CHAPTER 1
INTRODUCTION

1.1 PURPOSE OF THE GROUNDWATER MANAGEMENT PLAN

The County of San Diego (County) and the Borrego Water District (BWD), acting together as the groundwater sustainability agency (GSA) for the Borrego Valley Groundwater Basin (BVGB), developed a Groundwater Sustainability Plan (GSP) in compliance with the 2014 Sustainable Groundwater Management Act (SGMA) (California Water Code Section 10720–10737.8, et al.) and the Department of Water Resources (DWR) GSP Regulations (California Code of Regulations, Title 23, Section 350 et seq.). Among the legislative purposes of SGMA are for California's groundwater basins to be managed sustainably, "to manage groundwater basins through the actions of local government agencies to the maximum extent feasible," and to provide local public agencies acting as GSAs with the authority and technical and financial assistance necessary to achieve basin sustainability (California Water Code Section 10720.1). Appendix A includes the *Preparation Checklist for GSP Submittal*, which identifies where in this GMP each of the statutory requirements under SGMA are addressed.

In October 2016, the California DWR released final 2016 modifications to California's groundwater basin boundaries (Bulletin 118 Basins (2016 Edits)), which included the subdivision of the BVGB into two separate subbasins: the Borrego Springs Groundwater Subbasin (7-024.01) and the Ocotillo Wells Groundwater Subbasin (7-024.02) (Figure 1-1).[1] The GSA jurisdictional boundary consists of the entire Borrego Springs Subbasin (Plan Area) and the portion of the Ocotillo Wells Subbasin within San Diego County. The Borrego Springs Subbasin is designated by DWR as high priority and critically overdrafted; whereas, the Ocotillo Wells Subbasin is designated as very low priority and not critically overdrafted (DWR 2019).[2] The presence and potential interconnectedness of groundwater basins and subbasins adjacent to the Borrego Springs Subbasin, including the Ocotillo Wells Subbasin, are described and considered in this GMP, though the focus and requirement of the GMP is on achieving sustainable groundwater management in the Borrego Springs Subbasin by January 31, 2040. The 21 basins in California designated as critically overdrafted must be managed by a GSP or acceptable alternative by January 31, 2020, to avoid potential State Water Resources Control Board (SWRCB) intervention.

[1] The Borrego Springs Groundwater Subbasin (7-024.01) and the Ocotillo Wells Groundwater Subbasin (7-024.02) are abbreviated as the "Borrego Springs Subbasin" and "Ocotillo Wells Subbasin" in this document.

[2] The basin prioritization process automatically assigns basins considered to be in critical overdraft a high priority, and automatically assigns basins whose pumpers are using less than 2,000 acre-feet per year of groundwater a very low priority, regardless of the prioritization score received from other metrics (DWR 2019).

SGMA defines sustainable groundwater management as the "management and use of groundwater in a manner that can be maintained during the planning and implementation horizon without causing undesirable results." "Undesirable results" are defined in SGMA and are summarized here as any of the following effects caused by groundwater conditions occurring throughout the basin:[3]

- Chronic lowering of groundwater levels indicating a significant and unreasonable depletion of supply
- Significant and unreasonable reduction of groundwater storage
- Significant and unreasonable degraded water quality
- Significant and unreasonable seawater intrusion
- Significant and unreasonable land subsidence
- Depletions of interconnected surface water that have significant and unreasonable adverse impacts on beneficial uses of the surface water

As described in Chapter 2, Plan Area and Basin Setting, undesirable results within the Borrego Springs Subbasin are occurring with respect to chronic lowering of groundwater levels and significant and unreasonable reduction of groundwater storage. Portions of the Subbasin are also experiencing, or are under threat of experiencing, degraded water quality. Seawater intrusion is not possible for this inland basin. Land subsidence has been minimal to date and is unlikely to produce undesirable results in the foreseeable future. The depletions of interconnected surface water and resulting deleterious effects on groundwater dependent ecosystems have occurred pre-January 1, 2015, within the Borrego Springs Subbasin, as documented in Chapter 2.

The GSP was subsequently repurposed as this Groundwater Management Plan (GMP) as part of the Physical Solution under the Judgment. This GMP represents a key milestone in achieving groundwater sustainability within the Plan Area by 2040 as required by SGMA. This GMP characterizes groundwater conditions, trends, and the cumulative impacts of groundwater pumping for each of the SGMA-defined sustainability indicators (Chapter 2); establishes minimum thresholds, measurable objectives, and interim milestones by which sustainability can be measured and tracked (Chapter 3, Sustainable Management Criteria); identifies projects and management actions to be implemented by the Watermaster and/or stakeholders to minimize undesirable results (Chapter 4, Projects and Management Actions); and outlines a plan for annual reporting and periodic (i.e., 5-year) evaluations (Chapter 5, Plan Implementation). The Physical

[3] "Basin" as defined in SGMA, means a groundwater basin or subbasin identified and defined in Bulletin 118 or as modified pursuant to California Water Code Section 10722, et seq. (Basin Boundaries).

Solution documents a viable path, determined by the GSA in collaboration with stakeholders, and informed by the best available information, to achieving the sustainability goal within the Borrego Springs Subbasin.

1.2 SUSTAINABILITY GOAL

The Physical Solution is intended to meet the overarching sustainability goal of SGMA to operate the Borrego Springs Subbasin within sustainable yield without causing an undesirable result. The Subbasin must meet its sustainability goal no later than 2040.

1.3 AGENCY INFORMATION

The Borrego Valley GSA was comprised of the BWD, which has water supply and water management responsibilities within its Borrego Springs service area; and the County, which has land use responsibilities and implements the County's Groundwater Ordinance throughout the limits of the BVGB within the boundary of the County of San Diego. The Watermaster takes the place of the GSA.

Pending the Watermaster's formation and hiring of a Technical Advisor, the contact name and mailing address of the Watermaster for the Borrego Valley GSA is as follows:

Jim Bennett, Water Resources Manager
Borrego Valley Groundwater Sustainability Agency
5510 Overland Avenue, Suite 310 | San Diego, California 92123 | 858.694.3820

1.3.1 Organization and Management Structure of the Groundwater Sustainability Agency

The Watermaster takes the place of the GSA to implement the Judgment. The following information is provided for background information pertaining to the GSA's development of the draft final GSP. In October 2016, the BWD and the County entered into a Memorandum of Understanding (MOU) establishing the process/structure in which the GSP will be developed and establishes the organization and management structure of the GSA (Appendix B). The MOU designated a Borrego Basin Plan Core Team (Core Team) and an Advisory Committee (AC) made up of stakeholders. The Core Team consists of representatives from the County and the BWD, working cooperatively together to achieve the objectives of SGMA. Core Team members serve at the request of the GSA and may be removed/changed by the appointing party (either BWD or the County) at any time. Members of the GSA must notify all other parties to the MOU in writing if the first party removes or replaces any Core Team members. "Each Core Team member's compensation for their service on the Core Team is the responsibility of the appointing

Party" (Appendix B). During the development of the GSP, at least two members from each party participated in the Core Team from project conception through completion of the GSP.

The Core Team worked cooperatively with the AC to develop bylaws for the governance of the AC. These bylaws were subject to approval by the Core Team prior to adoption by the AC. The AC provided input to the Core Team on GSP development on basin sustainability measures, as well as the planning, financing, and implementation of the GSP. Members of the GSA agreed on the composition of the AC and acknowledged that the AC must meet the requirements established in SGMA (Appendix B). Members of the AC were not compensated for activities associated with the AC, GSP development, or any activity conducted under the MOU. Since early 2017, the AC regularly held public meetings and received detailed reports on a wide array of GSP related issues. In addition, the AC provided input to the Core Team on GSP development topics, including sustainability measures, projects and management actions and the planning, financing, and implementation of the GSP.

AC bylaws were adopted and approved at the June 29, 2017, Borrego Valley GSP AC Meeting. The AC was limited to nine members (Appendix B). AC representatives were nominated by the following six stakeholder organizations apportioned as follows:

1. Four members were nominated by the Borrego Water Coalition and fill the following representative roles (i.e., one agricultural member, one recreation member, one independent pumper, and one at-large member). The Borrego Water Coalition represents a cross-section of groundwater pumpers in Borrego Springs.
2. One member was nominated by the Borrego Springs Community Sponsor Group, which is an advisory board that provides local review and input for land use issues to the County.
3. One member was nominated by the Borrego Valley Stewardship Council, which represents community groups associated with the Anza-Borrego Desert State Park and geotourism initiative.
4. One member was nominated by the BWD Board of Directors to represent ratepayers/property owners, and is not an employee or elected official. The BWD represents over 2,000 ratepayers/property owners in Borrego Springs.
5. One member was nominated by the County to represent the Farm Bureau, and is not an employee or elected official. The San Diego County Farm Bureau represents farming interests in Borrego Springs.

6. One member was nominated by the California State Parks, Colorado Desert Region to represent the Anza-Borrego Desert State Park. The California State Parks represent the approximately 600,000-acre Anza-Borrego Desert State Park that surrounds Borrego Springs.

Each AC member served a term, which ran concurrently with the development and completion of the GSP. A vacancy was recognized for any AC member who: (1) died, (2) resigned, (3) had unexcused absences from more than three of the scheduled AC meetings within a single calendar year, (4) missed three meetings in a row, (5) regularly failed to abide by the discussion covenants of the AC, (6) violated the Ralph M. Brown Act, or (7) failed to properly exercise the purpose and authority of the AC. The composition of the AC is described in Section 2.1.5, Notice and Communication.

Appendix B contains documentation, in reverse chronological order, of the formation of the GSA and initiation of the GSP in compliance with SGMA. Appendix B also includes the GSP AC bylaws followed by the GSA's notices to DWR regarding its intent to cooperatively develop a GSP. Appendix B includes the MOU between BWD and the County that describes the purpose, management, and structure of the GSA; and their mutual agreement to serve cooperatively as the basin's GSA. Previous notices to DWR from the County and BWD to individually serve as the GSAs, prior to their agreement to serve jointly as the GSA (thus eliminating geographic overlap) are included at the end of Appendix B as well, for reference. Information regarding the Borrego Valley GSA, including the MOU, Stakeholder Engagement Plan, Notice of Intent to Develop a GSP, and AC Bylaws can also be found at the County's SGMA Borrego website, http://www.sandiegocounty.gov/content/sdc/pds/SGMA/borrego-valley.html.

1.3.2 Legal Authority of the Groundwater Sustainability Agency

The Watermaster takes the place of the GSA and is authorized to exercise the powers of a GSA consistent with the Judgment. On September 16, 2014, Governor Brown signed into law Senate Bills 1168 and 1319 and Assembly Bill 1739 as part of the SGMA legislation, which provides among other powers local groundwater agencies the authority and the technical and financial assistance necessary to sustainably manage groundwater. SGMA legislation paved the way for the formation of the GSA between BWD and the County to manage the BVGB. The GSA has statutory authorities that are essential to groundwater management as well as SGMA compliance.

Section 10720.7 of SGMA requires that all basins designated in Bulletin 118 as high or medium priority be managed under a GSP and all critically overdrafted basins, such as Borrego Springs Subbasin, be managed under a GSP by 2020. Pursuant to Section 10727 of SGMA, the parties are required to develop, adopt, and implement a GSP or alternative to manage the basin and intend on using the authorities granted to them to memorialize the roles and responsibilities for

developing and implementing the Physical Solution as a GSP alternative under section 10737.4 of SGMA.

1.3.3 Estimated Cost of Implementing the Groundwater Sustainability Plan and the Groundwater Sustainability Agency's Approach to Meet Costs

The Watermaster is responsible for implementing the Physical Solution under the Judgment. Annual implementation costs may vary from year to year as a result of the status of project and management actions (PMAs), significance of new data, and increased milestone reporting requirements every fifth year of implementation. The GSA's initial estimate of GSP implementation cost for the anticipated 20-year implementation period for operations and monitoring, management, administration and other costs, 5-year annual reviews and 10% contingency was approximately $19,200,000. Estimated total GSP implementation costs assumed the following general components:

- Data collection, management, and evaluation
- Annual reporting
- 5-year review assessment and reporting
- Data gap analysis and additional evaluation (e.g., Coyote creek boundary condition analysis, etc.)
- PMAs development and implementation of components as funding allows
- Management, administration, and other costs
- 10% contingency assumed over 20-year plan implementation period

In addition to the $19,200,000 required for 20-Year GSP implementation costs, an additional $652,000 was estimated to be required for PMA development costs. In addition, $500,000 was budgeted for preparation of the Environmental Impact Report (EIR) for GSP Plan Implementation. Budget for the EIR has been secured though funding provided by Proposition 1 Severely Disadvantaged Community grant. Thus, the initial estimate of total GSP implementation cost is $20,352,000 including a contingency of $1,745,000. It is emphasized that this estimate did not include the implementation of all PMAs or final costs incurred by BWD for internal management and administration. Additional budget may be required to implement PMAs once they have been developed. Implementation of PMAs such as the water conservation program will be highly dependent upon securing funding such as through state or federal grants.

Additional information on GSP implementation costs, and how the GSA planned to fund these costs, is provided in Chapter 5. In general, the GSA planned to fund GSP implementation using a combination of groundwater extraction charges, including monthly fixed charges and variable pumping fees, assessments/parcel taxes, and/or grants. Potential funding sources specific to PMAs are presented in Chapter 4.

The Watermaster's costs for Physical Solution implementation are likely less than those GSP implementation costs estimated by the GSA due to anticipated efficiencies entailed by the negotiated terms of the Physical Solution that have been agreed to by participating pumpers. Stipulating parties representing a super-majority of water production within the Subbasin have agreed among themselves in a separate agreement to fund the initial Watermaster costs under the GMP until the Judgment is approved by the Court and until the Watermaster develops its own budget as per the Judgment.

1.4 GROUNDWATER MANAGEMENT PLAN ORGANIZATION

This GMP is organized as follows:

- The **Executive Summary** is a plain language summary that provides an overview of the GMP and a description of groundwater conditions in the basin.
- **Chapter 1, Introduction**, includes the purpose of the GMP, sustainability goals, and agency information and outlines document organization.
- **Chapter 2, Plan Area and Basin Setting,** consists of two main parts. This first part provides a general overview of the Plan Area, including agency jurisdiction, relevant water resources monitoring and management plans, a description of land uses and land use policies, and an overview of GMP notice and communication activities. The second part describes, in depth, the hydrogeologic setting of the plan area, including a description of current and historical conditions related to each undesirable result defined under SGMA. The second part also provides a summary of the groundwater modeling and water budget components established for the Plan Area.
- **Chapter 3, Sustainable Management Criteria**, describes criteria by which the GMP has defined conditions that constitute sustainable groundwater management for the basin, including the process by which the GSA characterized undesirable results, and established minimum thresholds and measurable objectives for each applicable sustainability indicator.
- **Chapter 4, Projects and Management Actions**, consists of a description of the projects and management actions the Physical Solution has determined will achieve the sustainability goal

for the basin, including projects and management actions to respond to changing conditions in the basin.

- **Chapter 5, Plan Implementation**, provides an estimate of GSP implementation costs, a schedule for implementation, and a plan for annual reporting and periodic (5-year) evaluations.

1.5 REFERENCES CITED

Department of Water Resources (DWR). 2019. *Sustainable Groundwater Management Act 2018 Basin Prioritization Process and Results*. January 2019.

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Figure 1-1 Project Location and Groundwater Sustainability Agency

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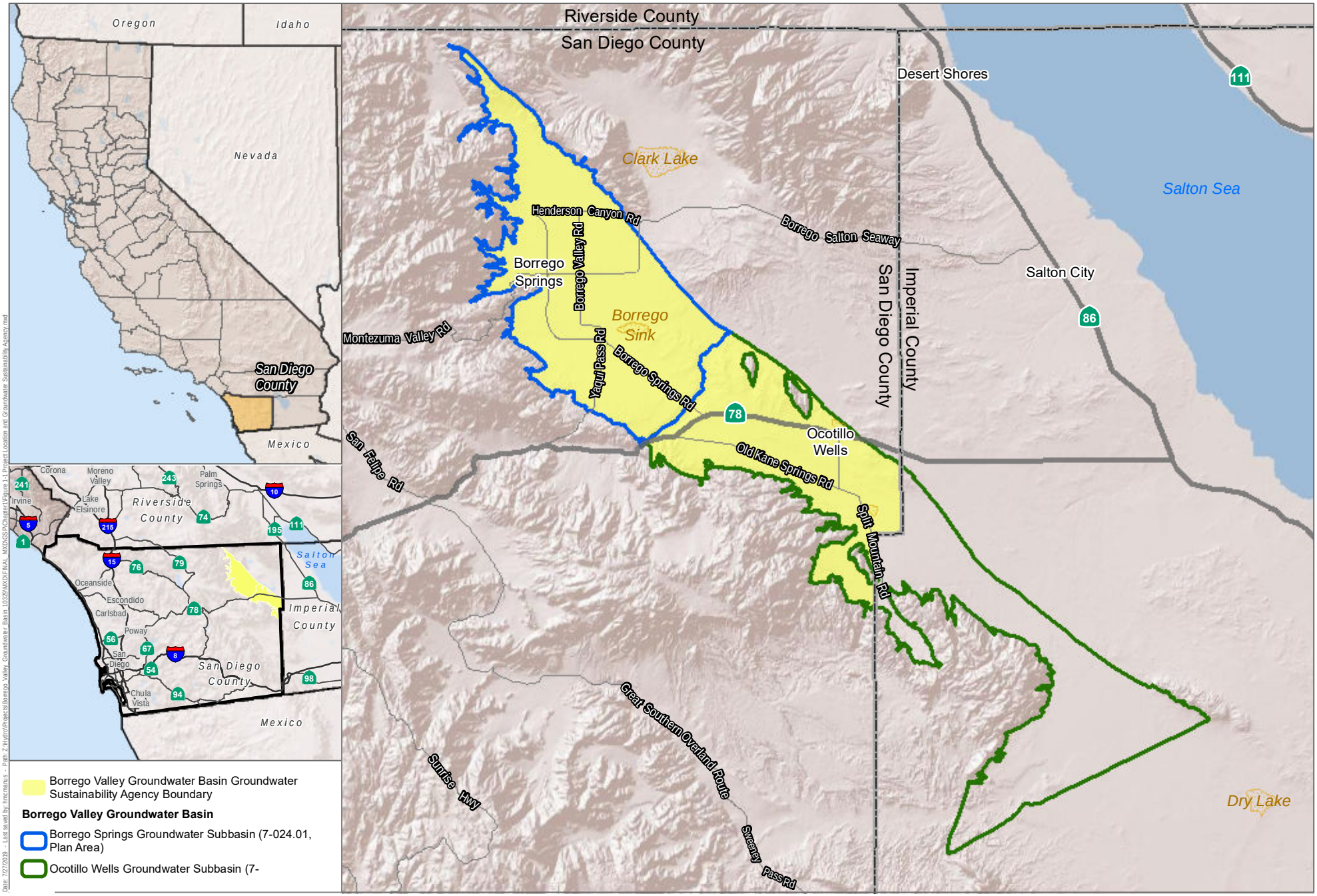

DATUM: NAD 1983. DATA SOURCE: DWR 2016

January 2020

0 3 6 Miles

FIGURE 1-1

Project Location and Groundwater Sustainability Agency

Groundwater Management Plan for the Borrego Springs Groundwater Subbasin

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CHAPTER 2
PLAN AREA AND BASIN SETTING

2.1 DESCRIPTION OF THE PLAN AREA

As described in Chapter 1, Introduction, the Groundwater Sustainability Agency (GSA) boundary encompassed the entire Borrego Springs Groundwater Subbasin and the portion of the Ocotillo Wells Groundwater Subbasin within San Diego County.[1] The GSA comprised the County of San Diego (County) and the Borrego Water District (BWD). The California Department of Water Resources (DWR) has designated the Borrego Springs Subbasin (Subbasin) of the Borrego Valley Groundwater Basin (BVGB) to be high priority[2] and critically overdrafted (DWR 2016, 2018). The 2018 Sustainable Groundwater Management Act (SGMA) basin prioritization process automatically assigns basins considered to be in critical overdraft a high priority (DWR 2019). Under the DWR Groundwater Sustainability Plan (GSP) regulations, GSA's "have the responsibility for adopting a Plan that defines the basin setting and establishes criteria that will maintain or achieve sustainable groundwater management" (Title 23 California Code of Regulations (CCR) Section 350.4(e)).

For the purpose of this GMP, the "Plan Area" is defined as the Borrego Springs Subbasin, which has a surface area of approximately 98 square miles or 62,776 acres (Figure 2.1-1). The western and southwestern boundary of the Borrego Springs Subbasin is 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 Plan Area is defined by the location of San Felipe Creek, as mapped by the U.S. Geological Survey (USGS) National Hydrography Dataset, which also marks the northern boundary of the Ocotillo Wells Subbasin.

Although the Plan Area is limited to the Borrego Springs Subbasin, information applicable to the Ocotillo Wells Subbasin, as well as the hydrologic characteristics of the watersheds contributing to the Borrego Springs Subbasin, is also provided in this chapter. DWR has characterized the Ocotillo Wells Subbasin as having a "very low" priority, because it meets the uniformly applied

[1] The Borrego Springs Groundwater Subbasin and Ocotillo Wells Groundwater Subbasin are referred to as the Borrego Springs Subbasin and the Ocotillo Wells Subbasin in this document.

[2] Basin prioritization classifies the California's 517 basins and subbasins into priorities based on components identified in the California Water Code. The priority process consists of applying datasets and information in a consistent, statewide manner in accordance to the provisions in California Water Code, Section 10933(b). Further information on DWR's basin prioritization process can be found on the following website: https://water.ca.gov/Programs/Groundwater-Management/Basin-Prioritization.