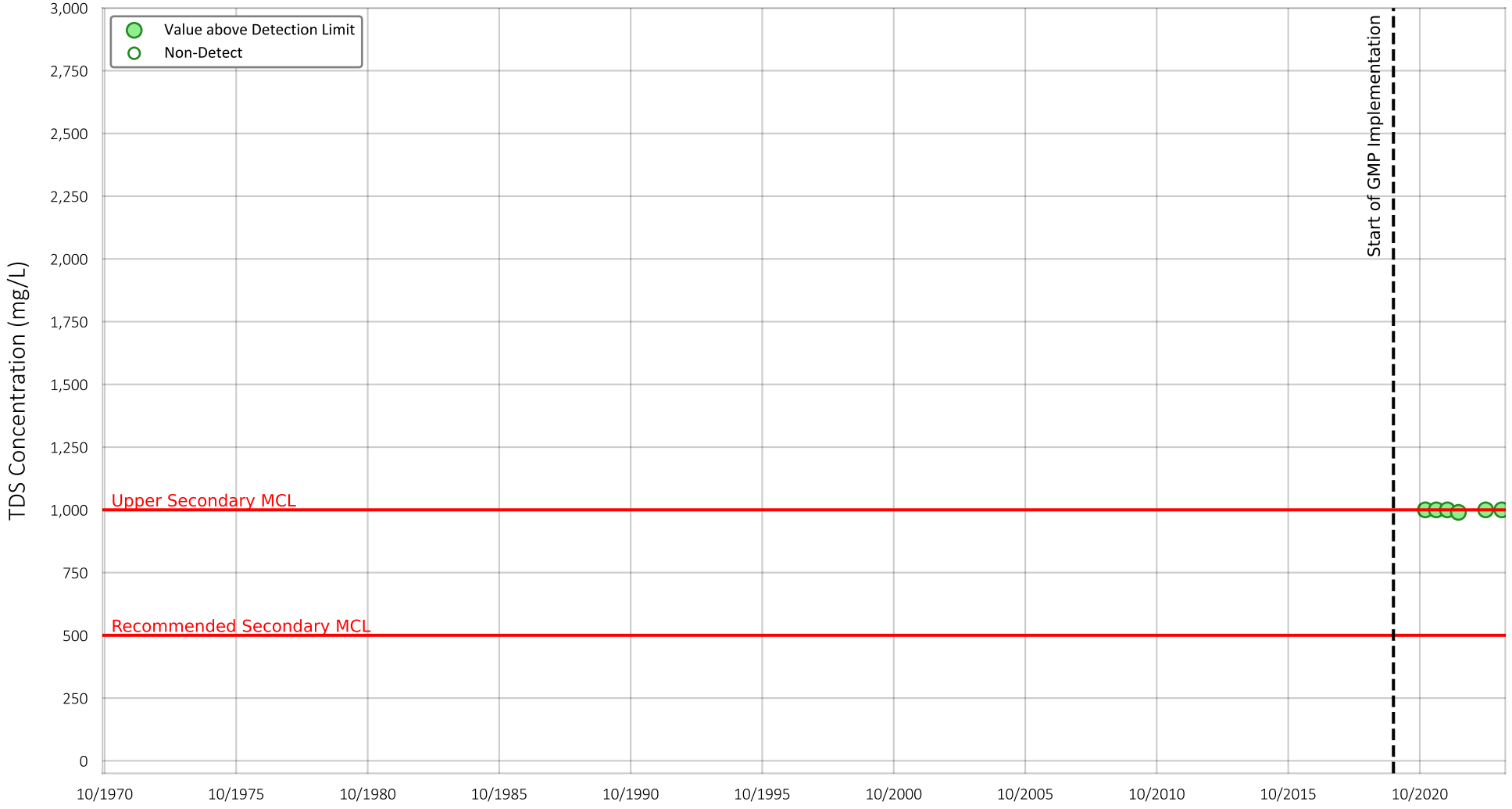
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

TDS Concentration
Well Name: Air Ranch Well 4
State Well ID: 011S007E30L001S
Well Depth (ft): 380
Perforated Interval (ft): 120 - 380

Figure G-72



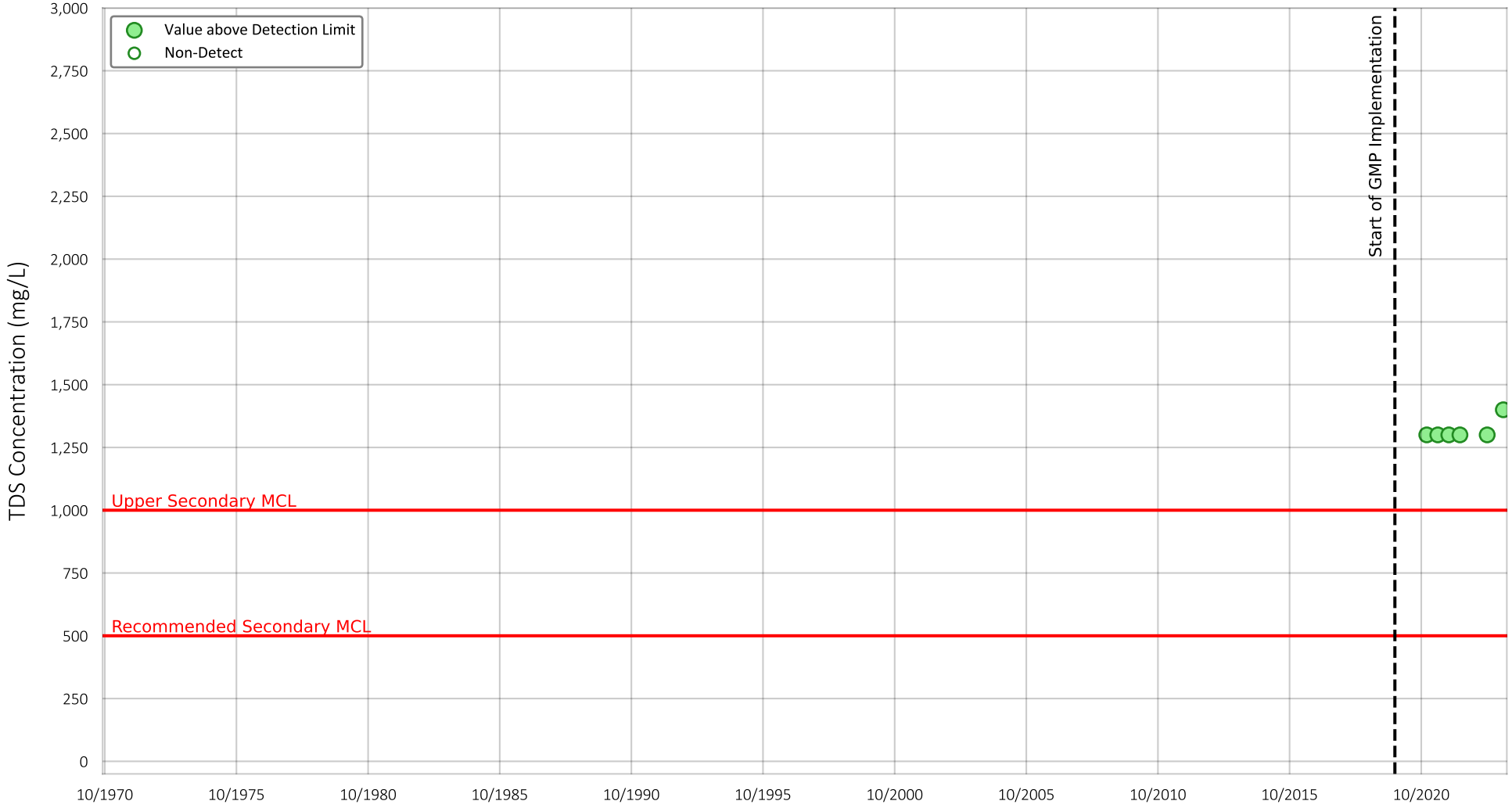
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

TDS Concentration
Well Name: MW-5A (East-Lower)
State Well ID: 011S007E07R001S
Well Depth (ft): 345
Perforated Interval (ft): 50 - 160

Figure G-73



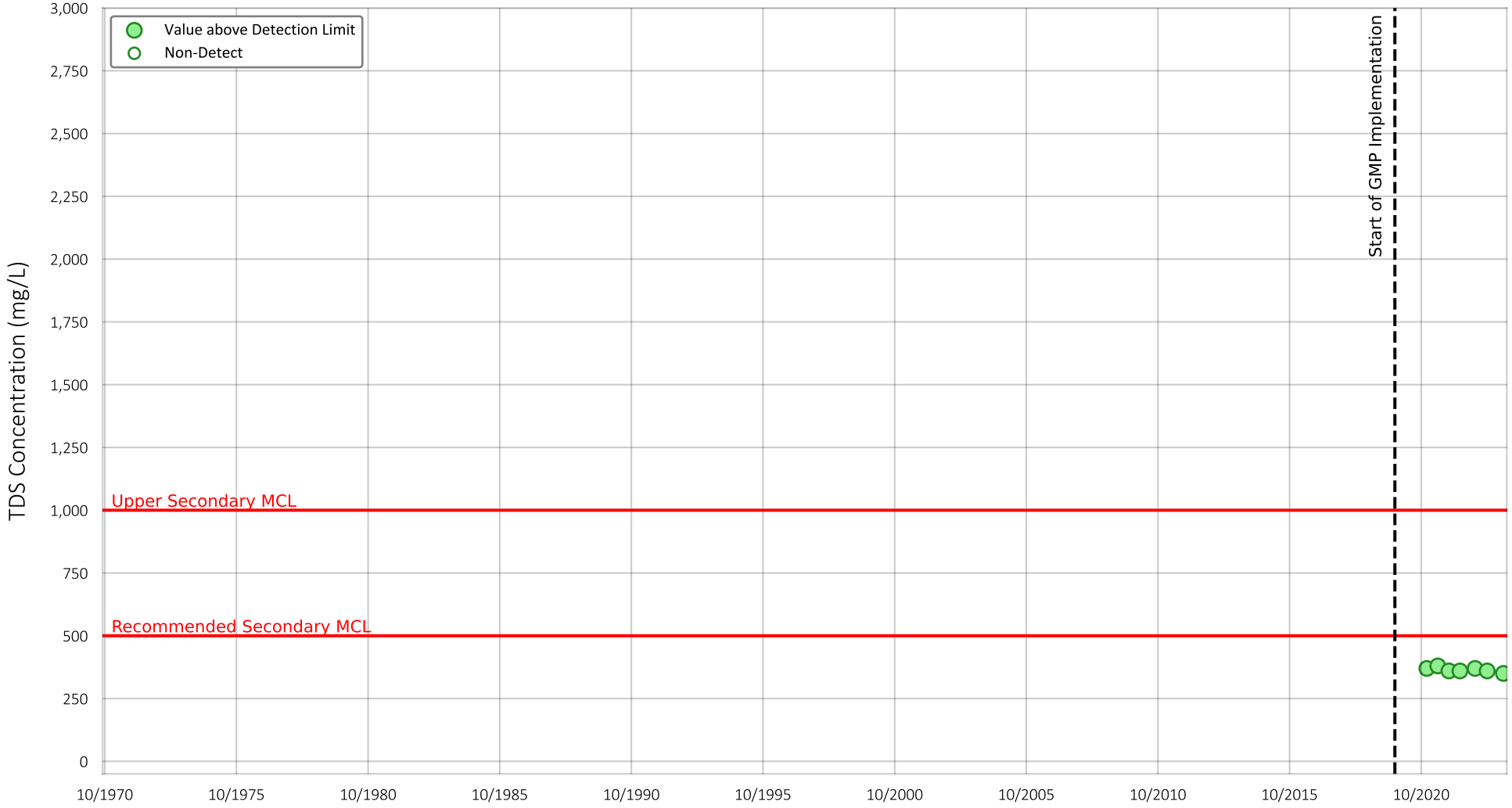
Location of Well in Borrego Springs

Prepared by:

WEST YOST
Water. Engineered.

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:

WEST YOST
Water. Engineered.

TDS Concentration
Well Name: MW-1
State Well ID: 010S006E21A002S
Well Depth (ft): 900
Perforated Interval (ft): 800 - 890

Figure G-75