



Sierra Valley
Groundwater
Management District

Appendix 5-2: Annual Report Template

SIERRA VALLEY SUBBASIN GSP ANNUAL REPORT

Table of Contents

Executive Summary	ii
1 Basin Setting	1-1
1.1 Groundwater Elevations	1-1
1.2 Groundwater Extractions.....	1-1
1.3 Surface Water Supply	1-3
1.4 Total Water Use	1-5
1.5 Change in Groundwater Storage.....	1-8
1.6 Land Subsidence	1-9
1.7 Groundwater Quality.....	1-9
2 Plan Implementation Progress.....	2-1
2.1 Overview of Implementation Activities	2-1
2.2 Interim Milestones.....	2-1
2.3 Implementation of Projects and Management Actions.....	2-1
2.4 Additional Implementation Support Activities	2-1
2.4.1 Grant Funded Activities	2-1
2.5 Activities Anticipated for the Coming Year	2-1
3 References.....	3-1

List of Figures

Figure 1. Location Map	ii
Figure 2. Groundwater Elevation Change Contour Map	1-1
Figure 3. Representative Groundwater Elevation Hydrograph for Principal Aquifer	1-1
Figure 4. Map of Groundwater Extractions (Water Year 2021)	1-3
Figure 5. Change in Groundwater Storage Maps	1-8
Figure 6. Annual Change in Groundwater Storage.....	1-9

List of Tables

Table 1. Summary of Sustainable Management Criteria	iii
Table 2. Monthly Groundwater Extractions (AF) by Water Use Sector, Water Year 2021	1-2
Table 3. Monthly Surface Water Diversions (AF) by Water Source Type, Water Year 2021	1-4
Table 4. Monthly Total Water Use (AF) by Water Source, Water Year 2021	1-6
Table 5. Monthly Total Water Use (AF) by Water Use Sector, Water Year 2021	1-7

List of Appendices

Appendix A: Groundwater Elevation Hydrographs	A-1
Appendix B: Groundwater Elevation Contour Maps	B-1

Executive Summary

The Sierra Valley Subbasin Groundwater Sustainability Plan (GSP or Plan) was adopted in late 2021 by the two Groundwater Sustainability Agencies (GSAs), the Sierra Valley Groundwater Management District (SVGMD) and Plumas County, that were formed in accordance with the Sustainable Groundwater Management Act (SGMA) of 2014 to coordinate, develop, and implement a GSP for the Sierra Valley Subbasin (DWR Subbasin No. 5-012.01). The GSP was submitted to the California Department of Water Resources (DWR) ahead of the January 31, 2022 deadline for high and medium priority basins.

California Water Code (CWC) §356.2 requires the submission of an annual report to DWR by April 1 of each year following the adoption of the GSP. The annual report includes information for the proceeding water year. This report is the first annual report submitted to DWR and provides an update on basin conditions and plan implementation progress within the Sierra Valley Subbasin for Water Year 2021 (October 1, 2020 – September 30, 2021). CWC §356.2 requires annual reports to include general information about the Subbasin and GSP, groundwater elevation data (contour maps and hydrographs), groundwater extraction, surface water supply, changes in groundwater storage, and a description of progress towards implementation of the GSP since the adoption of the previous annual report. Table ES-1 provides a summary of the definition of undesirable results and a summary of compliance with sustainable management criteria included in Chapter 3 of the Adopted GSP.

Figure 1. Location Map

Table 1. Summary of Sustainable Management Criteria

Sustainability Indicator	Minimum Threshold (MT)	Measurable Objective	Undesirable Result	WY 2022 Annual Report Status
Groundwater Levels	Avoidance of impacts to shallow wells; Avoidance of impacts to GDEs	Average water level observed from January 2015 to June 2021	25% of the fall low groundwater level observation in any of the RMPs fell below respective MTs for two consecutive years	
Groundwater Storage	Groundwater levels used as a proxy for this sustainability indicator.			
Seawater Intrusion	This sustainability indicator is not applicable in the SV Subbasin.			
Degraded Water Quality	Nitrate = 10 mg/L TDS = 500 mg/L	Nitrate = 9 mg/L TDS = 450 mg/L	Wells in the RMP exceed MTs for nitrate and TDS at a greater number of wells than wells with exceedances in 2021	
Land Subsidence	Groundwater levels used as a proxy for this sustainability indicator.			
Depletions of Interconnected Surface Waters	Groundwater levels used as a proxy for this sustainability indicator.			

Groundwater Levels

This section describes general observations of groundwater level declines or increases in the reporting water year. This summary includes quantified changes observed during the water year and refer to hydrographs and contour maps of groundwater elevation, to be included as Appendix A and Appendix B, respectively.

Groundwater Storage

This section provides updates from the hydrogeologic model and quantified changes observed in groundwater storage in the reporting water year. This summary includes graphs or figures.

Land Subsidence

This section describes the status of land subsidence as a concern and frequency of monitoring for the reporting year. This summary includes subsidence values for the reporting period, if applicable.

Groundwater Quality

This section describes Minimum Threshold (MT) values and water quality coordination and monitoring activities.

Plan Implementation Progress

This section describes progress made in the implementation of the GSP, implementation of projects and management actions, and any additional implementation support actions, including how data gaps are or will be addressed, or other opportunities to further implement activities outlined in the GSP. This summary includes a brief overview of plan implementation activities anticipated for the coming year.

1 Basin Setting

1.1 Groundwater Elevations

This section describes the change in groundwater elevations since the submittal of the GSP. This summary describes the groundwater level monitoring network, any changes to the network including addition or reduction of monitoring wells and shows groundwater elevations at representative monitoring wells. This section includes or refers to required hydrographs and contour maps for the subbasin.

Figure 2. Groundwater Elevation Change Contour Map

This figure shows groundwater elevation contours for each principal aquifer in the basin, illustrating at a minimum, the seasonal high and lower groundwater conditions.

Figure 3. Representative Groundwater Elevation Hydrograph for Principal Aquifer

This figure shows hydrographs of groundwater elevations and water year type using historical data to the greatest extent available, including from January 1, 2015 to the current reporting year.

1.2 Groundwater Extractions

This section summarizes monthly groundwater extractions for the preceding water year with the data available and defines the method of measurement by water use sector. This section summarizes seasonal trends for groundwater extractions. This section includes a map that illustrates the location and volume of groundwater extractions.

Table 2. Monthly Groundwater Extractions (AF) by Water Use Sector, Water Year 2021

Month	Urban (AF) - Agency	Urban (AF) - Private	Agricultural (AF) - Agency	Agricultural (AF) - Private	Industrial (AF)	Managed Wetlands (AF)	Managed Recharge (AF)	Native Vegetation (AF)	Other (AF)	Total Groundwater Extractions (AF)
Oct-20										
Nov-20										
Dec-20										
Jan-21										
Feb-21										
Mar-21										
Apr-21										
May-21										
Jun-21										
Jul-21										
Aug-21										
Sep-21										
Total										

Note:

- 1.) List methods used to estimate groundwater extractions.
- 2.) Specify water source type for 'Other' as necessary.

Figure 4. Map of Groundwater Extractions (Water Year 2021)

1.3 Surface Water Supply

SGMA requires that the GSP annual report tabulate “Surface water supply used or available for use” (CCR §356.2 [b] [3]). This section includes a table with the total monthly surface water available for use during the reporting period, broken down by method measurement. This section will report total surface water diversions and the sources of direct measurements.

Table 3. Monthly Surface Water Diversions (AF) by Water Source Type, Water Year 2021

Month	Central Valley Project (AF)	State Water Project (AF)	Colorado River Project (AF)	Local Supplies (AF)	Local Imported Supplies (AF)	Recycled Water (AF)	Desalination (AF)	Other (AF)	Total Surface Water (AF)
Oct-20									
Nov-20									
Dec-20									
Jan-21									
Feb-21									
Mar-21									
Apr-21									
May-21									
Jun-21									
Jul-21									
Aug-21									
Sep-21									
Total									

Note:

- 1.) List methods used to determine surface water diversions.
- 2.) Specify water source type for 'Other' as necessary.



1.4 Total Water Use

This section summarizes monthly combined groundwater use and surface water available for use for the reporting period. This data is presented by water use sector, water source type, and identifies the method of measurement and accuracy of measurements.

Table 4. Monthly Total Water Use (AF) by Water Source, Water Year 2021

Month	Groundwater (AF)	Surface Water (AF)	Recycled Water (AF)	Reused Water (AF)	Other (AF)	Total Water Use (AF) - by Source
Oct-20						
Nov-20						
Dec-20						
Jan-21						
Feb-21						
Mar-21						
Apr-21						
May-21						
Jun-21						
Jul-21						
Aug-21						
Sep-21						
Total						

Table 5. Monthly Total Water Use (AF) by Water Use Sector, Water Year 2021

Month	Urban (AF)	Industrial (AF)	Agricultural (AF)	Managed Wetlands (AF)	Managed Recharge (AF)	Native Vegetation (AF)	Other (AF)	Total Water Use (AF) - by Sector
Oct-20								
Nov-20								
Dec-20								
Jan-21								
Feb-21								
Mar-21								
Apr-21								
May-21								
Jun-21								
Jul-21								
Aug-21								
Sep-21								
Total								

1.5 Change in Groundwater Storage

This section describes any estimated change in storage in the subbasin.

Figure 5. Change in Groundwater Storage Maps

This figure demonstrates change in groundwater storage for each principal aquifer in the basin.

Figure 6. Annual Change in Groundwater Storage

This figure depicts water year type, groundwater use, and 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.

1.6 Land Subsidence

This section describes observed or measured changes in land subsidence.

1.7 Groundwater Quality

This section compares water quality monitoring to the GSP's interim milestones and other sustainable management criteria and provides a summary of ongoing water quality coordination activities being conducted by the GSAs.

2 Plan Implementation Progress

2.1 Overview of Implementation Activities

This section of the Annual Report provides updates and progress towards implementing the Plan, including achieving interim milestones, and implementation of projects and management action since adoption of the GSP or since the annual report.

2.2 Interim Milestones

This section provides a list of interim milestones identified in Chapter 3 (Sustainable Management Criteria) of the GSP for all Sustainability Indicators. These Interim Milestones are anticipated to be achieved over the course of GSP implementation in increments of five years, pursuant to the CCR definition “Target values representing measurable groundwater conditions, in increments of five years, set by Agency as part of a Plan” [CCR Title 23, Division 2 §351(q)]. Progress toward achieving Interim Milestones since submitting the GSP are provided in Section 1. Further updates are expected in the first Five Year Assessment for the Sierra Valley Subbasin GSP, with status checks provided in future annual reporting.

2.3 Implementation of Projects and Management Actions

This section provides an update on progress made towards projects and management actions identified in Chapter 4 of the GSP.

2.4 Additional Implementation Support Activities

2.4.1 Grant Funded Activities

This section provides a description of any planning or implementation activities that have been funded by grants from DWR.

2.5 Activities Anticipated for the Coming Year

The Sierra Valley Subbasin GSAs intend to continue activities necessary to implement the GSP and put the basin on a path toward sustainable management. This section provides an overview of implementation activities anticipated over the coming year.



3 References

This section provides any references used for this Annual Report.



Sierra Valley
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Appendix A: Groundwater Elevation Hydrographs



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Appendix B: Groundwater Elevation Contour Maps