



DRAFT WORK PRODUCT



Borrego Valley Groundwater Basin Borrego Springs Subbasin **Groundwater Sustainability Plan**

Advisory Committee Meeting

January 31, 2019

Geosyntec
consultants

DUDEK

GSP Organization

The Groundwater Sustainability Plan is organized as follows:

ES Executive Summary

01 Chapter 1
Introduction to GSP

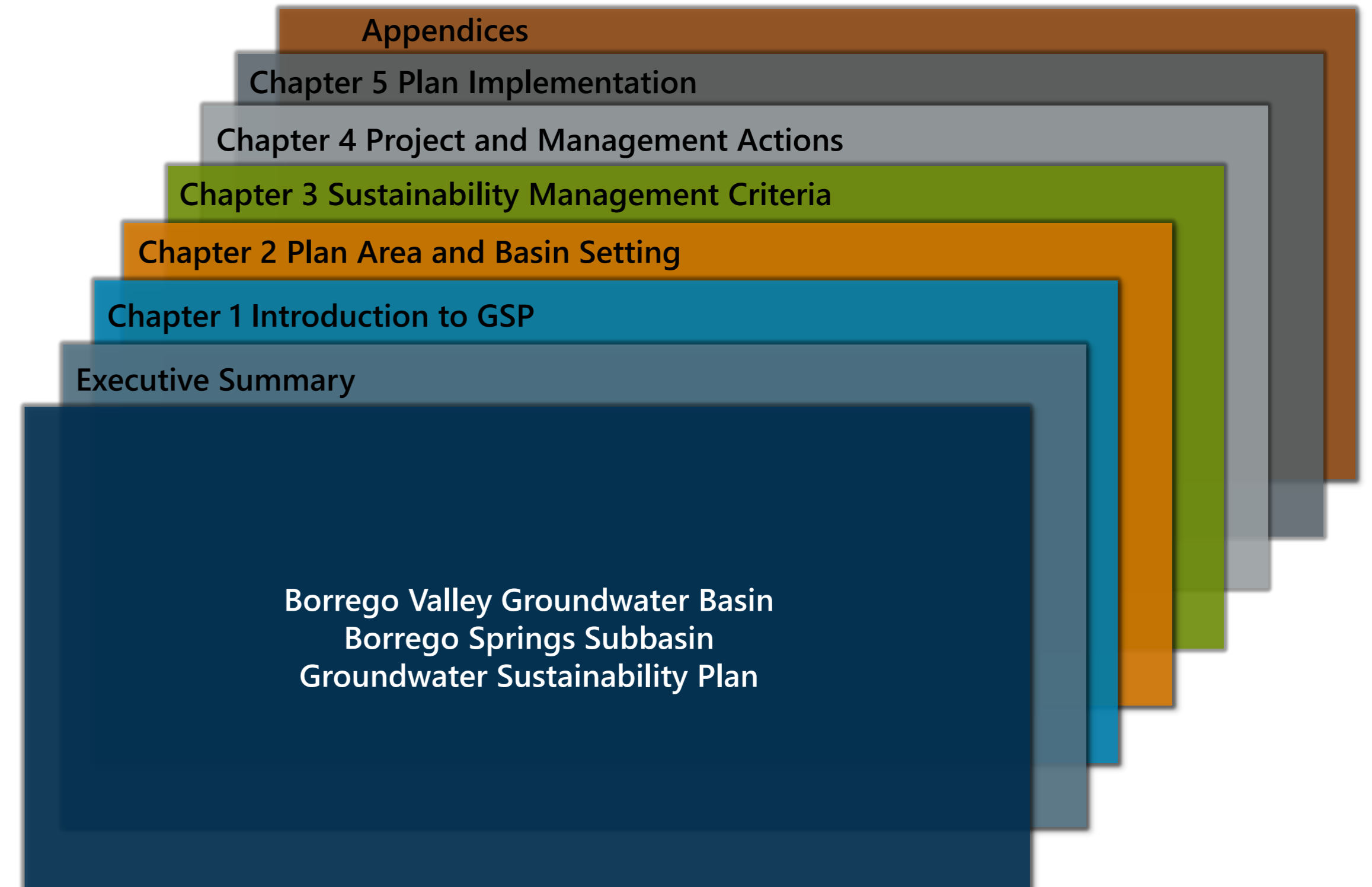
02 Chapter 2
Plan Area and Basin Setting

03 Chapter 3
Sustainable Management Criteria

04 Chapter 4
Projects and Management Actions

05 Chapter 5
Plan Implementation

AP Appendices



CHAPTER 5

PLAN IMPLEMENTATION

CHAPTER 5 PLAN IMPLEMENTATION

SGMA REQUIREMENTS

- ☐ Estimate of Implementation Costs
- ☐ Schedule for Implementation
- ☐ Annual Reporting
- ☐ Five-Year Evaluations



Estimate of Implementation Costs

GSA Annual Budget Items - Operations and Monitoring:

Expense Items	
Task 1	Semi-Annual Groundwater Level Monitoring
Task 2	Semi-Annual Water Quality Monitoring
Task 3	Semi-Annual Stream Monitoring
Task 4	Pump Metering
Task 5	Land Subsidence Review
Task 6	Operation and Maintenance
Task 7	Data Management System
Task 8	Groundwater Model Update*
Task 9	Annual Comprehensive DWR Reporting
Task 10	Project Management and Coordination

*Groundwater Model Updates may not occur in every year.

Estimate of Implementation Costs

GSA Annual Budget Items – Management, Administration and Other Costs:

Expense Items	
1	Administrative Personnel (One FTE)
2	Rent/Leases (BWD space)
3	Utilities
4	Engineering Services
5	Consulting Services
6	Audit and Professional Services
7	Legal
8	Insurance
9	Public Outreach
10	Repairs and Maintenance
11	Supplies and Equipment
12	Office Supplies
13	Permits and Fees
14	Land Management/Stewardship
15	Miscellaneous Expenses
16	Contingency (20%)

CHAPTER 5 PLAN IMPLEMENTATION

Estimate of Implementation Costs

GSA Annual Budget Items – Development of Projects and Management Actions:

PMA Number	Project and Management Action	Level of Project Development
1	Water Trading Program	Planning
2	Water Conservation Program (Demand Management)	Planning, Outreach, and Limited Implementation
3	Pumping Reduction Program	Planning and Outreach
4	Fallowing of Agricultural Land	Planning and Outreach
5	Water Quality Optimization	Planning
6	Intra-Basin Transfers	Planning

* The estimated costs for Project and Management Actions (PMAs) are for development, outreach, and limited implementation of PMAs. Development of specific PMAs is subject to availability of funding such as State grants and programs for the Water Conservation Program.

Estimate of Implementation Costs

GSA Budget Items for Five Year Evaluations of GSP:

Expense Items	
Task 1	Updated Water Budget, Groundwater Model, and Sustainable Yield
Task 2	Assessment of Pumping Allocations
Task 3	Five-Year Plan Evaluation and Assessment Report

CHAPTER 5 PLAN IMPLEMENTATION

Estimate of Implementation Costs

2020 Sample Cost Per Acre-Foot of Groundwater Extracted: \pm \$40

Assumptions:

- ☐ Current groundwater extraction is estimated at 19,000 acre-feet per year (less than the Baseline Pumping Allocation because of voluntary fallowing)
- ☐ Based on proportional rate structure; actual apportionment costs to each pumper may vary
- ☐ Doesn't include development of PMAs

Note: Cost per acre-foot to cover GSA expenses is expected to continue to increase through 2040 as required revenue is spread over less groundwater extraction as a result of pumping ramp down.

Funding Sources

The GSA is considering options to fund GSP implementation, which could include administrative pumping fees, assessments/parcel taxes, grants and/or low interest loans.



Administrative
Pumping fees



Assessment/
parcel taxes

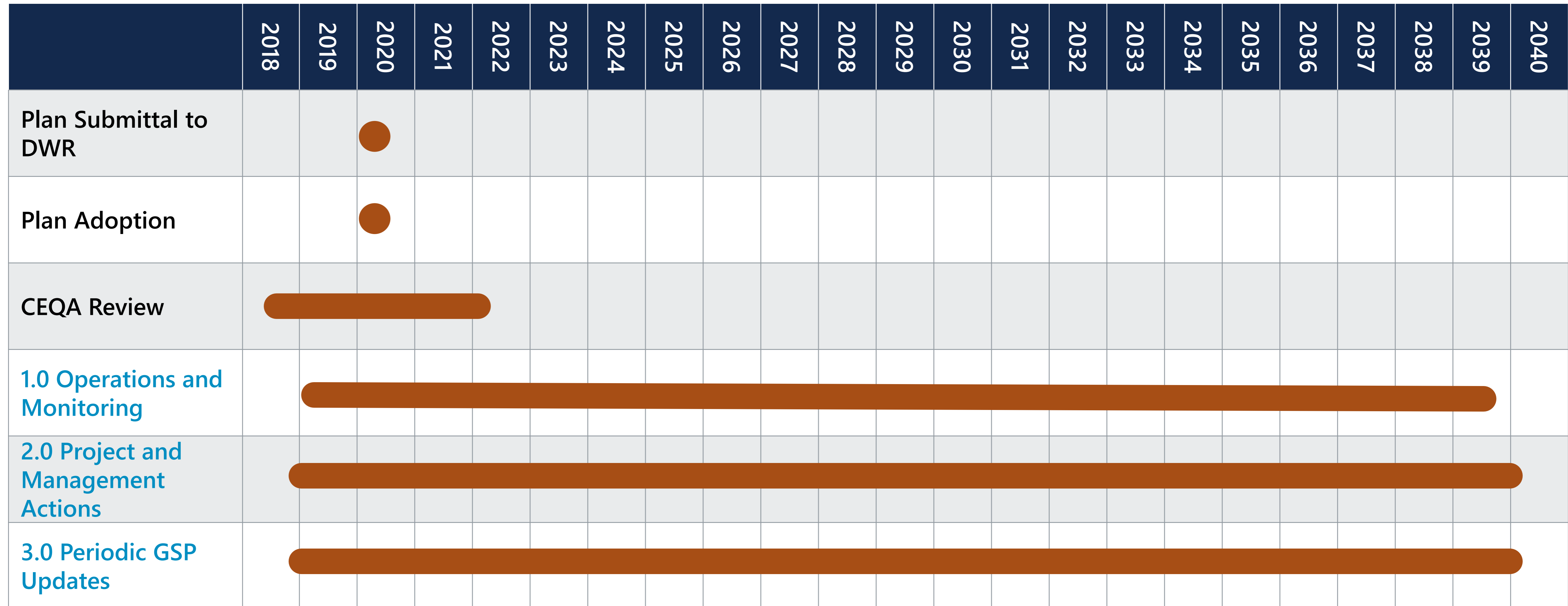


Grants



Low Interest Loans





Schedule for Implementation: Plan Submittal to DWR - Task 1

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
1.0 Operations and Monitoring																						
1.1 Semi-Annual Groundwater Level Monitoring	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
1.2 Semi-Annual Groundwater Quality Monitoring	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
1.3 Semi-Annual Stream Monitoring	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
1.4 Pump Metering	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1.5 Land Subsidence Review	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1.6 Operations and Maintenance																						
1.7 Data Management System	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1.8 Groundwater Model Update	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1.9 Annual Comprehensive DWR Reporting	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1.10 Project and Management Coordination																						

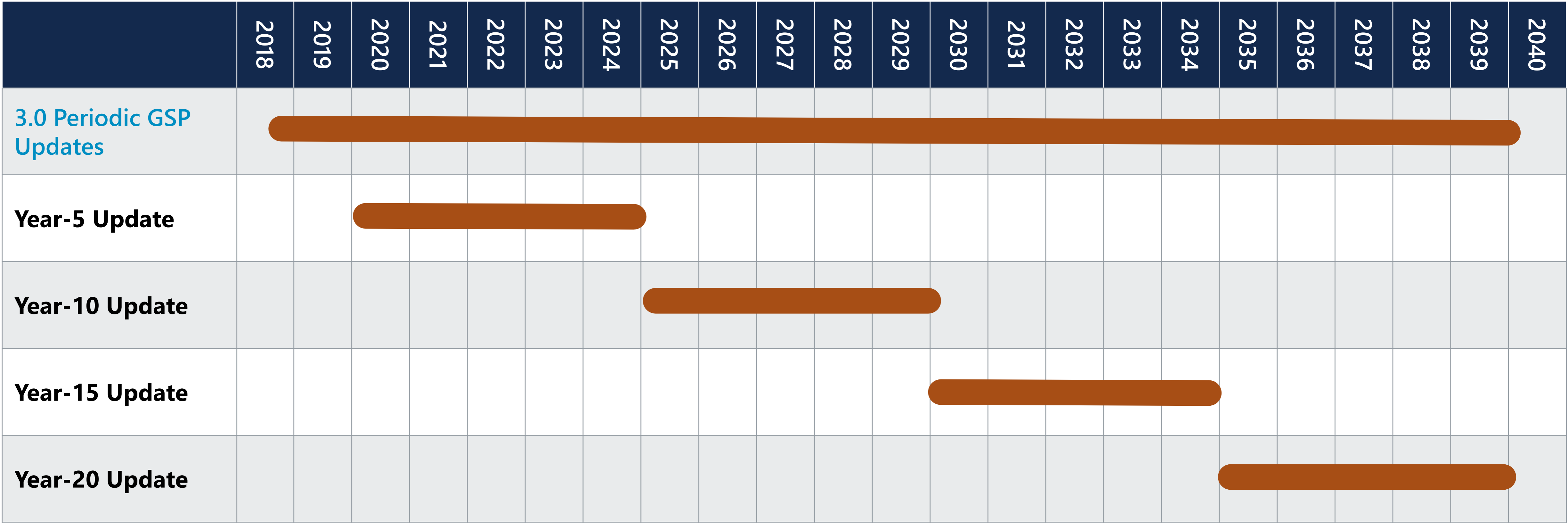


Schedule for Implementation: Plan Submittal to DWR - Task 2

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
2.0 Project and Management Actions																							
2.1 Water Trading Program																							
2.1.1 Program Development																							
2.1.2 Program Implementation*																							
2.2 Water Conservation Program																							
2.2.1 Program Development																							
2.2.2 Program Implementation*																							
2.3 Pumping Reduction Program																							
2.3.1 Program Development																							
2.3.2 Program Implementation*																							
2.4 Voluntary Fallowing of Agricultural Land																							
2.4.1 Program Development																							
2.4.2 Program Implementation*																							
2.5 Water Quality Optimization																							
2.5.1 Program Development																							
2.5.2 Program Implementation*																							
2.6 Intra-Basin Transfers																							
2.6.1 Program Development																							
2.6.2 Program Implementation*																							

*Project implementation cannot start until the end of the CEQA review (overview)

Schedule for Implementation: Plan Submittal to DWR - Task 3



- All updates will include the following: Updated Budget, Groundwater Model, Sustainable Yield, Assessment of Pumping Allocations, Five-year Plan Evaluation and Assessment.

CHAPTER 5 PLAN IMPLEMENTATION

Annual Reporting

The annual report will, at a minimum, include the components described as required pursuant to CCR §356.2.

General Information

Description and Graphical Representations of Groundwater Information

Groundwater Elevation Data

Groundwater Quality Data

Groundwater Extraction

Total Water Use

Changes in Groundwater Storage

Plan Implementation Progress

CHAPTER 5 PLAN IMPLEMENTATION

Five-Year Evaluations of GSP

The five year evaluation will include the following components:

- ☐ **Current Groundwater Conditions**
- ☐ **Status of Implementation of Projects or Management Actions**
- ☐ **Plan Elements**
- ☐ **Basin Evaluation including Water Balance Review**
- ☐ **Monitoring Network**

CHAPTER 5 PLAN IMPLEMENTATION

Five Year Evaluations of GSP

The five year evaluation will also include the following components:

- ☐ **Pumping Allowance**
- ☐ **New Information**
- ☐ **Relevant Actions**
- ☐ **Enforcement and Legal Actions**
- ☐ **Plan Amendments**
- ☐ **Summary of Coordination**
- ☐ **Other Information**

GSP Appendices

GSP Appendices

The GSP appendices include:

- ☐ **DWR Preparation Checklist for GSP Submittal**
- ☐ **GSA Formation and Interagency Agreements**
- ☐ **Stakeholder Engagement**
- ☐ **Technical Reports and Hydrographs**
- ☐ **GSP Monitoring Network Documents**
- ☐ **Baseline Pumping Allocation Methodology**
- ☐ **GSP Comments and Responses to Comments**

GSP Appendices: DWR Checklist for GSP Submittal



DWR Preparation Checklist — A checklist of required information to include in the GSP. Used to develop a GSP that is consistent with the requirements of the GSP Regulations and SGMA.

GSP Appendices: GSA Formation and Interagency Agreements

Formal documents submitted to DWR -Agreements and notification to become a GSA and develop a single GSP.

Documents are as follows:

- Borrego Valley Groundwater Sustainability Plan Advisory Committee By-Laws (2017)
- GSA Notice to DWR of GSP Development (2017)
- Amended Notification to DWR as Multi-Agency GSA (2017)
- MOU Between County and BWD for GSA and GSP Development (2016)
- BWD GSA Notification to DWR (2016)
- County GSA Notification to DWR (2015)

GSP Appendices: Stakeholder Engagement

Stakeholder Engagement Plan – Summarizes the strategies to educate and involve stakeholders and other interested parties in preparation of the GSP.

List of Public Meetings – Table of each public meeting held to present GSA topics. Public meetings include Advisory Committee, Technical, Severely Disadvantaged Community (SDAC), and Town Hall and meetings.

GSP Appendices: Technical Reports and Hydrographs

USGS Model Update Report – Report detailing Borrego Valley

Hydrologic Model (BVHM) model parameters and updates.

BWD Water Quality Review and Assessment – Examines water

quality changes over time, provides an overview of water quality conditions, evaluated water quality relationships and trends (ENSI).

Data Management System Hydrographs – Presentation of

interactive mapping database results. Data includes groundwater levels, water quality, and production information (only groundwater level hydrographs to be presented).

GSP Appendices: GSP Monitoring Network Documents

Monitoring Plan — Defines groundwater monitoring objectives and establishes a monitoring network.

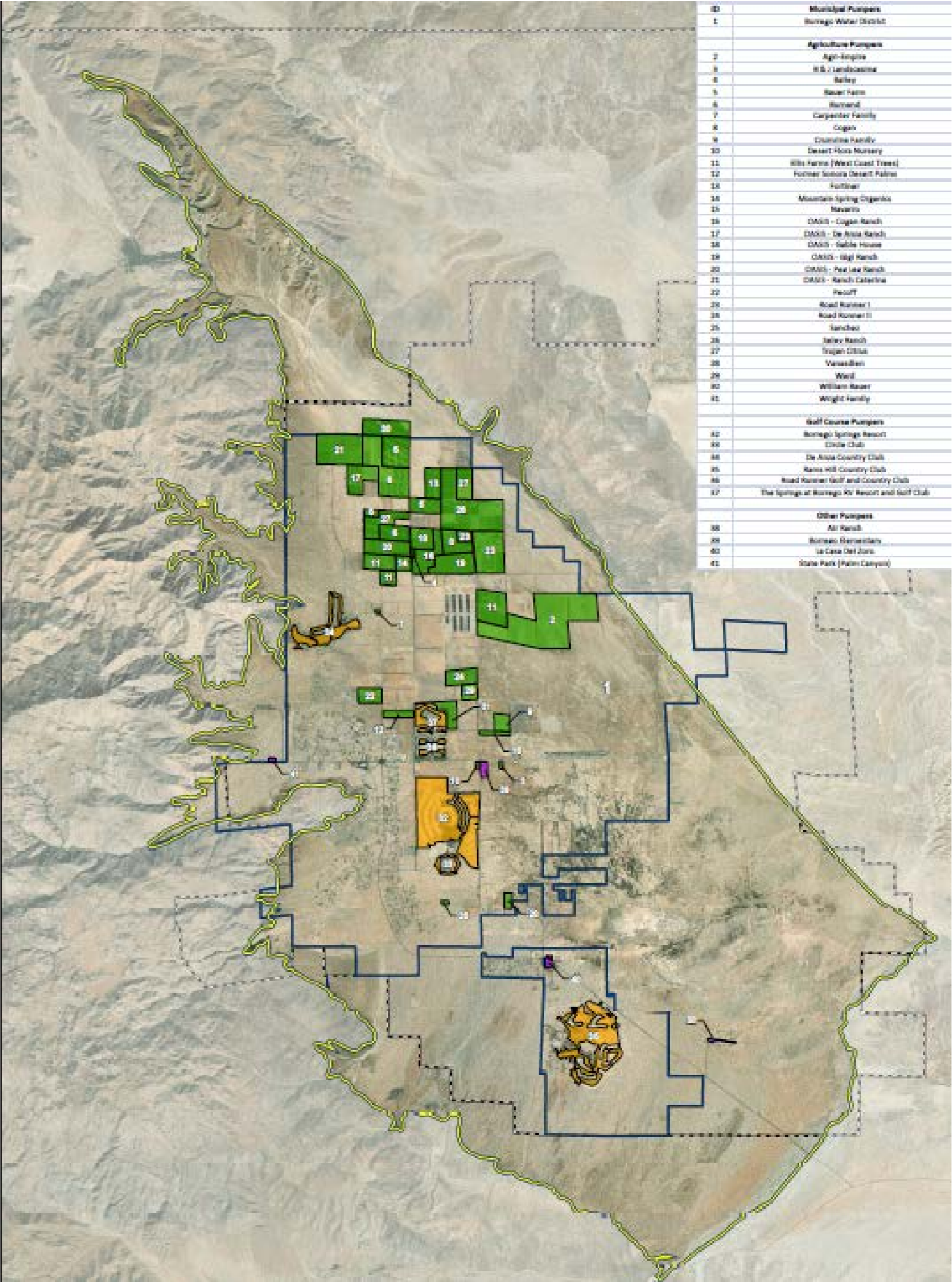
Sampling and Analysis/Quality Assurance Project Plan (SAP/QAPP) — Details procedures for groundwater levels and groundwater quality collection and analysis.

Metering Plan — Outlines consistent groundwater extraction metering procedures for groundwater production wells which pump in excess of two acre-feet per year (AFY).

GSP Appendices: Baseline Pumping Allocation Methodology

Baseline Pumping Methodology

Defines the approach used to assign baseline pumping allocation based on, crop type, area of irrigation, and irrigation efficiency.





GSP Appendices: GSP Comments and Responses to Comments

GSP Response to Comments – Includes all comments received during public review and the responses made by the GSA. Appendix item will be included in final GSP (not included in draft).



Borrego Valley Groundwater Basin Borrego Springs Subbasin



Groundwater Sustainability Plan

QUESTIONS?