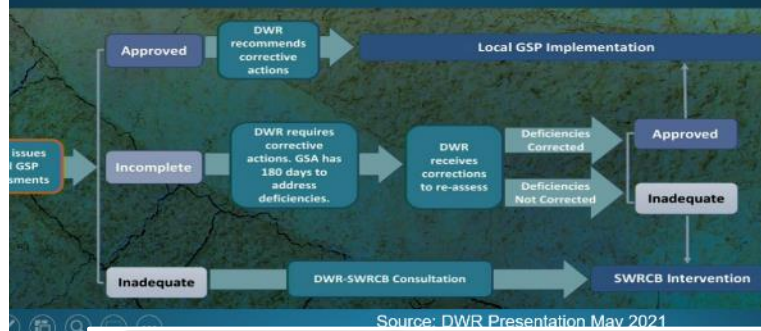
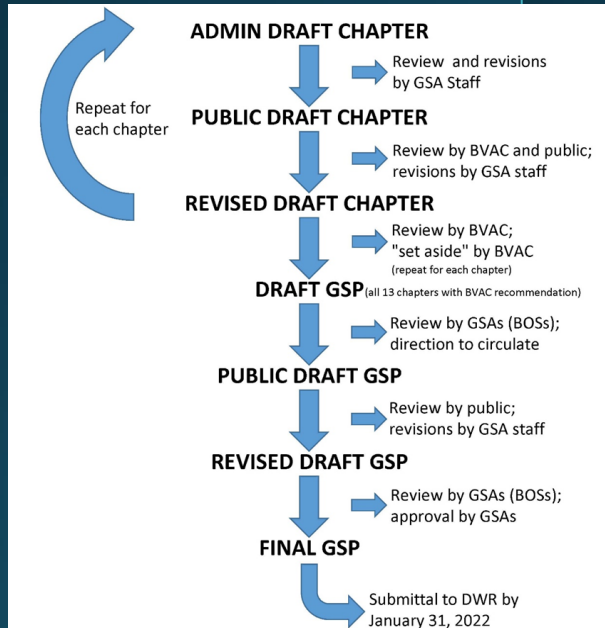
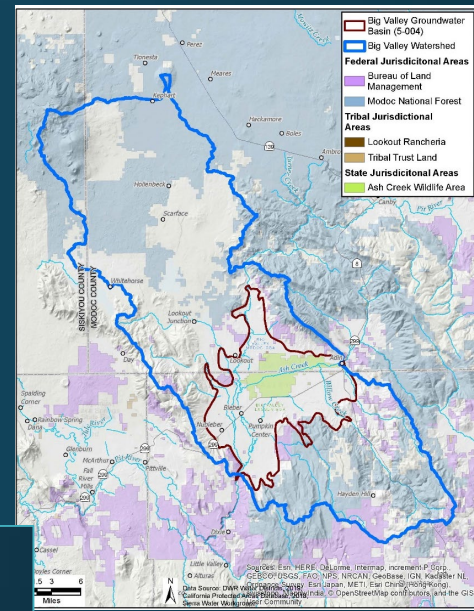


Groundwater Sustainability Plan for Big Valley Groundwater Basin Lassen and Modoc Counties

Advisory Committee Meeting 12

July 7, 2021



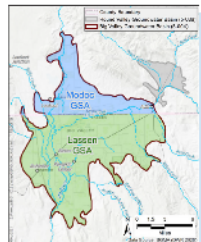
Summary of the Big Valley Groundwater Sustainability Plan

bigvalleygsp.org
May 2021

In 2014, California's Sustainable Groundwater Management Act (SGMA) was signed into law, requiring local governments and agencies in groundwater basins designated as high and medium priority to create groundwater sustainability plans (GSPs) and implement a groundwater sustainability plan (GSP) for each basin. The Big Valley Groundwater Basin (BVGB) is identified as a medium-priority basin by the California Department of Water Resources (DWR) and is therefore subject to SGMA. The "high" and "medium" designations were assigned by DWR prior to the adoption of SGMA. Local agencies in the BVGB contacted the medium priority designation, which DWR denied, and are preparing a GSP to comply with the law because non-compliance may result in intervention by the State Water Board. Intervention could include monitoring, reporting, and fines for pumping groundwater. All formal basin-priority challenges have been denied to-date but may be revisited in the future.

Location and Boundaries
 BVGB is a small basin in the northwestern region of California. It is comparable in size to the area located in portions of Modoc and Lassen counties, including the unincorporated communities of Alder, Lockport, Bieber, and Nubieber. SGMA applies only to the areas inside the basin boundary (Figure 1), but GSP projects may include areas outside the boundary. The boundary lacks accurate detail in places and does not follow the DWR boundary definition, so residents in the BVGB submitted a basin boundary modification request to DWR in 2020 that was denied. There are plans to submit another basin boundary modification request in the future.

GSP Content and Structure
 Governments and agencies in basins subject to SGMA form one or more Groundwater Sustainability Agencies (GSAs) to develop a GSP and oversee its implementation. The basin counties, Lassen and Modoc, have designated themselves as the GSAs for the basin and that designation has been confirmed by DWR. The counties took on this huge responsibility because no other local agencies were able to serve as the GSAs. If the counties had not agreed to be the GSAs, the State Water Board would have assumed management responsibility (e.g., "intervention"). Each GSA manages the portion of the basin in its county. In 2015, the Big Valley Groundwater Basin Advisory Committee (BVAC) was formed to advise the GSAs on preparation of a single GSP for the entire BVGB. The BVAC consists of representatives from each county's board of supervisors and two BVGB residents from each county who were appointed by the GSAs after extensive outreach was conducted to all residents of the BVGB. The BVAC holds regular meetings which are open to the public. Meeting information can be found on the Big Valley GSP website: <https://bigvalleygsp.org>.



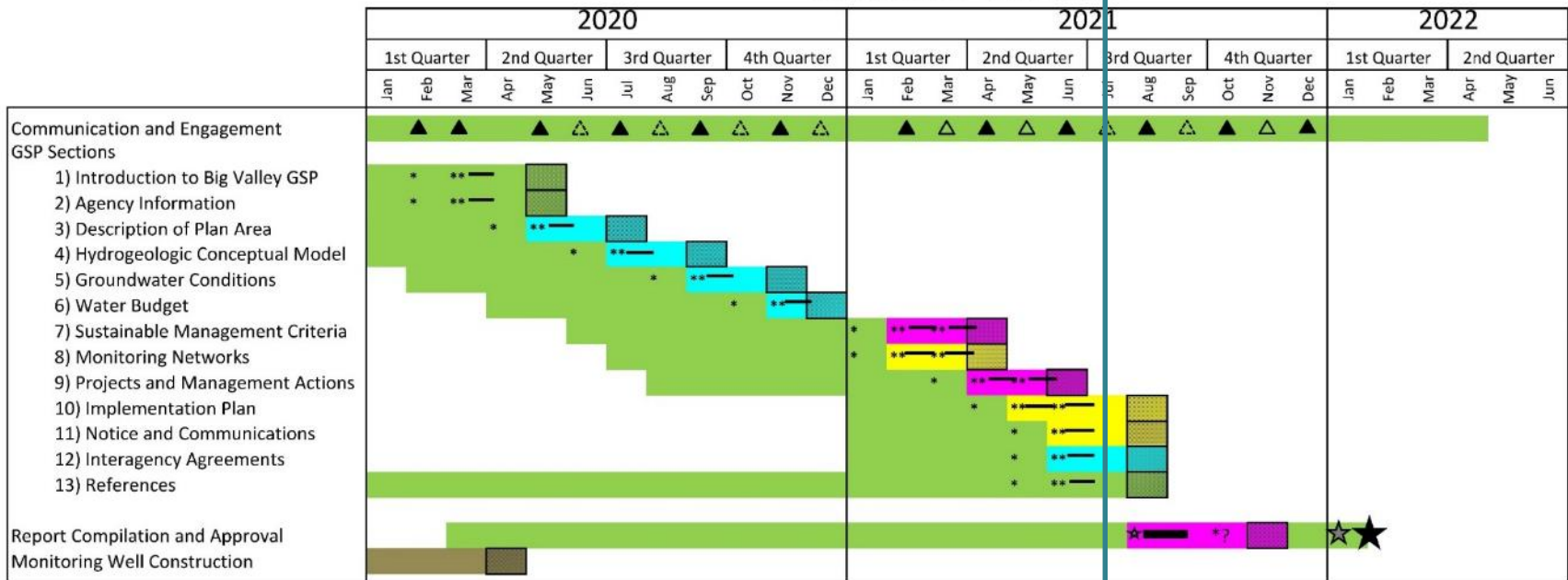
Lassen and Modoc Groundwater Sustainability Agencies

GENERAL UPDATES AND SCHEDULE

TODAY



Tentative Schedule

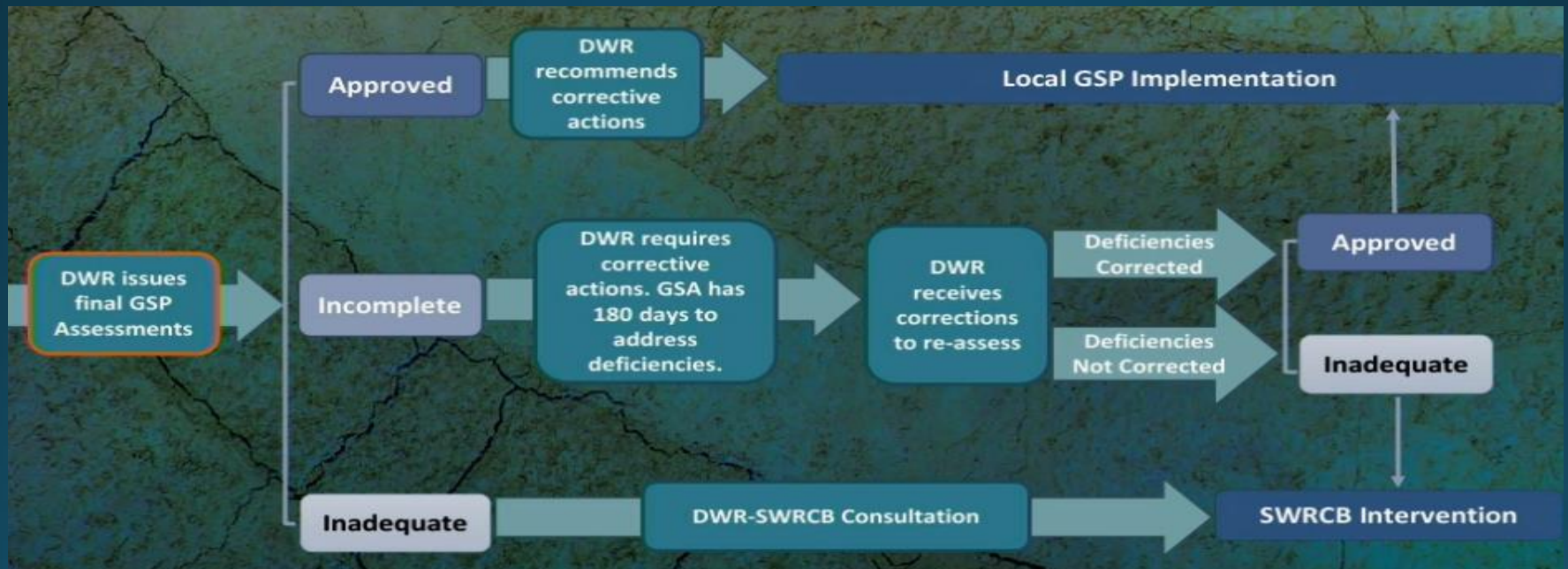
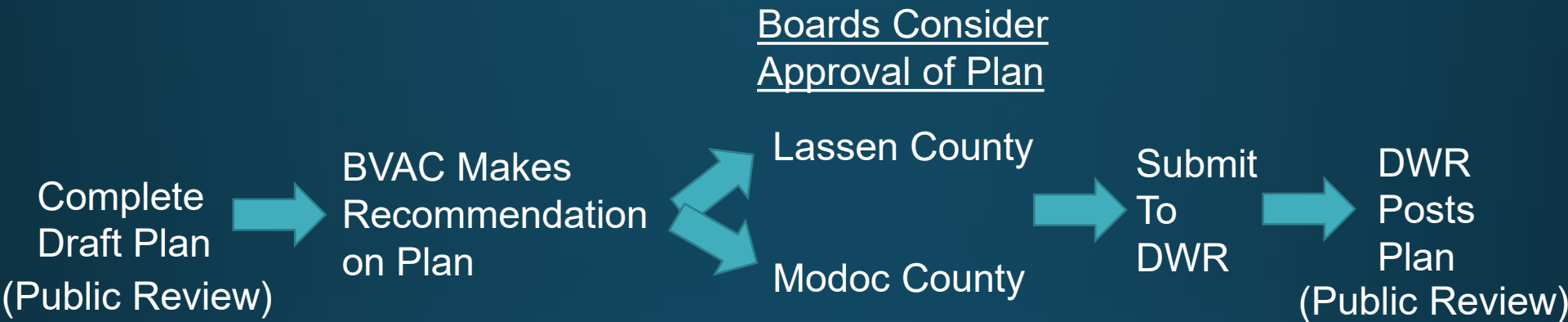


Schedule Key

- | | |
|------------------------------------|----------------------|
| Minimal input from stakeholders | Public Review |
| Low input from stakeholders | GSP Public Draft |
| Moderate input from stakeholders | Approved Final GSP |
| High input from stakeholders | GSP Submitted to DWR |
| Field Task Activities | |
| Final Draft Chapter or Deliverable | |
| BVAC Regular Meeting | |
| BVAC Potential Special Meeting | |

Updated 12/1/2020

HOW DOES A GSP GET APPROVED?



Source: DWR Presentation May 2021

WHERE ARE WE NOW?

1 Introduction

2 Agency Information

3 Description of Plan Area

4 Hydrogeologic Conceptual Model

5 Groundwater Conditions

6 Water Budget

7 Sustainable Management Criteria

8 Monitoring Networks

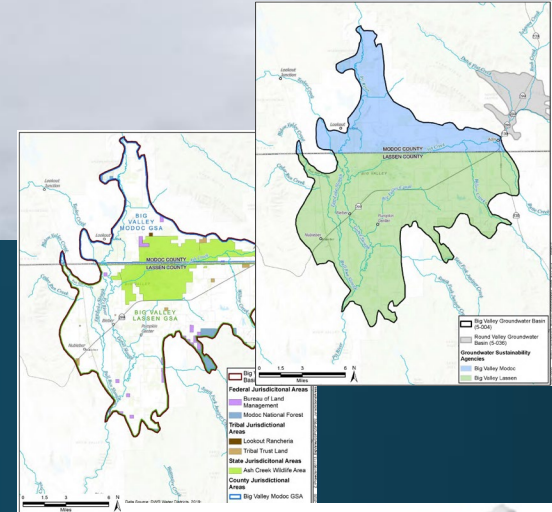
9 Projects and Management Actions

10 Implementation Plan

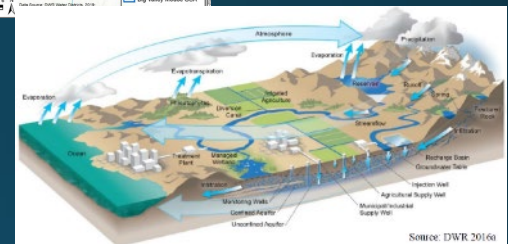
11 Notice and Communications

12 Reference List

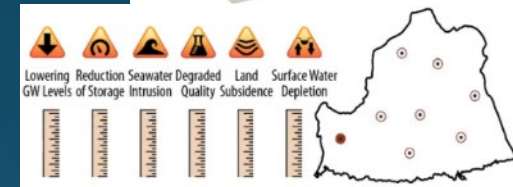
“Background”



“Science”



“Planning”



“Implementation”



Source: UCANR Andrew Brown

“This plan is based on the best available information and science”



Source: Westlands Water District

NOW

OVERALL PURPOSE - TO COMPLETE THE MANDATED GSP TO ATTAIN:

...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...

AGENDA

- Subject #1: Introduce Public Draft Chapter 11 (Notice and Communication) and Public Draft Chapter 12 (Reference List)
 - Receive comment
- Subject #2: Introduce Revised Draft Chapter 9 (Projects and Management Actions)
 - Receive comment and possible set aside
- Subject #3: Introduce Revised Draft Chapter 10 (Implementation Plan)
 - Receive comment and possible set aside
- Subject #4: Report from DWR
 - Receive comment

AGENDA

- Subject #1: Introduce Public Draft Chapter 11 (Notice and Communication) and Public Draft Chapter 12 (Reference List)
- **Review, discuss, and receive comment.**

SUBJECT #1: CHAP 11-12 NOTICE AND COMMUNICATION AND REFERENCES

• Pre-GSP Outreach

Date	Activity
February 2016	Joint Lassen-Modoc Board of Supervisors meeting to explore GSA options to comply with SGMA
January 2017	Public outreach meeting in Bieber to solicit comment on the Counties becoming GSAs
February 2017	County of Modoc GSA Formation Public Hearing
March 2017	County of Lassen GSA Formation Public Hearing
July-September 2017	GSP Workplan developed to determine scope, schedule, and cost of GSP development
November 2017	Lassen County submits application for State grant to fund GSP development
June 2018	Notice of Intent to develop one GSP for the entire BVGB submitted to DWR
November 2018	Lassen County entered into SGMA grant agreement with the State
February 2019	GSP development started

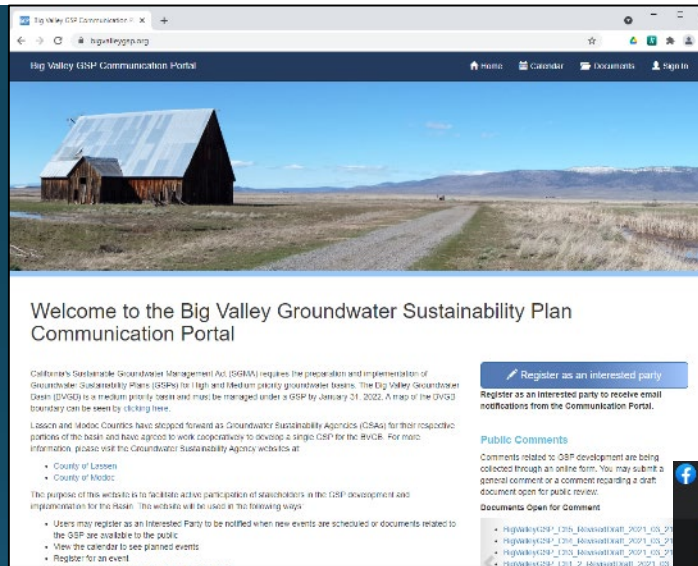
SUBJECT #1: CHAP 11-12 NOTICE AND COMMUNICATION AND REFERENCES

• Outreach Tools

- Survey
- Website
- Flyers
- Newspaper
- Social Media
- Brochure
- Big Valley Advisory Committee

BIG VALLEY SUBBASIN COMMUNICATION AND ENGAGEMENT SURVEY

Supporting Development of the Big Valley Subbasin Groundwater Sustainability Plan (GSP)



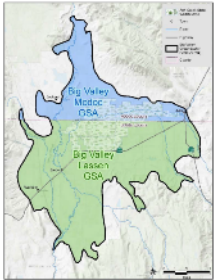
PUBLIC MEETING
BIG VALLEY GROUNDWATER BASIN ADVISORY COMMITTEE
WEDNESDAY, FEBRUARY 3, 2021 at 4:00 P.M.
Adin Community Center, 605 Highway 299, Adin, CA 96006
[Public participation offered in person and via webinar or conference call.
Join the ZoomGov Meeting at:
<https://www.zoomgov.com/join/1613411049?pwd=V3RkY0dpcVlSRDQ5Uvc0RR1pc0Q9>
Meeting ID: 161 341 1049 OR call in (listen-only mode) at (833) 568-8864 US Toll-Free]

At the February 3, 2021, meeting, we will review revisions made to GSP Chapter 6 Water Budget, introduce and discuss GSP Chapter 7 Sustainable Management Criteria, and initiate discussion on Chapter 8 Monitoring Networks.

What is the Big Valley Groundwater Basin Advisory Committee (BVAC)?
The BVAC is the continuous forum to advise the Lassen and Modoc Groundwater Sustainability Agencies (GSAs) during development of the Groundwater Sustainability Plan (GSP).

What is a Groundwater Sustainability Plan?
A GSP is a detailed planning document, required by the Sustainable Groundwater Management Act (SGMA), that establishes a groundwater budget, minimum thresholds, and management actions to achieve long-term sustainability.

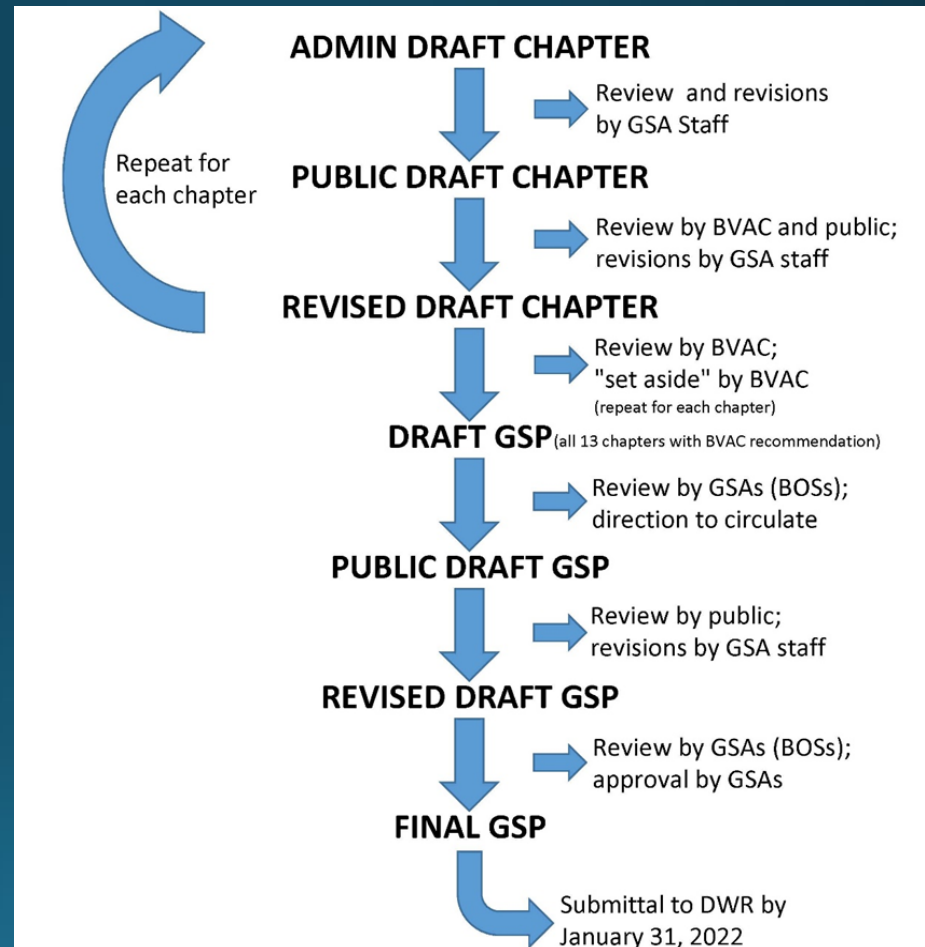
Who is developing the GSP in Big Valley?
Lassen and Modoc Counties have agreed to serve as the GSAs and work collaboratively to develop a single GSP for the entire Big Valley Groundwater Basin (BVGB). The BVAC has been established to help guide the process and all BVAC meetings will be open to the public and public comment is encouraged.



A screenshot of a Facebook post from the 'Laura Snell' profile. The post is for a 'Sustainable Groundwater Management Workshop' scheduled for Wednesday, March 24, 2021, from 5:00 P.M. to 7:30 P.M. at the Adin Community Hall. The post includes a list of speakers, a list of topics to be discussed, and a link to register. The post has several likes and comments.

SUBJECT #1: CHAP 11-12 NOTICE AND COMMUNICATION AND REFERENCES

- Decision Making
 - Receive comment and recommendations from BVAC
 - County Boards of Supervisors are decision making bodies



SUBJECT #1: CHAP 11-12 NOTICE AND COMMUNICATION AND REFERENCES

• References

- Lists references used in the GSP
- Communicates that GSP is based on the best available information and science

Big Valley GSP Chapter 12 Public Draft
Big Valley Groundwater Basin
June 23, 2021

12. Reference List

- Ayers, R.S. and Westcot, D.W., 1985. Water Quality for Agriculture. Food and Agriculture Organization of the United Nations Irrigation and Drainage Paper 29. Available at: <http://www.fao.org/3/t0234e/t0234e00.htm>.
- Bauder, T.A., Waskom, R.M., Sutherland, P.L., and Davis, J.G., 2014. Irrigation Water Quality Criteria. Fact Sheet No. 0.506. Colorado State University Extension. Available at: <https://extension.colostate.edu/topic-areas/agriculture/irrigation-water-quality-criteria-0-506/>.
- Big Valley Advisory Committee (BVAC), 2021. During BVAC meetings, committee members have offered first-hand accounts of the widespread use of agricultural lands by waterfowl for feeding, while primarily using the state wildlife area for refuge.
- Brown and Caldwell, 2007. Lassen County Groundwater Management Plan, June 2007.
- Bureau of Indian Affairs (BIA), 2020a. U.S. Domestic Sovereign Nations: Land Areas of Federally-Recognized Tribes. Available at: <https://biamaps.doi.gov/indianlands/>.
- BIA, 2020b. Indian Lands of Federally Recognized Tribes of the United States. Available at: <https://www.bia.gov/sites/bia.gov/files/assets/bia/ots/webteam/pdf/idc1-028635.pdf>.
- Brown and Caldwell, 2007. Lassen County Groundwater Management Plan. Available at: <http://celassen.ucanr.edu/files/49536.pdf>.
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- California Geological Survey (CGS) (Gay, T. E. and Aune, Q. A.), 1958. Geologic Map of California, Alturas Sheet. 1:250,000. Olaf P. Jenkins Edition.
- California Native Plant Society (CNPS) 2020. Calscape. Available at: <https://calscape.org/>.
- California Native Plant Society. 2021. Gardening and Horticulture. [Gardening - California Native Plant Society \(cnps.org\)](https://www.cnps.org/)
- CGS, 2002. California Geomorphic Provinces. Note 36.
- CGS, 2010. Fault Activity Map of California.
- Dahlke, H.E., Brown, A.G., Orloff, S., Putnam, S., A. O'Geen. 2018. Managed winter flooding of alfalfa recharges groundwater with minimal crop damage. California Agriculture, 72(1).

SUBJECT #1: CHAP 11-12 NOTICE AND COMMUNICATION AND REFERENCES

Receive Public Comment on Public Draft
Chapters 11 and 12

AGENDA

- Subject #2: Revised Draft Chapter 9 (Projects and Management Actions)
- **Review and receive comment on edits to Chapter 9. Possible set aside.**

SUBJECT #2: CHAP 9 PROJECTS AND MANAGEMENT ACTIONS

Detail added for the projects:

- Agricultural Managed Aquifer Recharge (AgMAR)
- Research and Data Development
- Increased Surface Water Storage
- Increased Hydrologic Function and Recharge in Uplands
- Water Conservation
- Education and Outreach

SUBJECT #2: CHAP 9 PROJECTS AND MANAGEMENT ACTIONS

Receive Public Comment on Revised Draft Chapter 9

Vote to set aside?

AGENDA

- Subject #3: Introduce Revised Draft Chapter 10 (Implementation Plan)
- **Review and receive comment on edits to Chapter 9. Possibly set aside.**

SUBJECT #3: CHAP 10 IMPLEMENTATION PLAN

- Edits to chapter include

- Emphasize that DWR's definition of water year isn't ideal for Big Valley
- Emphasize the burden of the annual reports
- Emphasize that Big Valley is disadvantaged and can't afford additional costs

Big Valley GSP Chapter Revised Draft
Big Valley Groundwater Basin
June 23, 2021

34 role they take and how often they meet will determine the level of GSA staff effort to facilitate
35 BVAC meetings and activities.

36 10.2 GSP Annual Reporting

37 According to §356.2 of the Regulations, the Big Valley Groundwater Sustainability Agencies
38 (GSAs) are required to provide an annual report to DWR by April 1 of each year following the
39 adoption of the GSP. The first annual report will be provided to DWR by April 1, 2022 and will
40 include data for the prior Water Year (WY), which will be WY 2021 (October 1, 2020 to
41 September 30, 2021). While the WY as defined by DWR isn't ideal for use in Big Valley, the
42 GSAs will assemble data based on DWR's definition as per SGMA statute and regulations. The
43 Annual Report will establish the current conditions of groundwater within the Big Valley
44 Groundwater Basin (BVGB or Basin), the status of the Groundwater Sustainability Plan (GSP)
45 implementation, and the trend towards achieving sustainability. While conditions
46 won't differ significantly from when the GSP was developed, the GSAs will submit the annual
47 report to comply with GSP regulations. A general outline is included below.

48 ❖ General Information

- 49 ➤ Executive Summary
- 50 ➤ Introduction (1 map of Basin)

51 ❖ Basin Conditions

- 52 ➤ Groundwater Elevations (2 contour maps, 12 hydrographs)
- 53 ➤ Estimated Groundwater Extractions (1 table from water budget)
- 54 ➤ Estimated Surface Water Supply (1 table from water budget)
- 55 ➤ Estimated Total Water Use (1 table from water budget)
- 56 ➤ Estimated Change in Groundwater Storage (2 maps, 1 graph, and 1 table)

57 ❖ GSP Implementation Progress

- 58 ➤ Progress Toward Measurable Objectives
- 59 ➤ Updates on Projects and Management Actions

60 Another way to organize this requirement and for GSA staff and stakeholders to understand the
61 level of effort and expense involved in developing annual reports is to outline major technical
62 tasks. Much of the effort to develop the annual reports is to take available data collected by
63 outside agencies, generate figures based on that data and then re-submit to DWR. Below is a
64 summary outline of tasks to be performed by GSA staff and/or consultants to develop the annual
65 report.

66 ❖ Download Water Level Data from state website and generate:

- 67 ➤ Hydrographs for 12 representative wells.
- 68 ➤ Spring and Fall groundwater contours.
- 69 ➤ Groundwater difference contours. (e.g. Fall 2020 to Fall 2021)

SUBJECT #3: CHAP 10 IMPLEMENTATION PLAN

Receive Public Comment on Revised Draft Chapter 10

Vote to set aside?

AGENDA

- Subject #3: Report from DWR

QUESTIONS OR COMMENTS FOR ITEMS NOT ON THE AGENDA



- GSA Staff and Consultants will be available after the meeting to talk, answer questions, and hear your concerns.