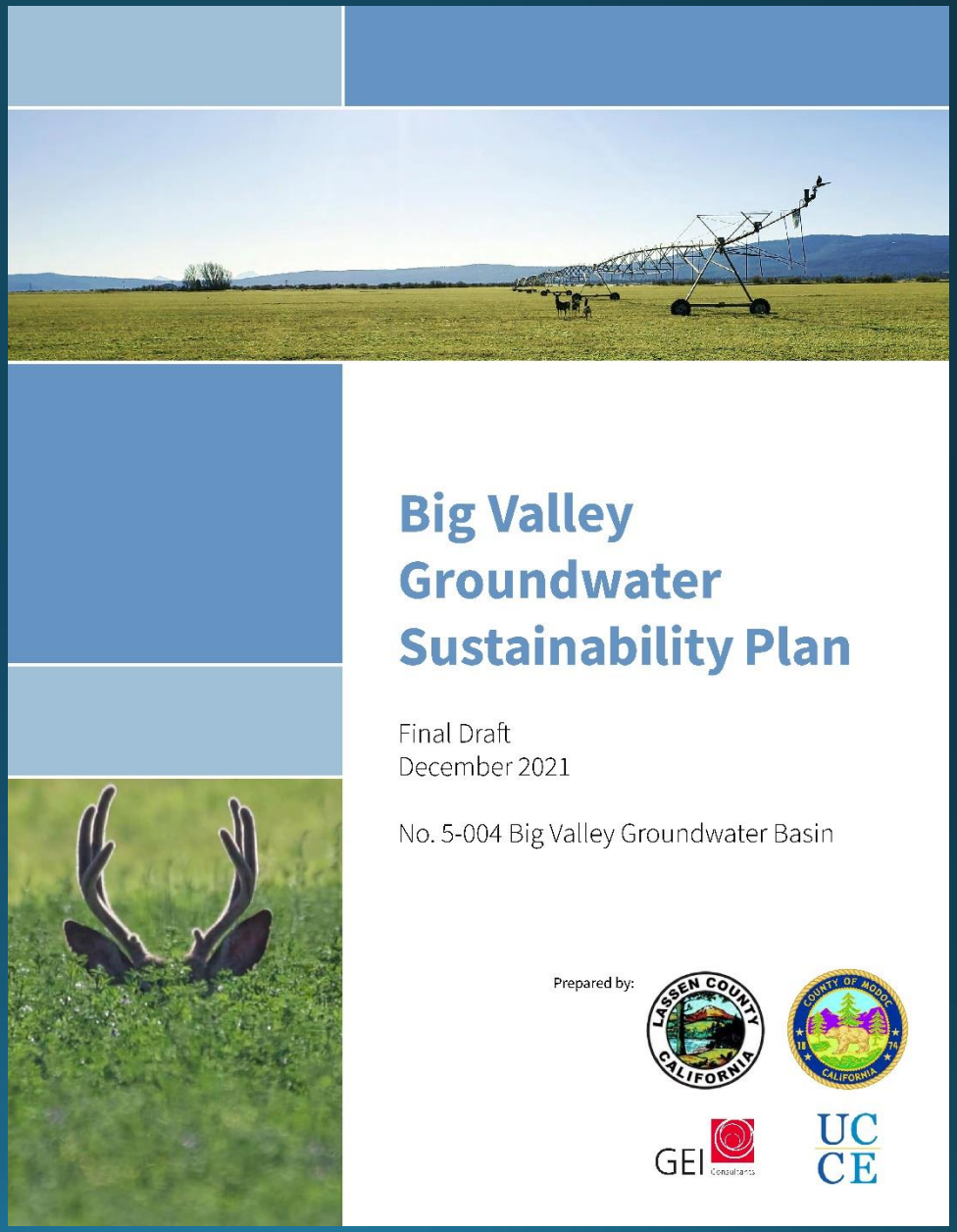
Groundwater Sustainability Plan for Big Valley Groundwater Basin

Lassen County GSA

Modoc County GSA

Public Hearings

December 15, 2021



WHY ARE WE HERE?

- Public hearings and potential adoption of the Groundwater Sustainability Plan (GSP) for the Big Valley Groundwater Basin (BVGB) by the Lassen County Groundwater Sustainability Agency (GSA) and the Modoc County GSA

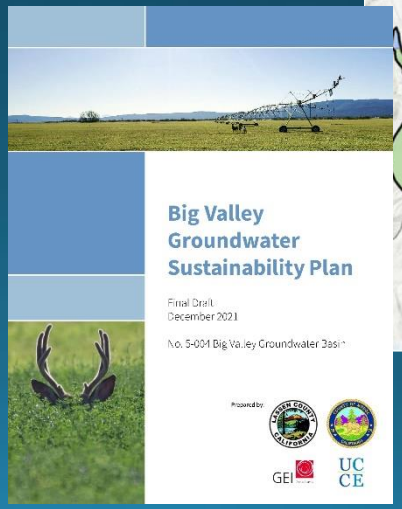
WHY ARE WE CONSIDERING ADOPTION OF THE GSP?

- To maintain *local control* of groundwater resources
- If an adequate GSP is not adopted, the State Water Resources Control Board will intervene
- Local control will be less restrictive and cost less
- There were not any viable options to maintain local control other than the Board of Supervisors

HOW DID WE GET HERE?

- 2014
  - SGMA signed into law
- 2015-2017
  - Public outreach
  - Basin Prioritization
  - Basin boundary modification
- 2018
  - GSAs established
  - Grants funded
- 2019-2021
  - MOU adopted forming BVAC
  - GSP development
  - Adoption

CASGEM

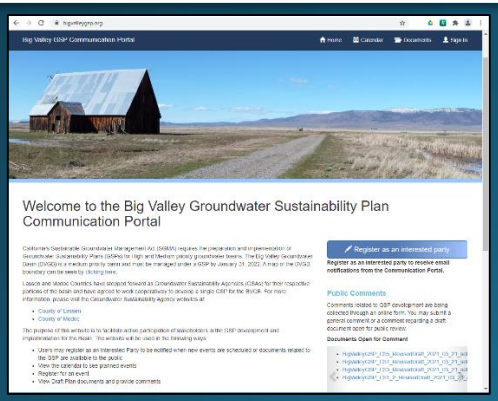


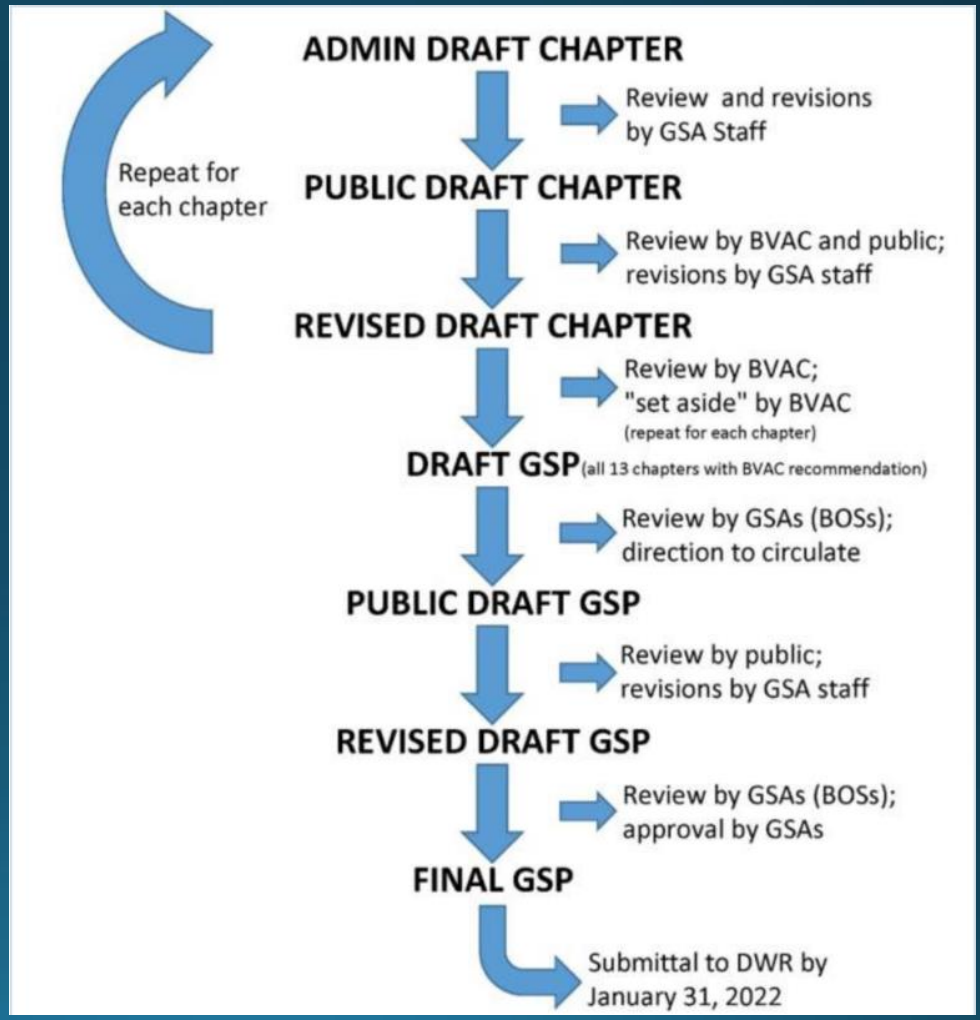
HOW WAS THE GSP DEVELOPED?

PUBLIC MEETING

BIG VALLEY GROUNDWATER BASIN ADVISORY COMMITTEE
WEDNESDAY, OCTOBER 20, 2021 at 5:00 P.M.
Adin Community Center, 605 Highway 299, Adin, CA 96006
[Public participation offered in person and via webinar or conference call.
Join the ZoomGov Meeting at:
https://www.zoomgov.com/j/1605211153?pwd=aWlKeW0rblpPZlE4Z2VNZFM4cElyZz09,
Meeting ID: 160 521 1153, Passcode: 952666
OR call in (listen-only-mode) at (833) 568-8864 US Toll-Free]

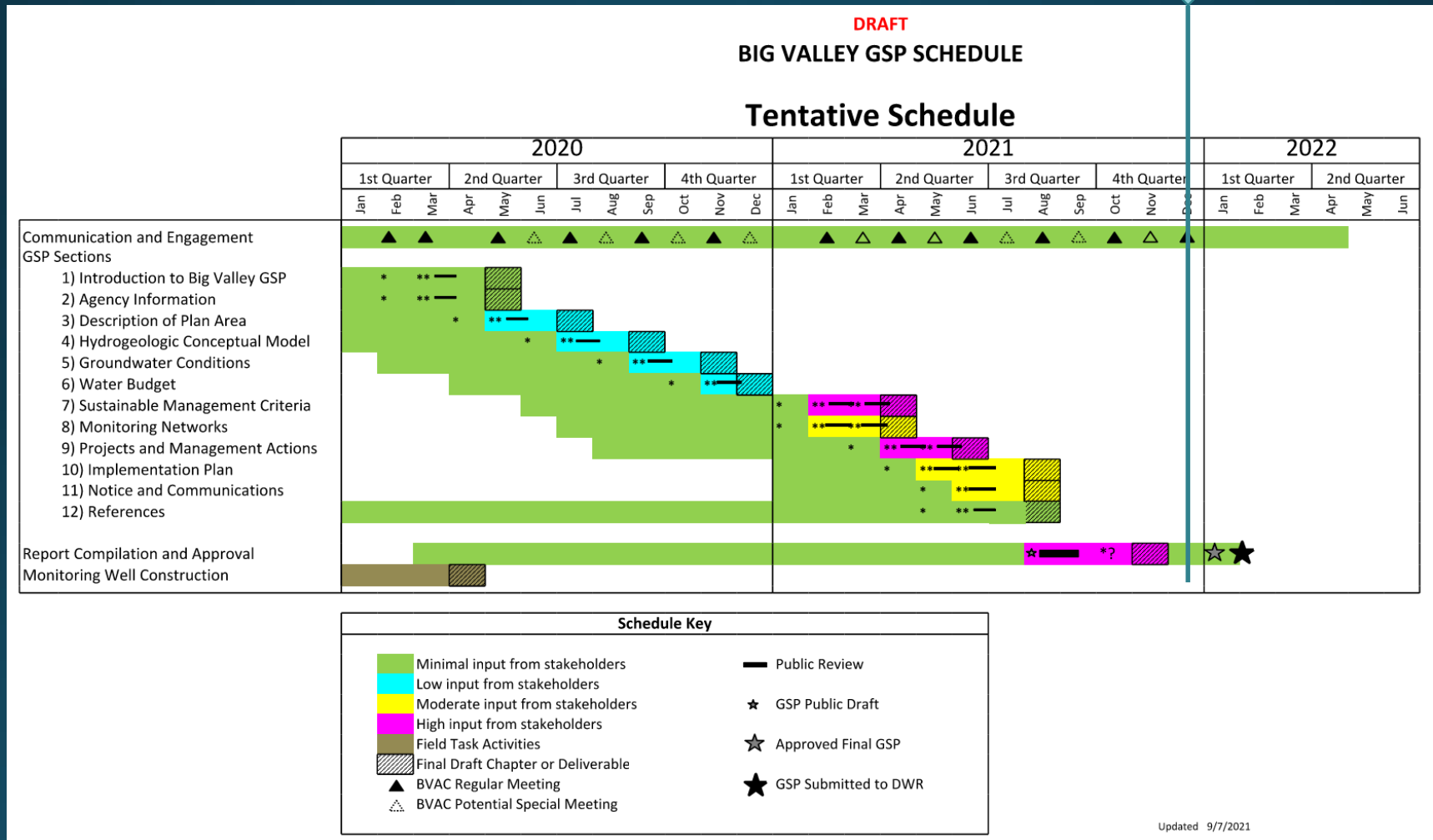
At the October 20, 2021, meeting, we will review revisions made to Draft Groundwater Sustainability Plan (GSP – *all chapters*)





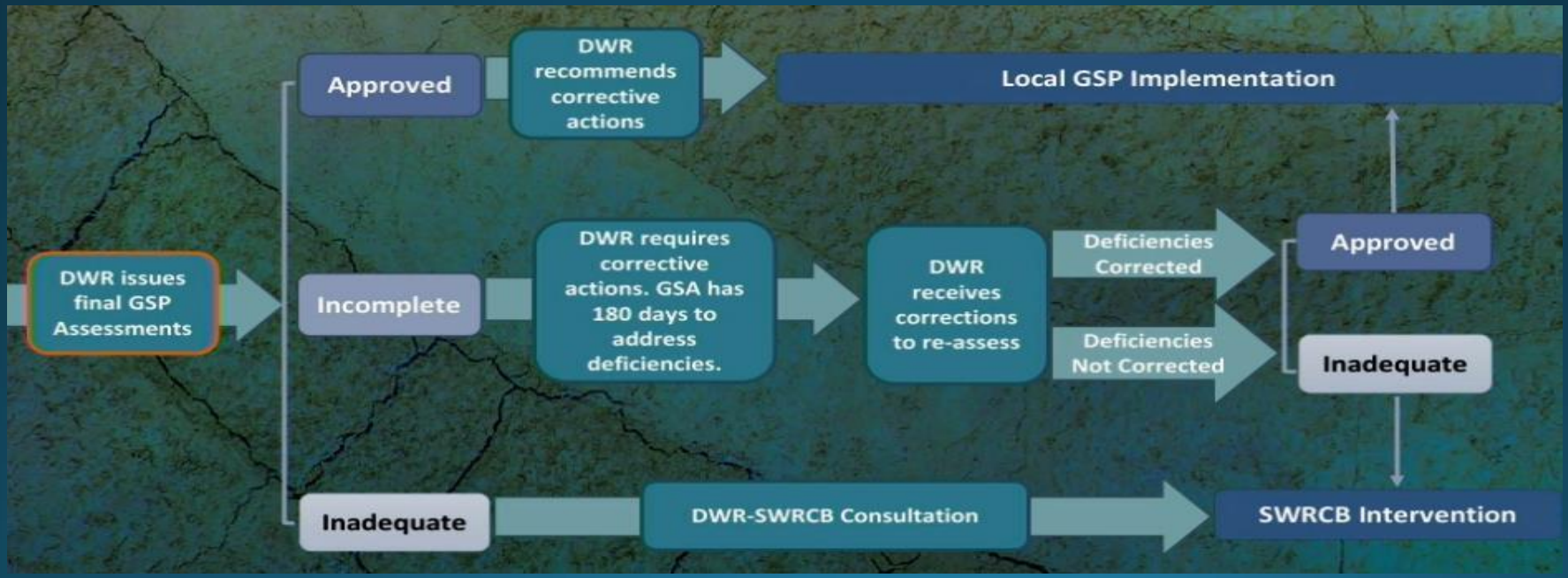
GSP DEVELOPMENT TIMELINE

TODAY



HOW DOES A GSP GET APPROVED?

Complete Draft Plan (Public Review) → BVAC Makes Recommendation on Plan → Boards Consider Approval of Plan (Lassen County, Modoc County) → Submit To DWR → DWR Posts Plan (Public Review)



Source: DWR Presentation May 2021

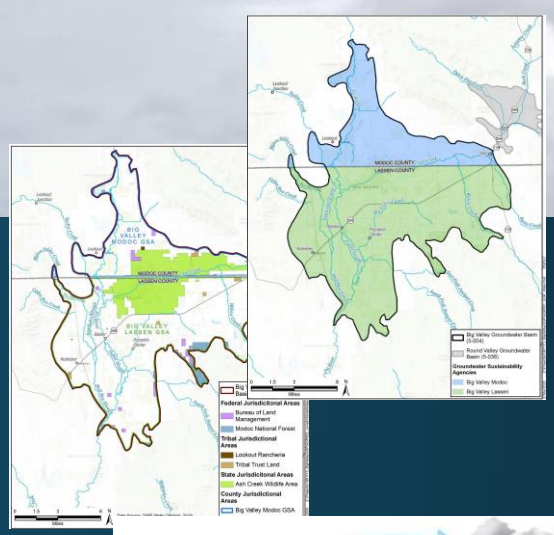
GSP OVERVIEW

1 Introduction

2 Agency Information

3 Description of Plan Area

"Background"

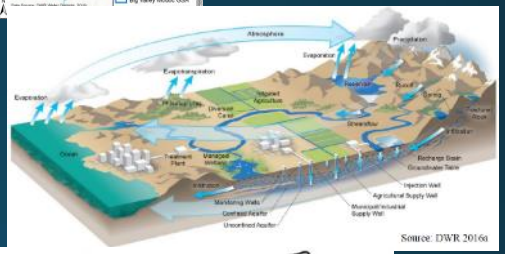


4 Hydrogeologic Conceptual Model

5 Groundwater Conditions

6 Water Budget

"Science"

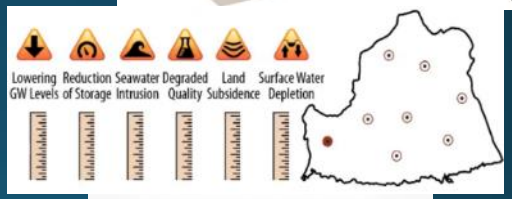


7 Sustainable Management Criteria

8 Monitoring Networks

9 Projects and Management Actions

"Planning"



10 Implementation Plan

11 Notice and Communications

"Implementation"

Source: UCANR Andrew Brown

12 Reference List

"This plan is based on the best available information and science"

Source: Westlands Water District

CHAPTERS 1-3: BACKGROUND

- Introduces Big Valley
- Big Valley shouldn't be in SGMA
- Sustainability Goal
- Jurisdictions
- Land Use
- Wells

"The Big Valley Groundwater Basin is located in one of the most remote and untouched areas of California"

"Farming and Ranching in Big Valley date back to the late 19th and early 20th century…"

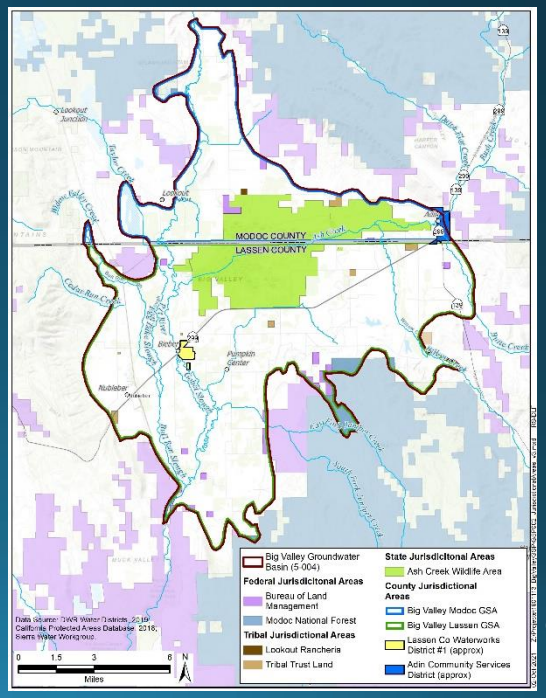
"…the timber industry has been diminished…"

"… the climate sees extreme cold… low land use intensity and low value crops…"

Table 3-2 2016 Land Use Summary by Water Use Sector

Water Use Sector	Acres	Percent of Total
Community[1]	250	<1%
Industrial	196	<1%
Agricultural	22,246	24%
State Wildlife Habitat[2]	14,583	16%
Managed Recharge	-	0%
Native Vegetation and Rural Domestic[3]	54,792	60%
Total	**92,067**	**100%**

[1] Includes the use in the communities of Bieber, Nubieber, and Adin
[2] Made up of a combination of wetlands and non-irrigated upland areas
[3] Includes the large areas of land in the Valley which have domestic wells interspersed



Sustainability Goal

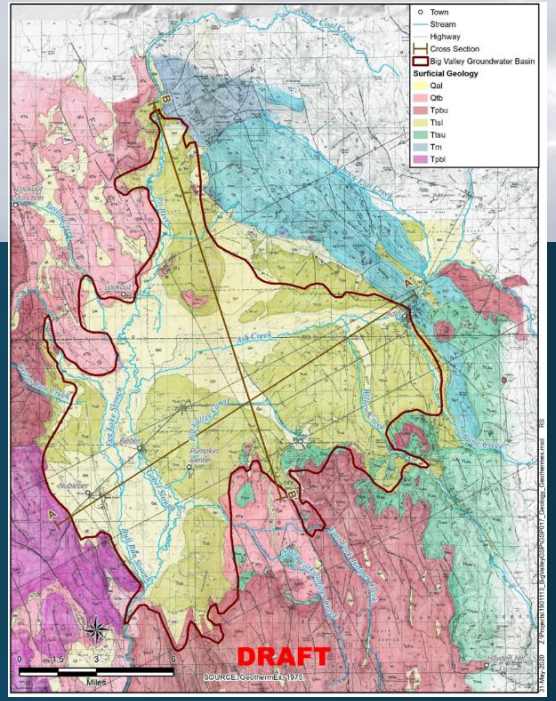
…to maintain a locally governed, economically feasible, sustainable groundwater basin and surrounding watershed for existing and future legal beneficial uses with a concentration on agriculture. Sustainable management will be conducted in context with the unique culture of the basin, character of the community, quality of life of the Big Valley residents…

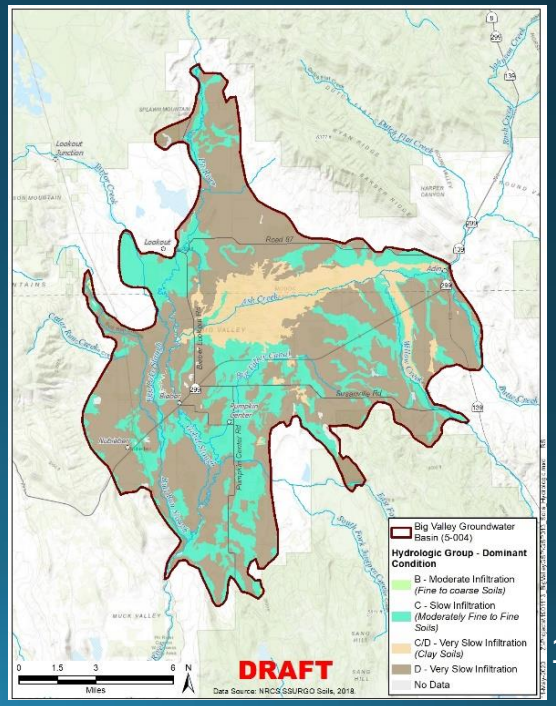
CHAPTERS 4-6: SCIENCE

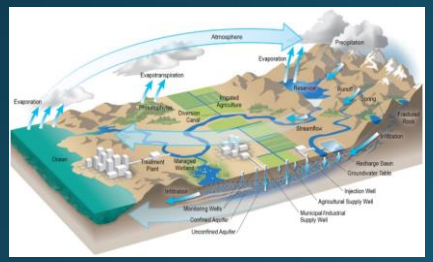
- Chap 4
  - Hydrogeology
- Chap 5
  - GW Conditions
- Chap 6
  - Water Budget

Conditions related to the six sustainability indicators:

- groundwater levels
- groundwater storage
- seawater intrusion
- water quality
- land subsidence
- surface water (and GDEs)







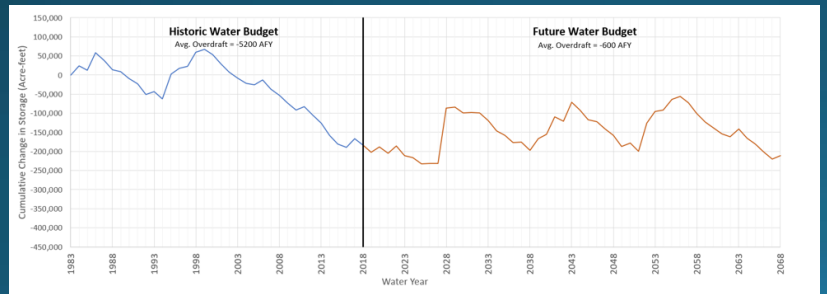


Figure 6-13 Cumulative Groundwater Change in Storage 1984 to 2068 (Future with Climate Change)

CHAPTERS 7-9: PLANNING

- Chap 7
  - Minimum Thresholds
  - Measurable Objectives
- Chap 8
  - Monitoring Network
- Chap 9
  - Projects and Management Actions

What is “significant and unreasonable” for the six sustainability indicators:

- groundwater levels
- groundwater storage
- seawater intrusion
- water quality
- land subsidence
- surface water

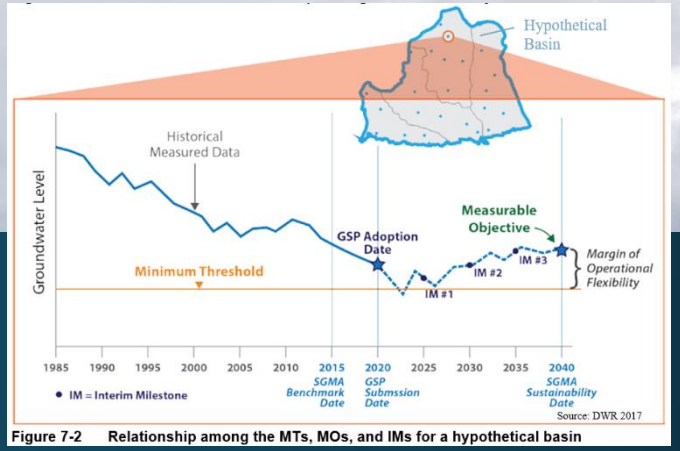
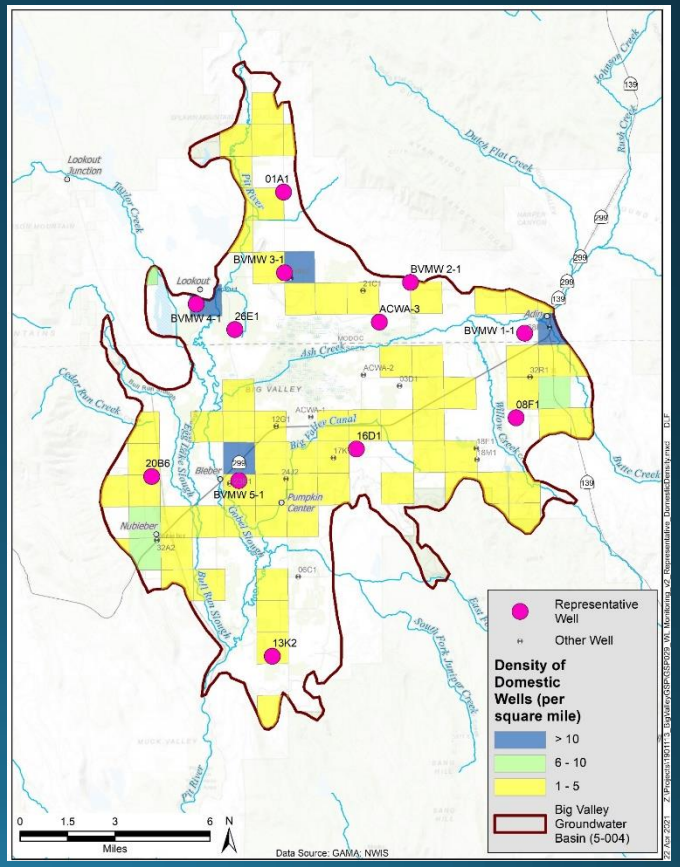


Figure 7-2 Relationship among the MTs, MOs, and IMs for a hypothetical basin

Table 9-2 Projects and Potential Implementation Timeline

No.	Category	Description	Estimated Time for Potential Implementation (years)		
			0-2	2-8	>8
1	9.1 Recharge Projects	AgMAR	X	X	X
2		Drainage and Basin Recharge	X	X	X
3		Ag Injection Wells			X
4	9.2 Research and Data Development	Stream Gauges	X		
5		Refined Water Budget	X	X	
6		Agro-Climate Station	X		
7		Voluntary Installation of Well Meters	X	X	
8		Adaptive Management	X	X	X
9		Mapping and Land Use	X	X	
10	9.3 Increased Storage Capacity	Expanding Existing Reservoirs		X	
11		Allan Camp Dam			X
12	9.4 Improved Hydrologic Function	Forest Thinning and Management	X	X	X
13		Juniper Removal	X	X	X
14		Stream and Meadow Restoration	X	X	X
15	9.5 Water Conservation	Irrigation Efficiency	X	X	
16		Landscaping and Domestic Water Conservation	X	X	
17		Conservation Projects	X	X	
18	9.6 Education and Outreach	Public Communication	X		
19		Information and Data Sharing	X	X	
20		Fostering Relationships	X		
21		Compiling Efforts	X	X	
22		Educational Workshops	X		



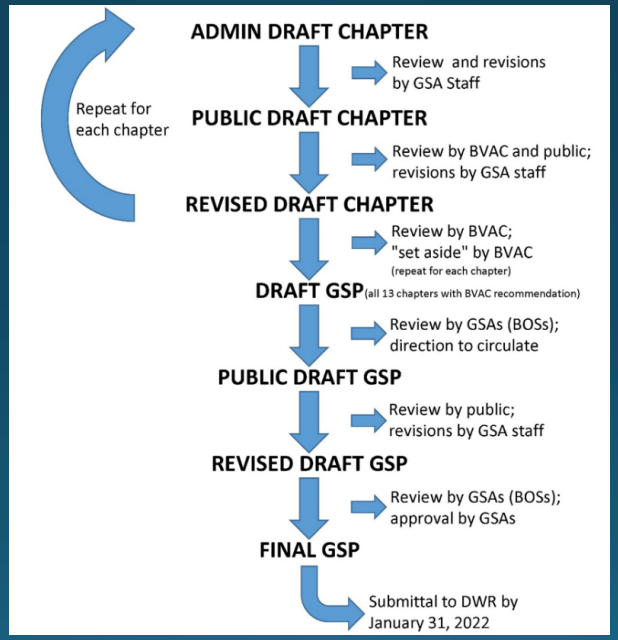
CHAPTERS 10-11: IMPLEMENTATION

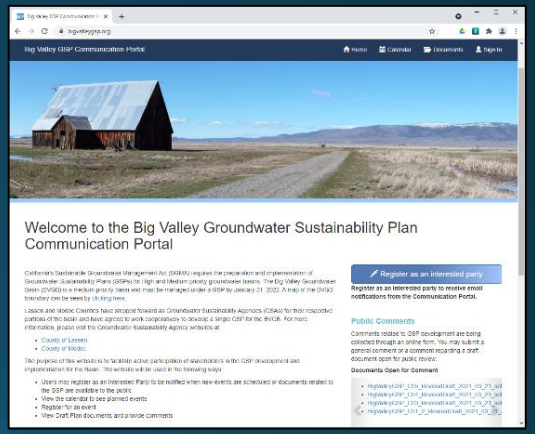
- Chap 10
  - Annual Reports
  - 5-year updates
  - Projects and Management Actions
- Chapter 11
  - Decision making
  - Communication

Table 10-1 Annual Report DMS Data Types

Data Type	Collecting Entity	Data Source	DMS Tool
Water Levels	DWR	SGMA Data Viewer	Excel Water Level Tool
Precipitation	DWR	CIMIS	Excel Water Budget Tool
Evapotranspiration	DWR	CIMIS	Excel Water Budget Tool
Streamflow (gages)	USGS/DWR	CDEC	Excel Water Budget Tool
Streamflow (water rights reporting)	SWRCB	eWRIMS	Excel Water Budget Tool
GIS Base Data[1]	GSAs	various	GIS Database

[1] Base data includes GIS layers such as the county boundaries, streams, roads, well locations, etc which generally don't change over time and don't need to be updated.





WHAT IS NEXT?

- Dec 2021: Adoption
- Jan 2022: Submit to DWR
- Feb 2022: DWR 75-day comment period
- April 2022: First annual report
- January 2024: DWR Review of Plan complete
- 2026: 5-year update

- Ongoing
  - Projects and Management Actions
  - Annual Reports every April
  - 5-year updates

AFTER ADOPTION OF THE GSP

- Explore options for future outreach, coordination and implementation.

- Designate a Board member from each jurisdiction to work with staff on an updated MOU, to be considered at a future date.

Respond to questions from the GSAs