

PUBLIC DRAFT

Sutter Subbasin GSP Amendment

Chapter 4: Outreach and Communication

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Sutter Subbasin GSAs

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Acronyms

AB	Assembly Bill
AF	acre-feet
AFY	acre-feet per year
ASR	Aquifer storage and recovery
AWMP	Agricultural Water Management Plan
CASGEM	California Statewide Groundwater Elevation Monitoring
CDEC	California Data Exchange Center
CDP	Census Designated Place
CSD	Community Services District
CVP	Central Valley Project
CV-RWQCB	Central Valley Regional Water Quality Control Board
CV-SALTS	Central Valley Salinity Alternatives for Long-Term Sustainability
CWC	California Water Code
DAC	Disadvantaged Community
DDW	Division of Drinking Water, California State Water Resources Control Board
DPR	Department of Pesticide Regulation
DWR	California Department of Water Resources
EDA	Economically Distressed Area
GMP	Groundwater Management Plan
GPS	Global Positioning System
GQTM	Groundwater Quality Trend Monitoring
GSA	Groundwater Sustainability Agency
GSP	Groundwater Sustainability Plan
IC	Irrigation Company
ILRP	Irrigated Lands Regulatory Program
IRWM	Integrated Regional Water Management
IRWMP	Integrated Regional Water Management Plan
MHI	Median Household Income
MWC	Mutual Water Company

NWIS	United States Geological Survey National Water Information System
PLSS	Public Land Survey System
RD	Reclamation District
SB	Senate Bill
SCEHD	Sutter County Environmental Health Division
SDAC	Severely Disadvantaged Community
SGMA	Sustainable Groundwater Management Act
SNMP	Salt and Nutrient Management Plan
SWP	State Water Project
SWRCB	State Water Resources Control Board
SWRP	Storm Water Resource Plan
USBR	United States Bureau of Reclamation
USGS	United States Geological Survey
UWMP	Urban Water Management Plan
WD	Water District
WDL	Water Data Library

4. OUTREACH AND COMMUNICATION

This chapter includes information pursuant to Article 5. Plan Contents, Subarticle 1. Administrative Information, §354.10 (Notice and Communication), as required by the Groundwater Sustainability Plan (GSP) Emergency Regulations.

The outreach strategies and communication methods presented in this chapter were developed to support the preparation and implementation of a well-informed GSP through effective communication with stakeholders during the GSP development. The desired outcome was, and continues to be, to consider the interests of all beneficial uses and users of groundwater in addition to the diverse social, cultural, and economic elements of the population within the Sutter Subbasin. This includes stakeholder input and coordination with adjacent subbasins.

4.1 Description of Beneficial Uses and Users in Plan Area

Pursuant to Section 10723.2 of the California Water Code, each Groundwater Sustainability Agency (GSA) must consider the interests of all beneficial uses and users of groundwater within the Subbasin, as well as those responsible for implementing GSPs. These interests include the following:

- Agricultural users (including farmers, ranchers, and dairy professionals)
- Domestic well owners
- Municipal well operators
- Public water systems
- Local land use planning agencies
- Environmental users of groundwater
- The federal government (not limited to the military and managers of federal lands)
- California Native American tribes
- Disadvantaged communities
- Adjacent subbasins

A list of beneficial users identified is included in **Table 4-1**.

Table 4-1. Beneficial Users

Category of Interest	Stakeholder Group/ Organization
Agricultural Users	• Holders of overlying groundwater rights • Small farms throughout the County • County Farm Bureau • County Agricultural Commission • Agricultural district representatives
Domestic Well Owners	• Domestic wells overlying the Subbasin; most well owners are <i>de minimis users</i> as defined by SGMA.
Municipal Well Operators and Public Water Systems	• City of Live Oak • City of Yuba City • Sutter Community Services District • East Nicolas Mutual Water Company • Golden State Water Company
Local Land Use Planning Agencies	• Sutter County • City of Live Oak • City of Yuba City • Adjacent GSAs with land use planning authority
Environmental Users of Groundwater	• Sutter National Wildlife Refuge • American Rivers • The Audubon Society • The Nature Conservancy • South Yuba River Citizens League
Surface Water Users	• City of Yuba City • Butte Slough Irrigation Company • Garden Highway Mutual Water Company • Pelger Mutual Water Company • Meridian Farms Water Company • Tisdale Irrigation District • Tudor Mutual Water Company • Sutter Bypass Butte Slough Water Association • Sutter Extension Water District • Butte Water District • Feather Water District • Sutter Mutual Water Company • Individual water rights holders

Category of Interest	Stakeholder Group/ Organization
	• Sutter National Wildlife Refuge • Butte Sink Wildlife Management Area
Federal Government Agencies	• United States Department of Agriculture Farm Services Agency • United States Fish and Wildlife Service
California Native American Tribes	• Estom Yumeka Maidu Tribe of the Enterprise Rancheria • Mooretown Rancheria of Maidu Indians • Shingle Springs Band of Miwok Indians • Pakan'yani Maidu of Strawberry Valley Rancheria • United Auburn Indian Community of the Auburn Rancheria • Yocha Dehe Wintun Nation
Disadvantaged Communities	• Yuba City • Meridian • Robbins • Live Oak
Adjacent Subbasins	• Butte • Colusa • North American • North Yuba • South Yuba • Wyandotte Creek • Yolo
Additional Stakeholders	State and Local Agencies • California Department of Water Resources • State Water Resources Control Board • California Department of Fish and Wildlife • California Department of Parks and Recreation • California Wildlife Conservation Board • California Natural Resources Agency Business Interests • Workers and laborers in Sutter County • Colusa Produce Corporation • California Rice Commission

Category of Interest	Stakeholder Group/ Organization
	Local Communities and Community Organizations • Shady Creek Outdoor Education Foundation • Community Alliance with Family Farmers • Local Government Commission Environmental Interests and Organizations • American Rivers • Union of Concerned Scientists • Audubon California • Sierra Club • Sutter Buttes Regional Land Trust • The Nature Conservancy • Sacramento Valley Quality Coalition • Sutter Duck Club • Natomas Basin Conservancy Habitat Conservation Plan • Sacramento Audubon Society • California Fly Fishers Unlimited • Ducks Unlimited • California Rice Commission

4.1.1 Human Right to Water

Assembly Bill (AB) 685 was signed on September 25, 2012 and made California the first state to legislatively recognize the human right to water. California Water Code (CWC) Section 106.3 recognizes that “every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes.” This right extends to all Californians, including disadvantaged, rural, and urban communities. Senate Bill (SB) 200 was signed on July 24, 2019 and established an ongoing fund to help communities access safe drinking water. In accordance with SB 200, the State Water Board developed the Aquifer Risk Map to help prioritize areas where domestic wells and state small water systems may be accessing groundwater that does not meet primary drinking water standards.

The Aquifer Risk Map includes a water quality risk layer to assign percentile scores per square mile or section, which are categorized as high, medium, or low risk and represented by red, yellow, or blue shading. An additional layer displays domestic well density using graduated circles, with symbol size corresponding to the number of wells within each section. Results of the Aquifer Risk Map for the Sutter Subbasin indicate high water quality combined risk in the eastern portion of the Subbasin, particularly in areas in and near Yuba City. Several areas along the eastern boundary have relatively high domestic well densities, indicating areas where domestic wells and State small water systems may be accessing groundwater that does not meet safe drinking water standards based on the 20-year average concentration and highest recent result from nearby wells (SWRCB, 2026) (**Figure 4-1**).



4.1.2 Underrepresented Communities

Underrepresented Communities consist of Disadvantaged Communities (DACs), Severely Disadvantaged Communities (SDACs), Economically Distressed Areas (EDAs), Environmentally Disadvantaged Communities (EnvDACs), and/or Fringe Communities in the Sutter Subbasin. DACs, SDACs, and EDAs in the Sutter Subbasin are defined and mapped using American Community Survey data from the U.S. Census (consistent with the DAC and EDA mapping tools). EnvDACs and Fringe Communities in the Sutter Subbasin are defined based on CalEnviroScreen 5.0 Pollution Burden and Population.

4.1.2.1 Disadvantaged and Severely Disadvantaged Communities

DACs are defined by the California Department of Water Resources (DWR) as areas with a median annual household income (MHI) less than 80% of the Statewide annual MHI. SDACs are defined as areas with a MHI less than 60% of the Statewide annual MHI (DWR, 2026). The most recent dataset uses the U.S. Census Bureau's American Community Survey (ACS) 2019-2023 dataset. According to the ACS 2019-2023 dataset, the MHI in California was \$96,334. Communities in the Sutter Subbasin with MHIs of \$77,067 (80% of \$96,334) or less are therefore considered DACs, and communities with an MHI of \$57,800 (60% of \$96,334) or less are therefore considered SDACs.

Communities defined as DACs and SDACs make up the entirety of Sutter Subbasin and include the communities of Yuba City, Meridian, Robbins, and Live Oak (**Figure 4-2**). Several census tracts within Yuba City are also considered SDACs. DACs and SDACs in the Sutter Subbasin rely on both surface water and groundwater for their water supply. The type(s) of sources used depends on whether the community is on a potable water systems and the types of source waters for those systems. DACs and SDACs not on community or public water systems rely on groundwater from individual domestic wells for their water supply.

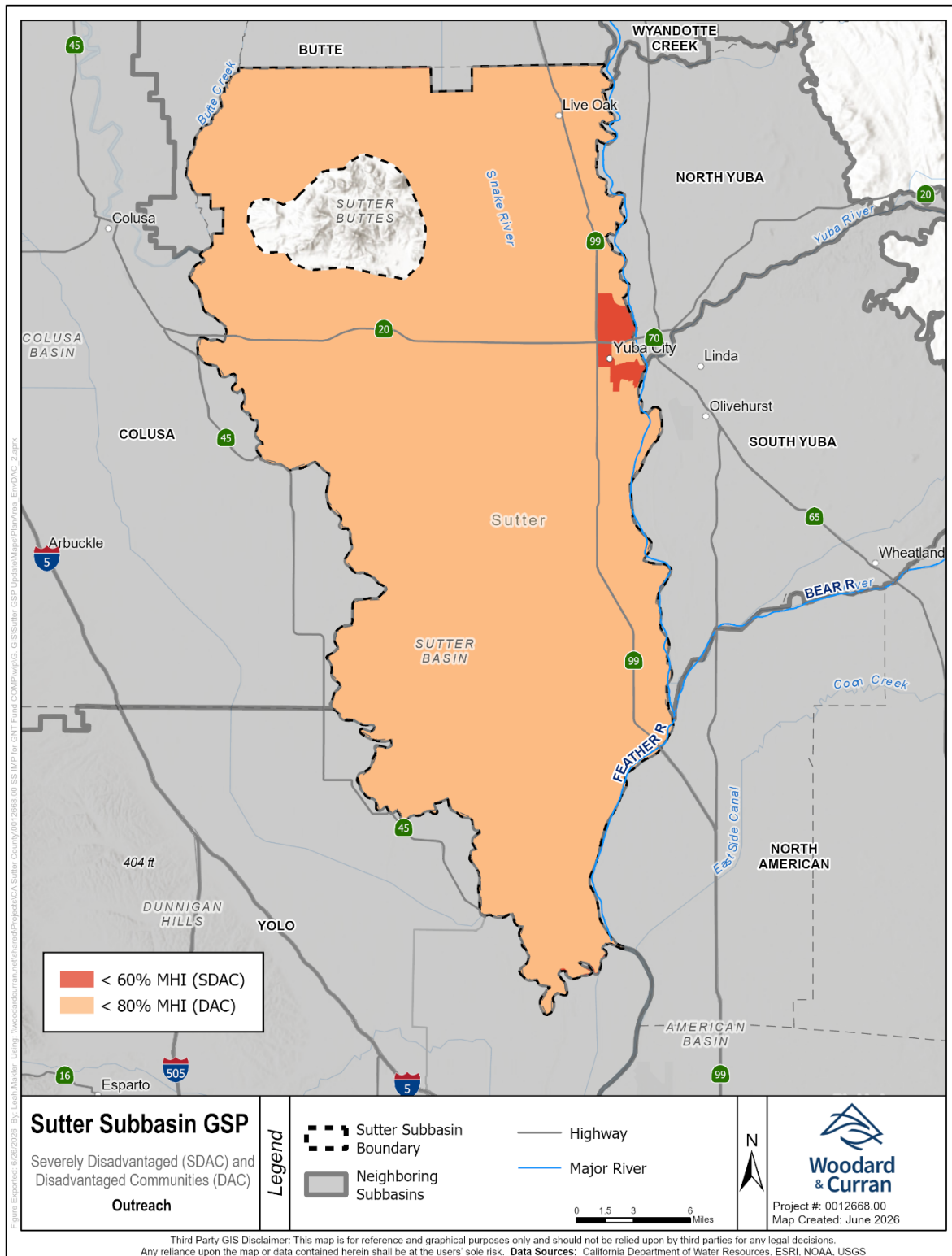


Figure 4-2. Disadvantaged Communities and Severely Disadvantaged Communities, Sutter Subbasin

4.1.2.2 Environmentally Disadvantaged Communities

As defined in DWR's Sustainable Groundwater Management Program, an environmentally disadvantaged community (EnvDAC) is a census tract that scores in the top 25% of CalEnviroScreen scores, or a census tract that scores in the highest 5% of Pollution Burden scores but does not have an overall CalEnviroScreen score because of unreliable socioeconomic or health data.

Figure 4-3 shows the results from the EnvDAC analysis performed for the Sutter Subbasin using provisional data from CalEnviroScreen 5.0 (OEHHA, 2026). **Table 4-2** includes the proportion of EnvDACs in the Subbasin based on geographic area.

Table 4-2. EnvDACs as a Percentage of the Sutter Subbasin Geographic Area

Area	Geographic Area (Square Miles)	% Based on Geographic Area
EnvDAC	6.2	1.4%
<i>Sutter Subbasin</i>	<i>446.6</i>	<i>100%</i>

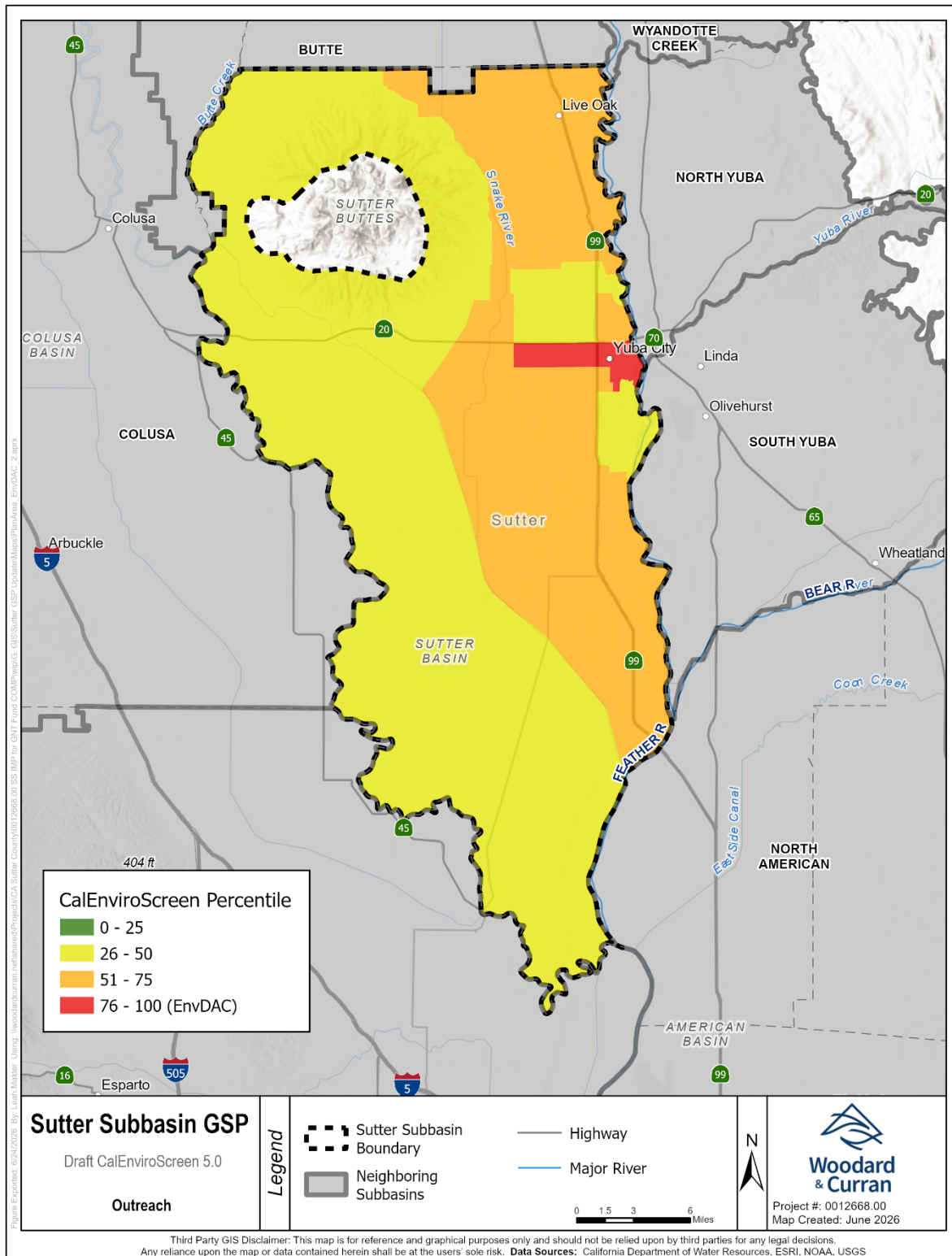


Figure 4-3. Environmentally Disadvantaged Communities

4.1.2.3 California Native American Tribes

The GSAs contacted the Native American Heritage Commission (NAHC) to obtain a tribal contact list. The NAHC identified four tribes with potential cultural and traditional affiliation to the Sutter Subbasin (as noted in **Table 4-1**). Tribal representatives were invited to participate in the GSP development process. However, there were no tribal interests or water issues specific to Native American Tribal Communities identified through this outreach process.

There are no tribal lands within the Sutter Subbasin; however, the western portion of the Subbasin is a culturally affiliated area for the Nisenan (Southern Maidu) Ancestral Territory.

4.2 Plan Development

The Sutter Subbasin Groundwater Management Coordination Committee (SSGMCC) and the GSA Boards worked with Contributing Parties and Stakeholders during the GSP development (**Figure 4-4**). These groups are defined in more detail in the sections below.



Figure 4-4. Levels of Engagement

4.2.1 Decision Making Process / Governance

4.2.1.1 GSA Boards

The GSA Boards are the designated decision-making entities for the GSP development and implementation process. Only applicable Board meetings affecting the Subbasin in its entirety are noticed on the Sutter Subbasin website, including for the adoption of the final GSP; individual board meetings are noticed on their individual websites. The respective GSA's Boards assign their SSGMCC members to work on the day-to-day development and implementation of the GSP and to conduct stakeholder communication and engagement. The GSA Boards are responsible for:

- Ensuring appropriate communication and engagement is executed per the approved Communication and Engagement (C&E) Plan on behalf of their GSAs (included herein as **Appendix 4-A**)
- Approving interim milestones to meet the mandated schedule for sustainability as set forth in the final GSP
- Being informed about the GSP development by their designated SSGMCC members
- Providing their respective SSGMCC members with their insights, perspectives, and opinions
- Ultimately adopting the final GSP prior to submittal to DWR by January 31, 2022 and any subsequent amendments to the GSP by deadlines established by DWR

4.2.1.2 Sutter Subbasin Groundwater Management Coordination Committee

The SSGMCC acts as the primary body for providing input relative to GSP development, briefing the GSAs Boards, and assisting with stakeholder engagement throughout the Subbasin. The SSGMCC hosted public workshops periodically throughout the GSP development process, in addition to holding open regular meetings noticed according to Brown Act requirements. Both the public workshops and the SSGMCC meetings were noticed a minimum of 72 hours in advance, and agendas, meeting materials, and minutes were made available on the Sutter Subbasin website (<http://suttersubbasin.org/>). SSGMCC members include:

- Guadalupe Rivera, Sutter County GSA
- Donnie Stinnett, Butte Water District GSA
- Jeffrey Rabo, City of Live Oak GSA
- Lynn Phillips, Sutter Extension Water District GSA
- Laura Jones, Sutter Community Services District GSA
- Christian Elder, City of Yuba City GSA
- Andy Duffey, Reclamation District No. 70 GSA & Reclamation District No. 1660 GSA
- Roger Cornwell, Reclamation District No. 1500 GSA

The SSGMCC was originally formed to support development of the Subbasin's Alternative Plan. With the preparation of the GSP, the SSGMCC prepared a memorandum of understanding (MOU), adopted on April 27, 2021, to guide development and implementation of the GSP.

The SSGMCC is comprised of voting representatives from each of the nine GSAs within the Subbasin along with non-voting representatives from non-GSA entities contributing to the development of the GSP. The SSGMCC generally follows a consensus-based decision-making structure where each representative receives an equal voice; however, voting members provide the final decision-making structure and generally follows a simple majority vote process. The SSGMCC held publicly-noticed regular coordination

meetings to discuss GSP technical development and public outreach and engagement activities in order to prepare a GSP for ultimate adoption by the respective GSA Boards. Meeting notices and materials are posted on the Subbasin's website (<http://suttersubbasin.org>).

The SSGMCC agreed to a set of principles for engagement and operation intended to provide a framework of commitments among the members to work collaboratively, efficiently, and with the necessary dedication to promote the development, adoption, and submission of a SGMA compliant GSP by the original statutory deadline of January 31, 2022.

The SSGMCC is responsible for:

- Sharing feedback from their respective GSA's related to GSP development
- Making recommendations to their respective GSA Boards regarding the consideration and adoption of the GSP
- Providing or ensuring the provision of timely responses and supporting information related to GSP development to the consultants preparing the GSP upon request in order to meet the state-mandated deadline
- Performing and supporting appropriate and coordinated outreach to stakeholders within the Subbasin
- Ultimately delivering an acceptable GSP to all GSA Boards for adoption

4.2.1.3 Contributing Members

Contributing Members supported the SSGMCC and GSP development and implementation. These members include:

- Andy Duffey, Meridian Farms Water Company, Butte Slough Irrigation Company, and Tisdale Irrigation and Drainage Company
- Jon Munger, Garden Highway Mutual Water Company & Sutter Bypass Butte Slough Water Users Association
- Todd Duncan, Tudor Mutual Water Company
- Dan Duncan, Feather Water District
- Paul Schubert, Golden State Water Company

4.2.1.4 Stakeholders

Stakeholders, which include interested parties and members of the public, were invited to review and provide input at important stages throughout the GSP development process. A full list of stakeholders and interested parties is attached as **Appendix 4-B** and includes both environmental, regulatory, and local stakeholders.

4.2.2 Comments Received Regarding the Plan

During the initial GSP development in 2021, individual public draft chapters were posted to the Subbasin's website to allow for public review and comment (**Table 4-3**). In addition, the full Public Draft Sutter Subbasin GSP was released on October 1, 2021 for a review and comment period through November 12, 2021. With each release, notices of document availability were provided via an E-blast and an announcement was placed on the Subbasin website. Additionally, DWR held a 75-day public comment period on the Sutter Subbasin GSP from February 14, 2022 through April 30, 2022.

In total, the Sutter Subbasin GSAs received 165 comments, some of which may be duplicative between the Sutter Subbasin GSAs comment period and DWR public comment period. All comments received have been compiled in a comment matrix. This summary table, as well as copies of the original comments, are attached as **Appendix 4-C**. The Sutter Subbasin GSAs have made note of all comments received and will incorporate public review period comments and comments received during DWR's 75-day public comment period into this GSP amendment, as appropriate.

Table 4-3. Public Review and Comment Periods

Public Draft	Public Review and Comment Period
Plan Area Chapter	April 16, 2021 to May 17, 2021
Governance Chapter	April 16, 2021 to May 17, 2021
Hydrogeologic Conceptual Model Section	July 9, 2021 to August 9, 2021
Groundwater Conditions Section	August 2, 2021 to August 27, 2021
Public Draft GSP	October 1, 2021 to November 12, 2021
DWR Public Comment Period	February 14, 2022 to April 30, 2022
GSP Amendment Public Draft	<<Date>> to <<Date>>

4.3 Outreach

Public outreach includes both stakeholder coordination and general public involvement. The goal of the public engagement effort is to understand the needs of stakeholders and groundwater users in the Subbasin, increase awareness and understanding of SGMA and the purpose and goals of the GSP, solicit feedback on draft sections of the GSP, and promote active involvement in the process to achieve and maintain sustainability. Many outreach types and efforts were utilized to support this goal, as described in the sections below.

4.3.1 Noticing

Pursuant to GSP Emergency Regulations §357.2(a), the Sutter Subbasin GSAs submitted notice to DWR stating their intent to develop a GSP on May 29, 2020 (included herein as **Appendix 4-D**). Upon completion of the GSP, notice was provided

to the counties and cities within the Subbasin regarding Plan adoption. This notice was distributed on October 5, 2021, and is included herein as **Appendix 4-E**. As part of the GSP amendment process, a notice of intent to adopt an amended GSP was distributed on <<date>> and is also included in **Appendix 4-E**.

Following the initial notice to DWR in 2020, outreach related to major project junctions and milestones was conducted. Notices for public workshops were sent at least 30 days in advance via email, with reminders sent approximately 72 hours in advance, and were also promoted via social media posts, flyers, and informational materials in local water bill inserts as summarized in **Table 4-4**.

Table 4-4. Communication Log

Date	Description of Communication
January 24, 2020	Update to Justine Dutra, Yuba-Sutter Farm Bureau
February 2, 2020	Presentation to Natural Resource & Land Use Committee
October 1, 2020	SSGMCC meeting
October 15, 2020	SSGMCC meeting
October 7, 2020	Update at Yuba-Sutter Farm Bureau Meeting
October 7, 2020	Follow up with Lisa Herbert, Ag Commissioner, following Farm Bureau meeting
October 9, 2020	Stakeholder List E-blast 1
October 19, 2020	Stakeholder List E-blast 2
October 20, 2020	Update at Tisdale Irrigation and Drainage Company Board Meeting by Andy Duffey
October 27, 2020	Update at Butte Slough Irrigation Board Meeting by Andy Duffey
October 29, 2020	SSGMCC meeting
November 4, 2020	Update at Reclamation District 70 Board Meeting by Andy Duffey
November 10, 2020	Update at Reclamation District 1660 and Meridian Farms Water Company Board Meetings by Andy Duffey
November 12, 2020	SSGMCC meeting
November 13, 2020	Public Workshop #1 E-blast
November 18, 2020	Sutter County Facebook Post for Public Workshop #1
November 18, 2020	Agricultural Commissioner shared Facebook Post for Public Workshop #1

Date	Description of Communication
November 30, 2020	Update to Justine Dutra to share at Yuba-Sutter Farm Bureau meeting
December 2, 2020	Update at Reclamation District 70 Board Meeting by Andy Duffey
December 3, 2020	Public Workshop #1 E-blast – Tribes
December 8, 2020	Update at Reclamation District 1660 and Meridian Farms Water Company Board Meetings by Andy Duffey
December 10, 2020	SSGMCC meeting
December 10, 2020	Public Workshop #1 E-blast – Reminder
December 11, 2020	City of Yuba City Facebook Post
December 11, 2020	City of Live Oak Facebook Post and website banner with link to GSP website
January 6, 2021	Update at Reclamation District 70 Board Meeting by Andy Duffey
January 7, 2021	SSGMCC meeting
January 12, 2021	Update at Reclamation District 1660 and Meridian Farms Water Company Board Meetings by Andy Duffey
January 12, 2021	Public Workshop #2 E-blast
January 15, 2021	Public Workshop #2 E-blast – Follow up to bounces
January 19, 2021	Update at Tisdale Irrigation and Drainage Company Board Meeting by Andy Duffey
January 21, 2021	Bill Insert Mailing: Sutter County – Community of Robbins
January 24, 2021	Update to Justine Dutra, Yuba-Sutter Farm Bureau meeting
January 26, 2021	Update at Butte Slough Irrigation Board Meeting by Andy Duffey
February 3, 2021	Update at Reclamation District 70 Board Meeting by Andy Duffey
February 4, 2021	SSGMCC meeting
February 4, 2021	Public Workshop #2 E-blast – Reminder
February 9, 2021	Update at Reclamation District 1660 and Meridian Farms Water Company Board Meetings by Andy Duffey

Date	Description of Communication
March 3, 2021	Update at Reclamation District 70 Board Meeting by Andy Duffey
March 3, 2021	Live Oak City Council Presentation
March 4, 2021	SSGMCC meeting
March 9, 2021	Update at Reclamation District 1660 and Meridian Farms Water Company Board Meetings by Andy Duffey
April 1, 2021	SSGMCC meeting
April 7, 2021	Update at Reclamation District 70 Board Meeting by Andy Duffey
April 13, 2021	Update at Reclamation District 1660 and Meridian Farms Water Company Board Meetings by Andy Duffey
April 13, 2021	Public Workshop #3 E-blast
April 15, 2021	Bill Insert Mailing: Montna Farms to Sutter Bypass Slough Association Members
April 16, 2021	Notice of Plan Area and Governance Chapters for Public Review
April 20, 2021	Update at Tisdale Irrigation and Drainage Company Board Meeting by Andy Duffey
April 20, 2021	Public Workshop #3 E-blast – Tribes and Adjoining Basins
April 27, 2021	Update at Butte Slough Irrigation Board Meeting by Andy Duffey
April 29, 2021	SSGMCC meeting
May 5, 2021	Update at Reclamation District 70 Board Meeting by Andy Duffey
May 11, 2021	Update at Reclamation District 1660 and Meridian Farms Water Company Board Meetings by Andy Duffey
May 17, 2021	Bill Insert Mailing: City of Live Oak GSA
May 27, 2021	SSGMCC meeting
June 2, 2021	Update at Reclamation District 70 Board Meeting by Andy Duffey
June 7, 2021	Public Workshop #3 E-blast – Reminder

Date	Description of Communication
June 8, 2021	Update at Reclamation District 1660 and Meridian Farms Water Company Board Meetings by Andy Duffey
June 10, 2021	SSGMCC meeting
June 11, 2021	Invitation to Submit Projects and Management Actions
June 24, 2021	SSGMCC meeting
July 7, 2021	Update at Reclamation District 70 Board Meeting by Andy Duffey
July 8, 2021	SSGMCC meeting
July 8, 2021	Notice of Hydrogeologic Conceptual Model Section for Public Review
July 9, 2021	Public Workshop #4 E-blast
July 13, 2021	Update at Reclamation District 1660 and Meridian Farms Water Company Board Meetings by Andy Duffey
July 20, 2021	Update at Tisdale Irrigation and Drainage Company Board Meeting by Andy Duffey
July 21, 2021	Bill Insert Website Posting: Sutter Extension Water District
July 22, 2021	SSGMCC meeting
July 27, 2021	Update at Butte Slough Irrigation Board Meeting by Andy Duffey
August 2, 2021	Notice of Groundwater Conditions Section for Public Review
August 4, 2021	Update at Reclamation District 70 Board Meeting by Andy Duffey
August 5, 2021	SSGMCC meeting
August 6, 2021	Public Workshop #4 E-blast – Reminder
August 10, 2021	Update at Reclamation District 1660 and Meridian Farms Water Company Board Meetings by Andy Duffey
August 10, 2021	Public Workshop #4 Yuba City Facebook Post
August 19, 2021	SSGMCC meeting
September 2, 2021	SSGMCC meeting
September 16, 2021	SSGMCC meeting
September 21, 2021	Public Workshop #5 E-blast

Date	Description of Communication
October 1, 2021	Notice of Public Draft GSP for Public Comment
October 1, 2021	Press Release Notice of Public Draft to Media Outlets
October 4, 2021	Public Workshop #5 Yuba City Facebook Post
October 6, 2021	The Appeal Democrat – Groundwater Sustainability Plan Available for Public Comment
October 12, 2021	Public Workshop #5 E-blast – Reminder
October 14, 2021	SSGMCC meeting
October 28, 2021	SSGMCC meeting
November 1, 2021	Reminder Notice of Public Draft GSP for Public Comment
November 16, 2021	SSGMCC meeting
December 16, 2021	SSGMCC meeting
January 6, 2022	SSGMCC meeting
January 20, 2022	SSGMCC meeting
March 28, 2023	SSGMCC meeting
May 30, 2023	SSGMCC meeting
June 23, 2023	SSGMCC meeting
November 2, 2023	SSGMCC meeting
March 20, 2024	SSGMCC meeting
September 12, 2024	SSGMCC meeting
February 20, 2025	SSGMCC meeting
June 3, 2025	SSGMCC meeting
December 15, 2025	SSGMCC meeting
April 16, 2026	SSGMCC meeting

4.3.2 Public Engagement

Public outreach and engagement is an integral part of developing and implementing the GSP and consists primarily of open meetings of the SSGMCC, information and updates to the project website, and public workshops held at important stages of the groundwater sustainability planning process to present key aspects of the GSP and to seek feedback on the proposed draft GSP chapters.

4.3.2.1 Public Workshops

Public workshops give residents and stakeholders of the Sutter Subbasin and adjoining subbasins the opportunity to learn about the condition and future of the Subbasin, participate in the GSP development process, understand what needs to be done to protect the quality and availability of groundwater, and learn why maintaining a sustainable groundwater subbasin matters to the economy, environment, and quality of life of all communities in the Subbasin. The workshops also allow decision-makers to better consider the variety of beneficial uses and users of groundwater, as well as the diverse social, cultural, and economic elements of the population within the Sutter Subbasin.

Public workshops were held approximately quarterly to update interested residents and stakeholders about the 2022 GSP development process. Due to the ongoing COVID-19 pandemic, and as authorized by the Governor's Executive Order N-29-20 and Assembly Bill 361 allowing local legislative bodies to hold meetings via teleconferencing while still meeting state transparency requirements, all meetings were held virtually. Public workshop noticing was distributed in English, Spanish, and Punjabi, and was distributed via email blasts, postings on the Sutter Subbasin website and GSA websites, and through public platform postings (Facebook and Twitter). The workshops included presentations on data, information, and analyses completed for the planning process, as well as activities to solicit input and feedback from participants on plan direction; the content of these public workshops is summarized in **Table 4-5**. All interested residents, businesses, and public agencies were invited to join and provide input at the public workshops. All public workshops were recorded, and the workshop recordings were posted on the Sutter Subbasin website with closed captions in English, Spanish, and Punjabi.

Table 4-5. Summary of Public Workshop Content

Meeting Date	Workshop Content
Workshop 1: December 14, 2020	• Overview of SGMA • Water management planning in the Sutter Subbasin • Development of Sutter Subbasin GSP • Basin Conditions
Workshop 2: February 8, 2021	• Review of Basin Conditions • Hydrogeologic Conceptual Model • Introduction to Groundwater Flow Modeling • Significant and Unreasonable Undesirable Results • Preliminary List of Projects and Management Actions
Workshop 3: June 15, 2021	• Hydrogeologic Conceptual Model Update • Basin Conditions Update • Mapping Groundwater Dependent Ecosystems and Interconnected Surface Water • Water Budgets • Projects and Management Actions
Workshop 4: August 11, 2021	• Sustainable Management Criteria • Sustainable Yield Estimate • Monitoring Networks • GSP Implementation
Workshop 5: October 19, 2021	• Public Draft GSP

4.3.2.2 Other Public Engagement Opportunities

Two online surveys were made available through the project website and used to solicit stakeholder feedback and input. The Stakeholder Engagement Survey was posted on the project website in advance of Workshop #1 and was open for four months. The Project and Management Action Survey was posted on the project website in advance of Workshop #2 on February 8, 2021 and was open and available for responses through Workshop #3 on June 15, 2021. One Project and Management Action Submittal Form was submitted to the GSAs for consideration. Responses to the surveys were compiled and are attached herein as **Appendix 4-F**.

4.3.3 Outreach to Diverse Social, Cultural, and Economic Areas of the Population

As not all Sutter Subbasin residents have access to email and the internet, outreach methods included both online access and traditional means of hard copy information dissemination (e.g., utility bill inserts). Identified underrepresented communities were targeted with mailers. Copies of mailers and additional documentation distributed as part of the public review process are included in **Appendix 4-G**. Sutter County also has a substantial population that only speaks Spanish or Punjabi; therefore, supporting materials (online and hard copy) were prepared in both languages in addition to English. As noted above, workshops were recorded and dubbed via closed captioning in English, Spanish, and Punjabi. Additional translation services were offered to GSAs, including direct translation at public workshops.

4.3.4 Methods for Disseminating Information

The Sutter Subbasin GSAs use a variety of communications and engagement tools to keep the public informed and engaged in the GSP planning process.

4.3.4.1 Website

The GSP website (<http://suttersubbasin.org/>) houses information about SGMA, the GSP process, the GSA Boards, SSGMCC, public meetings, project newsletters, project reports and studies, and groundwater data and information. The website provides options for contacting the planning team via email or in writing. The website also provides information in Spanish (<http://suttersubbasin.org/espanol>) and Punjabi (<http://suttersubbasin.org/punjabi>).

The website includes landing pages with a general overview of SGMA, information on outreach, scheduled meetings, SGMA resources (including links to completed deliverables and workshop materials), and the GSAs' contact information. Each page of the website includes an opportunity to sign-up for project emails.

4.3.4.2 Interested Parties List

The SSGMCC maintains a list of interested persons and routinely distributed meeting notices and relevant information to the stakeholders who requested to be included. E-mail notices, the primary method of communication, were sent to announce the

availability of new materials on the website, project milestones, and workshop dates. Announcements were distributed in English, Spanish, and Punjabi as appropriate.

4.3.4.3 Informational Materials

The SSGMCC has developed a range of materials to successfully educate interested parties and circulate consistent, accurate information. These materials, made available on the website and included in **Appendix 4-G**, included:

- **Annual Reports and Annual Report Fact Sheets** are posted to the website and fact sheets for each Annual Report are developed summarizing the condition of the Sutter Subbasin.
- **Fact Sheets and Flyers** were used to describe the GSP planning process, including, “What is SGMA” at the beginning of the GSP planning process.
- **Links** to other publicly available materials about SGMA and the GSP process were included on the Subbasin website.
- **Press Releases** were used as a method of correspondence in local newspapers to notice for the release of the 2022 Public Draft GSP for public review and comment. Media contacts contacted as part of the GSP public review process included:
 - ABC 10
 - Appeal-Democrat
 - CBS
 - FOX 40
 - Gridley Herald
 - KUBA Radio
 - Sutter County News Center
 - Territorial Dispatch Online Newspaper

Many of these documents were provided in multiple languages, including Spanish and Punjabi.

4.3.4.4 Mailings, Utility Bill Notifications and Public Media noticing

Bill inserts and flyers were used to notify the public about the 2022 GSP planning process in addition to upcoming workshops to encourage engagement. These bill inserts were distributed in utility bill notifications. Notices were also included in feeds to media platforms such as Twitter and Facebook.

4.3.4.5 Public Workshops

Information was disseminated at public workshops, as described in **Section 4.3.2.1**.

4.4 References

California Department of Water Resources (DWR). 2026. Climate Bond (Proposition 4) Disadvantaged and Severely Disadvantaged Communities Mapping Tool. [https://experience.arcgis.com/experience/aa723fdf521a44c9a428f1a46cd38a09/page/\(S\)DAC-Communities-Map](https://experience.arcgis.com/experience/aa723fdf521a44c9a428f1a46cd38a09/page/(S)DAC-Communities-Map). Accessed: June 15, 2026.

California Office of Environmental Health Hazard Assessment (OEHHA). 2026. Draft CalEnviroscreen 5.0. <https://data.ca.gov/dataset/draft-calenviroscreen-5-0>. Accessed June 24, 2026.

California State Water Resources Control Board (SWRCB). 2026. 2026 Aquifer Risk Map. <https://gispublic.waterboards.ca.gov/portal/apps/experiencebuilder/experience/?id=18c7d253f0a44fd2a5c7bcfb42cc158d>. Accessed: June 15, 2026.

Appendix 4-A
Communication and Engagement Plan

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Communication and Engagement Plan

for the Sutter Subbasin Groundwater Sustainability Plan



Sutter Subbasin

September 2026



Prepared for Sutter Subbasin Groundwater Management Coordination Committee

Sutter County GSA
Butte Water District GSA
City of Live Oak GSA
Sutter Extension Water District GSA
Sutter Community Services District GSA
City of Yuba City GSA
Reclamation District No. 70 GSA
Reclamation District No. 1660 GSA
Reclamation District No. 1500 GSA

Sutter Subbasin

Communication and Engagement Plan

Last Updated September 1, 2026

How to use this Plan:

This Communication and Engagement Plan provides a high-level overview of ongoing and long-term outreach and engagement strategies, tools, and activities supporting Groundwater Sustainability Plan (GSP) implementation for the Sutter Subbasin. The Plan is intended to guide coordination, public engagement, annual reporting, Periodic Evaluations, and future GSP amendments in accordance with the Sustainable Groundwater Management Act (SGMA).

This document is considered a living document and may be refined and updated over time to reflect evolving outreach needs, regulatory requirements, and stakeholder interests throughout GSP implementation.

Get Involved:

Additional information about the Sutter Subbasin GSP can be found at suttersubbasin.org. Interested parties are encouraged to visit the website to find opportunities to participate, including meeting notices. Representatives from the Sutter Subbasin Groundwater Management Committee can be found in Appendix A. For general inquiries please contact info@suttersubbasin.org.

Prepared by:

Woodard & Curran



Woodard & Curran

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INTRODUCTION

Sustainable Groundwater Management Act

In 2014, California enacted the Sustainable Groundwater Management Act (SGMA) to provide a framework for long-term sustainable groundwater management across California. SGMA requires that basins designated as high- or medium-priority be managed under a Groundwater Sustainability Plan (GSP). Additionally, under SGMA, the California Department of Water Resources (DWR) identified 21 “critically overdrafted” basins and subbasins. The Sutter Subbasin (Basin No. 5-021.62 in the DWR Bulletin 118) is part of the Sacramento Valley Groundwater Basin (DWR, 2016). The Sutter Subbasin is designated as a medium-priority subbasin by DWR and is not considered to be critically overdrafted.

As required by SGMA, GSPs must explain how the groundwater basin will reach and be kept in balance to achieve long-term sustainability. Once submitted to the State, DWR evaluates each GSP as to how well it will achieve basin sustainability by the required deadline (2042 for GSPs submitted to the State in 2022 – see Figure 1 below). The primary goal of the GSP is to develop sustainable groundwater management practices for managing the groundwater basin or subbasin without causing undesirable results.

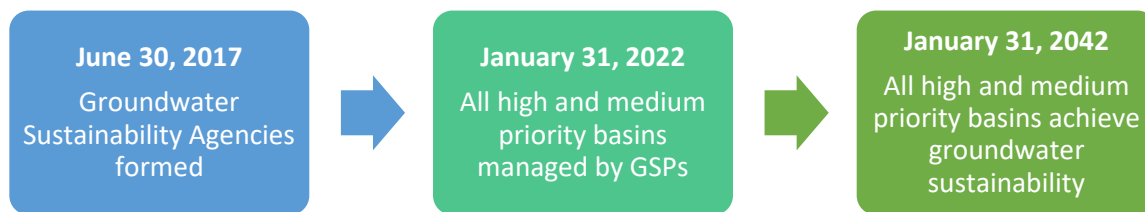


Figure 1: SGMA Milestones

In accordance with SGMA, nine groundwater sustainability agencies or GSAs were formed with the agreement to develop one GSP for Sutter Subbasin. Sutter Subbasin GSAs include:

- Sutter County GSA
- Butte Water District GSA
- City of Live Oak GSA
- Sutter Extension Water District GSA
- Sutter Community Services District GSA
- City of Yuba City GSA
- Reclamation District No. 70 GSA
- Reclamation District No. 1660 GSA
- Reclamation District No. 1500 GSA

As allowed under SGMA, the Sutter Subbasin GSAs collaboratively submitted an “Alternative Plan” to a GSP in December 2016. Although the Alternative Plan was not approved by DWR, suggestions were provided that were incorporated into the January 2022 GSP. In October 2023, the Sutter Subbasin GSP was designated as “Approved” by DWR with proposed recommended

Sutter Subbasin

corrective actions that DWR believes will enhance the GSP and facilitate future evaluation by DWR. The first Periodic Evaluation of the Sutter Subbasin GSP is due to DWR no later than January 28, 2027, which will be accompanied by an Amended GSP to address and incorporate DWR's recommended corrective actions for the Sutter Subbasin. Links to additional information on SGMA can be found in Appendix B.

Sutter Subbasin

The Sutter Subbasin is generally described as being in the "central portion of the Sacramento Valley Groundwater Basin" in DWR Bulletin 118. It is bounded on the north by the Butte-Sutter County line (except for the Sutter County portion of Biggs-West Gridley Water District), on the west by the Sacramento River, on the south by the confluence of the Sacramento River and the Feather River, and on the east by the Feather River and the eastern boundary with the Sutter-Yuba County line. The Subbasin covers an area of approximately 445 square miles of the Sacramento Valley floor. Figure 2 shows a map of the Sutter Subbasin. Groundwater in the Sutter Subbasin is used conjunctively with surface water for municipal, industrial, irrigation, domestic, stock watering, frost protection, and other purposes.

Data and Data Evaluation

The Sutter Subbasin GSP was developed and will be updated using data, modeling, and evaluations of surface water and groundwater conditions, water uses, and water management options. Public outreach and engagement are an important element of efforts to collect, review, validate, and refine the data and evaluations that form the basis of the GSP and future management actions.

Sutter Subbasin

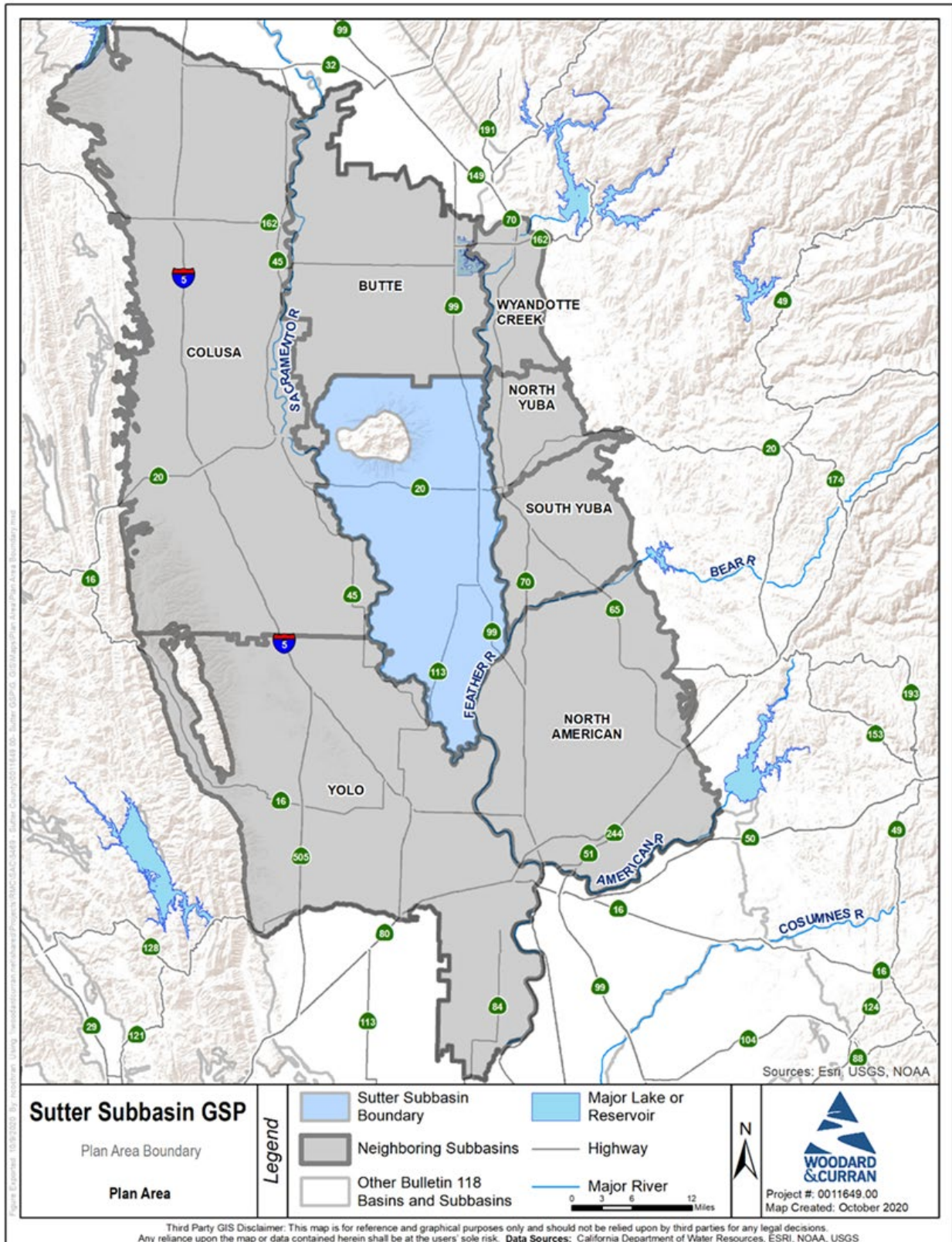


Figure 2: Sutter Subbasin

GOALS AND DESIRED OUTCOMES

This Communication and Engagement Plan supports the implementation of a well-informed and adaptive GSP. Outreach strategies described herein are intended to facilitate clear, transparent, and inclusive communication during GSA activities such as GSP implementation, annual reporting, periodic evaluations, and future GSP amendments.

The desired outcome of the *Sutter Subbasin Communication and Engagement Plan* is to consider the interests of all beneficial uses/users of groundwater in addition to the diverse social, cultural, and economic elements of the population within the Subbasin. This includes stakeholder input and coordination with adjacent subbasins.

The *Sutter Subbasin Communication and Engagement Plan* has been developed to achieve the following goals:

- Conduct an inclusive outreach and education process that best supports GSP implementation and SGMA compliance
- Maintain ongoing communication with stakeholders and the general public regarding groundwater conditions, management actions, and implementation progress
- Increase public understanding of groundwater resources and sustainable groundwater management in the Subbasin
- Build and maintain trust through transparent, timely, and consistent information sharing.
- Provide meaningful opportunities for public input at key decision points

GOVERNANCE

The Sutter Subbasin Groundwater Management Coordination Committee (SSGMCC) and the GSA Boards and City Councils work with Interested Parties and members of the public to support GSP implementation.

Sutter Subbasin Groundwater Management Coordination Committee (SSGMCC)

The SSGMCC was originally formed to support development of the Subbasin's Alternative Plan and continues to serve as the primary forum for coordination among the nine GSAs during GSP implementation (See Figure 4).

The SSGMCC operates under a Memorandum of Understanding (MOU) adopted by the GSAs to guide coordination, decision-making, and implementation of the GSP. The Committee is comprised of voting representatives from each of the nine GSAs within the Subbasin, along with non-voting representatives from non-GSA entities, as applicable.

The SSGMCC meets on a regular basis to coordinate GSP implementation activities. Meetings are publicly noticed in accordance with Brown Act requirements. Agendas, meeting materials, and meeting summaries are posted on the Sutter Subbasin website (www.suttersubbasin.org).



Sutter Subbasin

The SSGMCC generally follows a consensus-based decision-making approach, with voting members providing final decisions through a simple majority vote when consensus cannot be reached.

The SSGMCC is responsible for:

- Coordinating among GSAs on GSP implementation activities
- Supporting preparation and review of Annual Reports
- Guiding outreach and engagement efforts
- Supporting periodic evaluations and GSP amendments
- Making recommendations to the GSA Boards for consideration and action

GSA Boards and City Councils

The individual GSA Boards and City Councils are the designated decision-making bodies for the GSP. The Boards/City Councils receive recommendations from the SSGMCC and are responsible for approving key implementation actions including amendments to the GSP. Applicable Board/City Council meetings are publicly noticed on the respective GSA websites and, when relevant to the entire Subbasin, on the Sutter Subbasin website. The GSA Boards/City Councils are responsible for:

- Ensuring appropriate communication and engagement is executed per the approved Communication and Engagement Plan on behalf of their GSAs
- Approving interim milestones to meet the mandated schedule for sustainability as set forth in the Subbasin GSP
- Being informed about the GSP development by their designated SSGMCC members
- Providing their respective SSGMCC members with their insights, perspectives, and opinions
- Ultimately adopting the final 2022 GSP and GSP Amendment(s) prior to submittal to DWR.

Sutter Subbasin

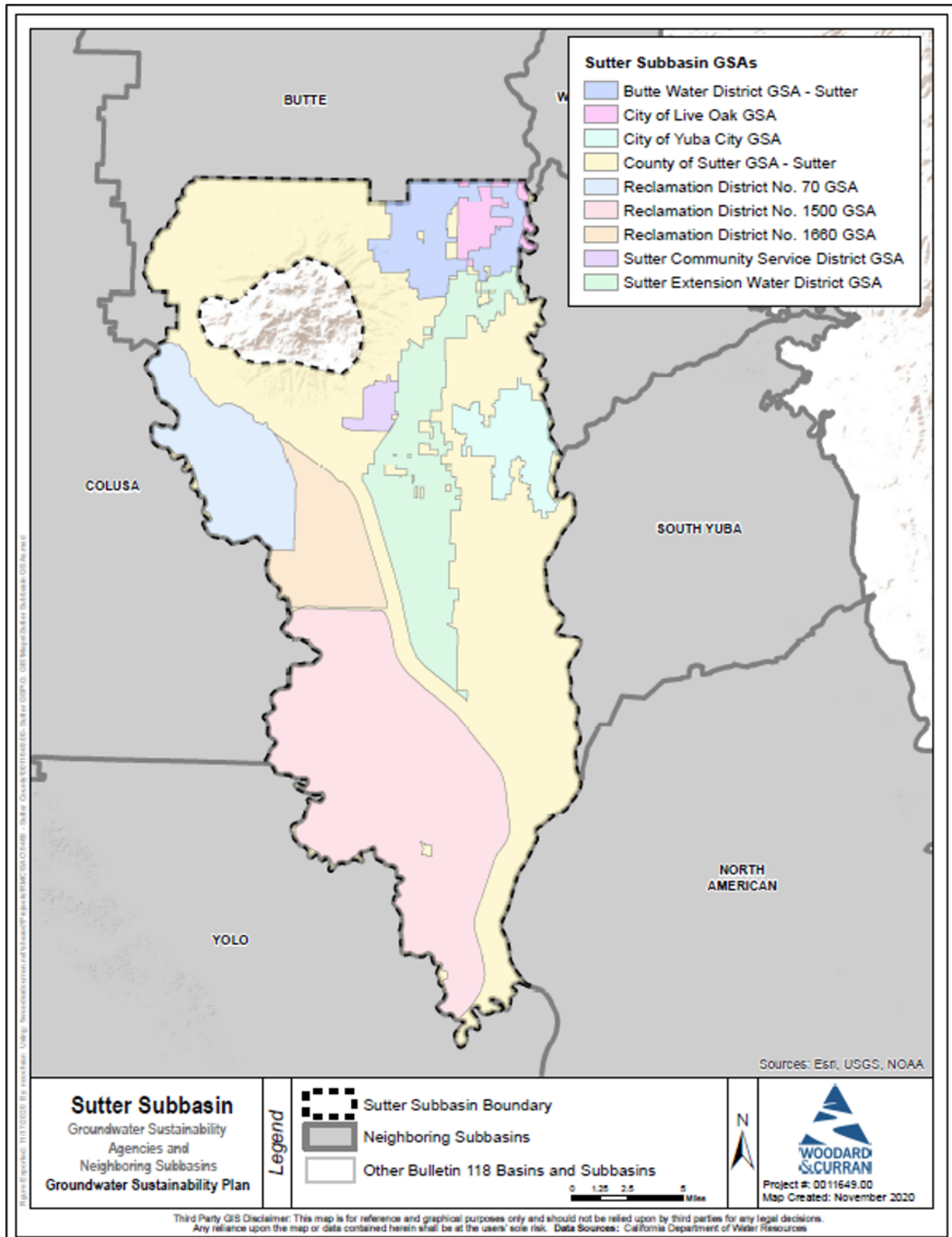


Figure 3: Sutter Subbasin GSAs

Contributing Members

Contributing members support the SSGMCC and GSAs by providing technical input and stakeholder perspectives, as applicable.

General Public

Public input, regardless of how it is received (e.g., email, meetings, written comments), is documented and shared with the SSGMCC and planning team for consideration as part of ongoing GSP implementation.

STAKEHOLDER IDENTIFICATION

Public engagement includes both stakeholder coordination and general public involvement. The goal of the public engagement effort is to understand the needs of stakeholders and groundwater users in the Subbasin, increase awareness and understanding of SGMA and the GSP, and promote active involvement in the process to achieve and maintain sustainability.

Stakeholders with interest in water management are the target audience for this *Sutter Subbasin Communication and Engagement Plan*. The general public will be engaged throughout the planning process to share information about the Sutter Subbasin and water management decisions and solicit input to the GSP. Stakeholders are encouraged to get involved in the GSP implementation process and may:

- Attend regularly scheduled GSA Board/City Council meetings to receive updates on the GSA process and provide input
- Attend regularly scheduled SSGMCC meetings noticed at <http://suttersubbasin.org/> and provide input on the GSP development and implementation process
- Attend topical Sutter Subbasin public meetings that will be noticed through the individual GSA Boards/City Councils, local media, and the Sutter Subbasin website to educate on SGMA and provide opportunities for input into the Sutter Subbasin GSP

Pursuant to Section 10723.2 of the California Water Code, each GSA must consider the interests of all beneficial users and users of groundwater within the Subbasin, as well as those responsible for implementing GSPs. These interests include the following:

- Agricultural users (e.g., farmers, ranchers, and dairy professionals)
- Rural, agricultural-residential, and domestic well owners
- Municipal well operators
- Public water systems
- Local land use planning agencies
- Environmental users of groundwater
- Surface water users
- The federal government (not limited to the military and managers of federal lands)
- Tribal governments
- Disadvantaged communities

Sutter Subbasin

- Entities monitoring or reporting groundwater elevations in the Subbasin
- Holders of overlying groundwater rights
- Adjacent subbasins including the Butte, Wyandotte, North Yuba, South Yuba, North American, Yolo, and Colusa Subbasins

A list of key audiences that have currently been identified is included in Table 1. This *Sutter Subbasin Communication and Engagement Plan* relies on the SSGMCC, GSA Boards/City Councils, and the public to expand the list of interested and affected audiences as the GSP process unfolds. This *Sutter Subbasin Communication and Engagement Plan* is a living document and the stakeholder list may continue to expand if additional stakeholders are identified.

Table 1: Key Stakeholders

Category of Interest	Stakeholder Groups/Organizations
California Water Code Section 10723.3 Stakeholders	
Agricultural Users and Domestic Well Owners	▪ Holders of overlying groundwater rights ▪ Small farms throughout the County
Municipal Well Operators and Public Water System Operators	▪ Butte Slough Irrigation Company ▪ Pelger Mutual Water Company ▪ Tisdale Irrigation District ▪ Sutter Extension Water District
Local Land Use Planning Agencies	▪ Sutter County ▪ County Agricultural Commissioners ▪ Farm Bureaus such as Butte County and Yuba-Sutter Farm Bureau ▪ Integrated Regional Water Management program – Northern Sacramento Valley ▪ Adjacent GSAs
Environmental Groundwater Users	▪ Sutter National Wildlife Refuge ▪ Sutter Bypass Wildlife Area
Surface Water Users	▪ City of Yuba City
Federal Government Agencies	▪ USDA Farm Services Agency ▪ U.S. Fish and Wildlife
Native American Tribes	▪ Estom Yumeka Maidu Tribe of the Enterprise Rancheria ▪ Mooretown Rancheria of Maidu Indians ▪ Shingle Springs Band of Miwok Indians ▪ Pakan'yani Maidu of Strawberry Valley Rancheria ▪ United Auburn Indian Community of the Auburn Rancheria ▪ Yocha Dehe Wintun Nation
Disadvantaged and Severely Disadvantaged Communities	▪ Yuba City ▪ Meridian ▪ Robbins ▪ Live Oak

Sutter Subbasin

Category of Interest	Stakeholder Groups/Organizations
Other State and Local Agencies that Monitor and Manage Groundwater Usage	- California Department of Water Resources, Sacramento - State Water Resources Control Board, Sacramento
Adjacent Subbasins	- Butte - Wyandotte - North Yuba - South Yuba - North American - Yolo - Colusa
Additional Stakeholders	
Elected Officials	Will not be engaged at this time.
State Agencies	- California Department of Fish and Wildlife - California Wildlife Conservation Board - California Natural Resources Agency - Colleges and Universities
Business Interests	- Workers and laborers in Sutter County - Colusa Produce Corporation - California Rice Commission
Local Communities and Community Organizations	- South Yuba River Citizens League - Shady Creek Outdoor Education Foundation - Community Alliance with Family Farmers - Local Government Commission
Disadvantaged Community Organizations	To be identified
Environmental Interests/Organizations	- American Rivers - Union of Concerned Scientists - Audubon California - Sierra Club - Sutter Buttes Regional Land Trust - The Nature Conservancy - Sacramento Valley Quality Coalition - Sutter Duck Club - Natomas Basin Conservancy Habitat Conservation Plan (NBCHCP) - Sacramento Audubon Society - California Fly Fishers Unlimited - Ducks Unlimited
Stakeholders that participated in the Alternative Plan	Individuals and corresponding contact information were identified from the previous Alternative Plan Update public workshops and stakeholder meetings.

ENGAGEMENT METHODS

Communication strategies for the Sutter Subbasin GSP include a flexible mix of virtual and in-person engagement methods, recognizing the need to reach diverse audiences with varying access to technology and schedules.

Not all Sutter Subbasin residents have access to email and the internet; therefore, outreach methods include both online access and traditional means of hard copy information dissemination. Sutter County also has a substantial population that only speaks Spanish or Punjabi. Therefore, some supporting materials (online and hard copy) are prepared in both languages. Specific translation requests should be directed to the Plan Manager.

The following outreach methods are used in order to engage stakeholders:

Meetings: GSA Board, City Council and SSGMCC Meetings: Regularly scheduled meetings provide opportunities for coordination, public information sharing, and input on implementation activities.

Public Meetings/Workshops: Periodic public workshops may be held to share updates on and to solicit public feedback at key decision points.

Website: The Sutter Subbasin website (www.suttersubbasin.org) serves as the primary public information hub for GSP implementation and outreach. The website includes information about SGMA, governance and coordination, public meetings, Annual Reports, technical documents, funding announcements, and opportunities for public participation.

Distribution List: The SSGMCC maintains a list of interested parties to distribute notices of meetings, availability of documents, and public comment opportunities. Content is distributed in English, Spanish, and Punjabi, as requested.

Informational Material: The GSAs prepare a variety of materials to support public understanding, which may include:

- Fact Sheets and Flyers
- Press Releases
- Annual Report

Sample Informational Materials can be found in Appendix D.

Mailings and Utility Bill Notifications: Bill inserts and flyers are used to notify the public about the GSP implementation process and to encourage engagement.

Surveys: Online surveys may be periodically used to solicit stakeholder feedback and input.

IMPLEMENTATION TIMELINE

Outreach and engagement activities are aligned with ongoing GSP implementation milestones. Engagement timing and methods may be adjusted as needed to support adaptive management and emerging regulatory or technical needs. A Public Draft of the Amended GSP and Periodic Evaluation are expected to be available in early November 2026. A public review period will be conducted before the final Amended GSP and Periodic Evaluation are finalized in the fall and adopted in late 2026 or early 2027. Both documents will be submitted to DWR in January 2027.

EVALUATION & ASSESSMENT

Public outreach and engagement activities will be evaluated periodically to assess their effectiveness and identify opportunities for improvement. Feedback received through meetings, workshops, surveys, and written comments will inform refinements to outreach strategies and support continuous improvement of engagement efforts throughout GSP implementation.

APPENDIX A

SSGMCC Members and Contributing Members

SSGMCC Members

Name (Alternative, if applicable)	GSA
Guadalupe Rivera	Sutter County
Donnie Stinnett	Butte Water District
Jeffrey Rabo	City of Live Oak
Lynn Phillips	Sutter Extension Water District
Laura Jones	Sutter Community Services District
Christian Elder (Kathy Willis)	City of Yuba City
Andy Duffey	Reclamation District No. 70 and Reclamation District No. 1660
Roger Cornwell (Jon Scott)	Reclamation District No. 1500

Contributing Members

Name	Entity
Guadalupe Rivera	Sutter County
Andy Duffey	Meridian Farms Water Company
Jon Munger	Garden Highway Mutual Water Company & Sutter Bypass Butte Slough Water Users Association
Todd Duncan	Tudor Mutual Water Company
Dan Duncan	Feather Water District
Paul Schubert	Golden State Water Company

APPENDIX B

Links to SGMA and Groundwater Information

California Department of Water Resources, SGMA: <https://water.ca.gov/Programs/Groundwater-Management/SGMA-Groundwater-Management>

California Department of Water Resources Basins Prioritization:
<https://water.ca.gov/Programs/Groundwater-Management/Basin-Prioritization>

Department of Water Resources, Draft Guidance for GSP Stakeholder Communication and Engagement <https://cwc.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Groundwater-Management/Assistance-and-Engagement/Files/Guidance-Doc-for-GSP---Stakeholder-Communication-and-Engagement.pdf>

Department of Water Resources, Stakeholder Communication and Engagement Digital Toolkit <https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Groundwater-Management/Assistance-and-Engagement/Files/Guidance-Doc-for-GSP---Stakeholder-Communication-and-Engagement.pdf>

UC Davis SGMA Resources: <http://groundwater.ucdavis.edu/SGMA/>

Union of Concerned Scientists, A Guide to California's Groundwater Sustainability Plans, in English and Spanish: <https://www.ucsusa.org/global-warming/ca-and-western-states/groundwater-toolkit#.WnSt5KinFPY>

Union of Concerned Scientist, SMGA information: <https://www.ucsusa.org/global-warming/regional-information/california-and-western-states/sustainable-groundwater-management-act#.Wne0ga2ZPq0>

Community Water Center, Union of Concerned Scientists, Clean Water Fund, Stakeholder Guide for Sustainable Groundwater Management Act Implementation: https://cleanwater.org/sites/default/files/docs/publications/SGMA_Stakeholder_Engagement_White_Paper.pdf

USGS, California Water Use: <https://www.usgs.gov/centers/california-water-science-center/science/california-water-use>

APPENDIX C

Media Contact List

There are no media outlets, except for Sutter County News Center, that exclusively cover the Sutter Subbasin. All other media outlets listed below cover the Sutter Subbasin and surrounding areas.

Media Outlet	Website Link
ABC 10	www.abc10.com
Appeal-Democrat	www.appeal-democrat.com
CBS	sacramento.cbslocal.com
FOX 40	fox40.com
Gridley Herald	gridleyherald.com
KUBA Radio	kubaradio.com/category/local-news/
Sutter County News Center	www.suttercounty.org/newscenter
Territorial Dispatch Online Newspaper	territorialdispatch.com

APPENDIX D

Outreach Materials



SUSTAINABLE GROUNDWATER MANAGEMENT ACT

Managing Our Water Resources for the Future

What is SGMA?

The **Sustainable Groundwater Management Act**, known as “SGMA” (pronounced sig-ma), is a California State law that was passed in 2014. SGMA’s goal is to ensure the long-term sustainable management of the State’s groundwater resources. SGMA requires agencies throughout California to meet certain requirements. These include:

- ♦ **Forming Groundwater Sustainability Agencies**
- ♦ **Developing Groundwater Sustainability Plans**
- ♦ **Achieving balanced groundwater levels within 20 years**

How Does This Impact Me?

Water is vital to the economy, the environment, and the quality of life in Sutter County. While this precious resource is visible every day in the Sacramento and Feather Rivers, water underground is no less important, providing about half of the region’s water supply. Groundwater serves the needs of cities, farms and businesses and provides high quality drinking water to urban and rural residents, all while helping to sustain vital ecosystems.

What is the Sutter Subbasin?

The Sutter Subbasin is generally described as being in the “central portion of the Sacramento Valley Groundwater Basin.” It is located within Sutter County and is bounded on the north by Butte-Sutter County line (except for the Sutter County portion of Biggs-West Gridley Water District), on the west by the Sacramento River, on the south by the confluence of the Sacramento River and the Feather River, and on the east by the Feather River and the eastern boundary with the Sutter-Yuba County line.

Who are the Sutter Subbasin GSAs

Groundwater Sustainability Agencies (GSAs) were formed in accordance with SGMA. The GSAs in the Subbasin are working together to meet SGMA requirements and collaboratively prepare a groundwater sustainability plan (GSP). This plan will outline how the agencies will implement, manage, and measure specific actions to sustainably manage the groundwater. The GSP for the Sutter Subbasin must be submitted to the State no later than January 31, 2022.

The Sutter Subbasin Groundwater Sustainability Agencies include:

- ♦ **Sutter County**
- ♦ **Butte Water District**
- ♦ **City of Live Oak**
- ♦ **Sutter Extension Water District**
- ♦ **Sutter Community Services District**
- ♦ **City of Yuba City**
- ♦ **Reclamation District 70**
- ♦ **Reclamation District 1500**
- ♦ **Reclamation District 1660**

Why You Should Be Involved

Join us and learn about the condition and future health of your groundwater subbasin. Participate in the process to understand what needs to be done to protect the quality and availability of this valuable resource. Learn why maintaining a sustainable groundwater subbasin matters to the economy, environment, and quality of life of our urban and rural communities.



Your Community. Your Water. Get Involved.

-  Sign up for our stakeholder list
-  Talk to your local GSA representative
-  Attend public meetings and workshops
-  Provide input on the groundwater sustainability plan
-  Help us spread the word!

GET INVOLVED! To sign up for our stakeholder list or learn more information visit our website.

SutterSubbasin.org

Sutter Subbasin GSP — Public Workshops

See our website for information on how to join our upcoming committee meetings and public workshops!

<http://www.suttersubbasin.org/meetings.html>

All meetings will be held virtually due to COVID-19 until further notice.

Please email info@suttersubbasin.org if you have any questions.

WY 2025

SUTTER GROUNDWATER SUBBASIN

GSP ANNUAL REPORT: WY25

Introduction

The **California Department of Water Resources (DWR)** has categorized the **Sutter Groundwater Subbasin (Subbasin)** as a medium priority groundwater basin under the Sustainable Groundwater Management Act (**SGMA**). As such, the Subbasin's **Groundwater Sustainability Agencies (GSAs)** were required to submit a **Groundwater Sustainability Plan (GSP)** by January 31, 2022. GSPs are detailed plans to ensure long-term sustainable groundwater management in at-risk basins, measured by the status of six (6) key sustainability indicators. DWR requires **Annual Reports** on the status of GSP implementation to ensure basins are on track to meeting identified sustainability goals. **Water Year 2025 (WY 2025)** was the Subbasin's fourth year of GSP implementation and its fifth annual reporting year. During WY 2025, the Subbasin continued to operate under sustainable conditions.



SGMA Sustainability Indicator	Status
Groundwater Levels	Stable
Groundwater Storage	Stable
Water Quality	Stable
Land Subsidence	Stable
Interconnected Surface Water	Stable

Note: The Seawater Intrusion Sustainability Indicator is not applicable for the Sutter Subbasin.

Sutter Subbasin Sustainability Goal

The Sutter Subbasin will maintain locally-managed groundwater resources for existing and future beneficial uses and users that are economically viable and sustainable by managing groundwater use within the sustainable yield, resulting in the avoidance of undesirable results.

Executive Summary

The Sutter Subbasin experienced a stable and productive Water Year (WY) 2025 (October 1, 2024-September 30, 2025). The Sutter Subbasin maintained stable groundwater levels and experienced a slight increase in total volume of groundwater in storage. Furthermore, indicators of groundwater quality, land subsidence, and interconnected surface waters remained in sustainable condition. WY 2025 was the Subbasin's fourth year of Groundwater Sustainability Plan (GSP) implementation, and the Subbasin operated within the Sustainable Management Criteria (SMC) established in its 2022 GSP.

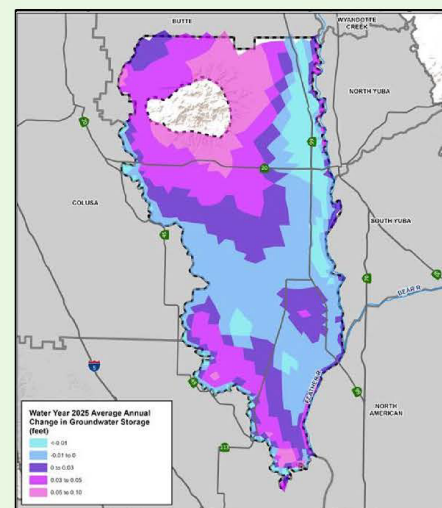
Water Use

Total WY 2025 water use in the Subbasin was 864,000 acre-feet (AF). Groundwater was 14% of total water use, and more than 90% of groundwater extracted was for agriculture.

Groundwater Levels & Storage

The Sutter Subbasin experienced normal seasonal fluctuations in groundwater levels during WY 2025. Groundwater depths did not exceed minimum thresholds at any wells during seasonal high conditions and no undesirable results were observed. Groundwater levels remain stable overall.

During WY 2025, groundwater storage increased in the Subbasin by 5,900 AF (out of an approximate 49 million AF of groundwater in storage or 0.01%). To the right is a map of interpolated storage changes. Changes in groundwater storage were positive on average.



Groundwater Quality

Groundwater quality was monitored at 19 wells within the Sutter Subbasin. These wells were sampled for **total dissolved solids (TDS)** and **nitrate**, both of which are impacted by agricultural runoff. The **minimum thresholds (MTs)** for TDS and nitrate in groundwater are based on drinking water standards of the upper Secondary Maximum Contaminant Level (MCL) of 1,000 milligrams per liter (mg/L) for TDS and Primary MCL of 10 mg/L for nitrate as N. In WY 2025, all groundwater samples except one were less than the established MT for TDS. All groundwater samples collected were under the established MT for nitrate.

The Subbasin defines an undesirable result for degraded groundwater quality as “a causal nexus between groundwater-related activities... and a degradation in groundwater quality that causes a significant and unreasonable reduction in long-term viability of domestic, agricultural, municipal, or environmental uses” where more than 50% of samples are below their minimum thresholds; therefore, the Subbasin did not observe an undesirable result.

Groundwater Pumping

Total groundwater extraction was 119,400 AF during WY 2025. 91% of groundwater pumped was for agricultural use (108,600 AF). Municipal and domestic groundwater use accounted for an estimated 8,800 AF (7%). A little over 1% of the total volume of groundwater extracted was applied to managed wetlands (1,800 AF), and less than 0.2% was used in local industry (200 AF).

Up Next

In early 2024, the Sutter Subbasin entered into an agreement with DWR for Proposition 68 grant funding to further GSP implementation. These work efforts will be conducted in 2025 and 2026 and include Annual Reports, instrumenting wells, geophysical surveys, groundwater model updates, and a financing plan.

Other Sustainability Indicators

Land Subsidence

Land subsidence was measured using public **Interferometric Synthetic Aperture Imagery (InSAR)**. Minor amounts of vertical displacement were observed in the Subbasin during WY25, ranging from -0.1 to 0.1 feet.

Depletion of Interconnected Surface Water

The Subbasin's SMC for **interconnected surface waters** are established to maintain sustainable exchanges between groundwater and interconnected surface water courses, including the **Sacramento River, Feather River, and Sutter Bypass**. Groundwater/surface water exchange was measured using groundwater levels as proxy at 16 wells in WY 2025. Exchanges with interconnected surface waters were stable during WY 2025. No minimum threshold exceedance occurred in WY 2025, therefore no undesirable results were observed.

Ongoing Projects*	Agency
System Modernization: Upgrading local conveyance and SCADA infrastructure to improve system efficiency and reduce spillage.	Butte Water District
Dual-Source Irrigation Systems: Installing irrigation systems capable of using either surface or groundwater.	Butte Water District
Monitoring Well Refinements: Perform well siting analysis to fill data gaps.	Multi-Agency/GSA
AEM Survey of Sutter Buttes: Re-evaluation of raw AEM data from DWR and additional geophysical surveys	Multi-Agency/GSA
Aquifer Storage & Recovery and Second Well: Feasibility of aquifer storage recovery well	City of Yuba City

For more information, visit SutterSubbasin.org

*Additional ongoing project information can be found in the WY25 Annual Report, available at <https://sgma.water.ca.gov/portal/gspar/preview/528>



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Appendix 4-B

List of Sutter Subbasin Stakeholders and Interested Parties

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Appendix 4-C
Comments Received and Comment Log

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Sutter Subbasin GSP Public Draft
Tracking of Comments Received as of April 30, 2022

Letter No.	Commenter	Commenter Organization	Comment No.	Date Received	Document	Comment
1	Ben King	Member of the Public, Colusa Resident	1	7/25/2021	Draft HCM Section	I just reviewed the Draft HCM for the Sutter Basin and it seems the Monitoring Network used for the Groundwater Quality assessments is not representative of the historical and empirical data that I have found in my research. The earliest groundwater quality data that I have found for the Sutter Basin was part of the Sutter-Yuba County Investigations which was published by the State Water Resources Board in 1952. Some of the observations go back to 1947 and 1949. This report was prompted by the report of saltwater intrusion in the fresh water aquifer. On Page 38 of the Sutter Yuba County investigation the report states "Furthermore, when the water table is lowered by heavy irrigation pumping it is probable that upward movement of the brines is accelerated." It is my understanding that the concern about upward movement of salt water brines prompted which had existed since the 1930's prompted the transition from ground water supply to surface water supply by the local irrigation district. I have attached the cover for the report so that your consultants can access the report from the UC Davis Library and also included Table 20 of the Report which clearly shows an increase in EC levels southward south of the Buttes in the 3E and 2E Range south of the Sutter Buttes. You can see that the problem is most pronounced in the T12N/R2E where there is a Boron observation of 10.8 and a EC observation of 10,000
1	Ben King	Member of the Public, Colusa Resident	2	7/25/2021	Draft HCM Section	Attached is an excerpt of the 1971 Thesis by George Cutrin "Hydrology of the Sutter Basin, Sacramento Valley, California." I have attached the Appendix table with the water quality observations which were the basis of his report. You can see the same consistent elevated TDS/EC and Boron observations near T14N/2E and T14N/R3E. There are 4 TDS observations greater than 5000 and two Boron observations of 10.8. Magnesium and Chloride observations were also elevated. The TDS measurements would seem consistent with the 10,000 and 8,600 EC observations in the Sutter-Yuba Investigation Table and the Boron is the same 10.8.
1	Ben King	Member of the Public, Colusa Resident	3	7/25/2021	Draft HCM Section	Regarding the discussion regarding Arsenic, the draft HCM does not seem to reflect the observations on Figure 19 of the GSP. The HCM seems to indicate only one observation above 100 rather than the 3 observations about 100 u/gL on Figure 19. Overall, the discussion does not highlight the potential health risk of the elevated observations over the USEPA MCL in public supply systems. The multi-completion well nearest the City of Sutter shows an observation of 93 u/gL at 554 feet and the multi-completion well near Robbins has an observation of 84 at 695 feet. There is no observation for the water quality at Meridian which should be a concern since the public supply system for Grimes has an observation of 24 u/gL and because there have been elevated observations for wells on the south side of Colusa. In the report that is cited in the HCM "Stratigraphic Analysis and Hydrogeologic Characterization of Cenozoic Strata in the Sacramento Valley near the Sutter Buttes" Springhorn stated the following on page 164: "Concentrations of arsenic 27 spatially and depth distributed samples from DWR multi-completion monitoring wells ranged from < 0.1 to 370 ug/l. Concentrations in 15 of the samples exceeded the USEPA current drinking water MCL of 10 ug/l, and 90 percent of groundwater samples collected from wells screened in Rampart volcaniclastic have arsenic concentrations exceeding the MCL." My comment regarding the Arsenic discussion of the HCM is that the text of the Arsenic discussion in Springhorn's report is more consistent with the necessity to highlight the gravity of the health risk of arsenic above the USEPA MCL rather than the current discussion which does not clearly state the number of elevated occurrences nor does it highlight the potential risks to Sutter County public supply systems.
1	Ben King	Member of the Public, Colusa Resident	4	7/25/2021	Draft HCM Section	Attached is the 2014 USGS Paper 1358 "Water Quality in Basin-Fill Aquifers of the Southwestern United States: Arizona, California, Nevada, New Mexico and Utah, 1993-2009". According to the statistical model described on Page 58 of the Paper, the presence of arsenic contamination is as predicted due to the presence of volcanic rocks and groundwater with high observed levels of pH and especially under the anoxic conditions of the connate seawater surrounding the Sutter Buttes. On Page 54 of this USGS Report it states: "The interaction of arsenic with metal oxides, particularly iron oxide is one of the most important processes by which groundwater can become enriched or depleted in arsenic. When geochemical conditions favor arsenic release (desorption) from oxide surfaces, groundwater concentrations are higher than when geochemical conditions favor arsenic attachment (adsorption) to oxide surfaces... If the pH is greater than 8, arsenic tends to desorb from the iron oxides and dissolves into the groundwater. Under anoxic conditions, iron oxides dissolve and release iron and arsenic into the groundwater regardless of pH." Additionally, contrary to the conclusion reached in the HCM, the translocation of salt water and arsenic contamination should be expected as it has been observed for the public supply system of Albuquerque New Mexico. The 2014 USGS Paper 1358 focused on Southwestern water quality also highlights the likely translocation of arsenic via Fault systems on such as the Willows Fault when it highlighted the observed translocation of arsenic contamination in the Rio Grande Basin on Pages 56 and 57 of the Paper. According to the Paper - "The highest concentrations of arsenic in groundwater in the Middle Rio Grande Basin are associated with volcanic rocks... and with fault zones through with deep, mineralized groundwater rises." Comparing this to the situation in Colusa and Sutter Counties it would make sense to infer that the source of the arsenic contamination in Princeton is related to the source of the contamination in the abandoned well Del Oro well on the south side of Colusa which is also related to the source of the contamination in Grimes and also the source for Robbins. All of these points of observed contamination lie close to the southeasterly path of the Willows Fault and are aquifers where salt water brines occupy lower stratas.
1	Ben King	Member of the Public, Colusa Resident	5	7/25/2021	Draft HCM Section	My last comment concerns the lack of data on the portion of the Sutter Subbasin between the Sutter Buttes and the City of Colusa. As I mentioned I am particularly concerned about the potential for arsenic contamination affecting the public supply system for the City of Colusa. My first observation is that I do not believe the HCM is working on the best available date for BFW levels. As you can see in the Springhorn attachment the DWR has updated the work done by Berkstresser in 1973. Springhorn, Hightower, Bedegrew and Bonds from the DWR presented a poster board with updated BFW contours at The Geological Society of America in May 2013. The BFW levels in the HCM should include this update and reference this work. Secondly the HCM should include consider the water quality data from the USGS Gamma site EASC21 which appears to be on the Butte Slough immediately north west of the Sutter Buttes. The water quality observations in this well support the presence of connate sea water and anoxic conditions in general. As attached, the USGS Report prepared in cooperation with the California State Water Resources Control Board "Ground-Water Quality Data in the Middle Sacramento Valley Study Unit, 2006 – Results from the California Gama Program" Data Series 385. On Figure 3 located in the Methods section Page 7, the location of EASC21 observation well is shown to be slightly northwest of the Sutter Buttes and very close to the Willows Fault. This well with a well depth of 369 feet has extraordinary sample observations indicating the likelihood of upwelling of connate water into the fresh water aquifer. The specific conductance of this well was 2380 uS/cm on Table 4. On Table 9 the Chloride Level was 626 mg/l and the Total dissolved solids was 1290. On Table 10 Arsenic was 80.5 ug/l, Boron was 1,010 ug/l. Perhaps most interesting was the results for Table 14 – it was the only well with a positive reading (all others had negative numeric observations) for g130 of dissolved carbonates with a reading of 5.57 (per mil). Given these water quality observations, I would encourage the consultants working on the HCM to reconsider the level of detail in the HCM regarding the area between the Sutter Buttes and the portion Colusa County east of the Sacramento River. In my opinion it is unfortunate that this area has been carved up into 3 subbasins by BBM modifications but some one has to address the complexity of the geology of the Colusa Dome and the likelihood the connate salt water and arsenic is moving vertically and laterally via the Willows Fault and or the Sutter Buttes Rampart.
1	Ben King	Member of the Public, Colusa Resident	6	8/5/2021	Draft HCM Section	I wanted to make one final comment on the draft HCM for the Sutter Subbasin. While I see you have included another Figure from Harwood and Helley, I would like to suggest that you also include Figure 12 from their 1987 USGS Paper. I would like to suggest that the relative locations of the Reverse Fault portion of the Willows Fault and the location of the Colusa Dome is important and the fact that part of the Reverse Portion is inferred because of it relative location to the City of Colusa. The location of the Colusa Dome and assumed depth is also important since it is rather shallow at its peak – 1000 ft. There is a lot going on here – not to mention the intersection of all of this with the Sacramento River and related hydrology. Since this is the most detail of this complex geology with relative locations I am suggesting that this Figure as attached be included in the HCM. The cross section at the bottom of the figure is also informative because it identifies the type of rocks and locations in context with the volcanic structure and Colusa Dome in particular. It highlights how shallow the Tertiary Rocks are to the west towards Colusa in particular.
2	Ben King	Member of the Public, Colusa Resident	7	8/27/2021	Draft Groundwater Conditions Section	Table 5-7 Comments: 1: The Draft Groundwater Conditions Chapter appear to be a material deviation from the breadth of the previous work done by Woodward and Curran in the Sutter Subbasin GMP. Rather than build upon the breadth of data presented in the GMP and update the GMP with the work of Springhorn and the recent work of the USGS by Susan Thiros and Laura Bexfield regarding Water Quality in Basin Fill Aquifers and Groundwater Availability in the Central Valley, this Draft seems to be beholden to the GEI Alternative Plan and attempt to limit the data set and new research to justify the constraints of the GEI Alternative Plan. The GEI Alternative Plan appears to be an advocacy document intended to try to exempt the Sutter Basin from material SGMA requirements. I would encourage Woodward and Curran to expand the data set and update the work done in the Sutter GMP in its development o the GSP for the Sutter Subbasin. 2 On Page 45 of the Draft the following statement is made: " Median concentrations of arsenic have decreased since 1952 and most recently are below the Primary MCL". There is no basis for this statement - what could be said is – Based on a selected data set of 28 recent measurements over a selected 7 year period. the median observation has decreased since 1952 when compared to the median of the 115 observations analyzed for the last 60 years. Furthermore you could say that the median observation of the data set for selected 3 year period was dropped from being nearly twice the allowed USEPA MCL to 70% of the USEPA MCL!! What is not discussed is how could this happen? After decades of upwelling, redox , metal oxide desorption, increased groundwater pumping due to conversion to permanent plantings the Sutter Subbasin experience a 63% decline in groundwater arsenic contamination!. What is in the water that seems to indicate that principles of redox and arsenic desorption seem to have changed over the last 7 years? Why does the Table compare a 56 year period with 77 data points to a 3 year period with 38 data points to a 7 year period with 28 data points? 3. Regarding the data set the source is noted as GAMA (SWRCB,2021). What part of GAMA is this – there is no notation of this source in the Reference Section. GAMA has a history back to 2004 and a change of focus in 2012. Was the 1952-2008 data from GAMA and what part of GAMA? 4, It appears that most of the data cites in 5-81,82,83 and 84 are intended to be from the 2008 Sacramento Valley GAMA publication but this report does not appear to be cited nor do the measurements presented on this Figures appear to be correct in all cases. Was it intended to use the 2008 USGS publication for the reported observations? If so – perhaps this report should be cited and put in the Reference Section. 5. The water quality figures of the Sutter Subbasin GMP cite USGS (GAMA), DWR, SEWD, DHS, FAQ and the USEPA. It seems that Table 5-7 is limited to the USGS (GAMA) via the SWRCP data set? How about the SWRCB data set for MCL violations for public water systems. Are the water quality observations for the Barry School well near Yuba City or the Sutter County Public Water Systems included in Table 5-7? Specifically: •Barry School Well . In 2015 Tom Butcher Director of Maintenance said that the arsenic contamination problem is not solved and is giving bottled water to students (Arsenic in California Drinking Water Page 16 , September 2016) •Sutter Co. WWD#1 (Robbins) Public Water System 5100107 •Wildwood Mutual Water Company PWS 5100109 •City of Live Oak PWS 5110001 •Yuba City Groundwater- Region 2-3 PWS 511003

Sutter Subbasin GSP Public Draft
Tracking of Comments Received as of April 30, 2022

Letter No.	Commenter	Commenter Organization	Comment No.	Date Received	Document	Comment
2	Ben King	Member of the Public, Colusa Resident	8	8/27/2021	Draft Groundwater Conditions Section	Here are the 2nd part of my Comments on the Draft Chapter: 1. Generally the Draft Chapter ignores the geology and geochemistry of the Sutter Buttes volcanic structure and Rampart as well as the tectonic features of the Willows Fault. The statement in the box for Figure 5-48 on the GEI slide from the Alternative Plan highlights the deficient perspective of the Draft Chapter. The Basin Boundary Modifications approved by the DWR to incorporate the Sutter Subbasin Project Area rightly with the Sutter Subbasin as a whole was material and extremely consequential. There is extensive empirical data and research to take a position strongly disagreeing with the conclusion made in the following statement. "Such Modifications (referring to the 2019 BBM) have not resulted in material changes that would alter understanding of basin conditions." The BBM Modification added : (1) an 2 million year old volcanic structure at the valley floor of an in-fill basin, (2) connate sea water that is upwelling around the volcano and likely moving laterally down the decent of the Valley floor and possibly via the fault structure and (3) an active fault in the Willows Fault that is located between the Sutter Buttes Rampart and the City of Colusa that has a spur that goes under the Sacramento River and under the City of Colusa with the major fault line moving through the length of the entirety of the Sutter Subbasin mostly within the major flood zone of the Sutter Bypass and (4) the geologic structure of the Colusa Dome with shallow and uncertain vertical aquifer depths. 2. Some empirical observations to consider : (a) GAMMA Site EASC Z1 with elevated trace metal observations and water chemistry that may indicate the upwelling of anoxic sea water into normal well depths located on the banks of the environmentally important Butte Creek, (b) a BBM comment that the domestic well for the Colusa Shooting Club on Laux Road has a reverse osmosis filter to treat well water and (c) a report from a local landowner on Laux Road that a neighbor brought up saltwater from a new 500 foot well that killed fish. 3. Refer to " Sutter Buttes – The Lone Volcano in California's Great Valley" USGS – Reducing the Risk From Volcano Hazards by Brian Hausback and Patrick Muffler March 2011. Understanding the unique location of the Sutter Buttes in the Sacramento Valley watershed should inform GSP development. 4. Refer to " Geochemistry of Ground Water in the Sacramento Valley, California by Laurence C. Hull , USGS Publication 1984 - The Sutter Buttes are identified as one of 8 unique Geomorphic Units on Page B4. On Page B10 – " The Sutter Basin facies is tied with the south alluvial fan facies for the highest average dissolved solids concentration. This facies is also high in sodium, chloride, bicarbonate, potassium and boron. The effect of reducing concentrations are evident in the relatively higher concentrations of iron, manganese, and arsenic in this area, all of which are more soluble in reducing environments (Garrels and Christ, 1965). The very low average nitrate concentration in this facies is also indicative of reducing conditions, where nitrate can be removed by denitrification reactions. The origin of the high dissolved-solids water is thought to be connate marine water moving upward along fault lines created when Sutter Buttes was emplaced (Curtin, 1971) " Got to take the shot at conclusions based on Table 5- 7 in the Draft Chapter – REALLY??? 5. Refer to "Hydrogeology of the Sutter Basin, Sacramento Valley< California by George Curtin. Master Thesis, University of Arizona – this is the reference for Hull. Can one publish a Draft for Groundwater Conditions for the Sutter Basin and not discuss the findings of a Hydrology Professor about the Sutter Basin? 6. Refer to "Late Cenozoic Tectonism of the Sacramento Valley, California by David Harwood and Edward Helley USGS 1987 See Page 16 for the discussion regarding the relationship between the Willows Fault and the Colusa Dome. The vertical depths of the groundwater aquifer around the Sutter Buttes and on top of the Colusa Dome structure should be addressed in the Draft Chapter 7. Refer to "Stratigraphic Analysis and Hydrogeologic Characterization of Cenozoic Strata in the Sacramento Valley Near the Sutter Buttes" by Steven Taylor Springhorn, Masters Thesis, CSU, Sacramento 2008. Refer to the discussion on Page vii of the Abstract " The presence of brackish water in these deeper aquifers combined with upward vertical gradients creates the potential for continued upward migration of brackish water into overlying fresh water aquifers, or upconing beneath areas of pumping. Prolonged well pumping in these areas is likely to result in regional water quality degradation and may ultimately reduce the thickness of fresh groundwater in the Sacramento Valley" On Page 163 "Data analyses suggest there is a connection between elevated arsenic concentrations in groundwater and the presence of the
2	Ben King	Member of the Public, Colusa Resident	9	8/27/2021	Draft Groundwater Conditions Section	Comment Regarding Section 5.2.2.3 Groundwater Trends 1. The SWRB Report "Sutter-Yuba Counties Investigation" SWRB Bulletin No. 6 1952 made clear that the upward movement of saline water is not a trend but a well known fact. This report based on work primarily done in 1949 and published in 1952 made this statement on Page 32 under Quality of Water. " With respect to ground water supplies, however (compared to surface water discussed in the previous sentence) , salinity sufficient to impair use of the ground water for irrigation, domestic, and many industrial uses has been observed at scattered wells throughout the area for many years". After approximately 80 years maybe it is time to stop calling it a trend and focus on the trend in degraded groundwater quality caused by upwelling? 2. Refer to "Effects of Natural and Human Factors on Groundwater Quality of Basin-Fill Aquifers in the Southwestern United States – Conceptual Models for Selected Contaminants" by Laura Bexfield, Susan Thiros, Jena Huntington, and Tim McKinney USGS 2011 Refer to Page 54 for the discussion regarding TDS. Refer to Page 59 for the discussion regarding Arsenic See Page 44 " How Redox Conditions are Determined " regarding the important role Redox conditions have on water quality. Based off approximately 80 years of connate saline water redox – Bexfield's report can provide great scientific analysis to be included in the Draft Chapter regarding Groundwater Conditions.
2	Ben King	Member of the Public, Colusa Resident	10	8/27/2021	Draft Groundwater Conditions Section	Comments Regarding the Reference List. Please refer to the reports referenced for the full citation for suggested references to be included and analyzed when completing the final draft of the Chapter. Since this Draft Chapter is about the Sutter Subbasin the previous work specifically focused on the Sutter Subbasin should have the respective findings discussed and analyzed in the Chapters of the GSP. There are three reports that should be referenced: 1. Sutter-Yuba Counties Investigation 2. Hydrogeology Of The Sutter Basin, Sacramento Valley, California 3. Stratigraphic Analysis And Hydrogeological Characterization of Cenozoic Strata in the Sacramento Valley Near the Sutter Buttes The Following USGS Papers should be referenced: 1. Hull – Geochemistry of Groundwater in the Sacramento Valley, California 1984 for the geochemical foundation of the influence of the Sutter Buttes on the Sutter Basin groundwater quality 2. Harwood and Helley – Late Cenozoic Tectonism of the Sacramento Valley, California 1987 for the foundational analysis of the Willows Fault and the interrelationship with the Colusa Dome 3. Thiros et al. – Water Quality in Basin-Fill Aquifers of the Southwestern United States: Arizona, California, Colorado, Nevada, New Mexico and Utah, 1992 -2009, 2014 for the discussion on the chemical basis of desorption of arsenic and the lateral movement of connate water and arsenic via faults 4. Bexfield et. al – " Effects of Natural and Human Factors on Groundwater Quality of Basin-Fill Aquifers in the Southwestern United States, 2011 for the discussion on the redox and saline unphwelling identified in the Sutter-Yuba Counties Investigation. Also for the discussion regarding arsenic contamination. When referring to this Report consider the fact that these hydrochemical processes have been occurring at least since the 1940's and for "many years prior" to the report in 1952. Perhaps a 100 years of Redox in the Sutter Subbasin?
3	Kevin Thomas	California Department of Fish and Wildlife, North Central Region	11	11/8/2021	Public Draft GSP	Comment #1 – Interconnected Surface Water Systems (5.2.7 Interconnected Surface Waters; starting page 5-169): The GSP does not include an estimate of the quantity and timing of depletions of interconnected surface water systems as required by 23 CCR § 354.16(f). a. Issue: The GSP identifies the Feather River, Sacramento River, and Sutter Bypass as interconnected surface waters and assesses whether stream segments are primarily gaining, losing, or mixed. However, the GSP does not include information related to the quantify and timing of depletions from these interconnected surface waters as required by 23 CCR § 354.16(f). b. Recommendation: The Department recommends that the GSP include a table quantifying the volume of surface water depletions, by month, for all interconnected surface waters identified within the subbasin.

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3	Kevin Thomas	California Department of Fish and Wildlife, North Central Region	12	11/8/2021	Public Draft GSP	Comment #2 – Groundwater Dependent Ecosystems (5.2.8 Groundwater Dependent Ecosystems; starting page 5-173): Groundwater dependent ecosystem (GDE) identification, required by 23 CCR § 354.16(g), is based on methods that risk exclusion of ecosystems that may depend on groundwater. a. Issues: i. Depth to Groundwater Threshold: The GSP relies on a groundwater level threshold of 30-feet below the ground surface (bgs) to screen potential GDEs within the subbasin. However, mature Valley Oak (<i>Quercus lobata</i>) can access groundwater up to 80 feet bgs (Howard 1992, Lewis & Burgy 1964). The use of a 30-foot threshold may incorrectly exclude Valley Oak communities within the subbasin from further consideration as a GDE. Additionally, the GSP does not specify if the groundwater level data used for the depth to groundwater analysis is based on spring or fall groundwater measurements. b. Recommendations: i. Depth to Groundwater Threshold: The Department recommends the GSP update the methodology for classifying GDEs to reflect accurate maximum potential rooting depth for Valley Oak communities. For areas of Valley Oak within the subbasin, the Department recommends the GSP apply a threshold of 80 feet bgs as the maximum depth at which the potential GDE could access groundwater. The Department accepts the use of a 30-foot threshold for other potential GDE areas within the subbasin that do not contain Valley Oak. The GSP should also explicitly identify which groundwater level measurements were used for the depth to groundwater analysis; the Department recommends the analysis rely on spring, or seasonal high, groundwater levels to be inclusive of potential GDEs.
3	Kevin Thomas	California Department of Fish and Wildlife, North Central Region	13	11/8/2021	Public Draft GSP	Comment #2 – Groundwater Dependent Ecosystems (5.2.8 Groundwater Dependent Ecosystems; starting page 5-173): Groundwater dependent ecosystem (GDE) identification, required by 23 CCR § 354.16(g), is based on methods that risk exclusion of ecosystems that may depend on groundwater. a. Issues: ii. GDEs Near Surface Water: The GSP eliminates potential GDE areas located within 150 feet of surface waters, within 150 feet of irrigated rice paddies, and within 50 feet of other irrigated croplands, Fish and Wildlife Service-irrigated land, and State irrigated land. This GDE-elimination method may disregard a GDE's adaptability and opportunistic approach to accessing water in which vegetation and ISW may rely on both surface water and groundwater across seasons and years. b. Recommendations: ii. GDEs Near Surface Water: The Department recommends that the GSP err on the side of inclusivity of potential GDEs until there is site specific evidence that the overlying ecosystem has no significant dependence on groundwater across seasons and water year types. This means not ruling out potential GDEs because they are proximate to surface water.
3	Kevin Thomas	California Department of Fish and Wildlife, North Central Region	14	11/8/2021	Public Draft GSP	Comment #2 – Groundwater Dependent Ecosystems (5.2.8 Groundwater Dependent Ecosystems; starting page 5-173): Groundwater dependent ecosystem (GDE) identification, required by 23 CCR § 354.16(g), is based on methods that risk exclusion of ecosystems that may depend on groundwater. a. Issues: iii. GDE Identification by Year: The GSP assesses potential GDE areas identified in the Natural Communities Commonly Associated with Groundwater (NCCAG) dataset across three years: 2013, 2015, and 2017. For each year, the GSP removes NCCAG areas based on the depth to groundwater and proximity to surface water/irrigated lands elimination criteria; remaining NCCAG areas are identified as "potential GDEs." This process essentially creates three different sets of potential GDE locations within the subbasin, one for each of the years evaluated, intended to represent a range of dry to wet years. It is unclear whether the GSP requires an area to be identified as a potential GDE in all three of the years evaluated to be retained as a GDE for monitoring and management actions in the GSP, or if an area identified as a potential GDE in one or two of the three years would be retained as a GDE. For instance, an area identified as a potential GDE in 2017, a wet year, may not have had access to groundwater supplies during 2015, a critically dry water year in which groundwater levels reached historic lows. A lack of groundwater access during dry years does not negate an area's status as a GDE; if GDE areas must be confirmed across all three representative water years to be managed in the GSP, the plan's methodology may incorrectly eliminate potential GDEs based on their inability to access groundwater at a single point in time during a critically dry year. b. Recommendations: iii. GDE Identification by Year: The Department recommends the GSP clarify the GDE identification methodology and explain if areas identified as GDEs in each of 2013, 2015, and 2017 are retained for further analysis, or if only areas identified in all three years are considered GDEs for the remainder of the GSP.
3	Kevin Thomas	California Department of Fish and Wildlife, North Central Region	15	11/8/2021	Public Draft GSP	Comment #2 – Groundwater Dependent Ecosystems (5.2.8 Groundwater Dependent Ecosystems; starting page 5-173): Groundwater dependent ecosystem (GDE) identification, required by 23 CCR § 354.16(g), is based on methods that risk exclusion of ecosystems that may depend on groundwater. a. Issues: iv. Special Status Species: Though the GSP includes a list of freshwater species within the Sutter Subbasin, the GSP does not assess the species' potential groundwater dependence or their spatial extent within the subbasin. b. Recommendations: iv. Special Status Species: The Department recommends the GSP include an assessment of each identified species' likely groundwater dependence. The GSP should also include a spatial assessment of special status species within the subbasin to characterize which surface waters or GDE areas provide these species habitat or forage; this level of GDE-species-relationship assessment enables GSAs to prioritize GDE monitoring and management decisions.
3	Kevin Thomas	California Department of Fish and Wildlife, North Central Region	16	11/8/2021	Public Draft GSP	Comment #3 – Sustainable Management Criteria (6.5.6 Depletions of Interconnected Surface Water; starting page 6-36): Interconnected surface water sustainable management criteria (SMC) may not protect against undesirable results for fish and wildlife beneficial uses and users. a. Issues: i. Minimum Thresholds: Minimum thresholds (MTs) for ISW, using groundwater levels as a proxy, are set either at the historic low over the period of record, at 90% of the average groundwater elevation with a modeled increase in evapotranspiration of 50%, or at a level necessary to provide a sufficient operating range below the measurable objective. The GSP's methodology assumes that undesirable results were not occurring at the historic low; however, the GSP does not include sufficient analysis or discussion to support this claim. In 2015, the second of back-to-back critically dry water years in the Sacramento Valley which resulted in historical low groundwater levels, vegetated and aquatic GDEs experienced adverse impacts including stressed or dying riparian vegetation, poor instream habitat availability, and increased water temperatures (DFW 2019). It is unclear what, if any, studies or analyses were completed to assess whether environmental users within the subbasin experienced undesirable results at the historical low groundwater levels. The GSP assumes that undesirable results for ISW occur only when gaining streams become losing streams. This assumption ignores the benefits of groundwater contributions to surface water baseflows, including the maintenance of instream water quality and temperatures. Reducing the volume of groundwater contributions to ISW, even if a reach has not yet changed from gaining to losing or disconnected, would likely result in significant and unreasonable impacts to fish and wildlife beneficial users of ISW prior to exceedance of the MT. As the GSP neither characterizes specific instream flow or habitat requirements for aquatic species, nor provides baseline information on the volume and timing of ISW depletion (See Comment #1), nor discusses the anticipated rates of depletion that would occur at the established MTs; there is insufficient information to assess potential impacts to ISW beneficial uses and users. The ISW SMC are also regarded in the GSP as protective of GDE beneficial users of groundwater, but the GSP does not provide evidence to support this claim. No analysis is presented that characterizes whether the established MTs are sufficient to maintain water groundwater levels that have historically been shallow enough to support GDEs, or if the MTs would permit groundwater levels to fall below root zones, removing groundwater as an available water source to some GDEs. If MTs are not protective of GDE access to groundwater supplies, significant impacts to environmental beneficial users of groundwater will likely be experienced before MTs are reached. b. Recommendations: i. Minimum Thresholds: The Department recommends the GSP reselect minimum thresholds that would better protect environmental uses and users of groundwater, rather than enabling declines in groundwater levels over the implementation horizon beyond the historic low. Additional analyses of the specific impacts of the established thresholds on monthly groundwater contribution to baseflow in gaining streams, monthly depletion of losing streams, and on GDE and ISW beneficial users of groundwater should be included.

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3	Kevin Thomas	California Department of Fish and Wildlife, North Central Region	17	11/8/2021	Public Draft GSP	Comment #3 – Sustainable Management Criteria (6.5.6 Depletions of Interconnected Surface Water; starting page 6-36): Interconnected surface water sustainable management criteria (SMC) may not protect against undesirable results for fish and wildlife beneficial uses and users. a. Issues: ii. Undesirable Results: The GSP requires 25% of ISW representative monitoring wells in the subbasin to fall below their MTs for two consecutive seasonal high water level measurements before identifying an undesirable result to GDEs or ISW. While environmental users are usually adapted to sustain short-term lowering of groundwater levels during dry periods, environmental users may not be able to sustain extended periods of reduced groundwater access that would result from allowing groundwater levels to fall to historic lows or deeper for two consecutive years. Under these MTs, by the time an undesirable result is declared and management actions are triggered in response to the undesirable result, environmental groundwater users will have already experienced significant stress and potentially irreversible mortality. b. Recommendations: ii. Undesirable Results: The Department recommends the GSP reconsider the two seasonal-high measurements of groundwater levels below MTs required to constitute an undesirable result, recognizing that extended durations of groundwater inaccessibility for environmental users will likely lead to adverse impacts that cannot be easily reversed when groundwater levels recover. At a minimum, the Department recommends identifying physical triggers (e.g., declining Normalized Difference Vegetation Index signals) and associated management actions (e.g., demand reduction) to enable the GSAs to identify and mitigate localized patterns of lowering groundwater or depleted ISW and associated negative impacts before the second year of MT exceedances yields more significant and undesirable impacts. These interim action triggers will help preempt irreversible losses and undesirable results for environmental users.
3	Kevin Thomas	California Department of Fish and Wildlife, North Central Region	18	11/8/2021	Public Draft GSP	Comment #3 – Sustainable Management Criteria (6.5.6 Depletions of Interconnected Surface Water; starting page 6-36): Interconnected surface water sustainable management criteria (SMC) may not protect against undesirable results for fish and wildlife beneficial uses and users. a. Issues: iii. Environmental Beneficial Users: Though the GSP does discuss the potential impacts of exceeding the established SMC for each sustainability indicator on environmental beneficial uses and users within the subbasin, the GSP does not present sufficient evidence that the MTs will protect against these impacts. For instance, the GSP states that if groundwater level or ISW MTs are exceeded, GDEs could lose access to groundwater and aquatic ecosystems could experience a reduction in suitable habitat through lowered stream depths, flow velocities, and dissolved oxygen; and increased temperatures (pages 6-46). However, in establishing the MTs, the GSP seemingly does not compare the groundwater level or ISW thresholds to GDE rooting depths, nor does the GSP relate the MTs to rates of depletion of surface waters and the associated impacts on instream flows, water temperatures, or the availability of suitable habitat for aquatic species. b. Recommendations: iii. Environmental Beneficial Users: The Department recommends the GSP include specific analysis demonstrating that the established SMCs are sufficiently protective of environmental users of groundwater, including GDEs and ISW. Groundwater level and ISW MTs at each representative monitoring well (See Comment #5) should be compared to the rooting depths of the identified vegetation in nearby GDEs. The GSP should quantify the volume and timing of depletions of ISW that would occur at the established MTs and explicitly discuss the impacts of the projected depletions on aquatic species' streamflow, water temperature, and habitat needs.
3	Kevin Thomas	California Department of Fish and Wildlife, North Central Region	19	11/8/2021	Public Draft GSP	Comment #4 – Projects and Management Actions (PMAs)(7.1.3 Summary of Projects and Management Actions; starting page 7-3): The GSP should include additional potential PMAs related to the implementation of demand management within the subbasin. a. Issue: The planned and ongoing PMAs within the subbasin focus largely on modernizing water systems operations or implementing recharge projects that may be costly, rely on securing additional surface water supplies, and/or require potentially lengthy permitting processes. Though the GSP indicates that in the projected future conditions scenario, the Sutter Subbasin is expected to maintain groundwater sustainability, should projects fail to produce the anticipated groundwater benefit or localized undesirable results occur, it may be necessary to implement additional demand management projects. b. Recommendation: The Department recommends identifying additional demand management projects as potential PMAs that could be implemented within the subbasin. The Department supports a balanced approach of projects related to both supply augmentation and demand management for managing the subbasin sustainably
3	Kevin Thomas	California Department of Fish and Wildlife, North Central Region	20	11/8/2021	Public Draft GSP	Comment #5 – Monitoring Networks (7.1.4.6 Installation of Additional Shallow Groundwater Monitoring Wells, 7.2.6.1 Groundwater Level Monitoring Network, 7.2.6.6 Interconnected Surface Water Monitoring Network; starting pages 7-56, 7-114, and 7-148): The GSP should include an assessment of the adequacy of the monitoring networks for assessing impacts to GDEs. The GSP should include additional information related to the planned project to improve the monitoring network for GDEs and ISW within the subbasin. a. Issue: The GSP does not include a discussion of the adequacy of the monitoring network for assessing potential impacts to GDEs throughout the subbasin. It is unclear whether any of the identified representative monitoring sites for groundwater levels or ISW are located sufficiently near to GDEs to monitor shallow groundwater levels in those areas. While the Department acknowledges the planned installation of 15 additional shallow wells to improve monitoring of ISW and GDEs, the discussion of the locations of these additional wells focuses on filling data gaps related to ISW and does not discuss planned well locations relative to GDEs within the subbasin. b. Recommendation: The GSP should include additional detail related to adequacy of the existing representative monitoring networks for assessing shallow groundwater conditions and potential impacts to GDEs. The Department recommends that the GSP assess the locations of special status species within the subbasin to determine which GDE areas likely provide priority habitat. GDE areas and ISW that support special status species or are most at risk of negative impacts due to groundwater pumping should be prioritized for monitoring to inform management actions (See Comment #2(iv)).
4	Samantha Arthur	Audubon CA	21	11/11/2021	Public Draft GSP	Identification of managed wetlands: Audubon appreciates that the Sutter GSAs have identified and specifically included federal, state and privately managed wetlands in text, figures (e.g. Figure 2-4), and water budgets, especially Sutter National Wildlife Refuge (NWR) and the Butte Sink Wildlife Management Area (WMA).
4	Samantha Arthur	Audubon CA	22	11/11/2021	Public Draft GSP	Water budget: Audubon appreciates the specific inclusion of managed wetlands into the water budgets (e.g. Table 5-11 and Table 5-12), especially the inclusion of greater water use in the future budget resulting from anticipated delivery of Central Valley Project Improvement Act (CVPIA) Full Level 4 refuge water supplies to Sutter NWR.
4	Samantha Arthur	Audubon CA	23	11/11/2021	Public Draft GSP	Consideration of managed wetlands: Audubon appreciates that the listed projects included in Table 7-2 (GSP page 7-7) identified opportunities for multi-benefit projects that provide water supply and wildlife habitat benefits and sufficient project details were included in Section 7.1.4.4 (GSP page 7-44).
4	Samantha Arthur	Audubon CA	24	11/11/2021	Public Draft GSP	Section 2.2, page 2-21: Suggest modifying the opening sentence in the second paragraph as follows: "Surface water from the Feather and Sacramento Rivers and groundwater are the water sources used for irrigation, managed wetland, municipal and industrial, and urban/domestic purposes (Figure 2-13)"
4	Samantha Arthur	Audubon CA	25	11/11/2021	Public Draft GSP	Table 2-2, page 2-21: Suggest adding "including managed wetlands" as a parenthetical descriptor to "Riparian Vegetation" as often the former category includes explicit actions to apply water and manage food and habitat compared to riparian vegetation which often correlates to unmanaged stream course vegetation and habitats depending on a riparian water source.
4	Samantha Arthur	Audubon CA	26	11/11/2021	Public Draft GSP	Figure 2-12, page 2-22: Same comment as described for Table 2-2.
4	Samantha Arthur	Audubon CA	27	11/11/2021	Public Draft GSP	Figure 2-13, page 2-23: Suggest shading the Sutter NWR and Butte Sink WMA areas and including in the legend as "irrigated managed wetlands" to help demonstrate these lands actively apply water within these boundaries.
4	Samantha Arthur	Audubon CA	28	11/11/2021	Public Draft GSP	Section 2.2.2, page 2-53: Suggest adding a subsection for "managed wetlands water supply" similar to the subsection for "urban water supply" and "agricultural water supply." Because these land uses apply both surface and groundwater, with the Sutter NWR receiving supplies under congressional mandate (CVPIA refuge water supply program), it is important for the reader to see this user in similar context to agricultural and urban uses.
4	Samantha Arthur	Audubon CA	29	11/11/2021	Public Draft GSP	Table 5-10, page 5-189: This table should include a row for "managed wetlands demand" (similar to "agricultural demand" and "urban demand") to help provide the basis for higher future water demands and surface supplies as infrastructure to adequately delivery CVPIA mandated water supplies to Sutter NWR is anticipated to be completed and CVPIA Full Level 4 water supplies to Sutter NWR are slated to begin more routinely.
4	Samantha Arthur	Audubon CA	30	11/11/2021	Public Draft GSP	Footnote 1, page 5-193: Please correct the spelling to read "Greg Young"
4	Samantha Arthur	Audubon CA	31	11/11/2021	Public Draft GSP	Section 5.3.5, page 5-194: Suggest adding "managed wetlands" for the surface water and groundwater bullets under "Inflow.
5	Ben King	Member of the Public, Colusa Resident	32	11/11/2021	Public Draft GSP	The community of Meridian should be included. It is a longstanding community of north western Sutter County and includes an elementary school dependent on groundwater for water supply.
5	Ben King	Member of the Public, Colusa Resident	33	11/11/2021	Public Draft GSP	Water Transfers out of the basin and the mechanics of groundwater substitution should be discussed and reference the data in Section 2.4. One of the 5 public comments in the draft Appendix expressed concern about groundwater transfers. There is currently litigation with settlement contractor plaintiffs concerning out of basin water transfers and groundwater substitution.
5	Ben King	Member of the Public, Colusa Resident	34	11/11/2021	Public Draft GSP	There should be discussion regarding the prioritization of subbasins in the implementation of CV Salts and how the Sutter Subbasin is not designated as a priority subbasin.
5	Ben King	Member of the Public, Colusa Resident	35	11/11/2021	Public Draft GSP	Is it correct that substitution transfers are completed by agencies not using their full allotment of water? Is it not just use of groundwater in lieu for the water transferred out of the basin – the impact is that the Sutter Subbasin water budget allocated amount available is reduced by the amount of water transferred?

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5	Ben King	Member of the Public, Colusa Resident	36	11/11/2021	Public Draft GSP	If groundwater is pumped in the sphere of hydrological impact of groundwater substitutions isn't it clear that there could be a negative impact on a GDW if water levels are lowered in a materially adverse way or if groundwater is degraded. There definitely are known concerns even though the impacts have not been studied. This needs to be addressed here or in Section 5.3
5	Ben King	Member of the Public, Colusa Resident	37	11/11/2021	Public Draft GSP	There are no websites included? How can Stakeholders know of public meetings or gain access to public information for these GSA's?
5	Ben King	Member of the Public, Colusa Resident	38	11/11/2021	Public Draft GSP	It should be noted that the HRTW was incorporated into the DWR Department Manual during April 2021 as noted in the recent DWR Drought Resolution. The pending SWRB resolution on Racial Equity should also be noted as a basis for the consideration of adverse racial outcomes due the implementation of the GSP for the Sutter Subbasin. The Sutter Subbasin is especially significant for Diversity, Equity, and Inclusion issues because it has significant populations from the Mexican American, African American and Sikh communities.
5	Ben King	Member of the Public, Colusa Resident	39	11/11/2021	Public Draft GSP	Generally – there should be some discussion regarding outreach to the Spanish speaking and Punjabi speaking communities. The notices and communications in three different languages for the Sutter Subbasin should be highlighted.
5	Ben King	Member of the Public, Colusa Resident	40	11/11/2021	Public Draft GSP	There were only 5 public comments included in the Appendix. As a Stakeholder, there was no public disclosure of public comments made during meetings or any comments received except for the five responses to an early survey. This was a definite failure for Stakeholder Engagement since the public has no idea what other comments were submitted or expressed by other stakeholders during the GSP development. Many of the comments that I submitted were unacknowledged and I have no idea if any of the comments were considered in the draft GSP development. I also submitted a PMA which was also unacknowledged with no evidence that it was considered in the PMAs set forth in the Appendix. There are no publicly submitted PMAs in the Appendix and most of the PMAs set forth in the Appendix have no source submissions or backup information. The PMAs detailed in the Appendix relate to projects developed in 2014.
6	Ngodoo Atume, Samantha Arthur, E.J. Remson, J. Pablo Ortiz-Partida, Ph.D., Danielle V. Dolan, Melissa M. Rohde, Amy Merrill, Ph.D., Kristan Culbert,	Clean Water Action/Clean Water Fund, Union of Concerned Scientists, Audubon CA, Local Government Commission, TNC, American Rivers	41	11/12/2021	Public Draft GSP	Identification of Key Beneficial Uses and Users: Disadvantaged Communities, Drinking Water Users, and Tribes The identification of Disadvantaged Communities (DACs) and drinking water users is insufficient. The GSP identifies and maps the locations of DACs and describes each DAC population within the subbasin. However, we note the following deficiencies with the identification of these key beneficial users: - The GSP identifies tribal communities that may have cultural and traditional ties within the subbasin. However, the plan fails to map the locations of tribal lands or tribal interests in the subbasin. - The GSP provides a map of domestic well density in Figure 2-9, but fails to provide depth of these wells (such as minimum well depth, average well depth, or depth range) within the subbasin. This information is necessary to understand the distribution of shallow and vulnerable drinking water wells within the basin. - While the GSP identifies the population dependent on groundwater as their source of drinking water in the subbasin, specifics are not provided on how much each DAC community relies on a particular water supply (e.g., what percentage is supplied by groundwater). - The GSP references CalEnviroScreen 3.0, but is not updated with the most recent CalEnviroScreen results from 4.0. These missing elements are required for the GSAs to fully understand the specific interests and water demands of these beneficial users, and to support the consideration of beneficial users in the development of sustainable management criteria and selection of projects and management actions. Recommendations: - Provide a map of tribal lands and describe tribal interests in the subbasin - Include a map showing domestic well locations and average well depth across the subbasin. - Identify the sources of drinking water for DAC members, including an estimate of how many people rely on groundwater (e.g., domestic wells, state small water systems, and public water systems). - Utilize the updated version 4.0 of CalEnviroScreen. *1 Our letter provides a review of the identification and consideration of federally recognized tribes (Data source: SGMA Data viewer) within the GSP from non-tribal members and NGOs. Based on the likely incomplete information available to our organizations for this review, we recommend that the GSA utilize the California Department of Water Resources' "Engagement with Tribal Governments" Guidance Document (https://water.ca.gov/Programs/Groundwater-Management/SGMA-Groundwater-Management/Best-Management-Practices-and-Guidance-Documents) to comprehensively address these important beneficial users in their GSP.
6	Ngodoo Atume, Samantha Arthur, E.J. Remson, J. Pablo Ortiz-Partida, Ph.D., Danielle V. Dolan, Melissa M. Rohde, Amy Merrill, Ph.D., Kristan Culbert,	Clean Water Action/Clean Water Fund, Union of Concerned Scientists, Audubon CA, Local Government Commission, TNC, American Rivers	42	11/12/2021	Public Draft GSP	Identification of Key Beneficial Uses and Users: Interconnected Surface Waters The identification of Interconnected Surface Waters (ISWs) is incomplete. Streamflow depletion in the Sutter Subbasin was evaluated using the C2VSimFG-Sutter model, an integrated hydrologic flow model for the subbasin. The model is described in Appendix 5-G (C2VSimFG-Sutter Model Report) and simulates the period from 1996 to 2015. Appendix 5-G describes the data used in the model, including the location and screening depths of groundwater wells and stream gauge data in the subbasin. The GSP confirms the results of the ISW analysis with data from TNC's Interconnected Surface Water in the Central Valley (ICONS) website, as presented on Figure 5-92 of the GSP.2 Stream nodes from the model were characterized as having gaining conditions, losing conditions, or mixed conditions (Figure 5-91). The GSP states: "The C2VSimFG-Sutter model does not contain stream nodes in the Sutter Buttes foothills, and therefore the interaction between those streams and the underlying water table were not evaluated." We recommend that these stream reaches are retained as potential ISWs in the GSP until further data is gathered. Recommendations: - To confirm the results of the groundwater modeling analysis and support conclusions about the Sutter Buttes foothills stream reaches, overlay the stream reaches shown with depth-to-groundwater contour maps to illustrate groundwater depths and the groundwater gradient near the stream reaches. For the depth-to-groundwater contour maps, use the best practices presented in Attachment D. Specifically, ensure that the first step is contouring groundwater elevations, and then subtracting this layer from land surface elevations from a Digital Elevation Model (DEM) to estimate depth-to-groundwater contours across the landscape. This will provide accurate contours of depth to groundwater along streams and other land surface depressions where GDEs are commonly found. - Describe data gaps for the ISW analysis in the ISW section, in addition to the discussion in Section 7.2.6.6.5 (Interconnected Surface Water Monitoring Network Data Gaps). While the GSP identifies data gaps and their locations in the text, we recommend that the GSP considers any segments with data gaps as potential ISW and clearly marks them as such on maps provided in the GSP. *2Available online at: https://icons.codefornature.org/

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6	Ngodoo Atume, Samantha Arthur, E.J. Remson, J. Pablo Ortiz-Partida, Ph.D., Danielle V. Dolan, Melissa M. Rohde, Amy Merrill, Ph.D., Kristan Culbert,	Clean Water Action/Clean Water Fund, Union of Concerned Scientists, Audubon CA, Local Government Commission, TNC, American Rivers	43	11/12/2021	Public Draft GSP	Identification of Key Beneficial Uses and Users: Groundwater Dependent Ecosystems The identification of Groundwater Dependent Ecosystems (GDEs) is insufficient. The GSP took initial steps to identify and map GDEs using the Natural Communities Commonly Associated with Groundwater dataset (NC dataset). However, we found that some mapped features in the NC dataset were improperly disregarded. NC dataset polygons were incorrectly removed in areas adjacent to irrigated fields or adjacent to rivers and streams. However, this removal criteria is flawed since GDEs can rely on multiple water sources – including shallow groundwater receiving inputs from surface water flow or irrigation return flow from nearby irrigated fields –simultaneously and at different temporal/spatial scales. NC dataset polygons adjacent to irrigated land or surface water supplies can still potentially be reliant on shallow groundwater aquifers, and therefore should not be removed solely based on their proximity to these additional water sources. The GSP identifies and maps GDEs in normal (2013), dry (2015), and wet (2017) years based on a 30-foot screening threshold; maps are presented in Figures 5-96, 5-97, and 5-98, respectively. However, no description or presentation of groundwater data (such as depth-to-groundwater contour maps) is provided. Furthermore, it is unclear which GDEs are retained as potential GDEs for the purposes of establishing monitoring and sustainable management criteria. The GSP states (5-173): “Oak trees are considered the deepest-rooted plant in the region with a root zone of roughly 25 to 30 feet.” If Valley Oaks exist in the subbasin, we recommend instead that an 80-foot depth-to-groundwater threshold be used when inferring whether Valley Oak polygons in the NC dataset are likely reliant on groundwater. This recommendation is based on a recent correction in TNC’s rooting depth database, after finding a typo in the max rooting depth3 units for Valley Oak. This resulted in a specific change in the max rooting depth of Valley Oak from 24 feet to 24 meters (80 feet). For all other phreatophytes, we continue to recommend that a 30-foot depth-to-groundwater threshold be used when inferring whether all other NC dataset polygons are likely reliant on groundwater. Recommendations: - Re-evaluate the NC dataset polygons that are adjacent to irrigated fields or streams and rivers. Refer to Attachment D of this letter for best practices for using local groundwater data to verify whether polygons in the NC Dataset are supported by groundwater in an aquifer. - Use depth-to-groundwater data from multiple seasons and water year types (e.g., wet, dry, average, drought) to determine the range of depth to groundwater around NC dataset polygons. We recommend that a baseline period (10 years from 2005 to 2015) be established to characterize groundwater conditions over multiple water year types. - Provide depth-to-groundwater contour maps, noting the best practices presented in Attachment D. Specifically, ensure that the first step is contouring groundwater elevations, and then subtracting this layer from land surface elevations from a DEM to estimate depth-to-groundwater contours across the landscape. - Refer to Attachment B for more information on TNC’s plant rooting depth database. Deeper thresholds are necessary for plants that have reported maximum root depths that exceed the averaged 30-ft threshold, such as Valley Oak (<i>Quercus lobata</i>). We recommend that the reported max rooting depth for these deeper-rooted plants be used. For example, a depth-to-groundwater threshold of 80 feet should be used instead of the 30-ft threshold, when verifying whether Valley Oak polygons from the NC Dataset are connected to groundwater. It is important to emphasize that actual rooting depth data are limited and will depend on the plant species and site-specific conditions such as soil and aquifer types, and proximity to other water sources. - If insufficient data are available to describe groundwater conditions within or near polygons from the NC dataset, include those polygons as “Potential GDEs” in the GSP until data gaps are reconciled in the monitoring network. *3 TNC. 2021. Plant Rooting Depth Database. Available at: https://groundwaterresourcehub.org/sgma-tools/gde-rooting-depths-database-for-gdes/
6	Ngodoo Atume, Samantha Arthur, E.J. Remson, J. Pablo Ortiz-Partida, Ph.D., Danielle V. Dolan, Melissa M. Rohde, Amy Merrill, Ph.D., Kristan Culbert,	Clean Water Action/Clean Water Fund, Union of Concerned Scientists, Audubon CA, Local Government Commission, TNC, American Rivers	44	11/12/2021	Public Draft GSP	Identification of Key Beneficial Uses and Users: Native Vegetation and Managed Wetlands Native vegetation and managed wetlands are water use sectors that are required to be included in the water budget. , The integration of these ecosystems into the water budget is sufficient 4,5 because the GSP includes the groundwater demands of native vegetation and managed wetlands as separate line items in the historical, current, and projected water budgets. *4 “‘Water use sector’ refers to categories of water demand based on the general land uses to which the water is applied, including urban, industrial, agricultural, managed wetlands, managed recharge, and native vegetation.” [23 CCR §351(a)] *5 “The water budget shall quantify the following, either through direct measurements or estimates based on data: (3) Outflows from the groundwater system by water use sector, including evapotranspiration, groundwater extraction, groundwater discharge to surface water sources, and subsurface groundwater outflow.” [23 CCR §354.18]
6	Ngodoo Atume, Samantha Arthur, E.J. Remson, J. Pablo Ortiz-Partida, Ph.D., Danielle V. Dolan, Melissa M. Rohde, Amy Merrill, Ph.D., Kristan Culbert,	Clean Water Action/Clean Water Fund, Union of Concerned Scientists, Audubon CA, Local Government Commission, TNC, American Rivers	45	11/12/2021	Public Draft GSP	Engaging Stakeholders: Stakeholder Engagement During GSP Development Stakeholder engagement during GSP development is insufficient. SGMA’s requirement for public notice and engagement of stakeholders is not fully met by the description in the Outreach and Communication chapter of the GSP (Chapter 4).6 We note the following deficiencies with the overall stakeholder engagement process: - The GSP documents opportunities for public involvement and engagement in general terms. Public outreach and engagement activities include quarterly public workshops, public meetings, updates at GSA board and city council meetings, updates to the project website, email notices, social media postings, press releases and mailings, utility bill notifications, supporting materials provided in English, Spanish, and Punjabi, and online surveys for stakeholder feedback and input. There are no details of outreach and engagement specifically targeted to DACs, drinking water users, tribes, and environmental stakeholders during the GSP development process. - Aside from the continuation of engagement strategies used during the GSP development process, the GSP does not include a detailed plan for continual opportunities for engagement through the implementation phase of the GSP that is specifically directed to DACs, drinking water users, tribes, and environmental stakeholders. Recommendations: - In the Outreach and Communication chapter, describe active and targeted outreach to engage DACs, drinking water users, tribes, and environmental stakeholders throughout the GSP development and implementation phases. Refer to Attachment B for specific recommendations on how to actively engage stakeholders during all phases of the GSP process. - Utilize DWR’s tribal engagement guidance to comprehensively address all tribes and tribal interests in the subbasin within the GSP.7 *6 “A communication section of the Plan shall include a requirement that the GSP identify how it encourages the active involvement of diverse social, cultural, and economic elements of the population within the basin.” [23 CCR §354.10(d)(3)] *7 Engagement with Tribal Governments Guidance Document. Available at: https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Groundwater-Management/Sustainable-Groundwater-Management/Best-Management-Practices-and-Guidance-Documents/Files/Guidance-Doc-for-SGM-Engagement-with-Tribal-Govt_ay_19.pdf

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6	Ngodoo Atume, Samantha Arthur, E.J. Remson, J. Pablo Ortiz-Partida, Ph.D., Danielle V. Dolan, Melissa M. Rohde, Amy Merrill, Ph.D., Kristan Culbert,	Clean Water Action/Clean Water Fund, Union of Concerned Scientists, Audubon CA, Local Government Commission, TNC, American Rivers	47	11/12/2021	Public Draft GSP	Groundwater Dependent Ecosystems and Interconnected Surface Waters For chronic lowering of groundwater levels, minimum thresholds are established in the same manner as stated above under Disadvantaged Communities and Drinking Water Users (i.e., established as the deeper of three values). The result is that minimum thresholds allow groundwater levels to drop to, or below, historic lows in the subbasin. To describe effects on environmental beneficial uses and users, the GSP states (p. 6-22): "Environmental users of groundwater typically rely on shallow groundwater (within 50 feet of ground surface or less) for recharge to interconnected streams and access by GDEs. If minimum thresholds for chronic lowering of groundwater levels are exceeded (even if an undesirable result is not observed), reduced groundwater recharge to streams and groundwater levels too deep for GDE species to access may be observed." The true impacts to ecosystems under this scenario are not fully discussed in the GSP. By assuming that GDEs can be sustained on historic low groundwater levels (or lower) and the subbasin is allowed to operate at or close to those levels over many years, there is a risk of causing catastrophic damage to ecosystems that is more adverse than what was occurring at the height of the 2012-2016 drought. While many California ecosystems are drought-adapted and therefore able to accommodate short-term water stress, prolonged drought conditions could cause adverse impacts, such as widespread tree mortality or loss of critical habitat for aquatic species, that are more severe than pre-2015 drought impacts. For depletion of interconnected surface water, groundwater elevations are used as proxy for establishing SMC. As for chronic lowering of groundwater levels, minimum thresholds are again established in the same manner as stated above under Disadvantaged Communities and Drinking Water Users (i.e., established as the deeper of three values). To describe effects on environmental beneficial uses and users, the GSP states (p. 6-46): "If an undesirable result for depletions of interconnected surface water is observed and presently gaining streams become losing streams, this reversal of stream interconnection would affect aquatic systems and potentially GDEs. Overall water supply utilized by environmental beneficial users of water would be reduced, thereby reducing suitable habitat through reduced stream depth, flow velocity, cover, and dissolved oxygen as well as increased temperature." However, no analysis or discussion is presented to describe how the SMC will affect beneficial users, and more specifically GDEs, or the impact of these minimum thresholds on GDEs in the subbasin. Furthermore, the GSP makes no attempt to evaluate how the proposed minimum thresholds and measurable objectives avoid significant and unreasonable effects on surface water beneficial users in the subbasin (see Attachment C for a list of environmental users in the subbasin), such as increased mortality and inability to perform key life processes (e.g., reproduction, migration). Recommendations: - When defining undesirable results for chronic lowering of groundwater levels, provide specifics on what biological responses (e.g., extent of habitat, growth, recruitment rates) would best characterize a significant and unreasonable impact to GDEs. Undesirable results to environmental users occur when 'significant and unreasonable' effects on beneficial users are caused by one of the sustainability indicators (i.e., chronic lowering of groundwater levels, degraded water quality, or depletion of interconnected surface water). Thus, potential impacts on environmental beneficial uses and users need to be considered when defining undesirable results in the subbasin. Defining undesirable results is the crucial first step before the minimum 15 thresholds can be determined.16 - When defining undesirable results for depletion of interconnected surface water, include a description of potential impacts on instream habitats within ISWs when minimum thresholds in the subbasin are reached. The GSP should confirm that 17 minimum thresholds for ISWs avoid adverse impacts to environmental beneficial users of interconnected surface waters as these environmental users could be left unprotected by the GSP. These recommendations apply especially to environmental beneficial users that are already protected under pre-existing state or federal law.6,18 - When establishing SMC for the subbasin, consider that the SGMA statute [Water Code §10727.4(l)] specifically calls out that GSPs shall include "impacts on groundwater dependent ecosystems". *15 "The description of undesirable results shall include [...] potential effects on the beneficial uses and users of groundwater, on land uses and property interests, and other potential effects that may occur or are occurring from undesirable results". [23 CCR §354.26(b)(3)] * 16 The description of minimum thresholds shall include [...] how minimum thresholds may affect the interests of beneficial uses and users of groundwater or land uses and property interests." [23 CCR §354.28(b)(4)] * 17 "The minimum threshold for depletions of interconnected surface water shall be the rate or volume of surface water depletions caused by groundwater use that has adverse impacts on beneficial uses of the surface water and may lead to undesirable results." [23 CCR

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6	Ngodoo Atume, Samantha Arthur, E.J. Remson, J. Pablo Ortiz-Partida, Ph.D., Danielle V. Dolan, Melissa M. Rohde, Amy Merrill, Ph.D., Kristan Culbert,	Clean Water Action/Clean Water Fund, Union of Concerned Scientists, Audubon CA, Local Government Commission, TNC, American Rivers	48	11/12/2021	Public Draft GSP	2. Climate Change The SGMA statute identifies climate change as a significant threat to groundwater resources and one that must be examined and incorporated in the GSPs. The GSP Regulations require integration of climate change into the projected water budget to ensure that projects and management actions sufficiently account for the range of potential climate futures. The effects of climate change will intensify the impacts 19 of water stress on GDEs, making available shallow groundwater resources especially critical to their survival. Condon et al. (2020) shows that GDEs are more likely to succumb to water stress and rely more on groundwater during times of drought. When shallow groundwater is unavailable, riparian forests can 20 die off and key life processes (e.g., migration and spawning) for aquatic organisms, such as steelhead, can be impeded. The integration of climate change into the projected water budget is insufficient. The GSP incorporates climate change into the projected water budget using DWR change factors for 2070. The plan reports some calculations in the Appendix for an Extremely Dry scenario to stress the system but does not seem to report and compare such results outside the Appendix. The GSP would benefit from clearly and transparently incorporating the extremely wet and dry scenarios provided by DWR into projected water budgets or select more appropriate extreme scenarios for the subbasin. While these extreme scenarios may have a lower likelihood of occurring, their consequences could be significant and their inclusion can help identify important vulnerabilities in the subbasin's approach to groundwater management. The GSP integrates climate change into key inputs (e.g., changes in precipitation and evapotranspiration) of the projected water budget. However, imported water should also be adjusted for climate change and incorporated into the surface water flow inputs of the projected water budget. The sustainable yield is calculated based on the projected water budget with climate change incorporated. However, if the water budgets are incomplete, including the omission of extreme climate scenarios and the omission of projected climate change effects on imported water inputs, then there is increased uncertainty in virtually every subsequent calculation used to plan for projects, derive measurable objectives, and set minimum thresholds. Plans that do not adequately include climate change projections may underestimate future impacts on vulnerable beneficial users of groundwater such as ecosystems, DACs, tribes, and domestic well owners. Recommendations: - Integrate climate change, including extreme climate scenarios, into all elements of the projected water budget to form the basis for development of sustainable management criteria and projects and management actions. - Incorporate climate change into surface water flow inputs, including imported water, for the projected water budget. - Incorporate climate change scenarios into projects and management actions. *19 "Each Plan shall rely on the best available information and best available science to quantify the water budget for the basin in order to provide an understanding of historical and projected hydrology, water demand, water supply, land use, population, climate change, sea level rise, groundwater and surface water interaction, and subsurface groundwater flow." [23 CCR §354.18(e)] * 20Condon et al. 2020. Evapotranspiration depletes groundwater under warming over the contiguous United States. Nature Communications. Available at: https://www.nature.com/articles/s41467-020-14688-0
6	Ngodoo Atume, Samantha Arthur, E.J. Remson, J. Pablo Ortiz-Partida, Ph.D., Danielle V. Dolan, Melissa M. Rohde, Amy Merrill, Ph.D., Kristan Culbert,	Clean Water Action/Clean Water Fund, Union of Concerned Scientists, Audubon CA, Local Government Commission, TNC, American Rivers	49	11/12/2021	Public Draft GSP	Data Gaps The consideration of beneficial users when establishing monitoring networks is insufficient, due to lack of specific plans to increase the Representative Monitoring Wells (RMWs) in the monitoring network that represent water quality conditions and shallow groundwater elevations around DACs and domestic wells in the subbasin. These beneficial users may remain unprotected by the GSP without adequate monitoring and identification of data gaps in the shallow aquifer. The Plan therefore fails to meet SGMA's requirements for the monitoring network.²¹ Figure 7-2 (Groundwater Level Monitoring Network Wells, Shallow AZ) shows insufficient representation of DACs and drinking water users for shallow groundwater elevation monitoring. Figure 7-7 (Groundwater Quality Monitoring Network Wells, Shallow AZ) shows insufficient representation of DACs and drinking water users for shallow water quality monitoring. Refer to Attachment E for maps of these monitoring sites in relation to key beneficial users of groundwater. Recommendations: - Provide maps that overlay current and proposed monitoring well locations with the locations of DACs, domestic wells, and GDEs to clearly identify monitored areas. - Increase the number of RMWs in the shallow aquifer across the subbasin as needed to map ISWs and adequately monitor all groundwater condition indicators across the subbasin and at appropriate depths for all beneficial users. Prioritize proximity to DACs, domestic wells, GDEs, and ISWs when identifying new RMWs. - Ensure groundwater elevation and water quality RMWs are monitoring groundwater conditions spatially and at the correct depth for all beneficial users - especially DACs, domestic wells, and GDEs. - Provide further details for the biological monitoring (described in the Projects and Management Actions section of the GSP) that can be used to assess the potential for significant and unreasonable impacts to GDEs or ISWs due to groundwater conditions in the subbasin. *21 "The monitoring network objectives shall be implemented to accomplish the following: [...] (2) Monitor impacts to the beneficial uses or users of groundwater." [23 CCR §354.34(b)(2)]
6	Ngodoo Atume, Samantha Arthur, E.J. Remson, J. Pablo Ortiz-Partida, Ph.D., Danielle V. Dolan, Melissa M. Rohde, Amy Merrill, Ph.D., Kristan Culbert,	Clean Water Action/Clean Water Fund, Union of Concerned Scientists, Audubon CA, Local Government Commission, TNC, American Rivers	50	11/12/2021	Public Draft GSP	Addressing Beneficial Users in Projects and Management Actions The consideration of beneficial users when developing projects and management actions is sufficient due to the plan's clear identification of the benefits and impacts of projects and management actions, including water quality impacts, to key beneficial users of groundwater such as GDEs and DACs. We commend the GSAs for describing the environmental benefits of the on-farm groundwater recharge program in the Sutter Subbasin, as developed with support and guidelines from The Nature Conservancy (TNC). The program is based on the TNC's multi-benefit recharge program. Because the GSP fails to clearly analyze impacts to domestic wells and DACs due to chronic lowering of groundwater levels, we recommend inclusion of a drinking water well impact mitigation program to proactively monitor and protect drinking water wells through GSP implementation. Recommendations: - For DACs and domestic well owners, include a drinking water well impact mitigation program to proactively monitor and protect drinking water wells through GSP implementation. Refer to Attachment B for specific recommendations on how to implement a drinking water well mitigation program. - Develop management actions that incorporate climate and water delivery uncertainties to address future water demand and prevent future undesirable results.
7	Ben King	Member of the Public, Colusa Resident	51	11/12/2021	Public Draft GSP	The should be a short discussion about the missile silos constructed on the northern side of the Sutter Buttes as part of the 851st Strategic Missile Squadron – Site 851-B since the structural changes for the missile silo(s) may have some impact on the groundwater quality for the adjacent GDE and its proximity to Grey Lodge. It may be nothing but since the geology of the ancient volcanic structure and related fault/dome structures there may be a possibility of upwelling of saline water and/or the translocation of naturally occurring contaminants consistent with the geology and hydrochemistry of that particular area. See " Cold War relics: Deactivated Titan 1 missile silos surround Beale " by Senior Airman Allen Pollard, 9th Reconnaissance Wing Public Affairs/Published June 07, 2013.
7	Ben King	Member of the Public, Colusa Resident	52	11/12/2021	Public Draft GSP	The Bottom of the Sutter Subbasin can not be best approximated by using Berkstresser, 1973. The Colusa and Yolo GSPs are using Olmstead and Davis, 1961 which has a more appropriate EC level of 2000 rather than 3000. It was not totally clear to me if the Butte Subbasin GSP was using a modified approach to Olmstead and Davis because there was a reference to a DWR source but it is clear that the adjacent GSPs have not incorporated any updated fresh water contours that the DWR has considered as part of the work done by Springhorn et. al. as presented to The Geological Society of America on May 2013. Furthermore it is clear that the BFW and assumptions for available stored water and sustainable yield for the Sutter Subbasin is wrong or at least based on unreliable data since there is abundant empirical evidence that the BFW in many places of the Subbasin is much less than 200 feet. There is only one water quality sample or water quality portion in the Appendix and that shows a NaCl TDs of 2789 at a depth of 95 to 145 feet for a well near Robbins. Literally the Water Budget for the Sutter Subbasin should be taken with a grain of salt (and in some places concerning amount of arsenic) at this point. Regarding the empirical data we are at the early stages of quantitative analysis by unbiased independent Stakeholders but I would reference the work done in the research article " Base of fresh water, groundwater salinity, and well distribution across California" by Mary Kang, Debra Perrone, Ziming Wang, Scott Jasechko and Mellisa M. Rohde , PMAS December 22, 2020. This work is a good start to highlight the very concerning data gaps and inconsistent approaches to defining BFW levels in California and the Sacramento Valley.
7	Ben King	Member of the Public, Colusa Resident	53	11/12/2021	Public Draft GSP	The Project Area delineation is not meaningful and should be edited out. The whole of the Subbasin should be considered as one hydrological unit.
7	Ben King	Member of the Public, Colusa Resident	54	11/12/2021	Public Draft GSP	Recharge Areas Page 5-50 There is a substantial part of the Sutter Subbasin that is flooded for several winter months with substantial depths of flooding – particularly the area that comprises the Sutter Bypass and the confluence of the Sacramento River and Butte Creek flood zones. The CZVSimFG Model in the Appendix addresses flood induced groundwater infiltration for Ponded Crop effects in Section 2.5 and Model Calibration in 3.1 but the net benefit of enhanced infiltration is being missed or underestimated for the water budget subareas subject to flooding and/or seepage in the Sutter Subbasin.
7	Ben King	Member of the Public, Colusa Resident	55	11/12/2021	Public Draft GSP	See my previous comments regarding USGS Gamma site EASC-21 and the discussion about arsenic. This discussion needs to highlight the recent work done by the USGS on water quality, redox and the likely movement of arsenic contamination along the Willows Fault.

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Letter No.	Commenter	Commenter Organization	Comment No.	Date Received	Document	Comment
7	Ben King	Member of the Public, Colusa Resident	56	11/12/2021	Public Draft GSP	The Groundwater Quality Wells are not representative. There should be a time series of TDS and Arsenic contamination observations in the Appendix
7	Ben King	Member of the Public, Colusa Resident	57	11/12/2021	Public Draft GSP	There should be a table for the two contaminated wells at the Barry School and the elementary school in Meridian and the other sites with arsenic contamination observations above the MCL that I included in my previous comments. It should be noted that there is an agreement with the EPA regarding the contamination at Robbins. The second paragraph on Page 5-74 avoids making the predicted connection (see Thiros and Bexfield Model in previously supplied USGS Paper) about the connection between high pH saline water and metal oxides from volcanic rock that exist down elevation from the Sutter Buttes. Arsenic contamination is expected to occur in the Sutter Subbasin as it does in the area around Albuquerque N.M. as highlighted by the recent work of the USGS. This is also probably aggravated by translocation of arsenic along the Willows Fault which generally runs concurrent with the path of the Sutter Bypass.
7	Ben King	Member of the Public, Colusa Resident	58	11/12/2021	Public Draft GSP	This is a good Figure – the data points referenced in Figure 5-35 should be represented as a time series of observations and included in the Appendix.
7	Ben King	Member of the Public, Colusa Resident	59	11/12/2021	Public Draft GSP	These are good Figures – these data points referenced in Figure 5-38 should be represented as a time series of observations and included in the Appendix.
7	Ben King	Member of the Public, Colusa Resident	60	11/12/2021	Public Draft GSP	As mentioned above a large portion of the Sutter Subbasin benefits from seasonal flooding and seepage for several months during wet years. This enhanced infiltration should be included in the Water Budget by Budget subareas that encompass the seepage and/or seasonal flooding which may come with substantial flood heads and last for several months especially during wet years.
7	Ben King	Member of the Public, Colusa Resident	61	11/12/2021	Public Draft GSP	The Project area delineation on the several Figures should be removed since the Subbasin is one hydrological unit.
7	Ben King	Member of the Public, Colusa Resident	62	11/12/2021	Public Draft GSP	Same comment as above
7	Ben King	Member of the Public, Colusa Resident	63	11/12/2021	Public Draft GSP	The use of median averages should not be used for determination of water quality. I may be a case for professional negligence to do so since the adverse health concentrations for water quality contamination is determined by the observations of concentrations in excess of a MCL. It could have been that the median concentration of lead contamination in Flint Michigan was below the EPA MCL but that does not mean that people were not poisoned by lead in their water systems. For the example the discussion in this Section regarding arsenic contamination is not based on a reasonable set of statistic principles because it is based on uneven sampling year sets, likely different sampling sites and the use of a median average. What should be considered is the trends of contamination above the MCL by itself – are certain water systems contaminated based on a MCL and does that trend continue based on a continuous observation time set. For example if the observations for the Meridian elementary school, the Barry School, the supply system for Robbins and the supply system for Wildwood Mutual were all 25 ug/L and six other observations were at 8 ug/L then the median average would be 8 ug/L but the school children at Meridian, Barry School and pregnant women who drank untreated water from Robbins a Wildwood would all be susceptible to arsenic poisoning. The discussion should focus on the trends in elevated arsenic observations at contaminated supply systems and wells – the use of median averages may be professional negligence.
7	Ben King	Member of the Public, Colusa Resident	64	11/12/2021	Public Draft GSP	As discussed above the presence of the abandoned Titan Missile silos on the north side of the Sutter Buttes should be discussed and some future work should be taken to rule out any contamination potential from the construction or decommission of the silo(s) on the adjacent GDE
7	Ben King	Member of the Public, Colusa Resident	65	11/12/2021	Public Draft GSP	As discussed above the BFW assumptions used for the Water Budget are not reasonable if Berkstresser is used. Olmstead and Davis may be acceptable for the time being but the work done by Springhorn and presented in 2013 is probably the best set of assumptions at this point in the implementation of SGMA. Additionally the enhanced infiltration from flooding and seepage should be considered for wet year scenarios in the various base assumptions. There are substantial parts of the Sutter Subbasin that have deep floodwaters for several months and/or benefit from extended seepage that sometime presents above ground near the Sacramento River and the Sutter Bypass.
7	Ben King	Member of the Public, Colusa Resident	66	11/12/2021	Public Draft GSP	There should be a SMC for arsenic contamination and it should be the USEPA MCL of 10 ug/L.
7	Ben King	Member of the Public, Colusa Resident	67	11/12/2021	Public Draft GSP	The elevated pH from the saline water and the metal oxides from the volcanic rocks of the Sutter Buttes is definitely a Potential Cause for the arsenic contamination present in the Sutter Subbasin. The Sutter Yuba investigations (see previously submitted reference – this was a study published by the SWRCB in 1952) identified overpumping as far back as 1930 as a Potential Cause of elevated TDS levels in groundwater.
7	Ben King	Member of the Public, Colusa Resident	68	11/12/2021	Public Draft GSP	Projects and Management Actions. Suter Buttes Salinity Monitoring PMA and Sutter Buttes Water Quality Inter-Basin Working Group PMAs. I previously submitted a PMA that was also submitted for the Colusa Subbasin GSP that focused on the worked done by Steven Springhorn relating to the stratigraphy of the Sutter Buttes in 2008. The Future Work section of Springhorn's Paper focuses on the interrelationship of the geology of the Sutter Buttes Rampart and the arsenic contamination found in the sphere of the Sutter Buttes Geomorphic Unit. The descriptions for these two PMAs should reference arsenic contamination to give it these PMAs the focus and priority they demand due to the public health consequences identified by Springhorn. The discussion about arsenic contamination should not be hidden from Stakeholders and these PMAs should be prioritized especially since they directly relate to HTRW priorities and have distinct likely negative racial equity outcomes.
8	Ben King	Member of the Public, Colusa Resident	69	11/12/2021	Public Draft GSP, Appendix 2-A	There is not Appendix 2-A - Were there any letter comments to the SCGSA?
8	Ben King	Member of the Public, Colusa Resident	70	11/12/2021	Public Draft GSP, Appendix 4-C	There is no log of Comments from any meeting or any Comment Submittal. How are Stakeholders to be informed of other Stakeholder concerns and perspectives in order to make Comments on the Draft GSP? I have no idea if my Comments on Draft Chapters were considered and what the comments were at any meeting. There does appear to be 5 comments to the survey but that appears to be all the Comments presented to the public at during the entirety of the Comment Period for the Draft GSP. I do know that my comments to the HCM were received but I did not get a confirmation for the receipt of my PMA submittal or Comments on any draft Chapter outside of the HCM. I do not see any reference to my project submittal in the PMAs listed in the Appendix.
8	Ben King	Member of the Public, Colusa Resident	71	11/12/2021	Public Draft GSP, Appendix 4-E	Appendix 4-E The 5 comments on the Survey which comprise the totality of the Comments disclosed are interesting. Groundwater Recharge, Water for Wildlife Habitat, to be informed, green solution investment and investment in Live Oak and Farming were primary interests – all good comments. The Groundwater management concerns were about agricultural pumping causing pollution to groundwater and supply issues, overdraft, groundwater substitution and sale of groundwater to southern California, building in Live Oak and fear that the GSA will cut off well supplies.
8	Ben King	Member of the Public, Colusa Resident	72	11/12/2021	Public Draft GSP, Appendix 5-A	Appendix 5-A Note that the Welenco Log Reported a NaCl TDS of 2789 and a NaHCO3 TDS of 5000 at 95 to 145 feet near Robbins. The NaCl TDS was 3533 at 1250 feet – the TDS of the shallow well depth had the worse water quality with the exception of the 1250 well depth.
8	Ben King	Member of the Public, Colusa Resident	73	11/12/2021	Public Draft GSP, Appendix 5-G	Appendix 5-G C2VSimFG- Sutter Model Report There is a Reference error on Page 15 – Section 2.6.1 regarding diversion data. Section 3 Model Calibration - Are there any adjustments regarding vertical or horizontal flows associated with the presence of the Willows Fault? - Are there any adjustments regarding the persistence of upwelling in the Sutter Subbasin? - Why isn't there upwelling near Robbins where the salinity and arsenic contamination is the worse – any empirical work done on this to recalibrate the Model? - As discussed further in the Comments regarding the Water Budget, the Model should be calibrated for the enhanced infiltration from seasonal flooding in the Sutter Subbasin during wet years. There is substantial infiltration from seepage from the Sacramento and Feather Rivers and the Sutter Bypass. There is also substantial enhanced infiltration from seasonal flooding impacted by the confluence of Butte Creek and the Sacramento River, the high water depths of flooding in the Sutter Bypass and other flooding and seepage sites to the east of the Subbasin from the Feather River and other sites I am not so familiar with.
8	Ben King	Member of the Public, Colusa Resident	74	11/12/2021	Public Draft GSP, Appendix 6	Appendix 6 There are no graphs relating to the Groundwater Quality SMC. There should be graphs for TDS/EC for selected wells and all public supply systems and arsenic contamination for the schools and public supply systems with arsenic contamination greater than the EPA max of 10 Ug/L
8	Ben King	Member of the Public, Colusa Resident	75	11/12/2021	Public Draft GSP, Appendix 7-B	Appendix 7-B The project submittals are incomplete – there are only the Feather River Region submittals which date back 7 years to August 2014. Stakeholders have not disclosure for the basis for all the other PMAs listed in 7-A
9	Kevin Thomas	California Department of Fish and Wildlife, North Central Region	76	4/26/2022	Final GSP	Resubmission of same comment letter (Letter #3, comments 11-20). "No apparent changes in response to the Department's comments on the Draft GSP were reflected in the Final GSP, apart from the addition of Table 5-9 in the final GSP, which quantifies average monthly gains and losses of ISW (page 5-170). As the GSAs have not yet provided responses to the remainder of the comments provided by the Department on Sutter Subbasin Draft GSP, the comments provided in Attachment A remain relevant for the Final GSP except for Comment #1, which has been addressed."

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10	Ruth Darling	Central Valley Flood Protection Board	77	4/29/2022	Final GSP	Encroachment Permit: As required by California Code of Regulations, Title 23, Division 1 (Title 23), Section 6, approval by the Board is required for all proposed work or uses, including the alteration of levees, within any area for which there is an Adopted Plan of Flood Control within the Board's jurisdiction. In addition, Board approval is required for all proposed encroachments within a floodway, on adjacent levees, and within any Regulated Stream identified in Title 23, Table 8.1. Specifically, Board jurisdiction includes the levee section, the waterward area between project levees, a minimum 10-foot-wide strip adjacent to the landward levee toe, the area within 30 feet from the top of bank(s) of Regulated Streams, and inside Board's Designated Floodways. Activities outside of these limits which could adversely affect Federal-State flood control facilities, as determined by Board staff, are also under Board's jurisdiction. Permits may also be required for existing unpermitted encroachments or where it is necessary to establish the conditions normally imposed by permitting, including where responsibility for the encroachment has not been clearly established or ownership or uses have been changed. Some of the proposed projects identified in the GSP are within the Board's jurisdiction, thereby requiring Board approval. These projects include, but are not limited to, the System Modernization Projects, Boundary Flow and Primary Spill Measurement and Drainage Recovery Projects, Multi-Benefit Recharge Projects, and Installation of Additional Shallow Groundwater Monitoring Wells Projects. Please contact Board staff if you would like to schedule a pre-application meeting to discuss any of the projects in detail and/or to determine the documentation required to process an encroachment permit. Federal permits, including U.S. Army Corps of Engineers (USACE) Section 404 and Section 10 regulatory permits and Section 408 Permission, in conjunction with a Board permit, may be required for the proposed projects. In addition to federal permits, state and local agency permits, certifications, or approvals may also be required. State approvals may include, but are not limited to, California Department of Fish and Wildlife's Lake and Stream Alteration Agreement and Regional Water Quality Control Board's Section 401 Water Quality Certification. The project proponent must obtain these authorizations prior to the implementation of a proposed project.
10	Ruth Darling	Central Valley Flood Protection Board	78	4/29/2022	Final GSP	Subsidence Impacts to Critical Infrastructure:The Board is interested in how the GSP is addressing the sustainability indicators, specifically subsidence, which potentially affects the integrity, functionality, and maintenance costs of Federal-State flood control facilities that are regulated by the Board. The Federal-State flood control facilities are considered critical infrastructure by the State and may only be modified through approval by the Board and USACE. The State Plan of Flood Control (SPFC) facilities located within the plan area include portions of the Sacramento River Flood Control Project (SRFCP). The facilities of the SRFCP located within the plan area include the Sacramento River, Sutter Bypass, Tisdale Bypass, Wadsworth Canal, and Feather River. These facilities are operated and maintained in accordance with State Operation and Maintenance Manuals (O&M Manuals) that are available upon request. The O&M Manuals provide the minimum freeboard and the design profile that have been established for these facilities. Any reduction in the freeboard or change to design profile as a result of subsidence may lead to increased flood risk and damage to Federal-State flood control facilities. Board staff has reviewed the O&M Manuals for the watercourses identified above to determine the freeboard and design flow capacity. It is imperative to ensure that subsidence that is occurring within the planning area does not impact the levee design profiles. The east levee of the Sacramento River, from Butte Slough Outfall Gates to Winship School, has a freeboard of at least 3 feet with a design flow of 66,000 cubic feet per second (cfs). The west levee of Sutter Bypass, from Butte Slough Outfall Gates to a point near Long Bridge, has a freeboard of at least 6 feet with the design flow of 178,000 cfs for the Sutter Bypass. The east levee of the Sacramento River, from Winship School downstream to Tisdale Bypass, has a freeboard of at least 3 feet with a design flow of 66,000 cfs. The north levee of Tisdale Bypass and west levee of Sutter Bypass have a freeboard of at least 6 feet with design flows of 38,000 cfs for the Tisdale Bypass and 178,000 cfs for the Sutter Bypass. The east levee of the Sacramento River, from Sutter Bypass to the Tisdale Weir, has a freeboard of at least 3 feet with a design flow of 30,000 cfs. The south levees of the Tisdale Bypass, from the east levee of the Sacramento River to the west levee of the Sutter Bypass, and the west levee of the Sutter Bypass, downstream to the east levee of the Sacramento River, have a freeboard of at least 6 feet with the following design flows: 38,000 cfs for the Tisdale Bypass, 178,000 cfs for the Sutter Bypass above the Tisdale Bypass, and 216,500 cfs for the Sutter Bypass below the Tisdale Bypass. The east levee of the Sutter Bypass, from the Sutter Buttes southerly to its junction with the Feather River, and the levees of Wadsworth Canal have a freeboard of at least 6 feet with the following design flows: 178,000 cfs for the Sutter Bypass from Long Bridge to Tisdale Bypass, 216,000 cfs for the Tisdale Bypass downstream to the Feather River north levee, And 1,500 cfs for Wadsworth Canal. The west levee of the Feather River, from the north boundary of RD No. 823 to its junction with the east levee of Sutter Bypass, has a freeboard of at least 3 feet with the design flow of 320,000 cfs. The west levee of the Feather River, from the north boundary of Levee District (LD) 1 to the common boundary between LD1 Maintenance Area 3, has a freeboard of at least 3 feet with the design flows of 300,000 cfs upstream and 320,000 cfs downstream of the Bear River. The west levee of the Feather River, from the north boundary of RD No. 777 to north boundary of LD 1, has a freeboard of at least 3 feet and a design flow of 210,000 cfs. The GSP notes that subsidence has not been recorded within the planning area. Action will be required if the stability changes and subsidence begins to affect SPFC facilities. It is unlawful for any person or public agency to interfere with, obstruct the performance, maintenance, or
11	Samantha Arthur	Audubon CA	79	4/30/2022	Final GSP	Follow-up to Audubon comments on Public Draft: Acknowledged that Final GSP addressed most comments appropriately: "Were Audubon's comments on the publicly released draft GSP adequately addressed? Yes. While the Sutter GSAs failed to include suggested language in a few instances, the most important comments Audubon submitted were incorporated in the Final GSP. Specifically, the Final GSP includes CVPIA Full Level 4 quantities to managed wetlands, improved land use maps, and generally considers managed wetland beneficial uses as equal priority to urban and agricultural water uses (see Exhibit 1 to this letter)." Response deemed inadequate: "Consideration of GSP Effects on Managed Wetlands Are the potential effects on managed wetlands, as beneficial users of groundwater, identified and considered? Partially. By using CVPIA Full Level 4 quantities to managed wetlands, the Final GSP plans for protection of beneficial uses including the irrigation of critical managed wetland habitat. The GSP should also provide an analysis of the direct or indirect impacts on managed wetlands as beneficial users when defining undesirable results, and the GSP should provide an analysis of the impacts of the proposed minimum thresholds and measurable objectives."
11	Samantha Arthur	Audubon CA	80	4/30/2022	Final GSP	Comment not addressed in Final Draft: Table 2-2, page 2-21: Suggest adding "including managed wetlands" as a parenthetical descriptor to "Riparian Vegetation" as often the former category includes explicit actions to apply water and manage food and habitat compared to riparian vegetation which often correlates to unmanaged stream course vegetation and habitats depending on a riparian water source.
11	Samantha Arthur	Audubon CA	81	4/30/2022	Final GSP	Comment not addressed in Final Draft: Figure 2-12, page 2-22: Same comment as described for Table 2-2.
12	Ngodoo Atume, Samantha Arthur, E.J. Remson, J. Pablo Ortiz-Partida, Ph.D., Danielle V. Dolan, Melissa M. Rohde, Amy Merrill, Ph.D., Kristan Culbert,	Clean Water Action/Clean Water Fund, Union of Concerned Scientists, Audubon CA, Local Government Commission, TNC, American Rivers	82	4/30/2022	Final GSP	Follow-up to comments on Public Draft: Stakeholder Engagement Recommendations: - In the Outreach and Communication chapter, describe active and targeted outreach to engage DACs, drinking water users, and environmental stakeholders throughout the GSP development and implementation phases. Refer to "Collaborating for Success: Stakeholder Engagement for Sustainable Groundwater Management Act Implementation" for specific recommendations on how to actively engage stakeholders during all phases of the GSP process. - Utilize DWR's tribal engagement guidance to comprehensively address all tribes and tribal interests in the basin within the GSP.
12	Ngodoo Atume, Samantha Arthur, E.J. Remson, J. Pablo Ortiz-Partida, Ph.D., Danielle V. Dolan, Melissa M. Rohde, Amy Merrill, Ph.D., Kristan Culbert,	Clean Water Action/Clean Water Fund, Union of Concerned Scientists, Audubon CA, Local Government Commission, TNC, American Rivers	83	4/30/2022	Final GSP	Follow-Up to Comments on Public Draft: Identification of DACs, domestic wells, and tribes Recommendations: - Consult with tribal representatives to identify and map any potential tribal interests within the basin. - include a map showing domestic well locations and average well depth across the basin. - Identify the sources of drinking water for DAC members, including an estimate of how many people rely on groundwater (e.g., domestic wells, state small water systems, and public water systems).
12	Ngodoo Atume, Samantha Arthur, E.J. Remson, J. Pablo Ortiz-Partida, Ph.D., Danielle V. Dolan, Melissa M. Rohde, Amy Merrill, Ph.D., Kristan Culbert,	Clean Water Action/Clean Water Fund, Union of Concerned Scientists, Audubon CA, Local Government Commission, TNC, American Rivers	84	4/30/2022	Final GSP	Follow-Up to Comments on Public Draft: Identification of interconnected surface waters Recommendation: -To confirm the results of the groundwater modeling analysis and support conclusions about the Sutter Buttes foothills stream reaches, overlay the stream reaches shown with depth-to-groundwater contour maps to illustrate groundwater depths and the groundwater gradient near the stream reaches. For the depth-to-groundwater contour maps, use the best practices presented in The Nature Conservancy's "Identifying GDEs under SGMA: Best Practices for using the NC Dataset."10 Specifically, ensure that the first step is contouring groundwater elevations, and then subtracting this layer from land surface elevations from a Digital Elevation Model (DEM) to estimate depth-to-groundwater contours across the landscape. This will provide accurate contours of depth to groundwater along streams and other land surface depressions where GDEs are commonly found. - Describe data gaps for the ISW analysis in the ISW section, in addition to the discussion in Section 7.2.6.6.5 (Interconnected Surface Water Monitoring Network Data Gaps). While the GSP identifies data gaps and their locations in the text, we recommend that the GSP considers any segments with data gaps as potential ISWs and clearly marks them as such on maps provided in the GSP.

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12	Ngodoo Atume, Samantha Arthur, E.J. Remson, J. Pablo Ortiz-Partida, Ph.D., Danielle V. Dolan, Melissa M. Rohde, Amy Merrill, Ph.D., Kristan Culbert,	Clean Water Action/Clean Water Fund, Union of Concerned Scientists, Audubon CA, Local Government Commission, TNC, American Rivers	85	4/30/2022	Final GSP	Follow-Up to Comments on Public Draft: Identification of groundwater dependent ecosystems Recommendation: - Re-evaluate the NC dataset polygons that are adjacent to irrigated fields or streams and rivers. Refer to best practices for using local groundwater data to verify whether polygons in the NC Dataset are supported by groundwater in an aquifer. - Use depth-to-groundwater data from multiple seasons and water year types (e.g., wet, dry, average, drought) to determine the range of depth to groundwater around NC dataset polygons. We recommend that a baseline period (10 years from 2005 to 2015) be established to characterize groundwater conditions over multiple water year types. - Provide depth-to-groundwater contour maps, noting best practices. Specifically, ensure that the first step is contouring groundwater elevations and then subtracting this layer from land surface elevations from a DEM to estimate depth-to-groundwater contours across the landscape. - Refer to The Nature Conservancy's plant rooting depth database. Deeper thresholds are necessary for plants that have reported maximum root depths that exceed the averaged 30-ft threshold, such as Valley Oak (<i>Quercus lobata</i>). We recommend that the reported maximum rooting depth for these deeper-rooted plants be used. For example, a depth-to-groundwater threshold of 80 feet should be used instead of the 30-ft threshold when verifying whether Valley Oak polygons from the NC Dataset are connected to groundwater. It is important to emphasize that actual rooting depth data are limited and will depend on the plant species and site-specific conditions such as soil and aquifer types, and proximity to other water sources. - If insufficient data are available to describe groundwater conditions within or near polygons from the NC dataset, include those polygons as "potential GDEs" in the GSP until data gaps are reconciled in the monitoring network. - For more information on shallow groundwater conditions in the basin, refer to The Nature Conservancy's tool "SAGE: Shallow Groundwater Estimation Tool," which uses machine learning and 35 years of satellite data to predict depth to groundwater and determine groundwater level trends for every polygon within the NC Dataset.
12	Ngodoo Atume, Samantha Arthur, E.J. Remson, J. Pablo Ortiz-Partida, Ph.D., Danielle V. Dolan, Melissa M. Rohde, Amy Merrill, Ph.D., Kristan Culbert,	Clean Water Action/Clean Water Fund, Union of Concerned Scientists, Audubon CA, Local Government Commission, TNC, American Rivers	86	4/30/2022	Final GSP	Follow-Up to Comments on Public Draft: Incorporation of climate change in the water budget Recommendation: - Integrate climate change, including extreme climate scenarios, into all elements of the projected water budget to form the basis for development of sustainable management criteria and projects and management actions. - Incorporate climate change into surface water flow inputs, including imported water, for the projected water budget.
12	Ngodoo Atume, Samantha Arthur, E.J. Remson, J. Pablo Ortiz-Partida, Ph.D., Danielle V. Dolan, Melissa M. Rohde, Amy Merrill, Ph.D., Kristan Culbert,	Clean Water Action/Clean Water Fund, Union of Concerned Scientists, Audubon CA, Local Government Commission, TNC, American Rivers	87	4/30/2022	Final GSP	Follow-Up to Comments on Public Draft: Inclusion of ecosystems in the water budget The GSP satisfactorily answered both questions for this criteria
12	Ngodoo Atume, Samantha Arthur, E.J. Remson, J. Pablo Ortiz-Partida, Ph.D., Danielle V. Dolan, Melissa M. Rohde, Amy Merrill, Ph.D., Kristan Culbert,	Clean Water Action/Clean Water Fund, Union of Concerned Scientists, Audubon CA, Local Government Commission, TNC, American Rivers	88	4/30/2022	Final GSP	Follow-Up to Comments on Public Draft: Consideration of impacts to DACs, drinking water users and environmental users in the SMC Recommendation: - Describe direct and indirect impacts on drinking water users and DACs when describing undesirable results and defining minimum thresholds for chronic lowering of groundwater levels. - Consider and evaluate the impacts of selected minimum thresholds and measurable objectives on drinking water users and DACs within the basin. Further describe the impact of passing the minimum threshold for these users. For example, provide the number of domestic wells that would be fully or partially de-watered at the minimum threshold. - Describe direct and indirect impacts on drinking water users and DACs when defining undesirable results for degraded water quality. For specific guidance on how to consider these users, refer to "Guide to Protecting Water Quality Under the Sustainable Groundwater Management Act." - Evaluate the cumulative or indirect impacts of proposed minimum thresholds for degraded water quality on drinking water users and DACs. - For total dissolved solids (TDS) and nitrate, provide a summary table that presents the pre-2015 historical maximums, the objectives from the Basin Plan, the maximum contaminant levels (MCLs), and the resulting minimum thresholds. Ensure that the minimum thresholds do not exceed the objectives in the Basin Plan. - Set minimum thresholds and measurable objectives for all water quality constituents within the basin that can be impacted and/or exacerbated as a result of groundwater use or groundwater management. - Set minimum thresholds that do not allow water quality to degrade to levels at or above the MCL trigger level. - When defining undesirable results for chronic lowering of groundwater levels, provide specifics on what biological responses (e.g., extent of habitat, growth, recruitment rates) would best characterize a significant and unreasonable impact to GDEs. Undesirable results to environmental users occur when significant and unreasonable effects on beneficial users are caused by one of the sustainability indicators (i.e., chronic lowering of groundwater levels, degraded water quality, or depletion of interconnected surface water). Thus, potential impacts on environmental beneficial uses and users need to be considered when defining undesirable results in the basin. Defining undesirable results is the crucial first step before the minimum thresholds can be determined. - When defining undesirable results for depletion of interconnected surface water, include a description of potential impacts on instream habitats within ISWs when minimum thresholds in the basin are reached. The GSP should confirm that minimum thresholds for ISWs avoid adverse impacts to environmental beneficial users of interconnected surface waters as these environmental users could be left unprotected by the GSP. These recommendations apply especially to environmental beneficial users that are already protected under pre-existing state or federal law. - When establishing SMC for the basin, consider that the SGMA statute [Water Code §10727.4(l)] specifically calls out that GSPs shall include "impacts on groundwater dependent ecosystems". - To identify beneficial users in the basin that may be at risk to groundwater level declines, refer to The Nature Conservancy's new tool, "SAGE: Shallow Groundwater Estimation Tool", which uses machine learning and 35 years of satellite data to predict depth to groundwater for each polygon within the NC Dataset.
12	Ngodoo Atume, Samantha Arthur, E.J. Remson, J. Pablo Ortiz-Partida, Ph.D., Danielle V. Dolan, Melissa M. Rohde, Amy Merrill, Ph.D., Kristan Culbert,	Clean Water Action/Clean Water Fund, Union of Concerned Scientists, Audubon CA, Local Government Commission, TNC, American Rivers	89	4/30/2022	Final GSP	Follow-Up to Comments on Public Draft: Identification and reconciliation of data gaps Recommendation: - Provide maps that overlay current and proposed monitoring well locations with the locations of DACs, domestic wells, and GDEs to clearly identify monitored areas. - Increase the number of representative monitoring sites (RMSs) in the shallow aquifer across the basin as needed to map ISWs and adequately monitor all groundwater condition indicators across the basin and at appropriate depths for all beneficial users. Prioritize proximity to DACs, domestic wells, GDEs, and ISWs when identifying new RMSs. - Ensure groundwater elevation and water quality RMSs are monitoring groundwater conditions spatially and at the correct depth for all beneficial users - especially DACs, domestic wells, and GDEs. - Provide further details for the biological monitoring (described in the Projects and Management Actions section of the GSP) that can be used to assess the potential for significant and unreasonable impacts to GDEs or ISWs due to groundwater conditions in the basin. - Prioritize the installation of new wells around beneficial uses most susceptible to groundwater decline by referring to The Nature Conservancy's new tool, "SAGE: Shallow Groundwater Estimation Tool", which uses machine learning and 35 years of satellite data to predict depth to groundwater for each polygon within the NC Dataset.
12	Ngodoo Atume, Samantha Arthur, E.J. Remson, J. Pablo Ortiz-Partida, Ph.D., Danielle V. Dolan, Melissa M. Rohde, Amy Merrill, Ph.D., Kristan Culbert,	Clean Water Action/Clean Water Fund, Union of Concerned Scientists, Audubon CA, Local Government Commission, TNC, American Rivers	90	4/30/2022	Final GSP	Follow-Up to Comments on Public Draft: Identification of potential impacts to beneficial users in the PMAs Recommendation: - For DACs and domestic well owners, include a drinking water well impact mitigation program to proactively monitor and protect drinking water wells through GSP implementation. Refer to "Framework for a Drinking Water Well Impact Mitigation Program" for specific recommendations on how to implement a drinking water well mitigation program.



Sutter Subbasin <info@suttersubbasin.org>

Sutter Subbasin HCM Comment No.1

Ben King <bking@pacgoldag.com>

Sun, Jul 25, 2021 at 10:29 AM

To: "info@suttersubbasin.org" <info@suttersubbasin.org>

Cc: Ben King <bking@pacgoldag.com>

Dear Sutter GSP Plan Coordinator,

My name is Ben King and my family has been farming in the Colusa Subbasin since 1860. I grew up in Colusa and I am concerned about the arsenic contamination in the public supply systems of Grimes and Princeton and the possibility that the arsenic contamination will spread to the public supply system of the City of Colusa via the Willows Fault or due to increased groundwater pumping which is likely with the further development of conjunctive groundwater pumping due to SGMA and the diversion restrictions as part of the Bay – Delta Plan.

I just reviewed the Draft HCM for the Sutter Basin and it seems that the Monitoring Network used for the Groundwater Quality assessments is not representative of the historical and empirical data that I have found in my research. I will be sending you several reports and empirical observations that need to be considered in the final HCM in my opinion.

The earliest groundwater quality data that I have found for the Sutter Basin was part of the Sutter- Yuba County Investigations which was published by the State Water Resources Board in 1952. Some of the observations go back to 1947 and 1949. This report was prompted by the report of salt water intrusion in the fresh water aquifer. On Page 38 of the Sutter- Yuba County Investigation the report states “ Furthermore, when the water table is lowered by heavy irrigation pumping it is probable that upward movement of the brines is accelerated.” It is my understanding that the concern about upward movement of salt water brines prompted which had existed since the 1930’s prompted the transition from a ground water supply to surface water supply by the local irrigation district.

I have attached the cover for the report so that your consultants can access the report from the UC Davis Library and also included Table 20 of the Report which clearly shows an increase in EC levels southward south of the Buttes in the 3E and 2E Range south of the Sutter Buttes. You can see that the problem is most pronounced in the T12N/R2E where there is a Boron observation of 10.8 and a EC observation of 10,000

**Sutter Yuba Investigations Table 20 Excerpt.pdf**

458K



Sutter Subbasin <info@suttersubbasin.org>

Sutter Subbasin HCM Comment No. 2

Ben King <bking@pacgoldag.com>

Sun, Jul 25, 2021 at 10:54 AM

To: "info@suttersubbasin.org" <info@suttersubbasin.org>

Cc: Ben King <bking@pacgoldag.com>

Dear Sutter Subbasin GSA Coordinator,

Attached is an excerpt of the 1971 Thesis by George Curtin "Hydrology of the Sutter Basin, Sacramento Valley, California".

I have attached the Appendix table with the water quality observations which were the basis of his report. You can see the same consistent elevated TDS/EC and Boron observations near T14N/2E and T14N/R3E. There are 4 TDS observations greater than 5000 and two Boron observations of 10.8. Magnesium and Chloride observations were also elevated. The TDS measurements would seem to be consistent with the 10,000 and 8,600 EC observations in the Sutter-Yuba Investigation Table and the Boron is the same 10.8.

2



1971 Curtin Water Quality Observations Excerpt.pdf
4290K



Sutter Subbasin <info@suttersubbasin.org>

Sutter Subbasin HCM Comment No. 3

Ben King <bking@pacgoldag.com>

Sun, Jul 25, 2021 at 11:51 AM

To: "info@suttersubbasin.org" <info@suttersubbasin.org>

Cc: Ben King <bking@pacgoldag.com>

I have attached the Figures from the Sutter County Groundwater Management Plan.

Regarding the discussion regarding Arsenic, the draft HCM does not seem to reflect the observations on Figure 19 of the GMP. The HCM seems to indicate only one observation above 100 rather than the 3 observations about 100 u/gL on Figure 19. Overall the discussion does not highlight the potential health risk of the elevated observations over the USEPA MCL in public supply systems. The multi-completion well nearest the City of Sutter shows an observation of 93 u/gL at 554 feet and the multi-completion well and the multi-completion well near Robbins has an observation of 84 at 695 feet.

There is no observation for the water quality at Meridian which should be a concern since the public supply system for Grimes has an observation of 24 u/gL and because there have been elevated observations for wells on the south side of the City of Colusa.

In the report that is cited in the HCM "**Stratigraphic Analysis And Hydro Geologic Characterization of Cenozoic Strata In the Sacramento Valley Near The Sutter Buttes**" Springhorn stated the following on page 164:

"Concentrations of arsenic in 27 spatially and depth distributed samples from DWR multi-completion monitoring wells ranged from < 0.1 to 370 ug/l. Concentrations in 15 of the samples exceeded the USEPA current drinking water Maximum Contaminant Level (MCL) of 10 ug/l, and 90 percent of groundwater samples collected from wells screened in Rampart volcanoclastic material have arsenic concentrations exceeding the MCL"

My comment regarding the Arsenic discussion of the HCM is that the text of the Arsenic discussion in Springhorn's report is more consistent with the necessity to highlight the gravity of the health risk of arsenic above the USEPA MCL rather than the current discussion which does not clearly state the number of elevated occurrences nor does it highlight the potential risks to Sutter County public supply systems.

**Sutter County GMP Figures.pdf**

3060K



Sutter Subbasin <info@suttersubbasin.org>

Sutter Subbasin HCM Comment No. 4

Ben King <bking@pacgoldag.com>

Sun, Jul 25, 2021 at 1:26 PM

To: "info@suttersubbasin.org" <info@suttersubbasin.org>

Cc: Ben King <bking@pacgoldag.com>

Dear Sutter Subbasin GSA Coordinator,

Attached is the 2014 USGS Paper 1358 “**Water Quality in Basin-Fill Aquifers of the Southwestern United States: Arizona, California, Nevada, New Mexico and Utah, 1993- 2009**”. According to the statistical model described on Page 58 of the Paper, the presence of arsenic contamination is as predicted due to the presence of volcanic rocks and groundwater with high observed levels of pH and especially under the anoxic conditions of the connate seawater surrounding the Sutter Buttes.

On Page 54 of this USGS Report it states:

“ The interaction of arsenic with metal oxides, particularly iron oxide, is one of the most important processes by which groundwater can become enriched or depleted in arsenic. When geochemical conditions favor arsenic release (desorption) from oxide surfaces, groundwater concentrations are higher than when geochemical conditions favor arsenic attachment (adsorption) to oxide surfaces. If the pH is greater than 8, arsenic tends to desorb from the iron oxides and dissolves into the groundwater. Under anoxic conditions, iron oxides dissolve and release iron and arsenic into the groundwater regardless of pH.”

Additionally, contrary to the conclusion reached in the HCM, the translocation of salt water and arsenic contamination **should be expected** as it has been observed for the public supply system of Albuquerque New Mexico.

The 2014 USGS Paper 1358 focused on Southwestern water quality also highlights the likely translocation of arsenic via Fault systems on such as the Willows Fault when it highlighted the observed translocation of arsenic contamination in the Rio Grande Basin on Pages 56 and 57 of the Paper. According to the Paper – “**The highest concentrations of arsenic in groundwater in the Middle Rio Grande Basin are associated with volcanic rocks ... and with fault zones through with deep, mineralized groundwater rises.**” Comparing this to the situation in Colusa and Sutter Counties it would make sense to infer that the source of the arsenic contamination in Princeton is related to the source of the contamination in the abandoned well Del Oro well on the south side of Colusa which is also related to the source of the contamination in Grimes and also the source for Robbins. All of these points of observed contamination lie close to the southeasterly path of the Willows Fault and are aquifers where salt water brines occupy lower stratas.



USGS 2014 Publication Regarding Water Quality Excerpt Regarding Arsenic (003).pdf
4581K



Sutter Subbasin <info@suttersubbasin.org>

Sutter Subbasin HCM Comment No. 5

Ben King <bking@pacgoldag.com>
To: "info@suttersubbasin.org" <info@suttersubbasin.org>
Cc: Ben King <bking@pacgoldag.com>

Sun, Jul 25, 2021 at 1:57 PM

Dear Sutter Subbasin GSA Coordinator,

My last comment concerns the lack of data on the portion of the Sutter Subbasin between the Sutter Buttes and the City of Colusa. As I mentioned I am particularly concerned about the potential for arsenic contamination affecting the public supply system for the City of Colusa.

My first observation is that I do not believe the HCM is working on the best available data for BFW levels. As you can see in the Springhorn attachment the DWR has updated the work done by Berkstresser in 1973. Springhorn, Hightower, Bedegrew and Bonds from the DWR presented a poster board with updated BFW contours at the The Geological Society of America in May 2013. The BFW levels in the HCM should include this update and reference this work.

Secondly the HCM should include consider the water quality data from the USGS Gamma Site EASC21 which appears to be on the Butte Slough immediately north west of the Sutter Buttes.

The water quality observations in this well support the presence of connate sea water and anoxic conditions in general. As attached, the USGS Report prepared in cooperation with the California State Water Resources Control Board "**Ground-Water Quality Data in the Middle Sacramento Valley Study Unit, 2006 – Results from the California Gama Program**" Data Series 385. On Figure 3 located in the Methods section Page 7, the location of EASC 21 observation well is shown to be slightly north west of the Sutter Buttes and very close to the Willows Fault. This well with a well depth of 369 feet has extraordinary sample observations indicating the likelihood of upwelling of connate water into the fresh water aquifer. The specific conductance of this well was 2380 uS/cm on Table 4. On Table 9 the Chloride Level was 626 mg/l and the Total dissolved solids was 1290. On Table 10 Arsenic was 80.5 ug/l, Boron was 1,010 ug/l. Perhaps most interesting was the results for Table 14 – it was the only well with a positive reading (all others had negative numeric observations) for g13O of dissolved carbonates with a reading of 5.57 (per mil).

Given these water quality observations, I would encourage the consultants working on the HCM to reconsider the level of detail in the HCM regarding the area between the Sutter Buttes and the portion of Colusa County east of the Sacramento River. In my opinion it is unfortunate that this area has been carved up into three subbasins by BBM modifications but some one has to address the complexity of the geology of the Colusa Dome and the likelihood that connate salt water and arsenic is moving vertically and laterally via the Willows Fault and/or the Sutter Buttes Rampart.

Thank you for your time and consideration

Sincerely,

Ben King

2 attachments



Springhorn BFW Contour Map 2013 Report.pdf
402K



USGS Groundwater Quality Data 2006.pdf
3863K



Sutter Subbasin <info@suttersubbasin.org>

Sutter Subbasin Management Action

Ben King <bking@pacgoldag.com>

Sun, Jul 25, 2021 at 2:07 PM

To: "info@suttersubbasin.org" <info@suttersubbasin.org>

Cc: Ben King <bking@pacgoldag.com>

Dear Sutter Subbasin GSA Coordinator,

Attached is a proposed Management Action that I submitted for the Colusa Subbasin. As you will see the proposed Management Action relates to both the Sutter and Colusa Subbasin's – please let me know if my submittal is acceptable since it is on the Colusa Subbasin submission form.

Thank you for your time and consideration

Best Regards,

Ben King

**Springhorn Arsenic Study Proposed Management Action.pdf**

7511K



Sutter Subbasin <info@suttersubbasin.org>

Sutter Subbasin HCM Comment

Ben King <bking@pacgoldag.com>
To: Sutter Subbasin <info@suttersubbasin.org>
Cc: Ben King <bking@pacgoldag.com>

Thu, Aug 5, 2021 at 7:06 PM

Hi Leslie,

I wanted to make one final comment on the draft HCM for the Sutter Subbasin. While I see you have included another Figure from Harwood and Helley, I would like to suggest that you also include Figure 12 from their 1987 USGS Paper.

I would like to suggest that the relative locations of the Reverse Fault portion of the Willows Fault and the location of the Colusa Dome is important and the fact that part of the Reverse Portion is inferred because of its relative location to the City of Colusa. The location of the Colusa Dome and assumed depth is also important since it is rather shallow at its peak – 1000 ft. There is a lot going on here – not to mention the intersection of all of this with the Sacramento River and related hydrology. Since this is the most detail of this complex geology with relative locations I am suggesting that this Figure as attached be included in the HCM.

The cross section at the bottom of the figure is also informative because it identifies the type of rocks and locations in context with the volcanic structure and Colusa Dome in particular. It highlights how shallow the Tertiary Rocks are to the west towards Colusa in particular.

Thank you for your consideration.

Best Regards,

Ben

 **Scan0006.pdf**
496K



Sutter Subbasin GSP Groundwater Conditions Chapter Comments Part 1

Ben King <bking@pacgoldag.com>
To: Sutter Subbasin <info@suttersubbasin.org>
Cc: Ben King <bking@pacgoldag.com>

Fri, Aug 27, 2021 at 10:19 AM

Good Morning Leslie,

I will be submitting two set of comments today. Frist, I would like to comment on the data set for the presentation and analysis presented in Table 5-7 . In my second email to follow, I would like to focus on the assumptions made regarding the scope of the work highlighted in the discussion for Figure 5-48 which is the excerpt from the GEI Alternative Plan on Page 5-4. Finally, I would like to question the narrow and incomplete references that were presented and apparently relied on.

Please know that some of my comments are quite critical and in some sense I want to apologize for the harshness since I know members of your staff are working very hard to finalize the GSP. I would like your staff to know that the tone of my comments come from a point of great concern about the safety of the drinking water for the water systems near the Sutter Buttes and also because I know that poor people, especially poor people of color are those who suffer the most from the power structure in small communities when there is great economic incentive to look the other way. This was my experience growing up in Colusa and unfortunately I think arsenic contamination risks for the Sutter Subbasin are being intentionally downplayed.

Thank you for your time and the opportunity to submit these comments.

Table 5-7 Comments:

1: The Draft Groundwater Conditions Chapter appear to be a material deviation from the breadth of the previous work done by Woodward and Curran in the Sutter Subbasin GMP. Rather than build upon the breadth of data presented in the GMP and update the GMP with the work of Springhorn and the recent work of the USGS by Susan Thiros and Laura Bexfield regarding Water Quality in Basin Fill Aquifers and Groundwater Availability in the Central Valley, this Draft seems to be beholden to the GEI Alternative Plan and attempt to limit the data set and new research to justify the constraints of the GEI Alternative Plan. The GEI Alternative Plan appears to an advocacy document intended to try to exempt the Sutter Basin from material SGMA requirements. I would encourage Woodward and Curran to expand the data set and update the work done in the Sutter GMP in its development o of the GSP for the Sutter Subbasin.

2 On Page 45 of the Draft the following statement is made: " Median concentrations of arsenic have decreased since 1952 and most recently are below the Primary MCL". There is no basis for this statement - what could be said is – Based on a selected data set of 28 recent measurements over a selected 7 year period. the median observation has decreased since 1952 when compared to the median of the 115 observations analyzed for the last 60 years. Furthermore you could say that the median observation of the data set for selected 3 year period was dropped from being nearly twice the allowed USEPA MCL to 70% of the USEPA MCL!! What is not discussed is how could this

happen? After decades of upwelling, redox, metal oxide desorption, increased groundwater pumping due to conversion to permanent plantings the Sutter Subbasin experience a 63% decline in groundwater arsenic contamination!. What is in the water that seems to indicate that principles of redox and arsenic desorption seem to have changed over the last 7 years? Why does the Table compare a 56 year period with 77 data points to a 3 year period with 38 data points to a 7 year period with 28 data points?

3. Regarding the data set the source is noted as GAMA (SWRCB,2021). What part of GAMA is this – there is no notation of this source in the Reference Section. GAMA has a history back to 2004 and a change of focus in 2012. Was the 1952-2008 data from GAMA and what part of GAMA?

4. It appears that most of the data cites in 5-81,82,83 and 84 are intended to be from the 2008 Sacramento Valley GAMA publication but this report does not appear to be cited nor do the measurements presented on this Figures appear to be correct in all cases. Was it intended to use the 2008 USGS publication for the reported observations? If so – perhaps this report should be cited and put in the Reference Section.

5. The water quality figures of the Sutter Subbasin GMP cite USGS (GAMA), DWR, SEWD, DHS, FAQ and the USEPA. It seems that Table 5-7 is limited to the USGS (GAMA) via the SWRCP data set? How about the SWRCB data set for MCL violations for public water systems. Are the water quality observations for the Barry School well near Yuba City or the Sutter County Public Water Systems included in Table 5-7? Specifically:

- Barry School Well . In 2015 Tom Butcher Director of Maintenance said that the arsenic contamination problem is not solved and is giving bottled water to students (Arsenic in California Drinking Water Page 16 , September 2016)
- Sutter Co. WWD#1 (Robbins) Public Water System 5100107
- Wildwood Mutual Water Company PWS 5100109
- City of Live Oak PWS 5110001
- Yuba City Groundwater- Region 2-3 PWS 511003

6. On Page 5-46, it is stated “ ..water quality objectives identified in Table 5-7 for the purpose of using a common metric for the highest beneficial use, which is drinking water.” Shouldn't the fact that Sutter County has entered in an agreement with the USEPA regarding Robbins be discussed as a current condition. How about the fact that students were given bottled water outside of Yuba City as late as 2015? How about the fact the USEPA has cited the portion of the sewage system dependent on groundwater for an arsenic violation? The Primary MCL violation for the City of Live Oak. The Arsenic violation for the Wildwood water system near Yuba City? None of this is mentioned in the Draft? Were any of these measurements included among the 28 measurements referenced for the 2013-2020 period of Table 5-7?

7. Figure 5-81 The grouping of the observations for Rice 20 and Rice 01 should be separated since the Rice 01 observations are material and extraordinary. It should be noted that that Rice 01 had an arsenic observation of 8 ug/L which is close to the USEPA MCL even though it has a well depth of 50 feet. The TDS level is reported to be 7390 which is again extraordinary and indicates that arsenic desorption is likely to be occurring with a high pH and high TDS. It is also extraordinary that the TDS level for Rice 20 is more than 10 times less even though there are near the same latitude. Perhaps this could have something to do with the up-whelling and possible transmission of connate water via the Willows Fault as the Sutter Subbasin elevation declines southwardly. Please note that the TDS levels reported for 2006 GAMA observations are different from those Table 9 Page 60 of the USGS 2008 Report. Also please separate Rice 01 with its own data box – there is plenty of room on the lower right side of the Figure on top of the North American basin portion of Figure 5-81.

8. Figure 5-83 There is material omission by not including GAMA EASC 21. The 2006 observations were : Arsenic 80.1 ug/L Boron 1,010 ug/L (Table 10 Page 61 USGS GAMA 2008) and TDS 1290 (Table 9 Page 58 USGS GAMA 2008). For the EASC 19 there is a 2006 reading of 96 on Table 10 but the data cited is a 2001 observation. The same is true for TDS – the 2006 observation is 306 . For the companion 15N well there is no data mentioned for arsenic – perhaps

there should be a NA if not available. For EASC 29, the TDS level reported on Table 9 appears to be 297 which is different than the 2006 reported observation by a small amount.

7

4 attachments**USGS GAMA 2006 Observations.pdf**

2160K

**Woodward & Curran Sutter GMP Data Sources.pdf**

1040K

**Barry School Arsenic Report.pdf**

1012K

**SWRCB Water System MCL Violation Funding Report Excerpt.pdf**

841K



Suttter Subbasin GSP Groundwater Conditions Chapter Comments Part 2

Ben King <bking@pacgoldag.com>
To: Sutter Subbasin <info@suttersubbasin.org>
Cc: Ben King <bking@pacgoldag.com>

Fri, Aug 27, 2021 at 4:09 PM

Hi Leslie,

Here are the 2nd part of my Comments on the Draft Chapter:

1. Generally the Draft Chapter ignores the geology and geochemistry of the Sutter Buttes volcanic structure and Rampart as well as the tectonic features of the Willows Fault. The statement in the box for Figure 5-48 on the GEI slide from the Alternative Plan highlights the deficient perspective of the Draft Chapter. The Basin Boundary Modifications approved by the DWR to incorporate the Sutter Subbasin Project Area rightly with the Sutter Subbasin as a whole was material and extremely consequential. There is extensive empirical data and research to take a position strongly disagreeing with the conclusion made in the following statement. "Such Modifications (referring to the 2019 BBM) have not resulted in material changes that would alter understanding of basin conditions." The BBM Modification added : (1) an 2 million year old volcanic structure at the valley floor of an in-fill basin, (2) connate sea water that is upwhelling around the volcano and likely moving laterally down the decent of the Valley floor and possibly via the fault structure and (3) an active fault in the Willows Fault that is located between the Sutter Buttes Rampart and the City of Colusa that has a spur that goes under the Sacramento River and under the City of Colusa with the major fault line moving through the length of the entirety of the Sutter Subbasin mostly within the major flood zone of the Sutter Bypass and (4) the geologic structure of the Colusa Dome with shallow and uncertain vertical aquifer depths.
2. Some empirical observations to consider : (a) GAMMA Site EASC 21 with elevated trace metal observations and water chemistry that may indicate the upwhelling of anoxic sea water into normal well depths located on the banks of the environmentally important Butte Creek, (b) a BBM comment that the domestic well for the Colusa Shooting Club on Laux Road has a reverse osmosis filter to treat well water and (c) a report from a local landowner on Laux Road that a neighbor brought up saltwater from a new 500 foot well that killed fish.
3. Refer to " Sutter Buttes – The Lone Volcano in California's Great Valley" USGS – Reducing the Risk From Volcano Hazards by Brian Hausback and Patrick Muffler March 2011. Understanding the unique location of the Sutter Buttes in the Sacramento Valley watershed should inform GSP development.
4. Refer to " Geochemisty of Ground Water in the Sacramento Valley, California by Laurence C. Hull , USGS Publication 1984 - The Sutter Buttes are identified as one of 8 unique Geomorphic Units on Page B4. On Page B10 – " The Sutter Basin facies is tied with the south alluvial fan facies for the highest average dissolved solids concentration. This facies is also high in sodium, chloride, bicarbonate, potassium and boron. The effect of reducing concentrations are evident in the relatively higher concentrations of iron, manganese, and arsenic in this area, all of which are more soluble in reducing environments (Garrels and Christ, 1965). The very low average nitrate concentration in this facies is also indicative of reducing conditions, where nitrate can be removed by denitrification reactions. The origin of the high dissolved-solids water is thought to be connate marine water moving upward along fault lines created when Sutter Buttes was emplaced (Curtin, 1971) " Got to take the shot at conclusions based on Table 5- 7 in the Draft Chapter – REALLY????

5. Refer to "Hydrogeology of the Sutter Basin, Sacramento Valley< California by George Curtin. Master Thesis, University of Arizona – this is the reference for Hull. Can one publish a Draft for Groundwater Conditions for the Sutter Basin and not discuss the findings of a Hydrology Professor about the Sutter Basin?
6. Refer to "Late Cenozoic Tectonism of the Sacramento Valley, California by David Harwood and Edward Helley USGS 1987 See Page 16 for the discussion regarding the relationship between the Willows Fault and the Colusa Dome. The vertical depths of the groundwater aquifer around the Sutter Buttes and on top of the Colusa Dome structure should be addressed in the Draft Chapter
7. Refer to "Stratigraphic Analysis and Hydrogeologic Characterization of Cenozoic Strata in the Sacramento Valley Near the Sutter Buttes" by Steven Taylor Springhorn, Masters Thesis, CSU, Sacramento 2008. Refer to the discussion on Page vii of the Abstract " The presence of brackish water in these deeper aquifers combined with upward vertical gradients creates the potential for continued upward migration of brackish water into overlying fresh water aquifers, or upconing beneath areas of pumping . Prolonged well pumping in these areas is likely to result in regional water quality degradation and may ultimately reduce the thickness of fresh groundwater in the Sacramento Valley" On Page 163 "Data analyses suggest there is a connection between elevated arsenic concentrations in groundwater and the presence of the Sutter Buttes Rampart volcanoclastic material (which is derived from silicic and intermediate volcanic rocks)."
8. Refer to "Water Quality in Basin-Fill Aquifers of the Southwestern United States: Arizona, California, Colorado, Nevada, New Mexico and Utah, 1993-2009" by Susan Thiros, Angela Paul, Laura Bexfield and David Anning USGS 2014 See the similarity of the Sutter Subbasin to the Middle Rio Grande Basin on Page 56 " Groundwater circulating at depth in the Middle Rio Grande Basin has high concentrations of arsenic, chloride and other elements. This deep ground water comes into contact with shallower groundwater where it flows upward, primarily along fault zones throughout the basin." See Page 59 regarding the predictive model described on Page 58 where high concentrations of arsenic are predicted in an topographical area like Robbins = " Arsenic concentrations greater than the MCL are more likely to occur in basin lowlands than in other parts of the basin because of longer residence time in the aquifer and geochemical reactions between the groundwater and arsenic-bearing sediment."

8

Comment Regarding Section 5.2.2.3 Groundwater Trends

1. The SWRB Report "Sutter-Yuba Counties Investigation" SWRB Bulletin No. 6 1952 made clear that the upward movement of saline water is not a trend but a well known fact. This report based on work primarily done in 1949 and published in 1952 made this statement on Page 32 under Quality of Water. **"With respect to ground water supplies, however (compared to surface water discussed in the previous sentence) , salinity sufficient to impair use of the ground water for irrigation, domestic, and many industrial uses has been observed at scattered wells throughout the area for many years"**. After approximately 80 years maybe it is time to stop calling it a trend and focus on the trend in degraded groundwater quality caused by upwhelling?
2. Refer to "Effects of Natural and Human Factors on Groundwater Quality of Basin-Fill Aquifers in the Southwestern United States – Conceptual Models for Selected Contaminants" by Laura Bexfield, Susan Thiros, Jena Huntington, and Tim McKinney USGS 2011 Refer to Page 54 for the discussion regarding TDS. Refer to Page 59 for the discussion regarding Arsenic See Page 44 " How Redox Conditions are Determined " regarding the important role Redox conditions have on water quality. Based off approximately 80 years of connate saline water redox – Bexfield's report can provide great scientific analysis to be included in the Draft Chapter regarding Groundwater Conditions.

9



Sutter Subbasin <info@suttersubbasin.org>

Sutter Subbasin GSP Groundwater Conditions Comments Part 3

Ben King <bking@pacgoldag.com>
To: Sutter Subbasin <info@suttersubbasin.org>
Cc: Ben King <bking@pacgoldag.com>

Fri, Aug 27, 2021 at 4:30 PM

Comments Regarding the Reference List.

Please refer to the reports referenced for the full citation for suggested references to be included and analyzed when completing the final draft of the Chapter.

Since this Draft Chapter is about the Sutter Subbasin the previous work specifically focused on the Sutter Subbasin should have the respective findings discussed and analyzed in the Chapters of the GSP. There are three reports that should be referenced:

1. Sutter-Yuba Counties Investigation
2. Hydrogeology Of The Sutter Basin, Sacramento Valley, California
3. Stratigraphic Analysis And Hydrogeological Characterization of Cenozoic Strata in the Sacramento Valley Near the Sutter Buttes

The Following USGS Papers should be referenced:

1. Hull – Geochemistry of Groundwater in the Sacramento Valley, California 1984 for the geochemical foundation of the influence of the Sutter Buttes on the Sutter Basin groundwater quality
2. Harwood and Helley – Late Cenozoic Tectonism of the Sacramento Valley, California 1987 for the foundational analysis of the Willows Fault and the interrelationship with the Colusa Dome
3. Thiros et al. – Water Quality in Basin-Fill Aquifers of the Southwestern United States: Arizona, California, Colorado, Nevada, New Mexico and Utah, 1992 -2009, 2014 for the discussion on the chemical basis of desorption of arsenic and the lateral movement of connate water and arsenic via faults
4. Bexfield et. al – “ Effects of Natural and Human Factors on Groundwater Quality of Basin-Fill Aquifers in the Southwestern United States, 2011 for the discussion on the redox and saline unphwelling identified in the Sutter-Yuba Counties Investigation. Also for the discussion regarding arsenic contamination. When referring to this Report consider the fact that these hydrochemical processes have been occurring at least since the 1940's and for “many years prior” to the report in 1952. Perhaps a 100 years of Redox in the Sutter Subbasin?

10



State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
North Central Region/Region 2
1701 Nimbus Road
Rancho Cordova, CA 95670
www.wildlife.ca.gov
[\(916\) 358-2900](tel:(916)358-2900)

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director



November 8, 2021

Guadalupe Rivera
Sutter Subbasin
1130 Civic Center Boulevard
Yuba City, CA 95933
grivera@co.sutter.ca.us

Subject: CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE COMMENTS ON THE SUTTER SUBBASIN DRAFT GROUNDWATER SUSTAINABILITY PLAN

Dear Mr. Rivera:

The California Department of Fish and Wildlife (Department) appreciates the opportunity to provide comments on the Sutter Subbasin Draft Groundwater Sustainability Plan (GSP) prepared by the Sutter County Groundwater Sustainability Agency (GSA), Butte Water District GSA, City of Live Oak GSA, Sutter Extension Water District GSA, Sutter Community Services District GSA, City of Yuba City GSA, Reclamation District No. 70 GSA, Reclamation District No. 1500 GSA, and Reclamation District No. 1660 GSA pursuant to the Sustainable Groundwater Management Act (SGMA). The Basin is designated as medium priority under SGMA and must be managed under a GSP by January 31, 2022.

The Department is writing to support ecosystem preservation and enhancement in compliance with SGMA and its implementing regulations based on Department expertise and best available information and science. As trustee agency for the State's fish and wildlife resources, the Department has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and the habitat necessary for biologically sustainable populations of such species (Fish & Game Code §§ 711.7 and 1802).

Development and implementation of GSPs under SGMA represents a new era of California groundwater management. The Department has an interest in the sustainable management of groundwater, as many sensitive ecosystems, species, and public trust resources depend on groundwater and interconnected surface waters (ISWs), including ecosystems on Department-owned and managed lands within SGMA-regulated basins.

SGMA and its implementing regulations afford ecosystems and species specific statutory and regulatory consideration, including the following as pertinent to GSPs:

- GSPs must **consider impacts to groundwater dependent ecosystems** (GDEs) (Water Code § 10727.4(l); see also 23 CCR § 354.16(g));
- GSPs must consider the interests of all beneficial uses and users of groundwater, including environmental users of groundwater (Water Code § 10723.2) and GSPs must **identify and consider potential effects on all beneficial uses and users of**

Sutter Subbasin
November 8, 2021
Page 2 of 12

- groundwater** (23 CCR §§ 354.10(a), 354.26(b)(3), 354.28(b)(4), 354.34(b)(2), and 354.34(f)(3));
- GSPs must **establish sustainable management criteria that avoid undesirable results** within 20 years of the applicable statutory deadline, including **depletions of interconnected surface water that have significant and unreasonable adverse impacts on beneficial uses of the surface water** (23 CCR § 354.22 *et seq.* and Water Code §§ 10721(x)(6) and 10727.2(b)) and describe monitoring networks that can identify adverse impacts to beneficial uses of interconnected surface waters (23 CCR § 354.34(c)(6)(D)); and
 - GSPs must **account for groundwater extraction for all water use sectors**, including managed wetlands, managed recharge, and native vegetation (23 CCR §§ 351(a) and 354.18(b)(3)).

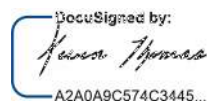
Furthermore, the Public Trust Doctrine imposes a related but distinct obligation to consider how groundwater management affects public trust resources, including navigable surface waters and fisheries. Groundwater hydrologically connected to surface waters is also subject to the Public Trust Doctrine to the extent that groundwater extractions or diversions affect or may affect public trust uses. (*Environmental Law Foundation v. State Water Resources Control Board* (2018), 26 Cal. App. 5th 844; *National Audubon Society v. Superior Court* (1983), 33 Cal. 3d 419.) The GSA has “an affirmative duty to take the public trust into account in the planning and allocation of water resources, and to protect public trust uses whenever feasible.” (*National Audubon Society, supra*, 33 Cal. 3d at 446.) Accordingly, groundwater plans should consider potential impacts to and appropriate protections for ISWs and their tributaries, and ISWs that support fisheries, including the level of groundwater contribution to those waters.

In the context of SGMA statutes and regulations, and Public Trust Doctrine considerations, groundwater planning should carefully consider and protect environmental beneficial uses and users of groundwater, including fish and wildlife and their habitats, GDEs, and ISWs.

The Department recognizes and appreciates the effort of the GSAs to characterize current and projected groundwater conditions within the subbasin. However, the Department believes the GSP could improve its considerations of environmental users of groundwater and establish more protective management criteria. The Department is providing additional comments and recommendations in Attachment A.

If have any questions related to the Department’s comments and/or recommendations on the Sutter Subbasin Draft GSP please contact Bridget Gibbons, Environmental Scientist, at bridget.gibbons@wildlife.ca.gov.

Sincerely,

DocuSigned by:

A2A0A9C574C3445...

Kevin Thomas
Regional Manager, North Central Region

Enclosures (Attachments A, B)

Sutter Subbasin
November 8, 2021
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Attachment A

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE COMMENTS ON THE SUTTER SUBBASIN DRAFT GROUNDWATER SUSTAINABILITY PLAN

COMMENTS AND RECOMMENDATIONS

The Department's comments are as follows:

1. **Comment #1 – Interconnected Surface Water Systems** (5.2.7 Interconnected Surface Waters; starting page 5-169): The GSP does not include an estimate of the quantity and timing of depletions of interconnected surface water systems as required by 23 CCR § 354.16(f).
 - a. Issue: The GSP identifies the Feather River, Sacramento River, and Sutter Bypass as interconnected surface waters and assesses whether stream segments are primarily gaining, losing, or mixed. However, the GSP does not include information related to the quantify and timing of depletions from these interconnected surface waters as required by 23 CCR § 354.16(f).
 - b. Recommendation: The Department recommends that the GSP include a table quantifying the volume of surface water depletions, by month, for all interconnected surface waters identified within the subbasin.
2. **Comment #2 – Groundwater Dependent Ecosystems** (5.2.8 Groundwater Dependent Ecosystems; starting page 5-173): Groundwater dependent ecosystem (GDE) identification, required by 23 CCR § 354.16(g), is based on methods that risk exclusion of ecosystems that may depend on groundwater.
 - a. Issues:
 - i. Depth to Groundwater Threshold: The GSP relies on a groundwater level threshold of 30-feet below the ground surface (bgs) to screen potential GDEs within the subbasin. However, mature Valley Oak (*Quercus lobata*) can access groundwater up to 80 feet bgs (Howard 1992, Lewis & Burgy 1964). The use of a 30-foot threshold may incorrectly exclude Valley Oak communities within the subbasin from further consideration as a GDE. Additionally, the GSP does not specify if the groundwater level data used for the depth to groundwater analysis is based on spring or fall groundwater measurements.
 - ii. GDEs Near Surface Water: The GSP eliminates potential GDE areas located within 150 feet of surface waters, within 150 feet of irrigated rice paddies, and within 50 feet of other irrigated croplands, Fish and Wildlife Service-irrigated land, and State-

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irrigated land. This GDE-elimination method may disregard a GDE's adaptability and opportunistic approach to accessing water in which vegetation and ISW may rely on *both* surface water and groundwater across seasons and years.

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- iii. GDE Identification by Year: The GSP assesses potential GDE areas identified in the Natural Communities Commonly Associated with Groundwater (NCCAG) dataset across three years: 2013, 2015, and 2017. For each year, the GSP removes NCCAG areas based on the depth to groundwater and proximity to surface water/irrigated lands elimination criteria; remaining NCCAG areas are identified as "potential GDEs." This process essentially creates three different sets of potential GDE locations within the subbasin, one for each of the years evaluated, intended to represent a range of dry to wet years. It is unclear whether the GSP requires an area to be identified as a potential GDE in all three of the years evaluated to be retained as a GDE for monitoring and management actions in the GSP, or if an area identified as a potential GDE in one or two of the three years would be retained as a GDE. For instance, an area identified as a potential GDE in 2017, a wet year, may not have had access to groundwater supplies during 2015, a critically dry water year in which groundwater levels reached historic lows. A lack of groundwater access during dry years does not negate an area's status as a GDE; if GDE areas must be confirmed across all three representative water years to be managed in the GSP, the plan's methodology may incorrectly eliminate potential GDEs based on their inability to access groundwater at a single point in time during a critically dry year.

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- iv. Special Status Species: Though the GSP includes a list of freshwater species within the Sutter Subbasin, the GSP does not assess the species' potential groundwater dependence or their spatial extent within the subbasin.

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b. Recommendations:

- i. Depth to Groundwater Threshold: The Department recommends the GSP update the methodology for classifying GDEs to reflect accurate maximum potential rooting depth for Valley Oak communities. For areas of Valley Oak within the subbasin, the Department recommends the GSP apply a threshold of 80 feet bgs as the maximum depth at which the potential GDE could access groundwater. The Department accepts the use of a 30-foot threshold for other potential GDE areas within the subbasin that do not contain Valley Oak. The GSP should also explicitly identify

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which groundwater level measurements were used for the depth to groundwater analysis; the Department recommends the analysis rely on spring, or seasonal high, groundwater levels to be inclusive of potential GDEs.

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- ii. GDEs Near Surface Water: The Department recommends that the GSP err on the side of inclusivity of potential GDEs until there is site specific evidence that the overlying ecosystem has no significant dependence on groundwater across seasons and water year types. This means not ruling out potential GDEs because they are proximate to surface water.

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- iii. GDE Identification by Year: The Department recommends the GSP clarify the GDE identification methodology and explain if areas identified as GDEs in each of 2013, 2015, and 2017 are retained for further analysis, or if only areas identified in all three years are considered GDEs for the remainder of the GSP.

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- iv. Special Status Species: The Department recommends the GSP include an assessment of each identified species' likely groundwater dependence. The GSP should also include a spatial assessment of special status species within the subbasin to characterize which surface waters or GDE areas provide these species habitat or forage; this level of GDE-species-relationship assessment enables GSAs to prioritize GDE monitoring and management decisions.

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3. Comment #3 – Sustainable Management Criteria (6.5.6 Depletions of Interconnected Surface Water; starting page 6-36): Interconnected surface water sustainable management criteria (SMC) may not protect against undesirable results for fish and wildlife beneficial uses and users.

a. Issues:

- i. Minimum Thresholds: Minimum thresholds (MTs) for ISW, using groundwater levels as a proxy, are set either at the historic low over the period of record, at 90% of the average groundwater elevation with a modeled increase in evapotranspiration of 50%, or at a level necessary to provide a sufficient operating range below the measurable objective. The GSP's methodology assumes that undesirable results were not occurring at the historic low; however, the GSP does not include sufficient analysis or discussion to support this claim. In 2015, the second of back-to-back critically dry water years in the Sacramento Valley which resulted in historical low groundwater levels, vegetated and aquatic GDEs experienced adverse impacts including stressed or dying riparian vegetation,

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poor instream habitat availability, and increased water temperatures (DFW 2019). It is unclear what, if any, studies or analyses were completed to assess whether environmental users within the subbasin experienced undesirable results at the historical low groundwater levels. The GSP assumes that undesirable results for ISW occur only when gaining streams become losing streams. This assumption ignores the benefits of groundwater contributions to surface water baseflows, including the maintenance of instream water quality and temperatures. Reducing the volume of groundwater contributions to ISW, even if a reach has not yet changed from gaining to losing or disconnected, would likely result in significant and unreasonable impacts to fish and wildlife beneficial users of ISW prior to exceedance of the MT. As the GSP neither characterizes specific instream flow or habitat requirements for aquatic species, nor provides baseline information on the volume and timing of ISW depletion (See Comment #1), nor discusses the anticipated rates of depletion that would occur at the established MTs; there is insufficient information to assess potential impacts to ISW beneficial uses and users. The ISW SMC are also regarded in the GSP as protective of GDE beneficial users of groundwater, but the GSP does not provide evidence to support this claim. No analysis is presented that characterizes whether the established MTs are sufficient to maintain water groundwater levels that have historically been shallow enough to support GDEs, or if the MTs would permit groundwater levels to fall below root zones, removing groundwater as an available water source to some GDEs. If MTs are not protective of GDE access to groundwater supplies, significant impacts to environmental beneficial users of groundwater will likely be experienced before MTs are reached.

- ii. Undesirable Results: The GSP requires 25% of ISW representative monitoring wells in the subbasin to fall below their MTs for two consecutive seasonal high water level measurements before identifying an undesirable result to GDEs or ISW. While environmental users are usually adapted to sustain short-term lowering of groundwater levels during dry periods, environmental users may not be able to sustain extended periods of reduced groundwater access that would result from allowing groundwater levels to fall to historic lows or deeper for two consecutive years. Under these MTs, by the time an undesirable result is declared and management actions are triggered in response to the undesirable

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result, environmental groundwater users will have already experienced significant stress and potentially irreversible mortality.

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- iii. Environmental Beneficial Users: Though the GSP does discuss the potential impacts of exceeding the established SMC for each sustainability indicator on environmental beneficial uses and users within the subbasin, the GSP does not present sufficient evidence that the MTs will protect against these impacts. For instance, the GSP states that if groundwater level or ISW MTs are exceeded, GDEs could lose access to groundwater and aquatic ecosystems could experience a reduction in suitable habitat through lowered stream depths, flow velocities, and dissolved oxygen; and increased temperatures (pages 6-46). However, in establishing the MTs, the GSP seemingly does not compare the groundwater level or ISW thresholds to GDE rooting depths, nor does the GSP relate the MTs to rates of depletion of surface waters and the associated impacts on instream flows, water temperatures, or the availability of suitable habitat for aquatic species.

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b. Recommendations:

- i. Minimum Thresholds: The Department recommends the GSP reselect minimum thresholds that would better protect environmental uses and users of groundwater, rather than enabling declines in groundwater levels over the implementation horizon beyond the historic low. Additional analyses of the specific impacts of the established thresholds on monthly groundwater contribution to baseflow in gaining streams, monthly depletion of losing streams, and on GDE and ISW beneficial users of groundwater should be included.
- ii. Undesirable Results: The Department recommends the GSP reconsider the two seasonal-high measurements of groundwater levels below MTs required to constitute an undesirable result, recognizing that extended durations of groundwater inaccessibility for environmental users will likely lead to adverse impacts that cannot be easily reversed when groundwater levels recover. At a minimum, the Department recommends identifying physical triggers (e.g., declining Normalized Difference Vegetation Index signals) and associated management actions (e.g., demand reduction) to enable the GSAs to identify and mitigate localized patterns of lowering groundwater or depleted ISW and associated negative impacts before the second year of MT exceedances yields more significant and undesirable impacts. These interim action triggers

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will help preempt irreversible losses and undesirable results for environmental users.

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- iii. Environmental Beneficial Users: The Department recommends the GSP include specific analysis demonstrating that the established SMCs are sufficiently protective of environmental users of groundwater, including GDEs and ISW. Groundwater level and ISW MTs at each representative monitoring well (See Comment #5) should be compared to the rooting depths of the identified vegetation in nearby GDEs. The GSP should quantify the volume and timing of depletions of ISW that would occur at the established MTs and explicitly discuss the impacts of the projected depletions on aquatic species' streamflow, water temperature, and habitat needs.

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4. Comment #4 – Projects and Management Actions (PMAs)(7.1.3 Summary of Projects and Management Actions; starting page 7-3): The GSP should include additional potential PMAs related to the implementation of demand management within the subbasin.

- a. Issue: The planned and ongoing PMAs within the subbasin focus largely on modernizing water systems operations or implementing recharge projects that may be costly, rely on securing additional surface water supplies, and/or require potentially lengthy permitting processes. Though the GSP indicates that in the projected future conditions scenario, the Sutter Subbasin is expected to maintain groundwater sustainability, should projects fail to produce the anticipated groundwater benefit or localized undesirable results occur, it may be necessary to implement additional demand management projects.
- b. Recommendation: The Department recommends identifying additional demand management projects as potential PMAs that could be implemented within the subbasin. The Department supports a balanced approach of projects related to both supply augmentation and demand management for managing the subbasin sustainably.

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5. Comment #5 – Monitoring Networks (7.1.4.6 Installation of Additional Shallow Groundwater Monitoring Wells, 7.2.6.1 Groundwater Level Monitoring Network, 7.2.6.6 Interconnected Surface Water Monitoring Network; starting pages 7-56, 7-114, and 7-148): The GSP should include an assessment of the adequacy of the monitoring networks for assessing impacts to GDEs. The GSP should include additional information related to the planned project to improve the monitoring network for GDEs and ISW within the subbasin.

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- a. Issue: The GSP does not include a discussion of the adequacy of the monitoring network for assessing potential impacts to GDEs throughout the subbasin. It is unclear whether any of the identified representative monitoring sites for groundwater levels or ISW are located sufficiently near to GDEs to monitor shallow groundwater levels in those areas. While the Department acknowledges the planned installation of 15 additional shallow wells to improve monitoring of ISW and GDEs, the discussion of the locations of these additional wells focuses on filling data gaps related to ISW and does not discuss planned well locations relative to GDEs within the subbasin.
- b. Recommendation: The GSP should include additional detail related to adequacy of the existing representative monitoring networks for assessing shallow groundwater conditions and potential impacts to GDEs. The Department recommends that the GSP assess the locations of special status species within the subbasin to determine which GDE areas likely provide priority habitat. GDE areas and ISW that support special status species or are most at risk of negative impacts due to groundwater pumping should be prioritized for monitoring to inform management actions (See Comment #2(iv)).

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CONCLUSION

In conclusion, though the draft GSP provides detailed characterization of subbasin groundwater conditions, the GSP lacks a robust analysis of potential impacts to environmental beneficial users and should establish more protective management criteria. The Department recommends that the Sutter Subbasin GSAs address the above comments before GSP submission to DWR to best prepare for the following regulatory criteria for plan evaluation:

1. The assumptions, criteria, findings, and objectives, including the sustainability goal, undesirable results, minimum thresholds, measurable objectives, and interim milestones are not reasonable and/or not supported by the best available information and best available science (23 CCR § 355.4(b)(1)). (See Comment #1, 2, 3)
2. The GSP does not identify reasonable measures and schedules to eliminate data gaps. (23 CCR § 355.4(b)(2)) (See Comment #5)
3. The interests of the beneficial uses and users of groundwater in the basin, and the land uses and property interests potentially affected by the use of groundwater in the basin, have not been considered. (23 CCR § 355.4(b)(4)) (See Comment #1, 2, 3)

4. The projects and management actions are not feasible and/or not likely to prevent undesirable results and ensure that the basin is operated within its sustainable yield. (23 CCR § 355.4(b)(5)) (See Comment #4)**Attachment B**

LITERATURE CITED

Department of Fish and Wildlife. 2019. Statewide Drought Response: Stressor Monitoring.

Howard, Janet L. 1992. *Quercus lobata*. In: Fire Effects Information System. U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, Fire Sciences Laboratory.

Lewis, D.C. & Burgy, R. H. 1964. The Relationship between Oak Tree Roots and Groundwater in Fractured Rock as Determined by Tritium Tracing. *Journal of Geophysical Research*. 69(12):2579-2588.



November 11, 2021

Guadalupe Rivera
Sutter County Development Services
1130 Civic Center Blvd
Yuba City, CA 95993
Sent via email to: info@suttersubbasin.org

Re: Comments on the Draft Sutter Subbasin Groundwater Sustainability Plan

To Sutter Subbasin GSAs,

Audubon California appreciates the opportunity to provide public comment on the draft Sutter Subbasin Groundwater Sustainability Plan (GSP) prepared by the nine Groundwater Sustainability Agencies (GSAs), collectively referred to hereafter as the “Sutter GSAs”. Audubon California is a statewide nonprofit organization with a mission to protect birds and the places they need. Our organization has a long history of solutions-focused work in the Central Valley in collaboration with state and federal agencies, water districts, non-profits, and landowners. Audubon is reviewing draft GSPs as a stakeholder for the environment with a particular focus on managed wetlands. We are commenting on draft GSPs to GSAs to improve their GSPs prior to the deadline to submit final GSPs to the Department of Water Resources in January 2022. Audubon would also like to identify areas of opportunity to partner with landowners and GSAs to provide groundwater and wildlife habitat benefits in the implementation of the Sustainable Groundwater Management Act (SGMA).

Over 90 percent of historic wetlands in the Central Valley have been replaced with agriculture or urban development. Disconnected from natural water sources as a consequence of surface water diversions and groundwater over-pumping, wetland landowners must utilize surface water deliveries or pump groundwater to provide flooded habitat. But managed wetlands provide outsized public trust benefits for their minor water use.

The remaining wetlands in the Central Valley are a critical component of the Pacific Flyway, supporting millions of migratory waterfowl, hundreds of thousands of shorebirds, and state listed species like the Tricolored Blackbird. Central Valley managed wetlands are part of California’s commitment to national and international Pacific Flyway agreements and provide significant public trust benefits, including habitat for migratory birds, recharge of overdrafted aquifers, carbon sequestration, and recreation opportunities for birders, hunters, and disadvantaged communities.

As recognized by the Sutter GSAs, managed wetlands require specific consideration in GSPs under SGMA statute and regulations, as detailed below. GSAs are required to identify managed wetlands as beneficial users of groundwater and as land uses and property interests and should recognize this land use consistent with other active users of surface and groundwater. The overall basin water budget must include managed wetlands as a specific water use sector and the GSP is required to consider the effects of the GSP on managed wetlands as a beneficial user or land use.

When GSPs fail to adequately consider the water needs and recharge contributions of managed wetlands, projects and management actions may ignore managed wetlands, their need for protection as public trust

resources, and their potential to be part of sustainability solutions. If future actions include groundwater allocations, managed wetlands face the potential of being excluded if not recognized in the GSP, risking further loss in critical wetland acreage.

SGMA Requirements Related to Managed Wetlands

A primary requirement for GSAs during GSP development is the consideration of the interests of “all beneficial uses and users of groundwater” [Water Code Section 10723.2], which includes “[e]nvironmental users of groundwater” [Water Code Section 10723.2(e)].

Articulated into the SGMA regulations, the concept of beneficial uses and users of groundwater is first represented in CCR, Title 23, Section 354.10. Notice and Communication, which directs the GSP to “...include a summary of information relating to notification and communication by the Agency with other agencies and interested parties including the following: (a) A description of the beneficial uses and users of groundwater in the basin, including the land uses and property interests potentially affected by the use of groundwater in the basin, the types of parties representing those interests, and the nature of consultation with those parties.” [emphasis added].

Furthermore, the SGMA regulations provide a definition that explicitly includes managed wetlands as a beneficial user where:

“‘Water use sector’ refers to categories of water demand based on the general land uses to which the water is applied, including urban, industrial, agricultural, managed wetlands, managed recharge, and native vegetation.” CCR, Title 23, Section 351(al) [emphasis added].

GSAs are then directed to include all water user sectors in the description of the GSP area and to quantify groundwater use by these sectors in the historic, current and projected budgets [emphasis added]:

CCR §354.8. Description of Plan Area: Each Plan shall include a description of the geographic areas covered, including the following information:

- (a) One or more maps of the basin that depict the following, as applicable:
 - (4) Existing land use designations and the identification of water use sector and water source type.

and,

CCR §354.18. Water Budget:

- (b) The water budget shall quantify the following, either through direct measurements or estimates based on data:
 - (3) Outflows from the groundwater system by water use sector, including evapotranspiration, groundwater extraction, groundwater discharge to surface water sources, and subsurface groundwater outflow.

Given these explicit requirements, GSAs are required to identify and map managed wetlands and include their water needs in water budgets in the GSP.

Furthermore, each GSP is also required to describe “undesirable results” where such included:

“Potential effects on the beneficial uses and users of groundwater, on land uses and property interests, and other potential effects that may occur or are occurring from undesirable results.”
CCR, Title 23, Section 354.26(b)(3) [emphasis added]

Comment Overview

We applaud the Sutter GSAs for their proactive effort to include managed wetlands throughout the GSP. As a result, our comments are limited and summarized as follows:

- | | |
|---|----|
| 1. <u>Identification of managed wetlands</u> : Audubon appreciates that the Sutter GSAs have identified and specifically included federal, state and privately managed wetlands in text, figures (e.g. Figure 2-4), and water budgets, especially Sutter National Wildlife Refuge (NWR) and the Butte Sink Wildlife Management Area (WMA). | 21 |
| 2. <u>Water budget</u> : Audubon appreciates the specific inclusion of managed wetlands into the water budgets (e.g. Table 5-11 and Table 5-12), especially the inclusion of greater water use in the future budget resulting from anticipated delivery of Central Valley Project Improvement Act (CVPIA) Full Level 4 refuge water supplies to Sutter NWR. | 22 |
| 3. <u>Consideration of managed wetlands</u> : Audubon appreciates that the listed projects included in Table 7-2 (GSP page 7-7) identified opportunities for multi-benefit projects that provide water supply and wildlife habitat benefits and sufficient project details were included in Section 7.1.4.4 (GSP page 7-44). | 23 |

Draft Groundwater Sustainability Plan Page-by-Page Comments

Additional page-by-page comments on the Sutter GSAs’ draft GSP are detailed below. We welcome any follow up questions and look forward to seeing the issues raised below addressed in the final GSP submission in January 2022.

- | | |
|--|----|
| Section 2.2, page 2-21: Suggest modifying the opening sentence in the second paragraph as follows: “Surface water from the Feather and Sacramento Rivers and groundwater are the water sources used for irrigation, <u>managed wetland</u> , municipal and industrial, and urban/domestic purposes (Figure 2-13)” | 24 |
| Table 2-2, page 2-21: Suggest adding “including managed wetlands” as a parenthetical descriptor to “Riparian Vegetation” as often the former category includes explicit actions to apply water and manage food and habitat compared to riparian vegetation which often correlates to unmanaged stream course vegetation and habitats depending on a riparian water source. | 25 |
| Figure 2-12, page 2-22: Same comment as described for Table 2-2. | 26 |
| Figure 2-13, page 2-23: Suggest shading the Sutter NWR and Butte Sink WMA areas and including in the legend as “irrigated managed wetlands” to help demonstrate these lands actively apply water within these boundaries. | 27 |
| Section 2.2.2, page 2-53: Suggest adding a subsection for “managed wetlands water supply” similar to the subsection for “urban water supply” and “agricultural water supply.” Because these land uses apply both surface and groundwater, with the Sutter NWR receiving supplies under congressional mandate (CVPIA refuge water supply program), it is important for the reader to see this user in similar context to agricultural and urban uses. | 28 |

Table 5-10, page 5-189: This table should include a row for “managed wetlands demand” (similar to “agricultural demand” and “urban demand”) to help provide the basis for higher future water demands and surface supplies as infrastructure to adequately delivery CVPIA mandated water supplies to Sutter NWR is anticipated to be completed and CVPIA Full Level 4 water supplies to Sutter NWR are slated to begin more routinely.

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Footnote 1, page 5-193: Please correct the spelling to read “Greg Young”

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Section 5.3.5, page 5-194: Suggest adding “managed wetlands” for the surface water and groundwater bullets under “Inflow.”

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Thank you for your consideration of Audubon California’s comments. If you would like to discuss this matter further, please do not hesitate to contact me at (916) 737-5707 or via email at samantha.arthur@audubon.org.

Sincerely,



Samantha Arthur
Working Lands Program Director
Audubon California



Sutter Subbasin <info@suttersubbasin.org>

Sutter Subbasin GSP Chapters 2, 3 & 4 Comments

1 message

Ben King <bking@pacgoldag.com>
 To: Sutter Subbasin <info@suttersubbasin.org>
 Cc: Ben King <bking@pacgoldag.com>

Thu, Nov 11, 2021 at 7:56 PM

Hi Leslie,

Here are my Comments on Chapters 2, 3 & 4 of the Draft GSP

1. Figure 2-7 The community of Meridian should be included. It is a longstanding community of north western Sutter County and includes an elementary school dependent on groundwater for water supply. 32
2. 2.1.3.2.3 Water Transfers out of basin and the mechanics of ground water substitution should be discussed and reference the data in Section 2.4 One of the 5 public comments in the draft Appendix expressed concern about groundwater transfers. There is currently litigation with settlement contractor plaintiffs concerning out of basin water transfers and groundwater substitution 33
3. 2.3.1.12 There should be discussion regarding the prioritization of subbasins in the implementation of CV Salts and how the Sutter Subbasin is not designated as a priority subbasin. 34
4. 2.4 Is it correct that substitution transfers are completed by agencies not using their full allotment of water? Is it not just a use of groundwater in lieu for the water transferred out of basin – the impact is that the Sutter Subbasin water budget allocated amount available is reduced by the amount of water transferred? 35
5. 2.5.10 If groundwater is pumped in the sphere of hydrological impact of groundwater substitution isn't it clear that there could be a negative impact on a GDE if water levels are lowered in a materially adverse way or if groundwater is degraded. There definitely are known concerns even though the impacts have not been studied. This needs to be addressed here or in Section 5.3. 36
6. 3.2.5, 3.2.6 & 3.2.7 – there are no websites included? How can Stakeholders know of public meetings or gain access to public information for theses GSA's? 37
7. 4.1.1 - It should be noted that the HRTW was incorporated into the DWR Department Manual during April 2021 as noted in the recent DWR Drought Resolution. The pending SWRB resolution on Racial Equity should also be noted as a basis for the consideration of adverse racial outcomes due the implementation of the GSP for the Sutter Subbasin. The Sutter Subbasin is especially significant for Diversity, Equity and Inclusion issues because it has significant populations from the Mexican American, African American and Sikh communities. 38
8. 4.1 generally – there should be some discussion regarding outreach to the Spanish speaking and Punjabi speaking communities. The notices and communications in three different languages for the Sutter Subbasin should be highlighted. 39
9. 4.2.2 There were only 5 public comments included in the Appendix. As a Stakeholder, there was no public disclosure of public comments made during meetings or any comments received except for five responses to an early survey. This was a definite failure for Stakeholder Engagement since the public has no idea what other comments were submitted or expressed by other stakeholders during the GSP development. Many of the comments that I submitted were unacknowledged and I have no idea if any of the comments were considered in the draft GSP development. I also submitted a PMA which was also unacknowledged with no evidence that it was considered in the PMAs set forth in the Appendix. There are no publicly submitted PMAs in the Appendix and most of the PMAs set forth in the Appendix have no source submissions or backup information. The PMAs detailed in the Appendix relate to projects developed in 2014. 40



November 12, 2021

Sutter Subbasin Groundwater Management Coordination Committee

Submitted via email: info@suttersubbasin.org

Re: Public Comment Letter for Sutter Subbasin Draft GSP

Dear Guadalupe Rivera,

On behalf of the above-listed organizations, we appreciate the opportunity to comment on the Draft Groundwater Sustainability Plan (GSP) for the Sutter Subbasin being prepared under the Sustainable Groundwater Management Act (SGMA). Our organizations are deeply engaged in and committed to the successful implementation of SGMA because we understand that groundwater is critical for the resilience of California's water portfolio, particularly in light of changing climate. Under the requirements of SGMA, Groundwater Sustainability Agencies (GSAs) must consider the interests of all beneficial uses and users of groundwater, such as domestic well owners, environmental users, surface water users, federal government, California Native American tribes and disadvantaged communities (Water Code 10723.2).

As stakeholder representatives for beneficial users of groundwater, our GSP review focuses on how well disadvantaged communities, drinking water users, tribes, climate change, and the environment were addressed in the GSP. While we appreciate that some basins have consulted us directly via focus groups, workshops, and working groups, we are providing public comment letters to all GSAs as a means to engage in the development of 2022 GSPs across the state. Recognizing that GSPs are complicated and resource intensive to develop, the intention of this letter is to provide constructive stakeholder feedback that can improve the GSP prior to submission to the State.

Based on our review, we have significant concerns regarding the treatment of key beneficial users in the Draft GSP and consider the GSP to be **insufficient** under SGMA. We highlight the following findings:

1. Beneficial uses and users **are not sufficiently** considered in GSP development.
 - a. Human Right to Water considerations **are not sufficiently** incorporated.
 - b. Public trust resources **are not sufficiently** considered.
 - c. Impacts of Minimum Thresholds, Measurable Objectives and Undesirable Results on beneficial uses and users **are not sufficiently** analyzed.
2. Climate change **is not sufficiently** considered.
3. Data gaps **are not sufficiently** identified and the GSP **needs additional plans** to eliminate them.
4. Projects and Management Actions **sufficiently consider** potential impacts or benefits to beneficial uses and users.

Our specific comments related to the deficiencies of the Sutter Subbasin Draft GSP along with recommendations on how to reconcile them, are provided in detail in **Attachment A**.

Please refer to the enclosed list of attachments for additional technical recommendations:

Attachment A	GSP Specific Comments
Attachment B	SGMA Tools to address DAC, drinking water, and environmental beneficial uses and users
Attachment C	Freshwater species located in the basin
Attachment D	The Nature Conservancy's "Identifying GDEs under SGMA: Best Practices for using the NC Dataset"
Attachment E	Maps of representative monitoring sites in relation to key beneficial users

Thank you for fully considering our comments as you finalize your GSP.

Best Regards,



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Attachment A

Specific Comments on the Sutter Subbasin Draft Groundwater Sustainability Plan

1. Consideration of Beneficial Uses and Users in GSP development

Consideration of beneficial uses and users in GSP development is contingent upon adequate identification and engagement of the appropriate stakeholders. The (A) identification, (B) engagement, and (C) consideration of disadvantaged communities, drinking water users, tribes,¹ groundwater dependent ecosystems, streams, wetlands, and freshwater species are essential for ensuring the GSP integrates existing state policies on the Human Right to Water and the Public Trust Doctrine.

A. Identification of Key Beneficial Uses and Users

Disadvantaged Communities, Drinking Water Users, and Tribes

The identification of Disadvantaged Communities (DACs) and drinking water users is **insufficient**. The GSP identifies and maps the locations of DACs and describes each DAC population within the subbasin. However, we note the following deficiencies with the identification of these key beneficial users:

- The GSP identifies tribal communities that may have cultural and traditional ties within the subbasin. However, the plan fails to map the locations of tribal lands or tribal interests in the subbasin.
- The GSP provides a map of domestic well density in Figure 2-9, but fails to provide depth of these wells (such as minimum well depth, average well depth, or depth range) within the subbasin. This information is necessary to understand the distribution of shallow and vulnerable drinking water wells within the basin.
- While the GSP identifies the population dependent on groundwater as their source of drinking water in the subbasin, specifics are not provided on how much each DAC community relies on a particular water supply (e.g., what percentage is supplied by groundwater).
- The GSP references CalEnviroScreen 3.0, but is not updated with the most recent CalEnviroScreen results from 4.0.

These missing elements are required for the GSAs to fully understand the specific interests and water demands of these beneficial users, and to support the consideration of beneficial users in the development of sustainable management criteria and selection of projects and management actions.

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¹ Our letter provides a review of the identification and consideration of federally recognized tribes (Data source: SGMA Data viewer) within the GSP from non-tribal members and NGOs. Based on the likely incomplete information available to our organizations for this review, we recommend that the GSA utilize the California Department of Water Resources' "Engagement with Tribal Governments" Guidance Document (<https://water.ca.gov/Programs/Groundwater-Management/SGMA-Groundwater-Management/Best-Management-Practices-and-Guidance-Documents>) to comprehensively address these important beneficial users in their GSP.

RECOMMENDATIONS

- Provide a map of tribal lands and describe tribal interests in the subbasin.
- Include a map showing domestic well locations and average well depth across the subbasin.
- Identify the sources of drinking water for DAC members, including an estimate of how many people rely on groundwater (e.g., domestic wells, state small water systems, and public water systems).
- Utilize the updated version 4.0 of CalEnviroScreen.

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Interconnected Surface Waters

The identification of Interconnected Surface Waters (ISWs) is **incomplete**. Streamflow depletion in the Sutter Subbasin was evaluated using the C2VSimFG-Sutter model, an integrated hydrologic flow model for the subbasin. The model is described in Appendix 5-G (C2VSimFG-Sutter Model Report) and simulates the period from 1996 to 2015. Appendix 5-G describes the data used in the model, including the location and screening depths of groundwater wells and stream gauge data in the subbasin.

The GSP confirms the results of the ISW analysis with data from TNC's Interconnected Surface Water in the Central Valley (ICONS) website, as presented on Figure 5-92 of the GSP.²

Stream nodes from the model were characterized as having gaining conditions, losing conditions, or mixed conditions (Figure 5-91). The GSP states: *"The C2VSimFG-Sutter model does not contain stream nodes in the Sutter Buttes foothills, and therefore the interaction between those streams and the underlying water table were not evaluated."* We recommend that these stream reaches are retained as potential ISWs in the GSP until further data is gathered.

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RECOMMENDATIONS

- To confirm the results of the groundwater modeling analysis and support conclusions about the Sutter Buttes foothills stream reaches, overlay the stream reaches shown with depth-to-groundwater contour maps to illustrate groundwater depths and the groundwater gradient near the stream reaches. For the depth-to-groundwater contour maps, use the best practices presented in Attachment D. Specifically, ensure that the first step is contouring groundwater elevations, and then subtracting this layer from land surface elevations from a Digital Elevation Model (DEM) to estimate depth-to-groundwater contours across the landscape. This will provide accurate contours of depth to groundwater along streams and other land surface depressions where GDEs are commonly found.
- Describe data gaps for the ISW analysis in the ISW section, in addition to the discussion in Section 7.2.6.6.5 (Interconnected Surface Water Monitoring Network Data Gaps). While the GSP identifies data gaps and their locations in the text, we

²Available online at: <https://icons.codefornature.org/>

recommend that the GSP considers any segments with data gaps as potential ISWs and clearly marks them as such on maps provided in the GSP.

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Groundwater Dependent Ecosystems

The identification of Groundwater Dependent Ecosystems (GDEs) is **insufficient**. The GSP took initial steps to identify and map GDEs using the Natural Communities Commonly Associated with Groundwater dataset (NC dataset). However, we found that some mapped features in the NC dataset were improperly disregarded. NC dataset polygons were incorrectly removed in areas adjacent to irrigated fields or adjacent to rivers and streams. However, this removal criteria is flawed since GDEs can rely on multiple water sources – including shallow groundwater receiving inputs from surface water flow or irrigation return flow from nearby irrigated fields – simultaneously and at different temporal/spatial scales. NC dataset polygons adjacent to irrigated land or surface water supplies can still potentially be reliant on shallow groundwater aquifers, and therefore should not be removed solely based on their proximity to these additional water sources.

The GSP identifies and maps GDEs in normal (2013), dry (2015), and wet (2017) years based on a 30-foot screening threshold; maps are presented in Figures 5-96, 5-97, and 5-98, respectively. However, no description or presentation of groundwater data (such as depth-to-groundwater contour maps) is provided. Furthermore, it is unclear which GDEs are retained as potential GDEs for the purposes of establishing monitoring and sustainable management criteria.

The GSP states (5-173): “Oak trees are considered the deepest-rooted plant in the region with a root zone of roughly 25 to 30 feet.” If Valley Oaks exist in the subbasin, we recommend instead that an 80-foot depth-to-groundwater threshold be used when inferring whether Valley Oak polygons in the NC dataset are likely reliant on groundwater. This recommendation is based on a recent correction in TNC’s rooting depth database,³ after finding a typo in the max rooting depth units for Valley Oak. This resulted in a specific change in the max rooting depth of Valley Oak from 24 feet to 24 meters (80 feet). For all other phreatophytes, we continue to recommend that a 30-foot depth-to-groundwater threshold be used when inferring whether all other NC dataset polygons are likely reliant on groundwater.

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RECOMMENDATIONS

- Re-evaluate the NC dataset polygons that are adjacent to irrigated fields or streams and rivers. Refer to Attachment D of this letter for best practices for using local groundwater data to verify whether polygons in the NC Dataset are supported by groundwater in an aquifer.
- Use depth-to-groundwater data from multiple seasons and water year types (e.g., wet, dry, average, drought) to determine the range of depth to groundwater around NC dataset polygons. We recommend that a baseline period (10 years from 2005 to 2015) be established to characterize groundwater conditions over multiple water year types.
- Provide depth-to-groundwater contour maps, noting the best practices presented in Attachment D. Specifically, ensure that the first step is contouring groundwater

³ TNC. 2021. Plant Rooting Depth Database. Available at: <https://groundwaterresourcehub.org/sgma-tools/gde-rooting-depths-database-for-gdes/>

elevations, and then subtracting this layer from land surface elevations from a DEM to estimate depth-to-groundwater contours across the landscape.

- Refer to Attachment B for more information on TNC's plant rooting depth database. Deeper thresholds are necessary for plants that have reported maximum root depths that exceed the averaged 30-ft threshold, such as Valley Oak (*Quercus lobata*). We recommend that the reported max rooting depth for these deeper-rooted plants be used. For example, a depth-to-groundwater threshold of 80 feet should be used instead of the 30-ft threshold, when verifying whether Valley Oak polygons from the NC Dataset are connected to groundwater. It is important to emphasize that actual rooting depth data are limited and will depend on the plant species and site-specific conditions such as soil and aquifer types, and proximity to other water sources.
- If insufficient data are available to describe groundwater conditions within or near polygons from the NC dataset, include those polygons as "Potential GDEs" in the GSP until data gaps are reconciled in the monitoring network.

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Native Vegetation and Managed Wetlands

Native vegetation and managed wetlands are water use sectors that are required to be included in the water budget.^{4,5} The integration of these ecosystems into the water budget is **sufficient** because the GSP includes the groundwater demands of native vegetation and managed wetlands as separate line items in the historical, current, and projected water budgets.

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B. Engaging Stakeholders

Stakeholder Engagement During GSP Development

Stakeholder engagement during GSP development is **insufficient**. SGMA's requirement for public notice and engagement of stakeholders is not fully met by the description in the Outreach and Communication chapter of the GSP (Chapter 4).⁶

We note the following deficiencies with the overall stakeholder engagement process:

- The GSP documents opportunities for public involvement and engagement in general terms. Public outreach and engagement activities include quarterly public workshops, public meetings, updates at GSA board and city council meetings, updates to the project website, email notices, social media postings, press releases and mailings, utility bill notifications, supporting materials provided in English, Spanish, and Punjabi, and online surveys for stakeholder feedback and input. There are no details of outreach and engagement specifically targeted to DACs, drinking water users, tribes, and environmental stakeholders during the GSP development process.

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⁴ "Water use sector" refers to categories of water demand based on the general land uses to which the water is applied, including urban, industrial, agricultural, managed wetlands, managed recharge, and native vegetation." [23 CCR §351(al)]

⁵ "The water budget shall quantify the following, either through direct measurements or estimates based on data: (3) Outflows from the groundwater system by water use sector, including evapotranspiration, groundwater extraction, groundwater discharge to surface water sources, and subsurface groundwater outflow." [23 CCR §354.18]

⁶ "A communication section of the Plan shall include a requirement that the GSP identify how it encourages the active involvement of diverse social, cultural, and economic elements of the population within the basin." [23 CCR §354.10(d)(3)]

- Aside from the continuation of engagement strategies used during the GSP development process, the GSP does not include a detailed plan for continual opportunities for engagement through the *implementation* phase of the GSP that is specifically directed to DACs, drinking water users, tribes, and environmental stakeholders.

RECOMMENDATIONS

- In the Outreach and Communication chapter, describe active and targeted outreach to engage DACs, drinking water users, tribes, and environmental stakeholders throughout the GSP development and implementation phases. Refer to Attachment B for specific recommendations on how to actively engage stakeholders during all phases of the GSP process.
- Utilize DWR's tribal engagement guidance to comprehensively address all tribes and tribal interests in the subbasin within the GSP.⁷

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C. Considering Beneficial Uses and Users When Establishing Sustainable Management Criteria and Analyzing Impacts on Beneficial Uses and Users

The consideration of beneficial uses and users when establishing sustainable management criteria (SMC) is **insufficient**. The consideration of potential impacts on all beneficial users of groundwater in the basin are required when defining undesirable results and establishing minimum thresholds.^{8,9,10}

Disadvantaged Communities and Drinking Water Users

For chronic lowering of groundwater levels, the GSP states (p. 6-11): *"The minimum threshold for chronic lowering of groundwater levels is established as the deepest of the following: The historic low for the available record at each representative monitoring site; or 2. 90% of the average groundwater elevation from the projected water budget (baseline condition over 60-year period using C2VSimFG-Sutter) at each representative monitoring site with an artificial increase in evapotranspiration (ET) of 50%; or 3. The average operating range (difference between measurable objective and minimum threshold) for all representative monitoring sites using the above criteria for the following aquifer zones (AZs), applied based on the available screen interval or well depth information for each representative monitoring site: a. Shallow AZ and AZ-1 = 8.0 feet b. AZ-2 and AZ-3 = 16.5 feet."*

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The GSP states (6-17): *"The average operating range for the Shallow AZ and AZ-1 were combined with the goal of being protective of interconnected surface waters, GDEs, and*

⁷ Engagement with Tribal Governments Guidance Document. Available at: https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Groundwater-Management/Sustainable-Groundwater-Management/Best-Management-Practices-and-Guidance-Documents/Files/Guidance-Doc-for-SGM-Engagement-with-Tribal-Govt_ay_19.pdf

⁸ "The description of undesirable results shall include [...] potential effects on the beneficial uses and users of groundwater, on land uses and property interests, and other potential effects that may occur or are occurring from undesirable results." [23 CCR §354.26(b)(3)]

⁹ "The description of minimum thresholds shall include [...] how minimum thresholds may affect the interests of beneficial uses and users of groundwater or land uses and property interests." [23 CCR §354.28(b)(4)]

¹⁰ "The description of minimum thresholds shall include [...] how state, federal, or local standards relate to the relevant sustainability indicator. If the minimum threshold differs from other regulatory standards, the agency shall explain the nature of and the basis for the difference." [23 CCR §354.28(b)(5)]

shallow domestic wells.” The text continues (p. 6-17): “A minimum operating range is applied where applicable in order to allow for a reasonable use of groundwater by all beneficial users in the Sutter Subbasin.” However, no analysis is presented that describes the impact of minimum thresholds on domestic well users. The GSP does not sufficiently describe whether minimum thresholds will avoid significant and unreasonable loss of drinking water to domestic well users, and whether the undesirable results are consistent with the Human Right to Water policy.¹¹ In addition, the GSP does not sufficiently describe or analyze direct or indirect impacts on DACs or tribes when defining undesirable results, nor does it describe how the groundwater levels minimum thresholds are consistent with Human Right to Water policy and will avoid significant and unreasonable impacts on these beneficial users.

For degraded water quality, SMC are established for total dissolved solids (TDS) and nitrate. The GSP states (p. 6-24): “The minimum threshold for degraded water quality is established as the highest of: (1) the Upper SMCL for TDS (1,000 mg/L) and Primary MCL for nitrate as N (10 mg/L) or (2) current water quality conditions for TDS and nitrate as N based on data available from 2000 to the time of GSP development (Summer 2021) at the representative monitoring well or nearby well within the same aquifer zone, as described in Section 5.2.5 of the Basin Setting chapter, using maximum concentration detected of each constituent.” However, according to the state’s anti-degradation policy,¹² high water quality should be protected and is only allowed to worsen if a finding is made that it is in the best interest of the people of the State of California. No analysis has been done and no such finding has been made.

Section 5.1.9 of the GSP (Water Quality) discusses water quality trends for several other constituents, including arsenic, boron, iron, manganese, and point-source contaminants. No SMC have been established for these additional constituents, however. SMC should be established for all COCs in the subbasin impacted or exacerbated by groundwater use and/or management, in addition to coordinating with water quality regulatory programs.

The GSP only includes a very general discussion of impacts on drinking water users when defining undesirable results and evaluating the impacts of proposed minimum thresholds. The GSP does not, however, mention or discuss direct and indirect impacts on DACs or tribes when defining undesirable results for degraded water quality, nor does it evaluate the cumulative or indirect impacts of proposed minimum thresholds on these beneficial users.

RECOMMENDATIONS

Chronic Lowering of Groundwater Levels

- Describe direct and indirect impacts on drinking water users, DACs, and tribes when describing undesirable results and defining minimum thresholds for chronic lowering of groundwater levels.
- Consider and evaluate the impacts of selected minimum thresholds and measurable objectives on drinking water users, DACs, and tribes within the subbasin. Further describe the impact of passing the minimum threshold for these users. For example, provide the number of domestic wells that would be fully or partially de-watered at the minimum threshold.

¹¹ California Water Code §106.3. Available at: https://leginfo.ca.gov/faces/codes_displaySection.xhtml?lawCode=WAT§ionNum=106.3

¹² Anti-degradation Policy. Available at: https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/1968/rs68_016.pdf

Degraded Water Quality

- Describe direct and indirect impacts on drinking water users, DACs, and tribes when defining undesirable results for degraded water quality.¹³ For specific guidance on how to consider these users, refer to “Guide to Protecting Water Quality Under the Sustainable Groundwater Management Act.”¹⁴
- Evaluate the cumulative or indirect impacts of proposed minimum thresholds for degraded water quality on drinking water users, DACs, and tribes.
- For TDS and nitrate, provide a summary table that presents the pre-2015 historical maximums, the objectives from the Basin Plan, the MCLs, and the resulting minimum thresholds. Ensure that the minimum thresholds do not exceed the objectives in the Basin Plan.
- Set minimum thresholds and measurable objectives for all water quality constituents within the subbasin that can be impacted and/or exacerbated as a result of groundwater use or groundwater management.
- Set minimum thresholds that do not allow water quality to degrade to levels at or above the MCL trigger level.

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Groundwater Dependent Ecosystems and Interconnected Surface Waters

For chronic lowering of groundwater levels, minimum thresholds are established in the same manner as stated above under Disadvantaged Communities and Drinking Water Users (i.e., established as the deeper of three values). The result is that minimum thresholds allow groundwater levels to drop to, or below, historic lows in the subbasin. To describe effects on environmental beneficial uses and users, the GSP states (p. 6-22): “*Environmental users of groundwater typically rely on shallow groundwater (within 50 feet of ground surface or less) for recharge to interconnected streams and access by GDEs. If minimum thresholds for chronic lowering of groundwater levels are exceeded (even if an undesirable result is not observed), reduced groundwater recharge to streams and groundwater levels too deep for GDE species to access may be observed.*” The true impacts to ecosystems under this scenario are not fully discussed in the GSP. By assuming that GDEs can be sustained on historic low groundwater levels (or lower) and the subbasin is allowed to operate at or close to those levels over many years, there is a risk of causing catastrophic damage to ecosystems that is more adverse than what was occurring at the height of the 2012-2016 drought. While many California ecosystems are drought-adapted and therefore able to accommodate short-term water stress, prolonged drought conditions could cause adverse impacts, such as widespread tree mortality or loss of critical habitat for aquatic species, that are more severe than pre-2015 drought impacts.

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For depletion of interconnected surface water, groundwater elevations are used as proxy for establishing SMC. As for chronic lowering of groundwater levels, minimum thresholds are again established in the same manner as stated above under Disadvantaged Communities and Drinking Water Users (i.e., established as the deeper of three values). To describe effects on

¹³ “Degraded Water Quality [...] collect sufficient spatial and temporal data from each applicable principal aquifer to determine groundwater quality trends for water quality indicators, as determined by the Agency, to address known water quality issues.” [23 CCR §354.34(c)(4)]

¹⁴ Guide to Protecting Water Quality under the Sustainable Groundwater Management Act https://d3n8a8pro7vnm.cloudfront.net/communitywatercenter/pages/293/attachments/original/1559328858/Guide_to_Protecting_Drinking_Water_Quality_Under_the_Sustainable_Groundwater_Management_Act.pdf?1559328858.

environmental beneficial uses and users, the GSP states (p. 6-46): *“If an undesirable result for depletions of interconnected surface water is observed and presently gaining streams become losing streams, this reversal of stream interconnection would affect aquatic systems and potentially GDEs. Overall water supply utilized by environmental beneficial users of water would be reduced, thereby reducing suitable habitat through reduced stream depth, flow velocity, cover, and dissolved oxygen as well as increased temperature.”* However, no analysis or discussion is presented to describe how the SMC will affect beneficial users, and more specifically GDEs, or the impact of these minimum thresholds on GDEs in the subbasin. Furthermore, the GSP makes no attempt to evaluate how the proposed minimum thresholds and measurable objectives avoid significant and unreasonable effects on surface water beneficial users in the subbasin (see Attachment C for a list of environmental users in the subbasin), such as increased mortality and inability to perform key life processes (e.g., reproduction, migration).

RECOMMENDATIONS

- When defining undesirable results for chronic lowering of groundwater levels, provide specifics on what biological responses (e.g., extent of habitat, growth, recruitment rates) would best characterize a significant and unreasonable impact to GDEs. Undesirable results to environmental users occur when ‘significant and unreasonable’ effects on beneficial users are caused by one of the sustainability indicators (i.e., chronic lowering of groundwater levels, degraded water quality, or depletion of interconnected surface water). Thus, potential impacts on environmental beneficial uses and users need to be considered when defining undesirable results in the subbasin.¹⁵ Defining undesirable results is the crucial first step before the minimum thresholds can be determined.¹⁶
- When defining undesirable results for depletion of interconnected surface water, include a description of potential impacts on instream habitats within ISWs when minimum thresholds in the subbasin are reached.¹⁷ The GSP should confirm that minimum thresholds for ISWs avoid adverse impacts to environmental beneficial users of interconnected surface waters as these environmental users could be left unprotected by the GSP. These recommendations apply especially to environmental beneficial users that are already protected under pre-existing state or federal law.^{6,18}
- When establishing SMC for the subbasin, consider that the SGMA statute [Water Code §10727.4(l)] specifically calls out that GSPs shall include “impacts on groundwater dependent ecosystems”.

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¹⁵ “The description of undesirable results shall include [...] potential effects on the beneficial uses and users of groundwater, on land uses and property interests, and other potential effects that may occur or are occurring from undesirable results”. [23 CCR §354.26(b)(3)]

¹⁶ The description of minimum thresholds shall include [...] how minimum thresholds may affect the interests of beneficial uses and users of groundwater or land uses and property interests.” [23 CCR §354.28(b)(4)]

¹⁷ “The minimum threshold for depletions of interconnected surface water shall be the rate or volume of surface water depletions caused by groundwater use that has adverse impacts on beneficial uses of the surface water and may lead to undesirable results.” [23 CCR §354.28(c)(6)]

¹⁸ Rohde MM, Seapy B, Rogers R, Castañeda X, editors. 2019. Critical Species LookBook: A compendium of California’s threatened and endangered species for sustainable groundwater management. The Nature Conservancy, San Francisco, California. Available at: https://groundwaterresourcehub.org/public/uploads/pdfs/Critical_Species_LookBook_91819.pdf

2. Climate Change

The SGMA statute identifies climate change as a significant threat to groundwater resources and one that must be examined and incorporated in the GSPs. The GSP Regulations require integration of climate change into the projected water budget to ensure that projects and management actions sufficiently account for the range of potential climate futures.¹⁹ The effects of climate change will intensify the impacts of water stress on GDEs, making available shallow groundwater resources especially critical to their survival. Condon *et al.* (2020) shows that GDEs are more likely to succumb to water stress and rely more on groundwater during times of drought.²⁰ When shallow groundwater is unavailable, riparian forests can die off and key life processes (e.g., migration and spawning) for aquatic organisms, such as steelhead, can be impeded.

The integration of climate change into the projected water budget is **insufficient**. The GSP incorporates climate change into the projected water budget using DWR change factors for 2070. The plan reports some calculations in the Appendix for an Extremely Dry scenario to stress the system but does not seem to report and compare such results outside the Appendix. The GSP would benefit from clearly and transparently incorporating the extremely wet and dry scenarios provided by DWR into projected water budgets or select more appropriate extreme scenarios for the subbasin. While these extreme scenarios may have a lower likelihood of occurring, their consequences could be significant and their inclusion can help identify important vulnerabilities in the subbasin's approach to groundwater management.

The GSP integrates climate change into key inputs (e.g., changes in precipitation and evapotranspiration) of the projected water budget. However, imported water should also be adjusted for climate change and incorporated into the surface water flow inputs of the projected water budget. The sustainable yield is calculated based on the projected water budget with climate change incorporated. However, if the water budgets are incomplete, including the omission of extreme climate scenarios and the omission of projected climate change effects on imported water inputs, then there is increased uncertainty in virtually every subsequent calculation used to plan for projects, derive measurable objectives, and set minimum thresholds. Plans that do not adequately include climate change projections may underestimate future impacts on vulnerable beneficial users of groundwater such as ecosystems, DACs, tribes, and domestic well owners.

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RECOMMENDATIONS

- Integrate climate change, including extreme climate scenarios, into all elements of the projected water budget to form the basis for development of sustainable management criteria and projects and management actions.
- Incorporate climate change into surface water flow inputs, including imported water, for the projected water budget.
- Incorporate climate change scenarios into projects and management actions.

¹⁹ "Each Plan shall rely on the best available information and best available science to quantify the water budget for the basin in order to provide an understanding of historical and projected hydrology, water demand, water supply, land use, population, climate change, sea level rise, groundwater and surface water interaction, and subsurface groundwater flow." [23 CCR §354.18(e)]

²⁰ Condon *et al.* 2020. Evapotranspiration depletes groundwater under warming over the contiguous United States. *Nature Communications*. Available at: <https://www.nature.com/articles/s41467-020-14688-0>

3. Data Gaps

The consideration of beneficial users when establishing monitoring networks is **insufficient**, due to lack of specific plans to increase the Representative Monitoring Wells (RMWs) in the monitoring network that represent water quality conditions and shallow groundwater elevations around DACs and domestic wells in the subbasin. These beneficial users may remain unprotected by the GSP without adequate monitoring and identification of data gaps in the shallow aquifer. The Plan therefore fails to meet SGMA's requirements for the monitoring network.²¹

Figure 7-2 (Groundwater Level Monitoring Network Wells, Shallow AZ) shows insufficient representation of DACs and drinking water users for shallow groundwater elevation monitoring. Figure 7-7 (Groundwater Quality Monitoring Network Wells, Shallow AZ) shows insufficient representation of DACs and drinking water users for shallow water quality monitoring. Refer to Attachment E for maps of these monitoring sites in relation to key beneficial users of groundwater.

RECOMMENDATIONS

- Provide maps that overlay current and proposed monitoring well locations with the locations of DACs, domestic wells, and GDEs to clearly identify monitored areas.
- Increase the number of RMWs in the shallow aquifer across the subbasin as needed to map ISWs and adequately monitor all groundwater condition indicators across the subbasin and at appropriate depths for *all* beneficial users. Prioritize proximity to DACs, domestic wells, GDEs, and ISWs when identifying new RMWs.
- Ensure groundwater elevation and water quality RMWs are monitoring groundwater conditions spatially and at the correct depth for *all* beneficial users - especially DACs, domestic wells, and GDEs.
- Provide further details for the biological monitoring (described in the Projects and Management Actions section of the GSP) that can be used to assess the potential for significant and unreasonable impacts to GDEs or ISWs due to groundwater conditions in the subbasin.

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4. Addressing Beneficial Users in Projects and Management Actions

The consideration of beneficial users when developing projects and management actions is **sufficient** due to the plan's clear identification of the benefits and impacts of projects and management actions, including water quality impacts, to key beneficial users of groundwater such as GDEs and DACs.

We commend the GSAs for describing the environmental benefits of the on-farm groundwater recharge program in the Sutter Subbasin, as developed with support and guidelines from The Nature Conservancy (TNC). The program is based on the TNC's multi-benefit recharge program.

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²¹ "The monitoring network objectives shall be implemented to accomplish the following: [...] (2) Monitor impacts to the beneficial uses or users of groundwater." [23 CCR §354.34(b)(2)]

Because the GSP fails to clearly analyze impacts to domestic wells and DACs due to chronic lowering of groundwater levels, we recommend inclusion of a drinking water well impact mitigation program to proactively monitor and protect drinking water wells through GSP implementation.

RECOMMENDATIONS

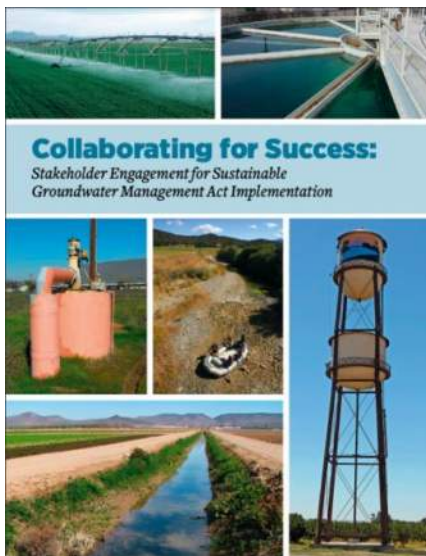
- For DACs and domestic well owners, include a drinking water well impact mitigation program to proactively monitor and protect drinking water wells through GSP implementation. Refer to Attachment B for specific recommendations on how to implement a drinking water well mitigation program.
- Develop management actions that incorporate climate and water delivery uncertainties to address future water demand and prevent future undesirable results.

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Attachment B

SGMA Tools to address DAC, drinking water, and environmental beneficial uses and users

Stakeholder Engagement and Outreach



Clean Water Action, Community Water Center and Union of Concerned Scientists developed a guidance document called [Collaborating for success: Stakeholder engagement for Sustainable Groundwater Management Act Implementation](#). It provides details on how to conduct targeted and broad outreach and engagement during Groundwater Sustainability Plan (GSP) development and implementation. Conducting a targeted outreach involves:

- Developing a robust Stakeholder Communication and Engagement plan that includes outreach at frequented locations (schools, farmers markets, religious settings, events) across the plan area to increase the involvement and participation of disadvantaged communities, drinking water users and the environmental stakeholders.
- Providing translation services during meetings and technical assistance to enable easy participation for non-English speaking stakeholders.
- GSP should adequately describe the process for requesting input from beneficial users and provide details on how input is incorporated into the GSP.

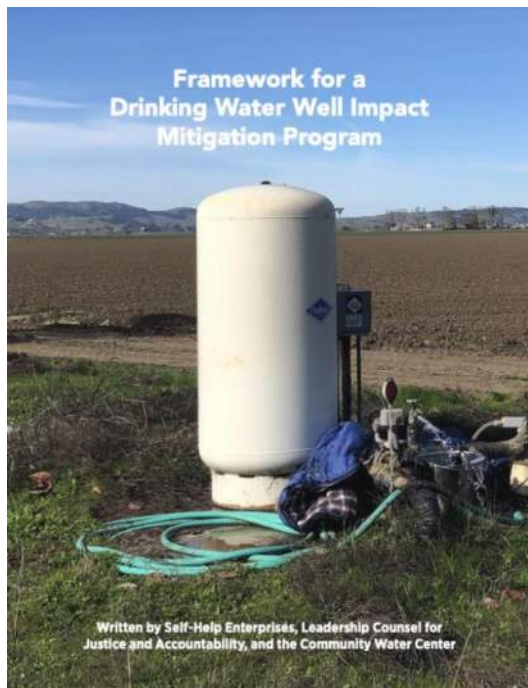
The Human Right to Water

Human Right To Water Scorecard for the Review of
Groundwater Sustainability Plans

Review Criteria (All Indicators Must be Present in Order to Protect the Human Right to Water)		Yes/No
A. Plan Area		
1	Does the GSP identify, describe, and provide maps of all of the following beneficial users in the GSA area? ²⁷ a. Disadvantaged Communities (DACs). b. Tribes. c. Community water systems. d. Private well communities.	
2	Land use policies and practices ²⁸ Does the GSP review all relevant policies and practices of land use agencies which could impact groundwater resources? These include but are not limited to the following: a. Water use policies General Plans and local land use and water planning documents. b. Plans for development and re-zoning. c. Processes for permitting activities which will increase water consumption.	
B. Basin Setting (Groundwater Conditions and Water Budget)		
1	Does the groundwater level conditions section include past and current drinking water supply issues of domestic well users, small community water systems, state small water systems, and disadvantaged communities?	
2	Does the groundwater quality conditions section include past and current drinking water quality issues of domestic well users, small community water systems, state small water systems, and disadvantaged communities, including public water wells that had or have MCL exceedances?	
3	Does the groundwater quality conditions section include a review of all contaminants with primary drinking water standards known to exist in the GSP area, as well as hexavalent chromium, and PFOS/PFOA?	
4	Incorporating drinking water needs into the water budget. ²⁹ Does the Future Projected Water Budget section explicitly include both the current and projected future drinking water needs of communities or domestic wells and community water systems (including but not limited to infill development and communities' plans for infill development,	

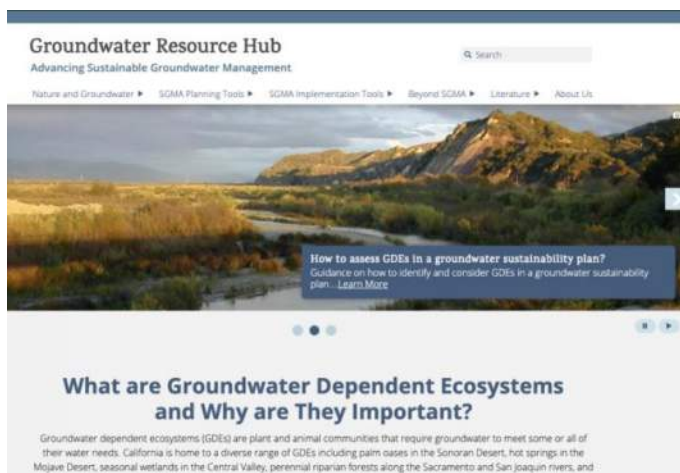
The [Human Right to Water Scorecard](#) was developed by Community Water Center, Leadership Counsel for Justice and Accountability and Self Help Enterprises to aid Groundwater Sustainability Agencies (GSAs) in prioritizing drinking water needs in SGMA. The scorecard identifies elements that must exist in GSPs to adequately protect the Human Right to Drinking water.

Drinking Water Well Impact Mitigation Framework



The [Drinking Water Well Impact Mitigation Framework](#) was developed by Community Water Center, Leadership Counsel for Justice and Accountability and Self Help Enterprises to aid GSAs in the development and implementation of their GSPs. The framework provides a clear roadmap for how a GSA can best structure its data gathering, monitoring network and management actions to proactively monitor and protect drinking water wells and mitigate impacts should they occur.

Groundwater Resource Hub



The Nature Conservancy has developed a suite of tools based on best available science to help GSAs, consultants, and stakeholders efficiently incorporate nature into GSPs. These tools and resources are available online at

GroundwaterResourceHub.org. The Nature Conservancy's tools and resources are intended to reduce costs, shorten timelines, and increase benefits for both people and nature.

Rooting Depth Database



The [Plant Rooting Depth Database](#) provides information that can help assess whether groundwater-dependent vegetation are accessing groundwater. Actual rooting depths will depend on the plant species and site-specific conditions, such as soil type and

availability of other water sources. Site-specific knowledge of depth to groundwater combined with rooting depths will help provide an understanding of the potential groundwater levels are needed to sustain GDEs.

How to use the database

The maximum rooting depth information in the Plant Rooting Depth Database is useful when verifying whether vegetation in the Natural Communities Commonly Associated with Groundwater ([NC Dataset](#)) are connected to groundwater. A 30 ft depth-to-groundwater threshold, which is based on averaged global rooting depth data for phreatophytes¹, is relevant for most plants identified in the NC Dataset since most plants have a max rooting depth of less than 30 feet. However, it is important to note that deeper thresholds are necessary for other plants that have reported maximum root depths that exceed the averaged 30 feet threshold, such as valley oak (*Quercus lobata*), Euphrates poplar (*Populus euphratica*), salt cedar (*Tamarix spp.*), and shadescale (*Atriplex confertifolia*). The Nature Conservancy advises that the reported max rooting depth for these deeper-rooted plants be used. For example, a depth-to-groundwater threshold of 80 feet should be used instead of the 30 ft threshold, when verifying whether valley oak polygons from the NC Dataset are connected to groundwater. It is important to re-emphasize that actual rooting depth data are limited and will depend on the plant species and site-specific conditions such as soil and aquifer types, and availability to other water sources.

The Plant Rooting Depth Database is an Excel workbook composed of four worksheets:

1. California phreatophyte rooting depth data (included in the NC Dataset)
2. Global phreatophyte rooting depth data
3. Metadata
4. References

How the database was compiled

The Plant Rooting Depth Database is a compilation of rooting depth information for the groundwater-dependent plant species identified in the NC Dataset. Rooting depth data were compiled from published scientific literature and expert opinion through a crowdsourcing campaign. As more information becomes available, the database of rooting depths will be updated. Please [Contact Us](#) if you have additional rooting depth data for California phreatophytes.

¹ Canadell, J., Jackson, R.B., Ehleringer, J.B. et al. 1996. Maximum rooting depth of vegetation types at the global scale. *Oecologia* 108, 583–595. <https://doi.org/10.1007/BF00329030>

GDE Pulse



[GDE Pulse](#) is a free online tool that allows Groundwater Sustainability Agencies to assess changes in groundwater dependent ecosystem (GDE) health using satellite, rainfall, and groundwater data. Remote sensing data from satellites has been used to monitor the health of vegetation all over the planet. GDE pulse has compiled 35 years of satellite imagery from NASA's Landsat mission for every polygon in the Natural Communities Commonly Associated with Groundwater Dataset. The following datasets are available for downloading:

Normalized Difference Vegetation Index (NDVI) is a satellite-derived index that represents the greenness of vegetation. Healthy green vegetation tends to have a higher NDVI, while dead leaves have a lower NDVI. We calculated the average NDVI during the driest part of the year (July - Sept) to estimate vegetation health when the plants are most likely dependent on groundwater.

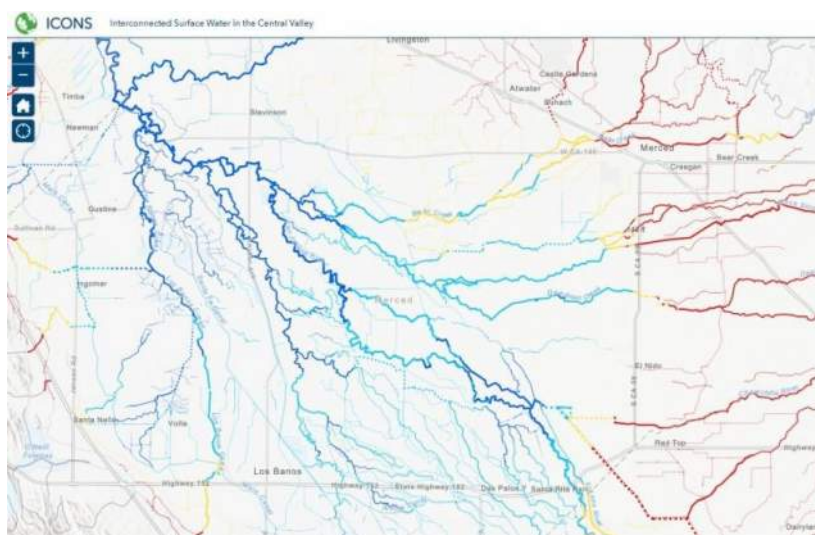
Normalized Difference Moisture Index (NDMI) is a satellite-derived index that represents water content in vegetation. NDMI is derived from the Near-Infrared (NIR) and Short-Wave Infrared (SWIR) channels. Vegetation with adequate access to water tends to have higher NDMI, while vegetation that is water stressed tends to have lower NDMI. We calculated the average NDVI during the driest part of the year (July–September) to estimate vegetation health when the plants are most likely dependent on groundwater.

Annual Precipitation is the total precipitation for the water year (October 1st – September 30th) from the PRISM dataset. The amount of local precipitation can affect vegetation with more precipitation generally leading to higher NDVI and NDMI.

Depth to Groundwater measurements provide an indication of the groundwater levels and changes over time for the surrounding area. We used groundwater well measurements from nearby (<1km) wells to estimate the depth to groundwater below the GDE based on the average elevation of the GDE (using a digital elevation model) minus the measured groundwater surface elevation.

ICONOS Mapper

Interconnected Surface Water in the Central Valley



ICONS maps the likely presence of interconnected surface water (ISW) in the Central Valley using depth to groundwater data. Using data from 2011-2018, the ISW dataset represents the likely connection between surface water and groundwater for rivers and streams in California's Central Valley. It includes information on the mean, maximum, and minimum depth to groundwater for each stream segment over the years with available data, as well as the likely presence of ISW based on the minimum depth to groundwater. The Nature Conservancy developed this database, with guidance and input from expert academics, consultants, and state agencies.

We developed this dataset using groundwater elevation data [available online](#) from the California Department of Water Resources (DWR). DWR only provides this data for the Central Valley. For GSAs outside of the valley, who have groundwater well measurements, we recommend following our methods to determine likely ISW in your region. The Nature Conservancy's ISW dataset should be used as a first step in reviewing ISW and should be supplemented with local or more recent groundwater depth data.

Attachment C

Freshwater Species Located in the Sutter Basin

To assist in identifying the beneficial users of surface water necessary to assess the undesirable result “depletion of interconnected surface waters”, Attachment C provides a list of freshwater species located in the Sutter Basin. To produce the freshwater species list, we used ArcGIS to select features within the California Freshwater Species Database version 2.0.9 within the basin boundary. This database contains information on ~4,000 vertebrates, macroinvertebrates and vascular plants that depend on fresh water for at least one stage of their life cycle. The methods used to compile the California Freshwater Species Database can be found in Howard et al. 2015¹. The spatial database contains locality observations and/or distribution information from ~400 data sources. The database is housed in the California Department of Fish and Wildlife’s BIOS² as well as on The Nature Conservancy’s science website³.

Scientific Name	Common Name	Legal Protected Status		
		Federal	State	Other
BIRDS				
Coccyzus americanus occidentalis	Western Yellow-billed Cuckoo	Candidate - Threatened	Endangered	
Laterallus jamaicensis coturniculus	California Black Rail	Bird of Conservation Concern	Threatened	
Riparia riparia	Bank Swallow		Threatened	
Actitis macularius	Spotted Sandpiper			
Aechmophorus clarkii	Clark's Grebe			
Aechmophorus occidentalis	Western Grebe			
Agelaius tricolor	Tricolored Blackbird	Bird of Conservation Concern	Special Concern	BSSC - First priority
Aix sponsa	Wood Duck			
Anas acuta	Northern Pintail			
Anas americana	American Wigeon			
Anas clypeata	Northern Shoveler			
Anas crecca	Green-winged Teal			

¹ Howard, J.K. et al. 2015. Patterns of Freshwater Species Richness, Endemism, and Vulnerability in California. PLoS ONE, 11(7). Available at: <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0130710>

² California Department of Fish and Wildlife BIOS: <https://www.wildlife.ca.gov/data/BIOS>

³ Science for Conservation: <https://www.scienceforconservation.org/products/california-freshwater-species-database>

Anas cyanoptera	Cinnamon Teal			
Anas discors	Blue-winged Teal			
Anas platyrhynchos	Mallard			
Anas strepera	Gadwall			
Anser albifrons	Greater White-fronted Goose			
Ardea alba	Great Egret			
Ardea herodias	Great Blue Heron			
Aythya affinis	Lesser Scaup			
Aythya americana	Redhead		Special Concern	BSSC - Third priority
Aythya collaris	Ring-necked Duck			
Aythya marila	Greater Scaup			
Aythya valisineria	Canvasback		Special	
Botaurus lentiginosus	American Bittern			
Bucephala albeola	Bufflehead			
Bucephala clangula	Common Goldeneye			
Butorides virescens	Green Heron			
Calidris alpina	Dunlin			
Calidris mauri	Western Sandpiper			
Calidris minutilla	Least Sandpiper			
Chen caerulescens	Snow Goose			
Chen rossii	Ross's Goose			
Chlidonias niger	Black Tern		Special Concern	BSSC - Second priority
Cistothorus palustris palustris	Marsh Wren			
Cygnus columbianus	Tundra Swan			
Egretta thula	Snowy Egret			
Empidonax traillii	Willow Flycatcher	Bird of Conservation Concern	Endangered	
Fulica americana	American Coot			
Gallinago delicata	Wilson's Snipe			
Grus canadensis	Sandhill Crane			

<i>Haliaeetus leucocephalus</i>	Bald Eagle	Bird of Conservation Concern	Endangered	
<i>Himantopus mexicanus</i>	Black-necked Stilt			
<i>Icteria virens</i>	Yellow-breasted Chat		Special Concern	BSSC - Third priority
<i>Ixobrychus exilis hesperis</i>	Western Least Bittern		Special Concern	BSSC - Second priority
<i>Limnodromus scolopaceus</i>	Long-billed Dowitcher			
<i>Lophodytes cucullatus</i>	Hooded Merganser			
<i>Megaceryle alcyon</i>	Belted Kingfisher			
<i>Mergus merganser</i>	Common Merganser			
<i>Numenius americanus</i>	Long-billed Curlew			
<i>Numenius phaeopus</i>	Whimbrel			
<i>Nycticorax nycticorax</i>	Black-crowned Night-Heron			
<i>Oxyura jamaicensis</i>	Ruddy Duck			
<i>Pelecanus erythrorhynchos</i>	American White Pelican		Special Concern	BSSC - First priority
<i>Phalacrocorax auritus</i>	Double-crested Cormorant			
<i>Phalaropus tricolor</i>	Wilson's Phalarope			
<i>Piranga rubra</i>	Summer Tanager		Special Concern	BSSC - First priority
<i>Plegadis chihi</i>	White-faced Ibis		Watch list	
<i>Pluvialis squatarola</i>	Black-bellied Plover			
<i>Podiceps nigricollis</i>	Eared Grebe			
<i>Podilymbus podiceps</i>	Pied-billed Grebe			
<i>Porzana carolina</i>	Sora			
<i>Rallus limicola</i>	Virginia Rail			
<i>Recurvirostra americana</i>	American Avocet			
<i>Setophaga petechia</i>	Yellow Warbler			BSSC - Second priority

Tachycineta bicolor	Tree Swallow			
Tringa melanoleuca	Greater Yellowlegs			
Tringa semipalmata	Willet			
Tringa solitaria	Solitary Sandpiper			
Xanthocephalus xanthocephalus	Yellow-headed Blackbird		Special Concern	BSSC - Third priority
CRUSTACEANS				
Linderiella occidentalis	California Fairy Shrimp		Special	IUCN - Near Threatened
Cambaridae fam.	Cambaridae fam.			
Hyaella spp.	Hyaella spp.			
FISHES				
Acipenser medirostris ssp. 1	Southern green sturgeon	Threatened	Special Concern	Endangered - Moyle 2013
Oncorhynchus mykiss irideus	Coastal rainbow trout			Least Concern - Moyle 2013
Pogonichthys macrolepidotus	Sacramento splittail		Special Concern	Vulnerable - Moyle 2013
Oncorhynchus mykiss - CV	Central Valley steelhead	Threatened	Special	Vulnerable - Moyle 2013
Oncorhynchus tshawytscha - CV spring	Central Valley spring Chinook salmon	Threatened	Threatened	Vulnerable - Moyle 2013
Oncorhynchus tshawytscha - CV winter	Central Valley winter Chinook salmon	Endangered	Endangered	Vulnerable - Moyle 2013
HERPS				
Actinemys marmorata marmorata	Western Pond Turtle		Special Concern	ARSSC
Ambystoma californiense californiense	California Tiger Salamander	Threatened	Threatened	ARSSC
Anaxyrus boreas boreas	Boreal Toad			
Rana boylei	Foothill Yellow-legged Frog	Under Review in the Candidate or Petition Process	Special Concern	ARSSC
Spea hammondi	Western Spadefoot	Under Review in the Candidate	Special Concern	ARSSC

		or Petition Process		
Thamnophis gigas	Giant Gartersnake	Threatened	Threatened	
Thamnophis sirtalis sirtalis	Common Gartersnake			
Pseudacris regilla	Northern Pacific Chorus Frog			
Thamnophis atratus atratus	Santa Cruz Gartersnake			Not on any status lists
INSECTS & OTHER INVERTS				
Aeshnidae fam.	Aeshnidae fam.			
Belostoma spp.	Belostoma spp.			
Caenis spp.	Caenis spp.			
Callibaetis spp.	Callibaetis spp.			
Centropilum spp.	Centropilum spp.			
Chironomidae fam.	Chironomidae fam.			
Coenagrionidae fam.	Coenagrionidae fam.			
Corixidae fam.	Corixidae fam.			
Enallagma carunculatum	Tule Bluet			
Ephydriidae fam.	Ephydriidae fam.			
Hydrophilidae fam.	Hydrophilidae fam.			
Hydroptila spp.	Hydroptila spp.			
Hydroptilidae fam.	Hydroptilidae fam.			
Ischnura cervula	Pacific Forktail			
Ischnura spp.	Ischnura spp.			
Leptoceridae fam.	Leptoceridae fam.			
Libellula luctuosa	Widow Skimmer			
Libellula pulchella	Twelve-spotted Skimmer			
Libellula saturata	Flame Skimmer			
Liodessus spp.	Liodessus spp.			
Mideopsis spp.	Mideopsis spp.			
Oxyethira spp.	Oxyethira spp.			
Pachydiplax longipennis	Blue Dasher			

Rhionaeschna multicolor	Blue-eyed Darner			
Sperchon spp.	Sperchon spp.			
Trichocorixa spp.	Trichocorixa spp.			
Tricorythodes spp.	Tricorythodes spp.			
Veliidae fam.	Veliidae fam.			
MAMMALS				
Castor canadensis	American Beaver			Not on any status lists
Lontra canadensis canadensis	North American River Otter			Not on any status lists
Neovison vison	American Mink			Not on any status lists
Ondatra zibethicus	Common Muskrat			Not on any status lists
MOLLUSKS				
Anodonta californiensis	California Floater		Special	
Ferrissia spp.	Ferrissia spp.			
Gonidea angulata	Western Ridged Mussel		Special	
Gyraulus spp.	Gyraulus spp.			
Hydrobiidae fam.	Hydrobiidae fam.			
Lymnaeidae fam.	Lymnaeidae fam.			
Margaritifera falcata	Western Pearlshell		Special	
Physa spp.	Physa spp.			
PLANTS				
Hibiscus lasiocarpus occidentalis			Special	CRPR - 1B.2
Alopecurus carolinianus	Tufted Foxtail			
Ammannia robusta	Grand Redstem			
Anemopsis californica	Yerba Mansa			
Arundo donax	NA			
Bacopa rotundifolia	NA			

Bolboschoenus fluviatilis				Not on any status lists
Callitriche marginata	Winged Water-starwort			
Crassula aquatica	Water Pygmyweed			
Cyperus erythrorhizos	Red-root Flatsedge			
Cyperus iria	NA			Not on any status lists
Downingia bicornuta	NA			
Downingia ornatissima	NA			
Echinodorus berteroi	Upright Burhead			
Eleocharis engelmannii engelmannii	Engelmann's Spikerush			Not on any status lists
Eleocharis macrostachya	Creeping Spikerush			
Epilobium cleistogamum	Cleistogamous Spike-primrose			
Eryngium castrense	Great Valley Eryngo			
Eryngium vaseyi vaseyi	Vasey's Coyote-thistle			Not on any status lists
Euthamia occidentalis	Western Fragrant Goldenrod			
Isoetes howellii	NA			
Lemna minuta	Least Duckweed			
Ludwigia peploides peploides	NA			Not on any status lists
Lythrum californicum	California Loosestrife			
Marsilea vestita vestita	NA			Not on any status lists
Mimulus tricolor	Tricolor Monkeyflower			
Najas guadalupensis guadalupensis	Southern Naiad			
Navarretia cotulifolia	Cotula Navarretia			

Navarretia intertexta	Needleleaf Navarretia			
Navarretia leucocephala leucocephala	White-flower Navarretia			
Panicum dichotomiflorum	NA			
Paspalum distichum	Joint Paspalum			
Persicaria lapathifolia				Not on any status lists
Persicaria maculosa	NA			Not on any status lists
Persicaria punctata	NA			Not on any status lists
Phacelia distans	NA			
Phyla nodiflora	Common Frog- fruit			
Pilularia americana	NA			
Plantago elongata elongata	Slender Plantain			
Platanus racemosa	California Sycamore			
Pogogyne douglasii	NA			
Psilocarphus brevissimus brevissimus	Dwarf Woolly- heads			
Psilocarphus oregonus	Oregon Woolly- heads			
Rorippa curvisiliqua curvisiliqua	Curve-pod Yellowcress			
Sagittaria latifolia latifolia	Broadleaf Arrowhead			
Sagittaria longiloba	Longbarb Arrowhead			
Sagittaria montevidensis calycina				Not on any status lists
Salix exigua exigua	Narrowleaf Willow			
Salix gooddingii	Goodding's Willow			

Salix lasiolepis lasiolepis	Arroyo Willow			
Schoenoplectus acutus occidentalis	Hardstem Bulrush			
Sinapis alba	NA			
Stachys stricta	Sonoma Hedge- nettle			
Typha latifolia	Broadleaf Cattail			



July 2019



IDENTIFYING GDEs UNDER SGMA

Best Practices for using the NC Dataset

The Sustainable Groundwater Management Act (SGMA) requires that groundwater dependent ecosystems (GDEs) be identified in Groundwater Sustainability Plans (GSPs). As a starting point, the Department of Water Resources (DWR) is providing the Natural Communities Commonly Associated with Groundwater Dataset (NC Dataset) online¹ to help Groundwater Sustainability Agencies (GSAs), consultants, and stakeholders identify GDEs within individual groundwater basins. To apply information from the NC Dataset to local areas, GSAs should combine it with the best available science on local hydrology, geology, and groundwater levels to verify whether polygons in the NC dataset are likely supported by groundwater in an aquifer (Figure 1)². This document highlights six best practices for using local groundwater data to confirm whether mapped features in the NC dataset are supported by groundwater.

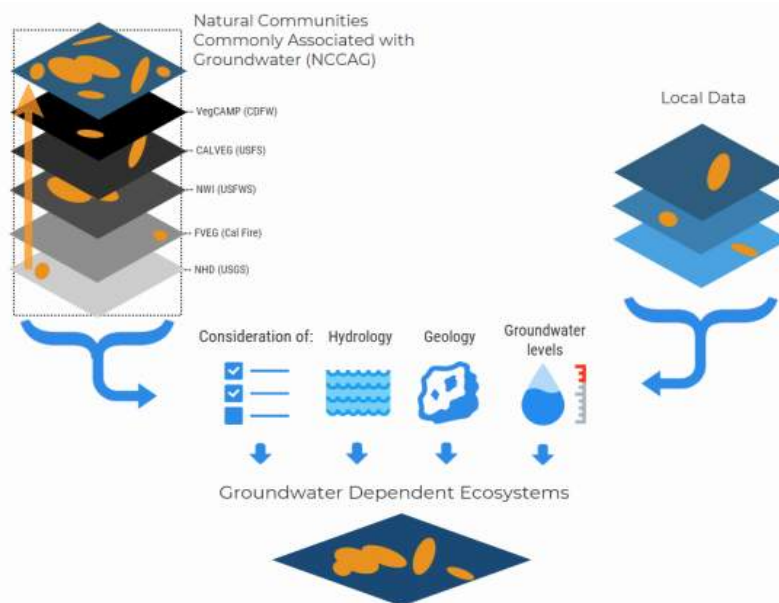


Figure 1. Considerations for GDE identification.
Source: DWR²

¹ NC Dataset Online Viewer: <https://gis.water.ca.gov/app/NCDataSetViewer/>

² California Department of Water Resources (DWR). 2018. Summary of the "Natural Communities Commonly Associated with Groundwater" Dataset and Online Web Viewer. Available at: <https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Groundwater-Management/Data-and-Tools/Files/Statewide-Reports/Natural-Communities-Dataset-Summary-Document.pdf>

The NC Dataset identifies vegetation and wetland features that are good indicators of a GDE. The dataset is comprised of 48 publicly available state and federal datasets that map vegetation, wetlands, springs, and seeps commonly associated with groundwater in California³. It was developed through a collaboration between DWR, the Department of Fish and Wildlife, and The Nature Conservancy (TNC). TNC has also provided detailed guidance on identifying GDEs from the NC dataset⁴ on the Groundwater Resource Hub⁵, a website dedicated to GDEs.

BEST PRACTICE #1. Establishing a Connection to Groundwater

Groundwater basins can be comprised of one continuous aquifer (Figure 2a) or multiple aquifers stacked on top of each other (Figure 2b). In unconfined aquifers (Figure 2a), using the depth-to-groundwater and the rooting depth of the vegetation is a reasonable method to infer groundwater dependence for GDEs. If groundwater is well below the rooting (and capillary) zone of the plants and any wetland features, the ecosystem is considered disconnected and groundwater management is not likely to affect the ecosystem (Figure 2d). However, it is important to consider local conditions (e.g., soil type, groundwater flow gradients, and aquifer parameters) and to review groundwater depth data from multiple seasons and water year types (wet and dry) because intermittent periods of high groundwater levels can replenish perched clay lenses that serve as the water source for GDEs (Figure 2c). Maintaining these natural groundwater fluctuations are important to sustaining GDE health.

Basins with a stacked series of aquifers (Figure 2b) may have varying levels of pumping across aquifers in the basin, depending on the production capacity or water quality associated with each aquifer. If pumping is concentrated in deeper aquifers, SGMA still requires GSAs to sustainably manage groundwater resources in shallow aquifers, such as perched aquifers, that support springs, surface water, domestic wells, and GDEs (Figure 2). This is because vertical groundwater gradients across aquifers may result in pumping from deeper aquifers to cause adverse impacts onto beneficial users reliant on shallow aquifers or interconnected surface water. The goal of SGMA is to sustainably manage groundwater resources for current and future social, economic, and environmental benefits. While groundwater pumping may not be currently occurring in a shallower aquifer, use of this water may become more appealing and economically viable in future years as pumping restrictions are placed on the deeper production aquifers in the basin to meet the sustainable yield and criteria. Thus, identifying GDEs in the basin should be done irrespective to the amount of current pumping occurring in a particular aquifer, so that future impacts on GDEs due to new production can be avoided. A good rule of thumb to follow is: *if groundwater can be pumped from a well - it's an aquifer*.

³ For more details on the mapping methods, refer to: Klausmeyer, K., J. Howard, T. Keeler-Wolf, K. Davis-Fadtke, R. Hull, A. Lyons. 2018. Mapping Indicators of Groundwater Dependent Ecosystems in California: Methods Report. San Francisco, California. Available at: https://groundwaterresourcehub.org/public/uploads/pdfs/iGDE_data_paper_20180423.pdf

⁴ "Groundwater Dependent Ecosystems under the Sustainable Groundwater Management Act: Guidance for Preparing Groundwater Sustainability Plans" is available at: <https://groundwaterresourcehub.org/gde-tools/gsp-guidance-document/>

⁵ The Groundwater Resource Hub: www.GroundwaterResourceHub.org

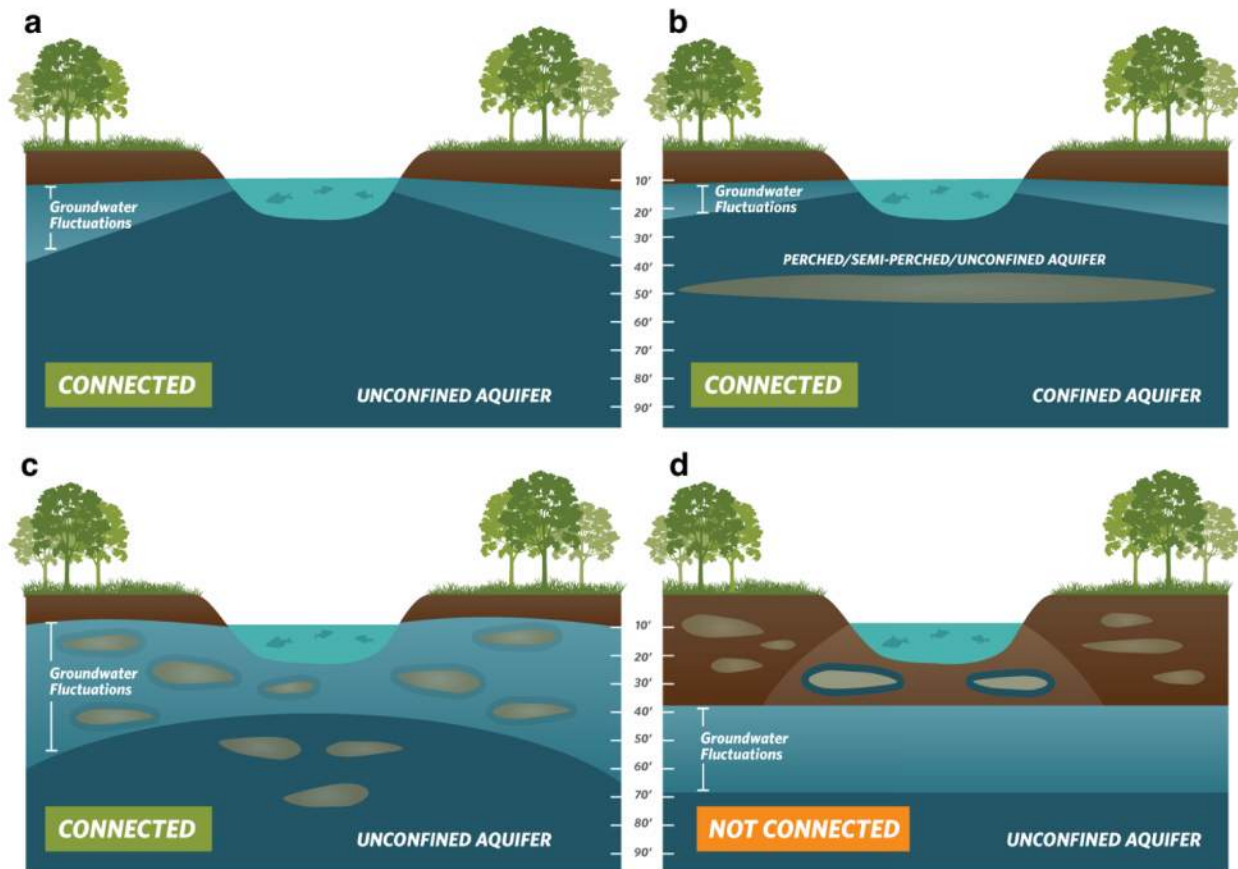


Figure 2. Confirming whether an ecosystem is connected to groundwater. Top: (a) Under the ecosystem is an unconfined aquifer with depth-to-groundwater fluctuating seasonally and interannually within 30 feet from land surface. **(b)** Depth-to-groundwater in the shallow aquifer is connected to overlying ecosystem. Pumping predominately occurs in the confined aquifer, but pumping is possible in the shallow aquifer. **Bottom: (c)** Depth-to-groundwater fluctuations are seasonally and interannually large, however, clay layers in the near surface prolong the ecosystem's connection to groundwater. **(d)** Groundwater is disconnected from surface water, and any water in the vadose (unsaturated) zone is due to direct recharge from precipitation and indirect recharge under the surface water feature. These areas are not connected to groundwater and typically support species that do not require access to groundwater to survive.

BEST PRACTICE #2. Characterize Seasonal and Interannual Groundwater Conditions

SGMA requires GSAs to describe current and historical groundwater conditions when identifying GDEs [23 CCR §354.16(g)]. Relying solely on the SGMA benchmark date (January 1, 2015) or any other single point in time to characterize groundwater conditions (e.g., depth-to-groundwater) is inadequate because managing groundwater conditions with data from one time point fails to capture the seasonal and interannual variability typical of California's climate. DWR's Best Management Practices document on water budgets⁶ recommends using 10 years of water supply and water budget information to describe how historical conditions have impacted the operation of the basin within sustainable yield, implying that a baseline⁷ could be determined based on data between 2005 and 2015. Using this or a similar time period, depending on data availability, is recommended for determining the depth-to-groundwater.

GDEs depend on groundwater levels being close enough to the land surface to interconnect with surface water systems or plant rooting networks. The most practical approach⁸ for a GSA to assess whether polygons in the NC dataset are connected to groundwater is to rely on groundwater elevation data. As detailed in TNC's GDE guidance document⁴, one of the key factors to consider when mapping GDEs is to contour depth-to-groundwater in the aquifer that is supporting the ecosystem (see Best Practice #5).

Groundwater levels fluctuate over time and space due to California's Mediterranean climate (dry summers and wet winters), climate change (flood and drought years), and subsurface heterogeneity in the subsurface (Figure 3). Many of California's GDEs have adapted to dealing with intermittent periods of water stress, however if these groundwater conditions are prolonged, adverse impacts to GDEs can result. While depth-to-groundwater levels within 30 feet⁴ of the land surface are generally accepted as being a proxy for confirming that polygons in the NC dataset are supported by groundwater, it is highly advised that fluctuations in the groundwater regime be characterized to understand the seasonal and interannual groundwater variability in GDEs. Utilizing groundwater data from one point in time can misrepresent groundwater levels required by GDEs, and inadvertently result in adverse impacts to the GDEs. Time series data on groundwater elevations and depths are available on the SGMA Data Viewer⁹. However, if insufficient data are available to describe groundwater conditions within or near polygons from the NC dataset, include those polygons in the GSP until data gaps are reconciled in the monitoring network (see Best Practice #6).

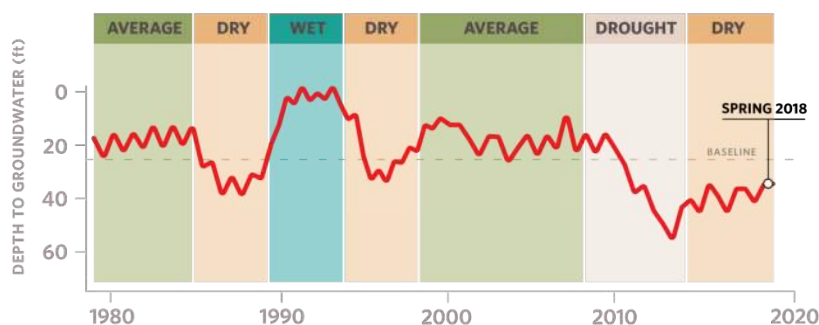


Figure 3. Example seasonality and interannual variability in depth-to-groundwater over time. Selecting one point in time, such as Spring 2018, to characterize groundwater conditions in GDEs fails to capture what groundwater conditions are necessary to maintain the ecosystem status into the future so adverse impacts are avoided.

⁶ DWR. 2016. Water Budget Best Management Practice. Available at:

https://water.ca.gov/legacy/files/groundwater/sgm/pdfs/BMP_Water_Budget_Final_2016-12-23.pdf

⁷ Baseline is defined under the GSP regulations as "historic information used to project future conditions for hydrology, water demand, and availability of surface water and to evaluate potential sustainable management practices of a basin." [23 CCR §351(e)]

⁸ Groundwater reliance can also be confirmed via stable isotope analysis and geophysical surveys. For more information see The GDE Assessment Toolbox (Appendix IV, GDE Guidance Document for GSPs⁴).

⁹ SGMA Data Viewer: <https://sgma.water.ca.gov/webgis/?appid=SGMADataViewer>

BEST PRACTICE #3. Ecosystems Often Rely on Both Groundwater and Surface Water

GDEs are plants and animals that rely on groundwater for all or some of its water needs, and thus can be supported by multiple water sources. The presence of non-groundwater sources (e.g., surface water, soil moisture in the vadose zone, applied water, treated wastewater effluent, urban stormwater, irrigated return flow) within and around a GDE does not preclude the possibility that it is supported by groundwater, too. SGMA defines GDEs as "ecological communities and species that depend on groundwater emerging from aquifers or on groundwater occurring near the ground surface" [23 CCR §351(m)]. Hence, depth-to-groundwater data should be used to identify whether NC polygons are supported by groundwater and should be considered GDEs. In addition, SGMA requires that significant and undesirable adverse impacts to beneficial users of surface water be avoided. Beneficial users of surface water include environmental users such as plants or animals¹⁰, which therefore must be considered when developing minimum thresholds for depletions of interconnected surface water.

GSAs are only responsible for impacts to GDEs resulting from groundwater conditions in the basin, so if adverse impacts to GDEs result from the diversion of applied water, treated wastewater, or irrigation return flow away from the GDE, then those impacts will be evaluated by other permitting requirements (e.g., CEQA) and may not be the responsibility of the GSA. However, if adverse impacts occur to the GDE due to changing groundwater conditions resulting from pumping or groundwater management activities, then the GSA would be responsible (Figure 4).

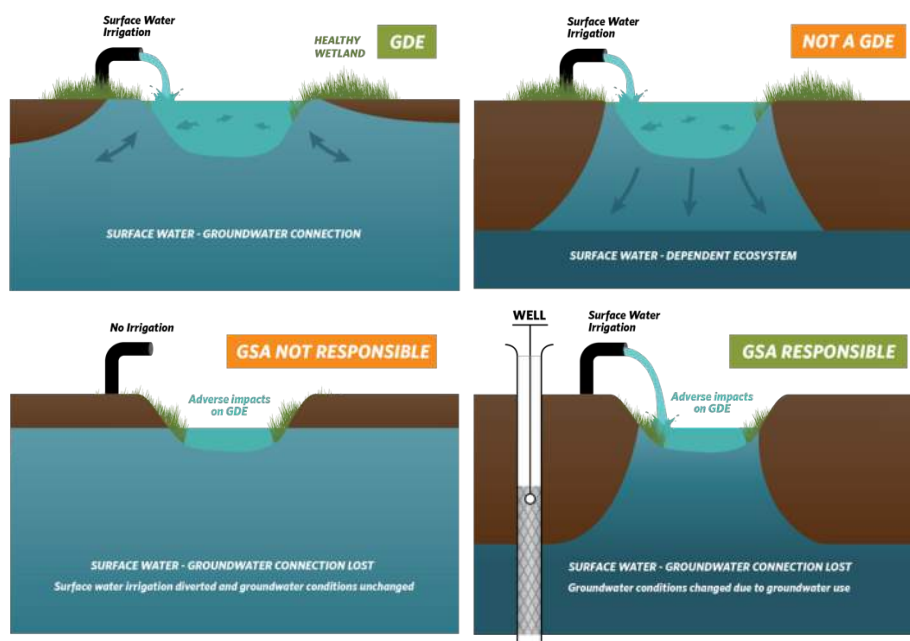


Figure 4. Ecosystems often depend on multiple sources of water. Top: (Left) Surface water and groundwater are interconnected, meaning that the GDE is supported by both groundwater and surface water. **(Right)** Ecosystems that are only reliant on non-groundwater sources are not groundwater-dependent. **Bottom: (Left)** An ecosystem that was once dependent on an interconnected surface water, but loses access to groundwater solely due to surface water diversions may not be the GSA's responsibility. **(Right)** Groundwater dependent ecosystems once dependent on an interconnected surface water system, but loses that access due to groundwater pumping is the GSA's responsibility.

¹⁰ For a list of environmental beneficial users of surface water by basin, visit: <https://groundwaterresourcehub.org/gde-tools/environmental-surface-water-beneficiaries/>

BEST PRACTICE #4. Select Representative Groundwater Wells

Identifying GDEs in a basin requires that groundwater conditions are characterized to confirm whether polygons in the NC dataset are supported by the underlying aquifer. To do this, proximate groundwater wells should be identified to characterize groundwater conditions (Figure 5). When selecting representative wells, it is particularly important to consider the subsurface heterogeneity around NC polygons, especially near surface water features where groundwater and surface water interactions occur around heterogeneous stratigraphic units or aquitards formed by fluvial deposits. The following selection criteria can help ensure groundwater levels are representative of conditions within the GDE area:

- Choose wells that are within 5 kilometers (3.1 miles) of each NC Dataset polygons because they are more likely to reflect the local conditions relevant to the ecosystem. If there are no wells within 5km of the center of a NC dataset polygon, then there is insufficient information to remove the polygon based on groundwater depth. Instead, it should be retained as a potential GDE until there are sufficient data to determine whether or not the NC Dataset polygon is supported by groundwater.
- Choose wells that are screened within the surficial unconfined aquifer and capable of measuring the true water table.
- Avoid relying on wells that have insufficient information on the screened well depth interval for excluding GDEs because they could be providing data on the wrong aquifer. This type of well data should not be used to remove any NC polygons.

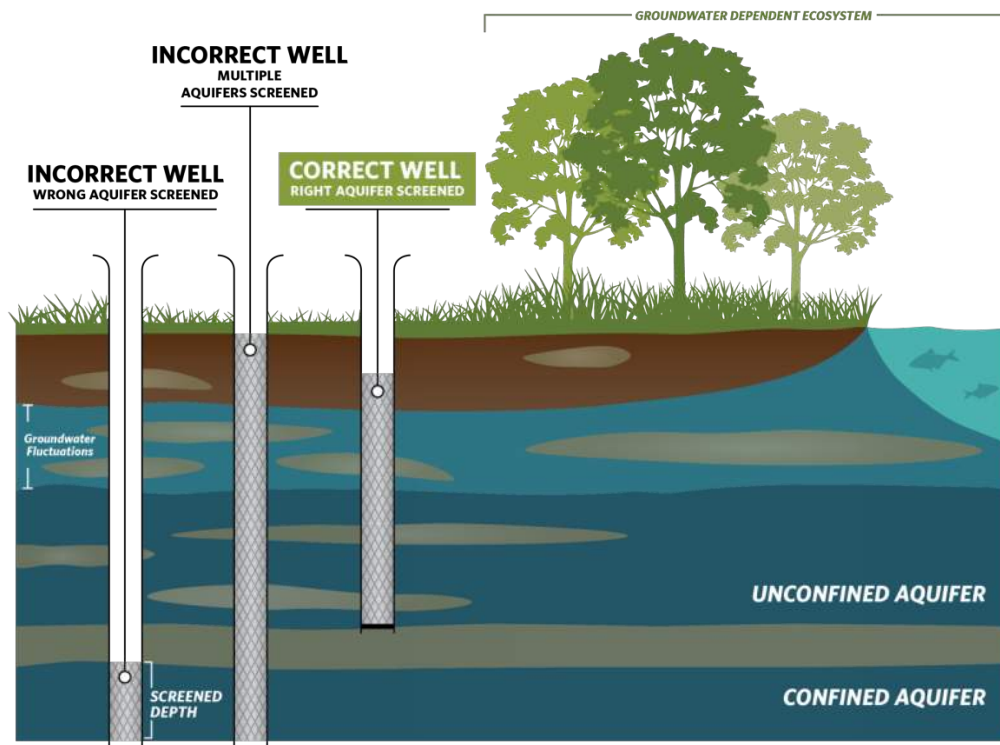


Figure 5. Selecting representative wells to characterize groundwater conditions near GDEs.

BEST PRACTICE #5. Contouring Groundwater Elevations

The common practice to contour depth-to-groundwater over a large area by interpolating measurements at monitoring wells is unsuitable for assessing whether an ecosystem is supported by groundwater. This practice causes errors when the land surface contains features like stream and wetland depressions because it assumes the land surface is constant across the landscape and depth-to-groundwater is constant below these low-lying areas (Figure 6a). A more accurate approach is to interpolate **groundwater elevations** at monitoring wells to get groundwater elevation contours across the landscape. This layer can then be subtracted from land surface elevations from a Digital Elevation Model (DEM)¹¹ to estimate depth-to-groundwater contours across the landscape (Figure b; Figure 7). This will provide a much more accurate contours of depth-to-groundwater along streams and other land surface depressions where GDEs are commonly found.

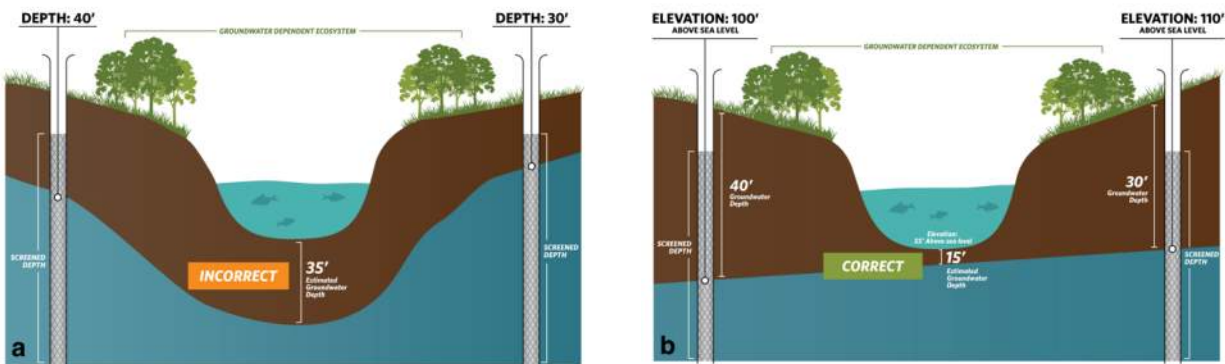


Figure 6. Contouring depth-to-groundwater around surface water features and GDEs. (a) Groundwater level interpolation using depth-to-groundwater data from monitoring wells. **(b)** Groundwater level interpolation using groundwater elevation data from monitoring wells and DEM data.

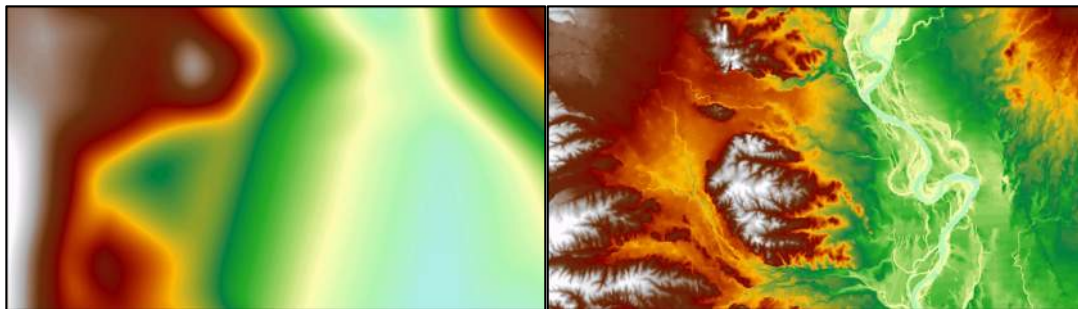


Figure 7. Depth-to-groundwater contours in Northern California. (Left) Contours were interpolated using depth-to-groundwater measurements determined at each well. **(Right)** Contours were determined by interpolating groundwater elevation measurements at each well and superimposing ground surface elevation from DEM spatial data to generate depth-to-groundwater contours. The image on the right shows a more accurate depth-to-groundwater estimate because it takes the local topography and elevation changes into account.

¹¹ USGS Digital Elevation Model data products are described at: <https://www.usgs.gov/core-science-systems/nep/3dep/about-3dep-products-services> and can be downloaded at: <https://viewer.nationalmap.gov/basic/>

BEST PRACTICE #6. Best Available Science

Adaptive management is embedded within SGMA and provides a process to work toward sustainability over time by beginning with the best available information to make initial decisions, monitoring the results of those decisions, and using the data collected through monitoring programs to revise decisions in the future. In many situations, the hydrologic connection of NC dataset polygons will not initially be clearly understood if site-specific groundwater monitoring data are not available. If sufficient data are not available in time for the 2020/2022 plan, **The Nature Conservancy strongly advises that questionable polygons from the NC dataset be included in the GSP until data gaps are reconciled in the monitoring network.** Erring on the side of caution will help minimize inadvertent impacts to GDEs as a result of groundwater use and management actions during SGMA implementation.

KEY DEFINITIONS

Groundwater basin is an aquifer or stacked series of aquifers with reasonably well-defined boundaries in a lateral direction, based on features that significantly impede groundwater flow, and a definable bottom. 23 CCR §341(g)(1)

Groundwater dependent ecosystem (GDE) are ecological communities or species that depend on groundwater emerging from aquifers or on groundwater occurring near the ground surface. 23 CCR §351(m)

Interconnected surface water (ISW) surface water that is hydraulically connected at any point by a continuous saturated zone to the underlying aquifer and the overlying surface water is not completely depleted. 23 CCR §351(o)

Principal aquifers are aquifers or aquifer systems that store, transmit, and yield significant or economic quantities of groundwater to wells, springs, or surface water systems. 23 CCR §351(aa)

ABOUT US

The Nature Conservancy is a science-based nonprofit organization whose mission is *to conserve the lands and waters on which all life depends*. To support successful SGMA implementation that meets the future needs of people, the economy, and the environment, TNC has developed tools and resources (www.groundwaterresourcehub.org) intended to reduce costs, shorten timelines, and increase benefits for both people and nature.

Attachment E

Maps of representative monitoring sites in relation to key beneficial users

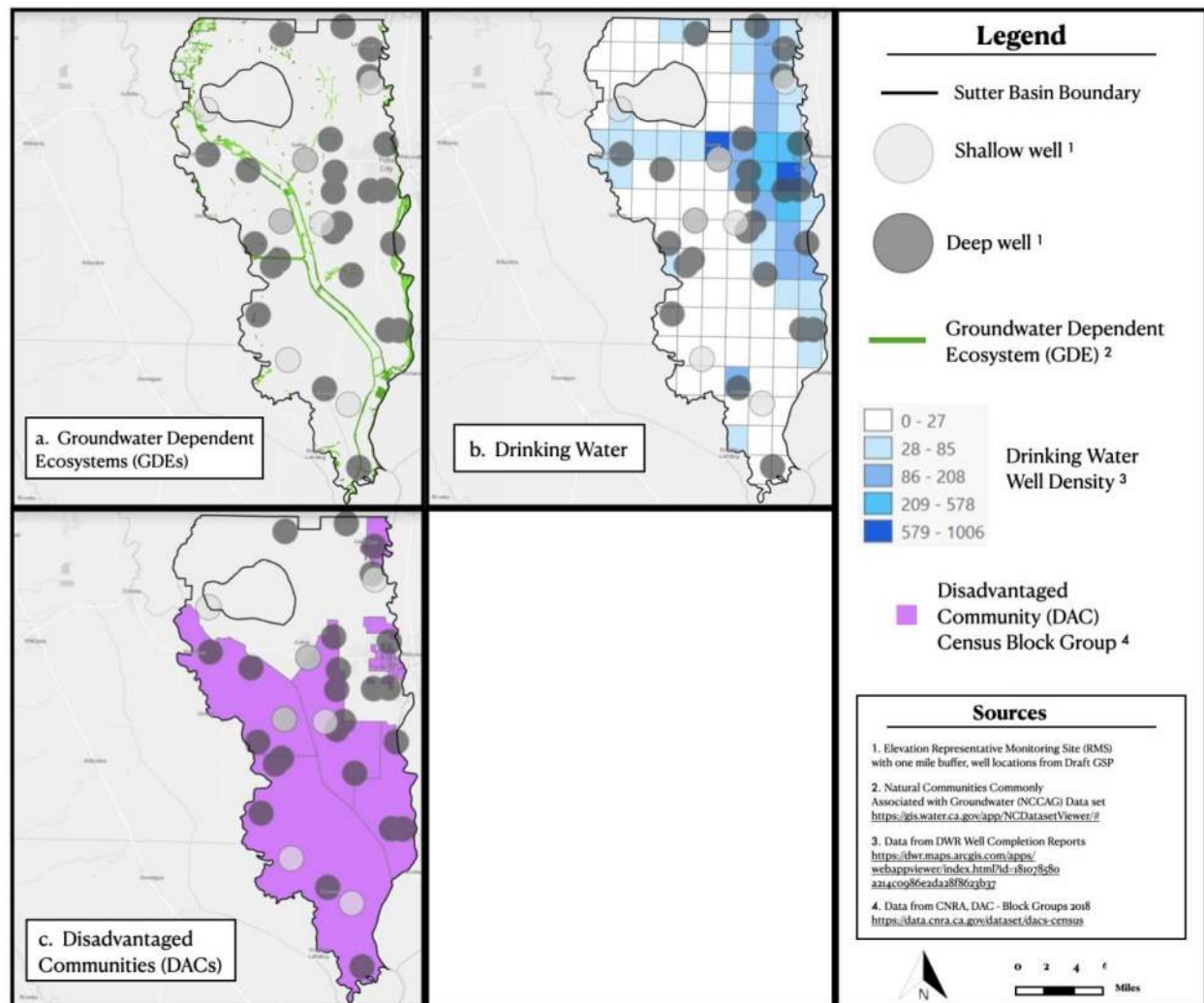


Figure 1. Groundwater elevation representative monitoring sites in relation to key beneficial users: a) Groundwater Dependent Ecosystems (GDEs), b) Drinking Water users, c) Disadvantaged Communities (DACs), and d) Tribes.

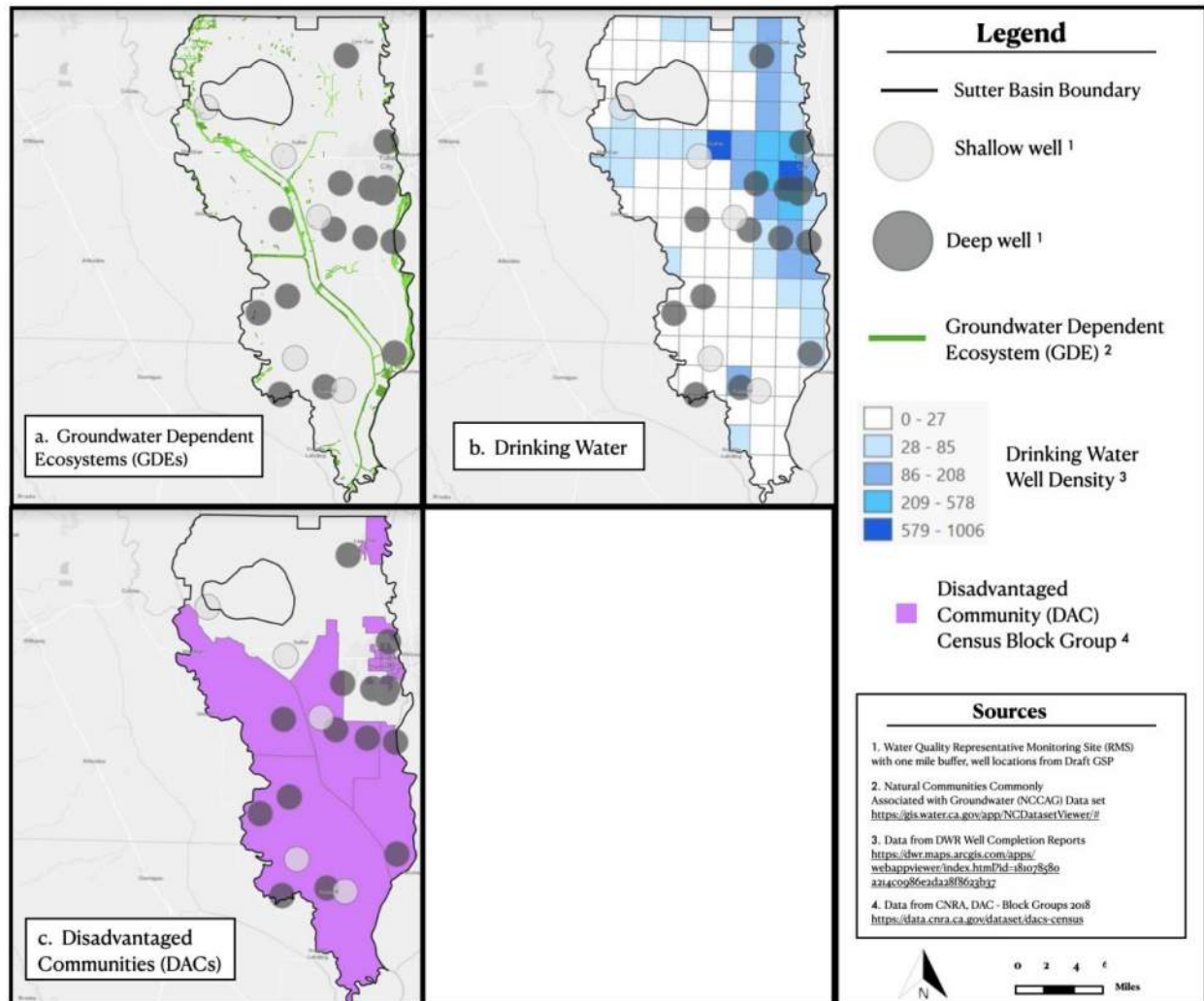


Figure 2. Groundwater quality representative monitoring sites in relation to key beneficial users: a) Groundwater Dependent Ecosystems (GDEs), b) Drinking Water users, c) Disadvantaged Communities (DACs), and d) Tribes.



Sutter Subbasin <info@suttersubbasin.org>

Sutter Subbasin GSP Chapters 5,6 & 7

1 message

Ben King <bking@pacgoldag.com>
 To: Sutter Subbasin <info@suttersubbasin.org>
 Cc: Ben King <bking@pacgoldag.com>

Fri, Nov 12, 2021 at 11:10 AM

Hi Leslie,

Here are my Comments to Chapters 5, 6& 7: :

1. 5.1 The should be a short discussion about the missile silos constructed on the northern side of the Sutter Buttes as part of the 851st Strategic Missile Squadron – Site 851-B since the structural changes for the missile silo(s) may have some impact on the groundwater quality for the adjacent GDE and its proximity to Grey Lodge. It may be nothing but since the geology of the ancient volcanic structure and related fault/dome structures there may be a possibility of upwelling of saline water and/or the translocation of naturally occurring contaminants consistent with the geology and hydrochemistry of that particular area. See “ Cold War relics: Deactivated Titan 1 missile silos surround Beale “ by Senior Airman Allen Pollard, 9th Reconnaissance Wing Public Affairs/Published June 07, 2013. 51
2. 5.1.3 The Bottom of the Sutter Subbasin can not be best approximated by using Berkstresser, 1973. The Colusa and Yolo GSPs are using Olmstead and Davis, 1961 which has a more appropriate EC level of 2000 rather than 3000. It was not totally clear to me if the Butte Subbasin GSP was using a modified approach to Olmstead and Davis because there was a reference to a DWR source but it is clear that the adjacent GSPs have not incorporated any updated fresh water contours that the DWR has considered as part of the work done by Springhorn et. al. as presented to The Geological Society of America on May 2013. Furthermore it is clear that the BFW and assumptions for available stored water and sustainable yield for the Sutter Subbasin is wrong or at least based on unreliable data since there is abundant empirical evidence that the BFW in many places of the Subbasin is much less than 200 feet. There is only one water quality sample or water quality portion in the Appendix and that shows a NaCL TDs of 2789 at a depth of 95 to 145 feet for a well near Robbins. Literally the Water Budget for the Sutter Subbasin should be taken with a grain of salt (and in some places a concerning amount of arsenic) at this point. Regarding the empirical data we are at the early stages of quantitative analysis by unbiased independent Stakeholders but I would reference the work done in the research article “ Base of fresh water, groundwater salinity, and well distribution across California” by Mary Kang, Debra Perrone, Ziming Wang, Scott Jasechiko and Mellisa M. Rohde , PMAS December 22, 2020. This work is a good start to highlight the very concerning data gaps and inconsistent approaches to defining BFW levels in California and the Sacramento Valley. 52
3. Figure 5-7 The Project Area delineation is not meaningful and should be edited out. The whole of the Subbasin should be considered as one hydrological unit. 53
4. Section 5.1.7.2 Recharge Areas Page 5-50 There is a substantial part of the Sutter Subbasin that is flooded for several winter months with substantial depths of flooding – particularly the area that comprises the Sutter Bypass and the confluence of the Sacramento River and Butte Creek flood zones. The C2VSimFG Model in the Appendix addresses flood induced groundwater infiltration for Pondered Crop effects in Section 2.5 and Model Calibration in 3.1 but the net benefit of enhanced infiltration is being missed or underestimated for the water budget subareas subject to flooding and/or seepage in the Sutter Subbasin. 54
5. 5.1.9 See my previous comments regarding USGS Gamma site EASC-21 and the discussion about arsenic. This discussion needs to highlight the recent work done by the USGS on water quality, redox and the likely movement of arsenic contamination along the Willows Fault. 55
6. Figure 5-27 The Groundwater Quality Wells are not representative. There should be a time series of TDS and Arsenic contamination observations in the Appendix 56
7. Section 5.1.9.3 There should be a table for the two contaminated wells at the Barry School and the elementary school in Meridian and the other sites with arsenic contamination observations above the MCL that I included in my previous comments. It should be noted that there is an agreement with the EPA regarding the contamination at Robbins. The second paragraph on Page 5-74 avoids making the predicted connection (see Thiros and Bexfield Model in previously supplied USGS Paper) about the connection between high pH saline water and metal 57

- oxides from volcanic rock that exist down elevation from the Sutter Buttes. Arsenic contamination is expected to occur in the Sutter Subbasin as it does in the area around Albuquerque N.M. as highlighted by the recent work of the USGS. This is also probably aggravated by translocation of arsenic along the Willows Fault which generally runs concurrent with the path of the Sutter Bypass. 57
8. Figure 5-35 This is a good Figure – the data points referenced in Figure 5-35 should be represented as a time series of observations and included in the Appendix. 58
9. Figure 5-38 These are good Figures – these data points referenced in Figure 5-38 should be represented as a time series of observations and included in the Appendix. 59
10. Section 5.1.12.4/5 - As mentioned above a large portion of the Sutter Subbasin benefits from seasonal flooding and seepage for several months during wet years. This enhanced infiltration should be included in the Water Budget by Budget subareas that encompass the seepage and/or seasonal flooding which may come with substantial flood heads and last for several months especially during wet years. 60
11. Figures 5- 50 to-58 - The Project area delineation on the several Figures should be removed since the Subbasin is one hydrological unit. 61
12. Figures 5-77 to 81 Same comment as above 62
13. 5.2.5 The use of median averages should not be used for determination of water quality. I may be a case for professional negligence to do so since the adverse health concentrations for water quality contamination is determined by the observations of concentrations in excess of a MCL. It could have been that the median concentration of lead contamination in Flint Michigan was below the EPA MCL but that does not mean that people were not poisoned by lead in their water systems. For the example the discussion in this Section regarding arsenic contamination is not based on a reasonable set of statistic principles because it is based on uneven sampling year sets, likely different sampling sites and the use of a median average. What should be considered is the trends of contamination above the MCL by itself – are certain water systems contaminated based on a MCL and does that trend continue based on a continuous observation time set. For example if the observations for the Meridian elementary school, the Barry School, the supply system for Robbins and the supply system for Wildwood Mutual were all 25 ug/L and six other observations were at 8 ug/L then the median average would be 8 ug/L but the school children at Meridian, Barry School and pregnant women who drank untreated water from Robbins an Wildwood would all be susceptible to arsenic poisoning. The discussion should focus on the trends in elevated arsenic observations at contaminated supply systems and wells – the use of median averages may be professional negligence. 63
14. 5.2.8 As discussed above the presence of the abandoned Titan Missile silos on the north side of the Sutter Buttes should be discussed and some future work should be taken to rule out any contamination potential from the construction or decommission of the silo(s) on the adjacent GDE. 64
15. Section 5-3 As discussed above the BFW assumptions used for the Water Budget are not reasonable if Berkstresser is used. Olmstead and Davis may be acceptable for the time being but the work done by Springhorn and presented in 2013 is probably the best set of assumptions at this point in the implementation of SGMA. Additionally the enhanced infiltration from flooding and seepage should be considered for wet year scenarios in the various base assumptions. There are substantial parts of the Sutter Subbasin that have deep floodwaters for several months and/or benefit from extended seepage that sometime presents above ground near the Sacramento River and the Sutter Bypass. 65
16. Section 6.4.3.1 Pages 6-7/8 – There should be a SMC for arsenic contamination and it should be the USEPA MCL of 10 ug/L. 66
17. Section 6.4.3.2. The elevated pH from the saline water and the metal oxides from the volcanic rocks of the Sutter Buttes is definitely a Potential Cause for the arsenic contamination present in the Sutter Subbasin. The Sutter Yuba investigations (see previously submitted reference – this was a study published by the SWRCB in 1952) identified overpumping as far back as 1930 as a Potential Cause of elevated TDS levels in groundwater. 67
18. Page 7-14 Projects and Management Actions. Suter Buttes Salinity Monitoring PMA and Sutter Buttes Water Quality Inter-Basin Working Group PMAs. I previously submitted a PMA that was also submitted for the Colusa Subbasin GSP that focused on the worked done by Steven Springhorn relating to the stratigraphy of the Sutter Buttes in 2008. The Future Work section of Springhorn's Paper focuses on the interrelationship of the geology of the Sutter Buttes Rampart and the arsenic contamination found in the sphere of the Sutter Buttes Geomorphic Unit. The descriptions for these two PMAs should reference arsenic contamination to give it these PMAs the focus and priority they demand due to the public health consequences identified by Springhorn. The discussion about arsenic contamination should not be hidden from Stakeholders and these PMAs should be prioritized especially since they directly relate to HTRW priorities and have distinct likely negative racial equity outcomes. 68



Sutter Subbasin <info@suttersubbasin.org>

Sutter Subbasin Draft GSP Appendix Comments

Ben King <bking@pacgoldag.com>
 To: Sutter Subbasin <info@suttersubbasin.org>
 Cc: Ben King <bking@pacgoldag.com>

Fri, Nov 12, 2021 at 11:15 AM

Hi Leslie,

Here are my Comments on the Appendix:

1. There is not Appendix 2-A - Were there any letter comments to the SCGSA?

69

2. There is no log of Comments from any meeting or any Comment Submittal. How are Stakeholders to be informed of other Stakeholder concerns and perspectives in order to make Comments on the Draft GSP?

I have no idea if my Comments on Draft Chapters were considered and what the comments were at any meeting. There does appear to be 5 comments to the survey but that appears to be all the Comments presented to the public at during the entirety of the Comment Period for the Draft GSP. I do know that my comments to the HCM were received but I did not get a confirmation for the receipt of my PMA submittal or Comments on any draft Chapter outside of the HCM. I do not see any reference to my project submittal in the PMAs listed in the Appendix.

70

3. Appendix 4-E The 5 comments on the Survey which comprise the totality of the Comments disclosed are i
4. nteresting. Groundwater Recharge, Water for Wildlife Habitat, to be informed, green solution investment and investment in Live Oak and Farming were primary interests – all good comments. The Groundwater management concerns were about agricultural pumping causing pollution to groundwater and supply issues, overdraft, groundwater substitution and sale of groundwater to southern California, building in Live Oak and fear that the GSA will cut off well supplies.

71

5. Appendix 5-A Note that the Welenco Log Reported a NaCL TDS of 2789 and a NaHCo3 TDS of 5000 at 95 to 145 feet near Robbins. The NaCL TDS was 3533 at 1250 feet – the TDS of the shallow well depth had the worse water quality with the exception of the 1250 well depth.

72

6. Appendix 5-G C2VSimFG- Sutter Model Report

There is a Reference error on Page 15 – Section 2.6.1 regarding diversion data.

Section 3 Model Calibration

- Are there any adjustments regarding vertical or horizontal flows associated with the presence of the Willows Fault?
- Are there any adjustments regarding the persistence of upwhelling in the Sutter Subbasin?
- Why isn't there upwhelling near Robbins where the salinity and arsenic contamination is the worse – any empirical work done on this to recalibrate the Model?
- As discussed further in the Comments regarding the Water Budget, the Model should be calibrated for the enhanced infiltration from seasonal flooding in the Sutter Subbasin during wet years. There is substantial infiltration from seepage from the Sacramento and Feather Rivers and the Sutter Bypass. There is also substantial enhanced infiltration from seasonal flooding impacted by the confluence of Butte Creek and the Sacramento River, the high water

73

depths of flooding in the Sutter Bypass and other flooding and seepage sites to the east of the Subbasin from the Feather River and other sites I am not so familiar with.

73

7. Appendix 6 There are no graphs relating to the Groundwater Quality SMC. There should be graphs for TDS/EC for selected wells and all public supply systems and arsenic contamination for the schools and public supply systems with arsenic contamination greater than the EPA max of 10 Ug/L

74

8. Appendix 7-B The project submittals are incomplete – there are only the Feather River Region submittals which date back 7 years to August 2014. Stakeholders have not disclosure for the basis for all the other PMAs listed in 7-A

75



State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
North Central Region
1701 Nimbus Road
Rancho Cordova, CA 95670
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director



April 26, 2022

Via Electronic Mail and Online Submission

Monica Reis
Supervising Engineer
California Department of Water Resources
901 P Street, Room 213
Sacramento, CA 94236

Email: Monica.Reis@water.ca.gov

Portal Submission: <https://sgma.water.ca.gov/portal/#gsp>

Dear Monica Reis:

Subject: CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE COMMENTS ON THE SUTTER SUBBASIN FINAL GROUNDWATER SUSTAINABILITY PLAN

The California Department of Fish and Wildlife (Department) is providing comments on the Sutter County Groundwater Sustainability Agency (GSA), Butte Water District GSA, City of Live Oak GSA, Sutter Extension Water District GSA, Sutter Community Services District GSA, City of Yuba City GSA, Reclamation District No. 70 GSA, Reclamation District No. 1500 GSA, and Reclamation District No. 1660 GSA (collectively, GSAs) Sutter Subbasin Groundwater Sustainability Plan (Final GSP) prepared pursuant to the Sustainable Groundwater Management Act (SGMA) and submitted to the California Department of Water Resources (DWR) on January 24, 2022. The Basin is designated medium priority under SGMA and must be managed under a GSP by January 31, 2022.

The Department is writing to support ecosystem preservation and enhancement in compliance with SGMA and its implementing regulations based on Department expertise and best available information and science. As trustee agency for the State's fish and wildlife resources, the Department has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and the habitat necessary for biologically sustainable populations of such species (Fish & Game Code §§ 711.7 and 1802).

Development and implementation of GSPs under SGMA represents a new era of California groundwater management. The Department has an interest in the sustainable management of groundwater, as many sensitive ecosystems, species, and public trust resources depend on groundwater and interconnected surface waters (ISWs) including ecosystems on Department-owned and managed lands within SGMA-regulated basins.

Conserving California's Wildlife Since 1870

Monica Reis, Supervising Engineer
California Department of Water Resources
April 26, 2022
Page 2

SGMA and its implementing regulations afford ecosystems and species specific statutory and regulatory consideration, including the following as pertinent to GSPs:

- GSPs must **consider impacts to groundwater dependent ecosystems** (GDEs) (Water Code § 10727.4(l); see also 23 CCR § 354.16(g));
- GSPs must consider the interests of all beneficial uses and users of groundwater, including environmental users of groundwater (Water Code § 10723.2) and GSPs must **identify and consider potential effects on all beneficial uses and users of groundwater** (23 CCR §§ 354.10(a), 354.26(b)(3), 354.28(b)(4), 354.34(b)(2), and 354.34(f)(3));
- GSPs must **establish sustainable management criteria that avoid undesirable results** within 20 years of the applicable statutory deadline, including **depletions of ISW that have significant and unreasonable adverse impacts on beneficial uses of the surface water** (23 CCR § 354.22 *et seq.* and Water Code §§ 10721(x)(6) and 10727.2(b)) and describe monitoring networks that can identify adverse impacts to beneficial uses of ISWs (23 CCR § 354.34(c)(6)(D)); and,
- GSPs must **account for groundwater extraction for all water use sectors**, including managed wetlands, managed recharge, and native vegetation (23 CCR §§ 351(al) and 354.18(b)(3)).

In the context of SGMA statutes and regulations, and Public Trust Doctrine considerations, groundwater planning should carefully consider and protect environmental beneficial uses and users of groundwater, including fish and wildlife and their habitats, GDEs, and ISWs.

Furthermore, the Public Trust Doctrine imposes a related but distinct obligation to consider how groundwater management affects public trust resources, including navigable surface waters and fisheries. Groundwater hydrologically connected to surface waters is also subject to the Public Trust Doctrine to the extent that groundwater extractions or diversions affect or may affect public trust uses. (*Environmental Law Foundation v. State Water Resources Control Board* (2018), 26 Cal. App. 5th 844; *National Audubon Society v. Superior Court* (1983), 33 Cal. 3d 419). The GSA has “an affirmative duty to take the public trust into account in the planning and allocation of water resources, and to protect public trust uses whenever feasible.” (*National Audubon Society, supra*, 33 Cal. 3d at 446). Accordingly, groundwater plans should consider potential impacts to and appropriate protections for ISWs and their tributaries, and ISWs that support fisheries, including the level of groundwater contribution to those waters.

The Department provided comments and recommendations on the Sutter Subbasin Draft GSP (Attachment A) to the GSAs on November 8, 2021. The Final GSP states, “All comments received have been compiled in a comment matrix. This summary table, as well as copies of the original comments, are attached as Appendix 4-C. The Sutter Subbasin GSAs have made note of all comments received and will provide responses to public review period comments along with responses to comments received during

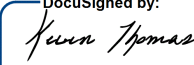
Monica Reis, Supervising Engineer
California Department of Water Resources
April 26, 2022
Page 3

DWR's 75-day public comment period following GSP submittal and comments received from DWR as a result of evaluation of the Sutter Subbasin GSP" (4.2.2 Comments Received Regarding the Plan; page 4-15).

No apparent changes in response to the Department's comments on the Draft GSP were reflected in the Final GSP, apart from the addition of Table 5.9 in the Final GSP, which quantifies average monthly gains and losses of ISW (page 5-170). As the GSAs have not yet provided responses to the remainder of the comments provided by the Department on the Sutter Subbasin Draft GSP, the comments provided in Attachment A remain relevant for the Final GSP except for Comment #1, which has been addressed. The Department recommends that DWR carefully consider the attached comments when assessing whether the Final GSP is likely to achieve the sustainability goal for the Basin as required under SGMA statutes and regulations.

The Department appreciates the opportunity to provide comments on the Sutter Subbasin Final GSP. If you have any further questions, please contact Briana Seapy at Briana.Seapy@wildlife.ca.gov or 916-508-3345.

Sincerely,
Kevin Thomas

DocuSigned by:

A2A0A9C574C3445...

Regional Manager, North Central Region

Enclosures (Attachment A)

ec: California Department of Fish and Wildlife

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Sutter Subbasin

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Attachment A

*DEPARTMENT COMMENTS ON THE SUTTER SUBBASIN DRAFT GROUNDWATER
SUSTAINABILITY PLAN*



State of California – Natural Resources Agency
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GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director



November 8, 2021

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Subject: CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE COMMENTS ON THE SUTTER SUBBASIN DRAFT GROUNDWATER SUSTAINABILITY PLAN

Dear Mr. Rivera:

The California Department of Fish and Wildlife (Department) appreciates the opportunity to provide comments on the Sutter Subbasin Draft Groundwater Sustainability Plan (GSP) prepared by the Sutter County Groundwater Sustainability Agency (GSA), Butte Water District GSA, City of Live Oak GSA, Sutter Extension Water District GSA, Sutter Community Services District GSA, City of Yuba City GSA, Reclamation District No. 70 GSA, Reclamation District No. 1500 GSA, and Reclamation District No. 1660 GSA pursuant to the Sustainable Groundwater Management Act (SGMA). The Basin is designated as medium priority under SGMA and must be managed under a GSP by January 31, 2022.

The Department is writing to support ecosystem preservation and enhancement in compliance with SGMA and its implementing regulations based on Department expertise and best available information and science. As trustee agency for the State's fish and wildlife resources, the Department has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and the habitat necessary for biologically sustainable populations of such species (Fish & Game Code §§ 711.7 and 1802).

Development and implementation of GSPs under SGMA represents a new era of California groundwater management. The Department has an interest in the sustainable management of groundwater, as many sensitive ecosystems, species, and public trust resources depend on groundwater and interconnected surface waters (ISWs), including ecosystems on Department-owned and managed lands within SGMA-regulated basins.

SGMA and its implementing regulations afford ecosystems and species specific statutory and regulatory consideration, including the following as pertinent to GSPs:

- GSPs must **consider impacts to groundwater dependent ecosystems** (GDEs) (Water Code § 10727.4(l); see also 23 CCR § 354.16(g));
- GSPs must consider the interests of all beneficial uses and users of groundwater, including environmental users of groundwater (Water Code § 10723.2) and GSPs must **identify and consider potential effects on all beneficial uses and users of**

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- groundwater** (23 CCR §§ 354.10(a), 354.26(b)(3), 354.28(b)(4), 354.34(b)(2), and 354.34(f)(3));
- GSPs must **establish sustainable management criteria that avoid undesirable results** within 20 years of the applicable statutory deadline, including **depletions of interconnected surface water that have significant and unreasonable adverse impacts on beneficial uses of the surface water** (23 CCR § 354.22 *et seq.* and Water Code §§ 10721(x)(6) and 10727.2(b)) and describe monitoring networks that can identify adverse impacts to beneficial uses of interconnected surface waters (23 CCR § 354.34(c)(6)(D)); and
- GSPs must **account for groundwater extraction for all water use sectors**, including managed wetlands, managed recharge, and native vegetation (23 CCR §§ 351(a) and 354.18(b)(3)).

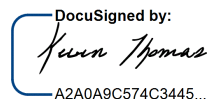
Furthermore, the Public Trust Doctrine imposes a related but distinct obligation to consider how groundwater management affects public trust resources, including navigable surface waters and fisheries. Groundwater hydrologically connected to surface waters is also subject to the Public Trust Doctrine to the extent that groundwater extractions or diversions affect or may affect public trust uses. (*Environmental Law Foundation v. State Water Resources Control Board* (2018), 26 Cal. App. 5th 844; *National Audubon Society v. Superior Court* (1983), 33 Cal. 3d 419.) The GSA has “an affirmative duty to take the public trust into account in the planning and allocation of water resources, and to protect public trust uses whenever feasible.” (*National Audubon Society, supra*, 33 Cal. 3d at 446.) Accordingly, groundwater plans should consider potential impacts to and appropriate protections for ISWs and their tributaries, and ISWs that support fisheries, including the level of groundwater contribution to those waters.

In the context of SGMA statutes and regulations, and Public Trust Doctrine considerations, groundwater planning should carefully consider and protect environmental beneficial uses and users of groundwater, including fish and wildlife and their habitats, GDEs, and ISWs.

The Department recognizes and appreciates the effort of the GSAs to characterize current and projected groundwater conditions within the subbasin. However, the Department believes the GSP could improve its considerations of environmental users of groundwater and establish more protective management criteria. The Department is providing additional comments and recommendations in Attachment A.

If have any questions related to the Department’s comments and/or recommendations on the Sutter Subbasin Draft GSP please contact Bridget Gibbons, Environmental Scientist, at bridget.gibbons@wildlife.ca.gov.

Sincerely,

DocuSigned by:

A2A0A9C574C3445...

Kevin Thomas
Regional Manager, North Central Region

Enclosures (Attachments A, B)

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Attachment A

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE COMMENTS ON THE SUTTER SUBBASIN DRAFT GROUNDWATER SUSTAINABILITY PLAN

COMMENTS AND RECOMMENDATIONS

The Department's comments are as follows:

- 1. Comment #1 – Interconnected Surface Water Systems** (5.2.7 Interconnected Surface Waters; starting page 5-169): The GSP does not include an estimate of the quantity and timing of depletions of interconnected surface water systems as required by 23 CCR § 354.16(f).
 - a. Issue: The GSP identifies the Feather River, Sacramento River, and Sutter Bypass as interconnected surface waters and assesses whether stream segments are primarily gaining, losing, or mixed. However, the GSP does not include information related to the quantify and timing of depletions from these interconnected surface waters as required by 23 CCR § 354.16(f).
 - b. Recommendation: The Department recommends that the GSP include a table quantifying the volume of surface water depletions, by month, for all interconnected surface waters identified within the subbasin.
- 2. Comment #2 – Groundwater Dependent Ecosystems** (5.2.8 Groundwater Dependent Ecosystems; starting page 5-173): Groundwater dependent ecosystem (GDE) identification, required by 23 CCR § 354.16(g), is based on methods that risk exclusion of ecosystems that may depend on groundwater.
 - a. Issues:
 - i. Depth to Groundwater Threshold: The GSP relies on a groundwater level threshold of 30-feet below the ground surface (bgs) to screen potential GDEs within the subbasin. However, mature Valley Oak (*Quercus lobata*) can access groundwater up to 80 feet bgs (Howard 1992, Lewis & Burgy 1964). The use of a 30-foot threshold may incorrectly exclude Valley Oak communities within the subbasin from further consideration as a GDE. Additionally, the GSP does not specify if the groundwater level data used for the depth to groundwater analysis is based on spring or fall groundwater measurements.
 - ii. GDEs Near Surface Water: The GSP eliminates potential GDE areas located within 150 feet of surface waters, within 150 feet of irrigated rice paddies, and within 50 feet of other irrigated croplands, Fish and Wildlife Service-irrigated land, and State-

irrigated land. This GDE-elimination method may disregard a GDE's adaptability and opportunistic approach to accessing water in which vegetation and ISW may rely on *both* surface water and groundwater across seasons and years.

- iii. GDE Identification by Year: The GSP assesses potential GDE areas identified in the Natural Communities Commonly Associated with Groundwater (NCCAG) dataset across three years: 2013, 2015, and 2017. For each year, the GSP removes NCCAG areas based on the depth to groundwater and proximity to surface water/irrigated lands elimination criteria; remaining NCCAG areas are identified as "potential GDEs." This process essentially creates three different sets of potential GDE locations within the subbasin, one for each of the years evaluated, intended to represent a range of dry to wet years. It is unclear whether the GSP requires an area to be identified as a potential GDE in all three of the years evaluated to be retained as a GDE for monitoring and management actions in the GSP, or if an area identified as a potential GDE in one or two of the three years would be retained as a GDE. For instance, an area identified as a potential GDE in 2017, a wet year, may not have had access to groundwater supplies during 2015, a critically dry water year in which groundwater levels reached historic lows. A lack of groundwater access during dry years does not negate an area's status as a GDE; if GDE areas must be confirmed across all three representative water years to be managed in the GSP, the plan's methodology may incorrectly eliminate potential GDEs based on their inability to access groundwater at a single point in time during a critically dry year.
- iv. Special Status Species: Though the GSP includes a list of freshwater species within the Sutter Subbasin, the GSP does not assess the species' potential groundwater dependence or their spatial extent within the subbasin.

b. Recommendations:

- i. Depth to Groundwater Threshold: The Department recommends the GSP update the methodology for classifying GDEs to reflect accurate maximum potential rooting depth for Valley Oak communities. For areas of Valley Oak within the subbasin, the Department recommends the GSP apply a threshold of 80 feet bgs as the maximum depth at which the potential GDE could access groundwater. The Department accepts the use of a 30-foot threshold for other potential GDE areas within the subbasin that do not contain Valley Oak. The GSP should also explicitly identify

which groundwater level measurements were used for the depth to groundwater analysis; the Department recommends the analysis rely on spring, or seasonal high, groundwater levels to be inclusive of potential GDEs.

- ii. GDEs Near Surface Water: The Department recommends that the GSP err on the side of inclusivity of potential GDEs until there is site specific evidence that the overlying ecosystem has no significant dependence on groundwater across seasons and water year types. This means not ruling out potential GDEs because they are proximate to surface water.
- iii. GDE Identification by Year: The Department recommends the GSP clarify the GDE identification methodology and explain if areas identified as GDEs in each of 2013, 2015, and 2017 are retained for further analysis, or if only areas identified in all three years are considered GDEs for the remainder of the GSP.
- iv. Special Status Species: The Department recommends the GSP include an assessment of each identified species' likely groundwater dependence. The GSP should also include a spatial assessment of special status species within the subbasin to characterize which surface waters or GDE areas provide these species habitat or forage; this level of GDE-species-relationship assessment enables GSAs to prioritize GDE monitoring and management decisions.

3. Comment #3 – Sustainable Management Criteria (6.5.6 Depletions of Interconnected Surface Water; starting page 6-36): Interconnected surface water sustainable management criteria (SMC) may not protect against undesirable results for fish and wildlife beneficial uses and users.

a. Issues:

- i. Minimum Thresholds: Minimum thresholds (MTs) for ISW, using groundwater levels as a proxy, are set either at the historic low over the period of record, at 90% of the average groundwater elevation with a modeled increase in evapotranspiration of 50%, or at a level necessary to provide a sufficient operating range below the measurable objective. The GSP's methodology assumes that undesirable results were not occurring at the historic low; however, the GSP does not include sufficient analysis or discussion to support this claim. In 2015, the second of back-to-back critically dry water years in the Sacramento Valley which resulted in historical low groundwater levels, vegetated and aquatic GDEs experienced adverse impacts including stressed or dying riparian vegetation,

poor instream habitat availability, and increased water temperatures (DFW 2019). It is unclear what, if any, studies or analyses were completed to assess whether environmental users within the subbasin experienced undesirable results at the historical low groundwater levels. The GSP assumes that undesirable results for ISW occur only when gaining streams become losing streams. This assumption ignores the benefits of groundwater contributions to surface water baseflows, including the maintenance of instream water quality and temperatures. Reducing the volume of groundwater contributions to ISW, even if a reach has not yet changed from gaining to losing or disconnected, would likely result in significant and unreasonable impacts to fish and wildlife beneficial users of ISW prior to exceedance of the MT. As the GSP neither characterizes specific instream flow or habitat requirements for aquatic species, nor provides baseline information on the volume and timing of ISW depletion (See Comment #1), nor discusses the anticipated rates of depletion that would occur at the established MTs; there is insufficient information to assess potential impacts to ISW beneficial uses and users. The ISW SMC are also regarded in the GSP as protective of GDE beneficial users of groundwater, but the GSP does not provide evidence to support this claim. No analysis is presented that characterizes whether the established MTs are sufficient to maintain water groundwater levels that have historically been shallow enough to support GDEs, or if the MTs would permit groundwater levels to fall below root zones, removing groundwater as an available water source to some GDEs. If MTs are not protective of GDE access to groundwater supplies, significant impacts to environmental beneficial users of groundwater will likely be experienced before MTs are reached.

- ii. Undesirable Results: The GSP requires 25% of ISW representative monitoring wells in the subbasin to fall below their MTs for two consecutive seasonal high water level measurements before identifying an undesirable result to GDEs or ISW. While environmental users are usually adapted to sustain short-term lowering of groundwater levels during dry periods, environmental users may not be able to sustain extended periods of reduced groundwater access that would result from allowing groundwater levels to fall to historic lows or deeper for two consecutive years. Under these MTs, by the time an undesirable result is declared and management actions are triggered in response to the undesirable

result, environmental groundwater users will have already experienced significant stress and potentially irreversible mortality.

- iii. Environmental Beneficial Users: Though the GSP does discuss the potential impacts of exceeding the established SMC for each sustainability indicator on environmental beneficial uses and users within the subbasin, the GSP does not present sufficient evidence that the MTs will protect against these impacts. For instance, the GSP states that if groundwater level or ISW MTs are exceeded, GDEs could lose access to groundwater and aquatic ecosystems could experience a reduction in suitable habitat through lowered stream depths, flow velocities, and dissolved oxygen; and increased temperatures (pages 6-46). However, in establishing the MTs, the GSP seemingly does not compare the groundwater level or ISW thresholds to GDE rooting depths, nor does the GSP relate the MTs to rates of depletion of surface waters and the associated impacts on instream flows, water temperatures, or the availability of suitable habitat for aquatic species.

b. Recommendations:

- i. Minimum Thresholds: The Department recommends the GSP reselect minimum thresholds that would better protect environmental uses and users of groundwater, rather than enabling declines in groundwater levels over the implementation horizon beyond the historic low. Additional analyses of the specific impacts of the established thresholds on monthly groundwater contribution to baseflow in gaining streams, monthly depletion of losing streams, and on GDE and ISW beneficial users of groundwater should be included.
- ii. Undesirable Results: The Department recommends the GSP reconsider the two seasonal-high measurements of groundwater levels below MTs required to constitute an undesirable result, recognizing that extended durations of groundwater inaccessibility for environmental users will likely lead to adverse impacts that cannot be easily reversed when groundwater levels recover. At a minimum, the Department recommends identifying physical triggers (e.g., declining Normalized Difference Vegetation Index signals) and associated management actions (e.g., demand reduction) to enable the GSAs to identify and mitigate localized patterns of lowering groundwater or depleted ISW and associated negative impacts before the second year of MT exceedances yields more significant and undesirable impacts. These interim action triggers

will help preempt irreversible losses and undesirable results for environmental users.

- iii. Environmental Beneficial Users: The Department recommends the GSP include specific analysis demonstrating that the established SMCs are sufficiently protective of environmental users of groundwater, including GDEs and ISW. Groundwater level and ISW MTs at each representative monitoring well (See Comment #5) should be compared to the rooting depths of the identified vegetation in nearby GDEs. The GSP should quantify the volume and timing of depletions of ISW that would occur at the established MTs and explicitly discuss the impacts of the projected depletions on aquatic species' streamflow, water temperature, and habitat needs.

4. Comment #4 – Projects and Management Actions (PMAs)(7.1.3 Summary of Projects and Management Actions; starting page 7-3): The GSP should include additional potential PMAs related to the implementation of demand management within the subbasin.

- a. Issue: The planned and ongoing PMAs within the subbasin focus largely on modernizing water systems operations or implementing recharge projects that may be costly, rely on securing additional surface water supplies, and/or require potentially lengthy permitting processes. Though the GSP indicates that in the projected future conditions scenario, the Sutter Subbasin is expected to maintain groundwater sustainability, should projects fail to produce the anticipated groundwater benefit or localized undesirable results occur, it may be necessary to implement additional demand management projects.
- b. Recommendation: The Department recommends identifying additional demand management projects as potential PMAs that could be implemented within the subbasin. The Department supports a balanced approach of projects related to both supply augmentation and demand management for managing the subbasin sustainably.

5. Comment #5 – Monitoring Networks (7.1.4.6 Installation of Additional Shallow Groundwater Monitoring Wells, 7.2.6.1 Groundwater Level Monitoring Network, 7.2.6.6 Interconnected Surface Water Monitoring Network; starting pages 7-56, 7-114, and 7-148): The GSP should include an assessment of the adequacy of the monitoring networks for assessing impacts to GDEs. The GSP should include additional information related to the planned project to improve the monitoring network for GDEs and ISW within the subbasin.

- a. Issue: The GSP does not include a discussion of the adequacy of the monitoring network for assessing potential impacts to GDEs throughout the subbasin. It is unclear whether any of the identified representative monitoring sites for groundwater levels or ISW are located sufficiently near to GDEs to monitor shallow groundwater levels in those areas. While the Department acknowledges the planned installation of 15 additional shallow wells to improve monitoring of ISW and GDEs, the discussion of the locations of these additional wells focuses on filling data gaps related to ISW and does not discuss planned well locations relative to GDEs within the subbasin.
- b. Recommendation: The GSP should include additional detail related to adequacy of the existing representative monitoring networks for assessing shallow groundwater conditions and potential impacts to GDEs. The Department recommends that the GSP assess the locations of special status species within the subbasin to determine which GDE areas likely provide priority habitat. GDE areas and ISW that support special status species or are most at risk of negative impacts due to groundwater pumping should be prioritized for monitoring to inform management actions (See Comment #2(iv)).

CONCLUSION

In conclusion, though the draft GSP provides detailed characterization of subbasin groundwater conditions, the GSP lacks a robust analysis of potential impacts to environmental beneficial users and should establish more protective management criteria. The Department recommends that the Sutter Subbasin GSAs address the above comments before GSP submission to DWR to best prepare for the following regulatory criteria for plan evaluation:

1. The assumptions, criteria, findings, and objectives, including the sustainability goal, undesirable results, minimum thresholds, measurable objectives, and interim milestones are not reasonable and/or not supported by the best available information and best available science (23 CCR § 355.4(b)(1)). (See Comment #1, 2, 3)
2. The GSP does not identify reasonable measures and schedules to eliminate data gaps. (23 CCR § 355.4(b)(2)) (See Comment #5)
3. The interests of the beneficial uses and users of groundwater in the basin, and the land uses and property interests potentially affected by the use of groundwater in the basin, have not been considered. (23 CCR § 355.4(b)(4)) (See Comment #1, 2, 3)

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4. The projects and management actions are not feasible and/or not likely to prevent undesirable results and ensure that the basin is operated within its sustainable yield. (23 CCR § 355.4(b)(5)) (See Comment #4)**Attachment B**

LITERATURE CITED

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April 29, 2022

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Subject: Comments on Sutter Subbasin Groundwater Sustainability Plan

Dear Mr. Gosselin and Mr. Rivera,

Thank you for the opportunity to comment on the Sutter Subbasin Groundwater Sustainability Plan (GSP), which is a joint document prepared by nine Groundwater Sustainability Agencies (GSAs).¹ The GSP describes how the GSAs will reach long term groundwater sustainability by outlining the need to reduce overdraft conditions and by identifying projects that may replace or supplement groundwater supplies to meet current and future water demands.

The Central Valley Flood Protection Board (Board) is the State's regulatory agency responsible for ensuring appropriate standards are met for the construction, maintenance, and operation of the flood control system that protects life, property, and habitat in California's Central Valley. The Board serves as the State coordinator between the local flood management agencies, and the federal government, with the goal of providing the highest level of flood protection possible to California's Central Valley.

¹ The Sutter Subbasin GSP was prepared by the following GSAs: Sutter County GSA, Butte Water District GSA, City of Live Oak GSA, Sutter Extension Water District GSA, Sutter Community Services District GSA, City of Yuba City GSA, Reclamation District 70 GSA, Reclamation District 1660 GSA, and Reclamation District 1500 GSA

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Encroachment Permit

As required by California Code of Regulations, Title 23, Division 1 (Title 23), Section 6, approval by the Board is required for all proposed work or uses, including the alteration of levees, within any area for which there is an Adopted Plan of Flood Control within the Board's jurisdiction. In addition, Board approval is required for all proposed encroachments within a floodway, on adjacent levees, and within any Regulated Stream identified in Title 23, Table 8.1. Specifically, Board jurisdiction includes the levee section, the waterward area between project levees, a minimum 10-foot-wide strip adjacent to the landward levee toe, the area within 30 feet from the top of bank(s) of Regulated Streams, and inside Board's Designated Floodways. Activities outside of these limits which could adversely affect Federal-State flood control facilities, as determined by Board staff, are also under Board's jurisdiction. Permits may also be required for existing unpermitted encroachments or where it is necessary to establish the conditions normally imposed by permitting, including where responsibility for the encroachment has not been clearly established or ownership or uses have been changed.

Some of the proposed projects identified in the GSP are within the Board's jurisdiction, thereby requiring Board approval. These projects include, but are not limited to, the System Modernization Projects, Boundary Flow and Primary Spill Measurement and Drainage Recovery Projects, Multi-Benefit Recharge Projects, and Installation of Additional Shallow Groundwater Monitoring Wells Projects. Please contact Board staff if you would like to schedule a pre-application meeting to discuss any of the projects in detail and/or to determine the documentation required to process an encroachment permit.

Federal permits, including U.S. Army Corps of Engineers (USACE) Section 404 and Section 10 regulatory permits and Section 408 Permission, in conjunction with a Board permit, may be required for the proposed projects. In addition to federal permits, state and local agency permits, certifications, or approvals may also be required. State approvals may include, but are not limited to, California Department of Fish and Wildlife's Lake and Stream Alteration Agreement and Regional Water Quality Control Board's Section 401 Water Quality Certification. The project proponent must obtain these authorizations prior to the implementation of a proposed project.

Sutter Subbasin GSP Comments

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Subsidence Impacts to Critical Infrastructure

The Board is interested in how the GSP is addressing the sustainability indicators, specifically subsidence, which potentially affects the integrity, functionality, and maintenance costs of Federal-State flood control facilities that are regulated by the Board. The Federal-State flood control facilities are considered critical infrastructure by the State and may only be modified through approval by the Board and USACE.

The State Plan of Flood Control (SPFC) facilities located within the plan area include portions of the Sacramento River Flood Control Project (SRFCP). The facilities of the SRFCP located within the plan area include the Sacramento River, Sutter Bypass, Tisdale Bypass, Wadsworth Canal, and Feather River. These facilities are operated and maintained in accordance with State Operation and Maintenance Manuals (O&M Manuals) that are available upon request. The O&M Manuals provide the minimum freeboard and the design profile that have been established for these facilities. Any reduction in the freeboard or change to design profile as a result of subsidence may lead to increased flood risk and damage to Federal-State flood control facilities.

Board staff has reviewed the O&M Manuals for the watercourses identified above to determine the freeboard and design flow capacity. It is imperative to ensure that subsidence that is occurring within the planning area does not impact the levee design profiles.

The east levee of the Sacramento River, from Butte Slough Outfall Gates to Winship School, has a freeboard of at least 3 feet with a design flow of 66,000 cubic feet per second (cfs). The west levee of Sutter Bypass, from Butte Slough Outfall Gates to a point near Long Bridge, has a freeboard of at least 6 feet with the design flow of 178,000 cfs for the Sutter Bypass.²

The east levee of the Sacramento River, from Winship School downstream to Tisdale Bypass, has a freeboard of at least 3 feet with a design flow of 66,000 cfs. The north levee of Tisdale Bypass and west levee of Sutter Bypass have a freeboard of at least 6 feet with design flows of 38,000 cfs for the Tisdale Bypass and 178,000 cfs for the Sutter Bypass.³

The east levee of the Sacramento River, from Sutter Bypass to the Tisdale Weir, has a freeboard of at least 3 feet with a design flow of 30,000 cfs.⁴

The south levees of the Tisdale Bypass, from the east levee of the Sacramento River to the west levee of the Sutter Bypass, and the west levee of the Sutter Bypass, downstream to the

² Supplement to Standard O&M Manual SRFCP Unit No. 134 Levees of RD No. 70 East Levee of Sacramento River from Butte Slough Outfall Gates to Winship School and West Levee of Sutter By-Pass from Butte Slough Outfall Gates to Long Bridge

³ Supplement to Standard O&M Manual SRFCP Unit No. 133 Levees of RD No. 1660 East Levee of Sacramento River from Winship School to Tisdale By-Pass and North Levee of Tisdale By-Pass and West Levee Sutter By-Pass from Long Bridge to Tisdale By-Pass

⁴ Supplement to Standard O&M Manual SRFCP Unit No. 128 East Levee of Sacramento River from Sutter Bypass to Tisdale Weir all within RD No. 1500 (Mile 84.5 to 118.5)

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east levee of the Sacramento River, have a freeboard of at least 6 feet with the following design flows: ⁵

- 38,000 cfs for the Tisdale Bypass,
- 178,000 cfs for the Sutter Bypass above the Tisdale Bypass,
- and 216,500 cfs for the Sutter Bypass below the Tisdale Bypass.

The east levee of the Sutter Bypass, from the Sutter Buttes southerly to its junction with the Feather River, and the levees of Wadsworth Canal have a freeboard of at least 6 feet with the following design flows: ⁶

- 178,000 cfs for the Sutter Bypass from Long Bridge to Tisdale Bypass,
- 216,000 cfs for the Tisdale Bypass downstream to the Feather River north levee,
- And 1,500 cfs for Wadsworth Canal.

The west levee of the Feather River, from the north boundary of RD No. 823 to its junction with the east levee of Sutter Bypass, has a freeboard of at least 3 feet with the design flow of 320,000 cfs. ⁷

The west levee of the Feather River, from the north boundary of Levee District (LD) 1 to the common boundary between LD1 Maintenance Area 3, has a freeboard of at least 3 feet with the design flows of 300,000 cfs upstream and 320,000 cfs downstream of the Bear River. ⁸

The west levee of the Feather River, from the north boundary of RD No. 777 to north boundary of LD 1, has a freeboard of at least 3 feet and a design flow of 210,000 cfs. ⁹

The GSP notes that subsidence has not been recorded within the planning area. Action will be required if the stability changes and subsidence begins to affect SPFC facilities. It is unlawful for any person or public agency to interfere with, obstruct the performance, maintenance, or operation of, or otherwise take actions that may adversely affect SPFC facilities, designated floodways, or streams that are regulated by the Board (Wat. Code Sec. 8700). Any reduction in freeboard or activities affecting the integrity, functionality or maintenance of Federal-State flood control works is considered significant, must be avoided and are subject to enforcement by the Board.

⁵ Supplement to Standard O&M Manual SRFCP Unit No. 129 South Levee of Tisdale By-Pass from the East Levee of Sacramento River to the West Levee of Sutter By-Pass and West Levee of Sutter By-Pass Downstream to East Levee of Sacramento River

⁶ Supplement to Standard O&M Manual SRFCP Unit No. 135 East Levee of Sutter By-Pass from the Sutter Buttes Southerly to its junction with the Feather River and the East and West Levees of Wadsworth Canal and Levees of Intercepting Canals

⁷ Supplement to Standard O&M Manual SRFCP Unit No. 143 West Levee of Feather River from North Boundary of RD No. 823 to East Levee of Sutter By-Pass

⁸ Supplement to Standard O&M Manual SRFCP Unit No. 144 West Levee of Feather River from North Boundary of LD No. 1 to North Boundary of Maintenance Area 3 (Previously Reclamation District No. 823)

⁹ Supplement to Standard O&M Manual SRFCP Unit No. 148 West Levee of the Feather River from North Boundary of RD No. 777 to North Boundary of LD No. 1

Sutter Subbasin GSP Comments

Page 5 of 5

Closing

The Board recognizes the importance of groundwater sustainability in California and commends the GSAs on their effort in planning for a more resilient future. However, the potential risks to public safety, including increased flood risks, need to be considered when developing proposed projects that seek to mitigate for unsustainable groundwater extraction. The Board seeks to establish a collaborative approach with GSAs to better fulfill our regulatory responsibilities in the new paradigm of the Sustainable Groundwater Management Act. Board staff is available to discuss any project(s) proposed under the GSP as it relates to flood control works.

If you have any questions regarding these comments, please contact Ruth Darling at (916) 574-1417, or via email at Ruth.Darling@cvflood.ca.gov.

Sincerely,



Ruth Darling, Program Manager
Flood Planning and Programs Branch

cc: Guadalupe Rivera, Plan Manager
GRivera@co.sutter.ca.us

Paul Gosselin, Deputy Director
Paul.Gosselin@water.ca.gov

Portal Submission: <https://sgma.water.ca.gov/portal/gsp/comments/112>



April 30, 2022

Paul Gosselin Deputy Director, Sustainable Groundwater Management
California Department of Water Resources
715 P Street
Sacramento, CA 95814
Submitted via SGMA Portal

Re: Comments on the Final Groundwater Sustainability Plan for the Sutter Subbasin

Dear Deputy Director Gosselin,

Audubon California provides the comments below on the Sutter Subbasin Final Groundwater Sustainability Plan (Final GSP) prepared by the nine Groundwater Sustainability Agencies (GSAs), collectively referred to hereafter as the "Sutter GSAs". The Final GSP was prepared pursuant to the Sustainable Groundwater Management Act (SGMA) and submitted to the California Department of Water Resources (DWR) on January 28, 2022 and posted by DWR on February 14, 2022. Audubon California is a statewide nonprofit organization with a mission to protect birds and the places they need. Our organization has a long history of solutions-focused work in the Central Valley in collaboration with state and federal agencies, water districts, non-profits, and landowners.

Audubon California reviewed GSPs in high and medium priority basins as a stakeholder for the environment with a particular focus on managed wetlands. Over 90 percent of historic wetlands in the Central Valley have been replaced with agriculture or urban development. The remaining wetlands are a critical component of the Pacific Flyway, supporting millions of migratory waterfowl, hundreds of thousands of shorebirds, and state listed species like the Tricolored Blackbird. Central Valley managed wetlands are part of California's commitment to national and international Pacific Flyway agreements and provide significant public trust benefits, including habitat for migratory birds, recharge of overdrafted aquifers, carbon sequestration, and recreation opportunities for birders, hunters, and disadvantaged communities.

Managed wetlands require specific consideration in GSPs under SGMA statute and regulations, as detailed below. GSAs are required to identify managed wetlands as beneficial users of groundwater and as land uses and property interests. The overall basin water budget should include managed wetlands as a specific water use sector and the GSP is required to consider the effects of the GSP on managed wetlands as a beneficial user or land use.

When GSPs fail to adequately consider the water needs and recharge contributions of managed wetlands, managed wetlands are likely to receive inadequate consideration in future determinations of groundwater allocations, risking further loss in critical wetland acreage. Less than 10 percent of historic wetlands remain in the Central Valley and they provide outsized public trust benefits for their minimal groundwater use.

The Sutter Subbasin contains extensive managed wetlands, primarily in the Sutter National Wildlife Refuge and Butte Sink Wildlife Management Area.

Audubon submitted comments to the Sutter GSAs during the public release of the draft GSP, in order to provide technical information and feedback to improve the GSP prior to final submission to DWR. Audubon California's comments on the Sutter GSAs' draft GSP are included as **Exhibit 1** to this letter, annotated in red with a summary of Audubon's understanding of the GSA's responses to our original comments and whether updates made to the GSP prior to submission to DWR addressed our original comments. The Final GSP submitted by the GSA included Appendix 4-C: Comments Received and Comment Log, which noted responses to Audubon's comments.

SGMA Requirements Related to Managed Wetlands

A primary requirement for GSAs during GSP development is the consideration of the interests of "all beneficial uses and users of groundwater" (Water Code Section 10723.2), which includes "[e]nvironmental users of groundwater" (Water Code Section 10723.2(e)).

Articulated into the SGMA regulations, the concept of beneficial uses and users of groundwater is first represented in CCR, Title 23, Section 354.10. Notice and Communication, which directs the GSP to "...include a summary of information relating to notification and communication by the Agency with other agencies and interested parties including the following: (a) A description of the beneficial uses and users of groundwater in the basin, including the land uses and property interests potentially affected by the use of groundwater in the basin, the types of parties representing those interests, and the nature of consultation with those parties" [emphasis added].

Furthermore, the SGMA regulations provide a definition that explicitly includes managed wetlands as a beneficial user where: "'Water use sector' refers to categories of water demand based on the general land uses to which the water is applied, including urban, industrial, agricultural, managed wetlands, managed recharge, and native vegetation" (CCR, Title 23, Section 351(al)) [emphasis added].

GSAs are then directed to include all water user sectors in the description of the GSP area and to quantify groundwater use by these sectors in the historic, current and projected budgets [emphasis added]:

CCR §354.8. Description of Plan Area: Each Plan shall include a description of the geographic areas covered, including the following information:

(a) One or more maps of the basin that depict the following, as applicable:

(4) Existing land use designations and the identification of water use sector and water source type.

and,

CCR §354.18. Water Budget:

(b) The water budget shall quantify the following, either through direct measurements or estimates based on data:

(3) Outflows from the groundwater system by water use sector, including evapotranspiration, groundwater extraction, groundwater discharge to surface water sources, and subsurface groundwater outflow.

Given these explicit requirements, GSAs were required to identify, map, and include in water budgets the water use associated with managed wetlands in the GSP.

Furthermore, each GSP was also required to describe “undesirable results where such included:

“Potential effects on the beneficial uses and users of groundwater, on land uses and property interests, and other potential effects that may occur or are occurring from undesirable results” (CCR, Title 23, Section 354.26(b)(3)) [emphasis added].

Relevant Criteria for Plan Evaluation

As specified within the SGMA regulations, DWR “*shall evaluate a Plan that satisfies the requirements of Subsection (a) to determine whether the Plan, either individually or in coordination with other Plans, complies with the Act and substantially complies with the requirements of this Subchapter.*” (CCR, Title 23, Section 355.4). The subchapter then lists 10 requirements to be considered by DWR during its review. Audubon believes that four of the 10 directly relate to the comments provided by Audubon to the GSAs during the public draft phase. These four include:

“Whether the assumptions, criteria, findings, and objectives, including the sustainability goal, undesirable results, minimum thresholds, measurable objectives, and interim milestones are reasonable and supported by the best available information and best available science.” CCR, Title 23, Section 355.4(b)(1) [emphasis added]

“Whether the Plan identifies reasonable measures and schedules to eliminate data gaps.” CCR, Title 23, Section 355.4(b)(2)

“Whether the interests of the beneficial uses and users of groundwater in the basin, and the land uses and property interests potentially affected by the use of groundwater in the basin, have been considered.” CCR, Title 23, Section 355.4(b)(4) [emphasis added]

“Whether the Agency has adequately responded to comments that raise credible technical or policy issues with the Plan.” CCR, Title 23, Section 355.4(b)(10) [emphasis added]

Evaluation of GSP Consideration of Managed Wetlands

Given these SGMA requirements, Audubon California evaluated the Final GSP for its consideration of managed wetlands. Following is an abbreviated summary for consideration by DWR during its review of whether the submitted Final GSP adequately addressed this important water use sector.

Beneficial Uses and Users

Were managed wetlands identified as beneficial users of groundwater?

Yes. The Final GSP identified federal, state, and privately managed wetlands in text, figures, and water budgets, including Sutter National Wildlife Refuge and Butte Sink Wildlife Management Area.

Land Uses and Property Interests

Were managed wetlands identified as a land use and accurately represented in maps?

Yes. Figure 2-4 maps wildlife areas and duck clubs in the Sutter Subbasin. Figure 2-13 presents the location of irrigated managed wetlands in the subbasin, which addresses comments submitted by Audubon on the Draft GSP.

Water Budget

Were managed wetlands and native vegetation identified as specific water sectors in the water budget?

Yes, managed wetlands were included as a distinct water use sector in the water budget. As Audubon requested, projected conditions are based upon “on recent historical local data and for Sutter NWR, monthly ideal delivery schedule for Level 4 water supply demand through the Refuge Water Supply Program provided by USBR” (Table 5-11).

Identification of Data Gaps

Are reasonable measures and schedules identified to eliminate data gaps with respect to managed wetlands?

Yes. The Sutter GSAs plan continued improvements to the Hydrologic Conceptual Model (HCM), multi-benefit recharge projects, and wetland water supply wildlife habitat improvements.

Best Available Information and Science

Is the GSP supported by best available information and best available science with respect to managed wetlands?

Yes. The Final GSP water budget uses Full Level 4 quantities to managed wetlands, consistent with the Central Valley Project Improvement Act (CVPIA).

Consideration of GSP Effects on Managed Wetlands

Are the potential effects on managed wetlands, as beneficial users of groundwater, identified and considered?

Partially. By using CVPIA Full Level 4 quantities to managed wetlands, the Final GSP plans for protection of beneficial uses including the irrigation of critical managed wetland habitat. The GSP should also provide an analysis of the direct or indirect impacts on managed wetlands as beneficial users when defining undesirable results, and the GSP should provide an analysis of the impacts of the proposed minimum thresholds and measurable objectives.

Adequate Response to Comments

Were Audubon’s comments on the publicly released draft GSP adequately addressed?

Yes. While the Sutter GSAs failed to include suggested language in a few instances, the most important comments Audubon submitted were incorporated in the Final GSP. Specifically, the Final GSP includes CVPIA Full Level 4 quantities to managed wetlands, improved land use maps, and generally considers managed wetland beneficial uses as equal priority to urban and agricultural water uses (see Exhibit 1 to this letter).

Summary

Over 90 percent of wetlands in the Central Valley were destroyed over the past 100-years, as large-scale conversion to agriculture disconnected lands from natural river flood flows and groundwater tables. The remaining public and private wetlands in the Central Valley are managed through timed surface water deliveries or, in locations where surface water infrastructure is absent, through groundwater pumping. Because managed wetlands are just a tiny fraction of their previous extent and because they are the only

remaining habitat for numerous fragile species, they need explicit consideration in GSPs and robust protection by the State.

Thank you for your consideration of Audubon California's comments. If you would like to discuss this matter further, please do not hesitate to contact me at (916) 737-5707 or via email at samantha.arthur@audubon.org.

Sincerely,

A handwritten signature in black ink, appearing to read 'Samantha Arthur', with a stylized, flowing script.

Samantha Arthur
Working Lands Program Director
Audubon California



November 11, 2021

Guadalupe Rivera
Sutter County Development Services
1130 Civic Center Blvd
Yuba City, CA 95993
Sent via email to: info@suttersubbasin.org

Re: Comments on the Draft Sutter Subbasin Groundwater Sustainability Plan

To Sutter Subbasin GSAs,

Audubon California appreciates the opportunity to provide public comment on the draft Sutter Subbasin Groundwater Sustainability Plan (GSP) prepared by the nine Groundwater Sustainability Agencies (GSAs), collectively referred to hereafter as the “Sutter GSAs”. Audubon California is a statewide nonprofit organization with a mission to protect birds and the places they need. Our organization has a long history of solutions-focused work in the Central Valley in collaboration with state and federal agencies, water districts, non-profits, and landowners. Audubon is reviewing draft GSPs as a stakeholder for the environment with a particular focus on managed wetlands. We are commenting on draft GSPs to GSAs to improve their GSPs prior to the deadline to submit final GSPs to the Department of Water Resources in January 2022. Audubon would also like to identify areas of opportunity to partner with landowners and GSAs to provide groundwater and wildlife habitat benefits in the implementation of the Sustainable Groundwater Management Act (SGMA).

Over 90 percent of historic wetlands in the Central Valley have been replaced with agriculture or urban development. Disconnected from natural water sources as a consequence of surface water diversions and groundwater over-pumping, wetland landowners must utilize surface water deliveries or pump groundwater to provide flooded habitat. But managed wetlands provide outsized public trust benefits for their minor water use.

The remaining wetlands in the Central Valley are a critical component of the Pacific Flyway, supporting millions of migratory waterfowl, hundreds of thousands of shorebirds, and state listed species like the Tricolored Blackbird. Central Valley managed wetlands are part of California’s commitment to national and international Pacific Flyway agreements and provide significant public trust benefits, including habitat for migratory birds, recharge of overdrafted aquifers, carbon sequestration, and recreation opportunities for birders, hunters, and disadvantaged communities.

As recognized by the Sutter GSAs, managed wetlands require specific consideration in GSPs under SGMA statute and regulations, as detailed below. GSAs are required to identify managed wetlands as beneficial users of groundwater and as land uses and property interests and should recognize this land use consistent with other active users of surface and groundwater. The overall basin water budget must include managed wetlands as a specific water use sector and the GSP is required to consider the effects of the GSP on managed wetlands as a beneficial user or land use.

When GSPs fail to adequately consider the water needs and recharge contributions of managed wetlands, projects and management actions may ignore managed wetlands, their need for protection as public trust

Exhibit 1 – Annotated Update of Comment Letter on Draft GSP

resources, and their potential to be part of sustainability solutions. If future actions include groundwater allocations, managed wetlands face the potential of being excluded if not recognized in the GSP, risking further loss in critical wetland acreage.

SGMA Requirements Related to Managed Wetlands

A primary requirement for GSAs during GSP development is the consideration of the interests of “all beneficial uses and users of groundwater” [Water Code Section 10723.2], which includes “[e]nvironmental users of groundwater” [Water Code Section 10723.2(e)].

Articulated into the SGMA regulations, the concept of beneficial uses and users of groundwater is first represented in CCR, Title 23, Section 354.10. Notice and Communication, which directs the GSP to “...include a summary of information relating to notification and communication by the Agency with other agencies and interested parties including the following: (a) A description of the beneficial uses and users of groundwater in the basin, including the land uses and property interests potentially affected by the use of groundwater in the basin, the types of parties representing those interests, and the nature of consultation with those parties.” [emphasis added].

Furthermore, the SGMA regulations provide a definition that explicitly includes managed wetlands as a beneficial user where:

“‘Water use sector’ refers to categories of water demand based on the general land uses to which the water is applied, including urban, industrial, agricultural, managed wetlands, managed recharge, and native vegetation.” CCR, Title 23, Section 351(al) [emphasis added].

GSAs are then directed to include all water user sectors in the description of the GSP area and to quantify groundwater use by these sectors in the historic, current and projected budgets [emphasis added]:

CCR §354.8. Description of Plan Area: Each Plan shall include a description of the geographic areas covered, including the following information:

- (a) One or more maps of the basin that depict the following, as applicable:
 - (4) Existing land use designations and the identification of water use sector and water source type.

and,

CCR §354.18. Water Budget:

- (b) The water budget shall quantify the following, either through direct measurements or estimates based on data:
 - (3) Outflows from the groundwater system by water use sector, including evapotranspiration, groundwater extraction, groundwater discharge to surface water sources, and subsurface groundwater outflow.

Given these explicit requirements, GSAs are required to identify and map managed wetlands and include their water needs in water budgets in the GSP.

Furthermore, each GSP is also required to describe “undesirable results” where such included:

“Potential effects on the beneficial uses and users of groundwater, on land uses and property interests, and other potential effects that may occur or are occurring from undesirable results.”
CCR, Title 23, Section 354.26(b)(3) [emphasis added]

Comment Overview

We applaud the Sutter GSAs for their proactive effort to include managed wetlands throughout the GSP. As a result, our comments are limited and summarized as follows:

1. Identification of managed wetlands: Audubon appreciates that the Sutter GSAs have identified and specifically included federal, state and privately managed wetlands in text, figures (e.g. Figure 2-4), and water budgets, especially Sutter National Wildlife Refuge (NWR) and the Butte Sink Wildlife Management Area (WMA).
2. Water budget: Audubon appreciates the specific inclusion of managed wetlands into the water budgets (e.g. Table 5-11 and Table 5-12), especially the inclusion of greater water use in the future budget resulting from anticipated delivery of Central Valley Project Improvement Act (CVPIA) Full Level 4 refuge water supplies to Sutter NWR.
3. Consideration of managed wetlands: Audubon appreciates that the listed projects included in Table 7-2 (GSP page 7-7) identified opportunities for multi-benefit projects that provide water supply and wildlife habitat benefits and sufficient project details were included in Section 7.1.4.4 (GSP page 7-44).

Draft Groundwater Sustainability Plan Page-by-Page Comments

Additional page-by-page comments on the Sutter GSAs’ draft GSP are detailed below. We welcome any follow up questions and look forward to seeing the issues raised below addressed in the final GSP submission in January 2022.

Section 2.2, page 2-21: Suggest modifying the opening sentence in the second paragraph as follows: “Surface water from the Feather and Sacramento Rivers and groundwater are the water sources used for irrigation, managed wetland, municipal and industrial, and urban/domestic purposes (Figure 2-13)”

Update: modified language adopted in Final GSP, as requested.

Table 2-2, page 2-21: Suggest adding “including managed wetlands” as a parenthetical descriptor to “Riparian Vegetation” as often the former category includes explicit actions to apply water and manage food and habitat compared to riparian vegetation which often correlates to unmanaged stream course vegetation and habitats depending on a riparian water source.

Update: Comment was not addressed in the Final GSP.

Figure 2-12, page 2-22: Same comment as described for Table 2-2.

Update: Comment was not addressed in the Final GSP.

Figure 2-13, page 2-23: Suggest shading the Sutter NWR and Butte Sink WMA areas and including in the legend as “irrigated managed wetlands” to help demonstrate these lands actively apply water within these boundaries.

Update: Figure 2-13 was modified as requested in the Final GSP.

Section 2.2.2, page 2-53: Suggest adding a subsection for “managed wetlands water supply” similar to the subsection for “urban water supply” and “agricultural water supply.” Because these land uses apply both surface and groundwater, with the Sutter NWR receiving supplies under congressional mandate (CVPIA refuge water supply program), it is important for the reader to see this user in similar context to agricultural and urban uses.

Update: a new section 2.2.2.3 Managed Wetland Water Supply was added to the final GSP, which explains the CVPIA Level 4 requirements. The section concludes: “For the Sutter National Wildlife Refuge, the Level 2 water contract quantity is 23,500 AFY and the 100% Incremental Level 4 water contract quantity is 6,500 AFY, therefore Full Level 4 water deliveries are 30,000 AFY (USBR, July 2004).”

Table 5-10, page 5-189: This table should include a row for “managed wetlands demand” (similar to “agricultural demand” and “urban demand”) to help provide the basis for higher future water demands and surface supplies as infrastructure to adequately delivery CVPIA mandated water supplies to Sutter NWR is anticipated to be completed and CVPIA Full Level 4 water supplies to Sutter NWR are slated to begin more routinely.

Update: Now presented as Table 5-11, the table does include a row for “managed wetlands demand” with projected conditions based upon “on recent historical local data and for Sutter NWR, monthly ideal delivery schedule for Level 4 water supply demand through the Refuge Water Supply Program provided by USBR.”

Footnote 1, page 5-193: Please correct the spelling to read “Greg Young”

Update: Comment was addressed in Final GSP.

Section 5.3.5, page 5-194: Suggest adding “managed wetlands” for the surface water and groundwater bullets under “Inflow.”

Update: the full bullet point for groundwater pumping was modified to read: “Groundwater pumping (i.e., groundwater supplies to meet agricultural, urban, industrial, and managed wetlands uses)”

Thank you for your consideration of Audubon California’s comments. If you would like to discuss this matter further, please do not hesitate to contact me at (916) 737-5707 or via email at samantha.arthur@audubon.org.

Sincerely,



Samantha Arthur
Working Lands Program Director
Audubon California



April 30, 2022

Paul Gosselin
Deputy Director, Sustainable Groundwater Management Office
California Department of Water Resources
Sacramento, California
Submitted via SGMA GSP Portal

Re: Comments on the Sutter Groundwater Sustainability Plan

Dear Deputy Director Gosselin,

On behalf of the above-listed organizations, we appreciate the opportunity to comment on the Groundwater Sustainability Plan (GSP) for the Sutter Basin. Our organizations are deeply engaged in and committed to the successful implementation of the Sustainable Groundwater Management Act (SGMA) because we understand that groundwater is critical for the resilience of California's water portfolio, particularly in light of climate change. Our review focuses on how well drinking water users, disadvantaged communities, tribes, environment, stakeholder involvement, and climate change were addressed in the GSP.¹ Collectively, these issues are true indicators of sustainability. Because California's water and economy are interconnected, the sustainable management of each basin is of interest to both local communities and the state as a whole.

Under the requirements of SGMA, Groundwater Sustainability Agencies (GSAs) must consider the interests of all beneficial uses and users of groundwater, including domestic well owners, environmental users, surface water users, state and federal government, California Native American tribes, and

¹ Our organizations are non-tribal NGOs that are providing a review of the identification of federally and state recognized tribes (Data source: SGMA Data viewer) or other tribal interests identified within the GSP. We recognize that there are likely tribal interests that we are not able to detect through mapped lands and stated interests in the GSP. The lack of detection of tribal interests in our analysis should not be taken as evidence for a lack of tribal interests in a basin, but rather that our method could not identify tribal interests. We recommended during our review of draft GSPs that the GSA utilize the DWR's "Engagement with Tribal Governments" Guidance Document to comprehensively address these important beneficial users in their GSP.

disadvantaged communities (DACs).^{2,3} As stakeholders, we reviewed all the draft and final versions of the 2022 GSPs. We appreciate that some basins have consulted us directly via focus groups, workshops, and working groups. Recognizing that GSPs are complicated and resource intensive to develop, we provided technical and policy relevant feedback on each of the 2022 draft GSPs directly to each GSA with the goal of supporting the improvement of GSPs prior to the submission of the final GSP to the California Department of Water Resources (DWR).

Our organizations evaluated the GSPs based on the following nine criteria:

1. Stakeholder engagement
2. Identification of DACs, domestic wells, and tribes
3. Identification of interconnected surface waters (ISWs)
4. Identification of groundwater dependent ecosystems (GDEs)
5. Incorporation of climate change in the water budget
6. Inclusion of ecosystems in the water budget
7. Consideration of impacts to DACs, drinking water users, and environmental users in the sustainable management criteria (SMC)
8. Identification and reconciliation of data gaps
9. Identification of potential impacts to beneficial users in the Projects and Management Actions

Our reviews did not assess the quality of the data provided in the GSP, but analyzed whether data were provided, what data sources were cited, how information about beneficial users of groundwater were used to develop the plan, and whether or not the GSP included plans to reconcile existing data gaps. In our review of the final GSPs, we have specifically looked to see whether the GSA responded to our comments on the draft GSP and whether corresponding edits were made in the final plan.⁴

Based on our evaluation, we found this plan to be **incomplete**, meaning that we found gaps in how beneficial users were addressed within our nine evaluation criteria. Based on this, we recommend that this plan be found incomplete and the GSA be given up to 180 days to address the missing components.

In general, we found the plan to have deficiencies in the following areas:

- DAC, tribal, and environmental stakeholder engagement during the GSP development process
- Identification of DACs, drinking water wells, and tribes
- Identification of GDEs
- Identification of ISWs
- Consideration of DACs, drinking water users, and environmental users during the establishment of the sustainable management criteria
- Lack of a drinking water well impact mitigation program
- Representative monitoring well locations relative to key beneficial users

Our specific comments related to the GSP in the Sutter Basin along with detailed recommendations are provided in **Attachment A**. Please refer to the enclosed list of attachments for additional technical recommendations:

Attachment A	GSP Specific Comments
Attachment B	Freshwater species located in the basin
Attachment C	Maps of representative monitoring sites in relation to key beneficial users

² "The groundwater sustainability agency shall consider the interests of all beneficial uses and users of groundwater" [Water Code 10723.2]

³ "When evaluating whether a Plan is likely to achieve the sustainability goal for the basin, the Department shall consider the following: [...] (4) Whether the interests of the beneficial uses and users of groundwater in the basin, and the land uses and property interests potentially affected by the use of groundwater in the basin, have been considered." [23 CCR § 355.4(b)(4)]

⁴ "When evaluating whether a Plan is likely to achieve the sustainability goal for the basin, the Department shall consider the following: [...] (10) Whether the Agency has adequately responded to comments that raise credible technical or policy issues with the Plan." [23 CCR § 355.4(b)(10)]

The success of SGMA - the sustainable management of groundwater for current and future social, economic, and environmental benefits - depends on the inclusion of *all* beneficial users in the development and implementation of GSPs. The degree to which key beneficial users are included in GSPs is a critical indicator of whether a plan is indeed on the path to sustainability. Sustainably managing our groundwater resources is critical to the long-term resilience of California's communities, economy, and environment.

We appreciate the opportunity to comment and are available to respond to any questions you might have.

Best Regards,



Ngodoo Atume
Water Policy Analyst
Clean Water Action/Clean Water Fund



J. Pablo Ortiz-Partida, Ph.D.
Bilingual Senior Climate and Water Scientist
Union of Concerned Scientists



Samantha Arthur
Working Lands Program Director
Audubon California



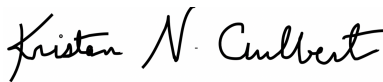
Roger Dickinson
Policy Director
CivicWell (formerly Local Government
Commission)



E.J. Remson
Senior Project Director, California Water Program
The Nature Conservancy



Melissa M. Rohde
Groundwater Scientist
The Nature Conservancy



Kristan Culbert
Associate Director, California Central Valley River
Conservation
American Rivers

Attachment A

Specific Comments on the Sutter Basin Final Groundwater Sustainability Plan

This attachment contains our findings for nine criteria used for the evaluation of the basin's draft and final GSP. Here, each of the nine criteria are separated into separate sections and contain a short description of our evaluation criteria and observations.

1. Stakeholder engagement
2. Identification of DACs, domestic wells, and tribes
3. Identification of interconnected surface waters (ISWs)
4. Identification of groundwater dependent ecosystems (GDEs)
5. Incorporation of climate change in the water budget
6. Inclusion of ecosystems in the water budget
7. Consideration of impacts to DACs, drinking water users, and environmental users in the sustainable management criteria (SMC)
8. Identification and reconciliation of data gaps
9. Identification of potential impacts to beneficial users in the Project and Management Actions

A table containing the original evaluation questions for each of the nine criteria are also included under the corresponding section. Within the table, there are a range of three possible answers based on how well the GSP satisfactorily answered the question. In the last column to the right of the table, we also indicate whether or not we saw improvements from the draft GSP for the corresponding question in the final GSP.

1. Stakeholder engagement

The SGMA statute requires that the GSP Notice and Communication chapter identify how stakeholders were actively engaged in the SGMA process.⁵ Stakeholder engagement is critical for the GSAs to fully understand the specific interests and water demands of all beneficial users, and to support the identification and consideration of beneficial users in the development of sustainable management criteria and selection of projects and management actions. To evaluate this, we used the International Association of Public Participation (IAP2) spectrum of public participation referenced in DWR's "Stakeholder Communication and Engagement" guidance document.⁶ To differentiate between engagement processes for various stakeholders, we considered participation activities that fell under the inform, consult, involve, collaborate, or empower categories. A "Yes" score was given to plans where GSAs proactively identified and targeted outreach to stakeholders to invite stakeholder perspectives into the GSP development process, such as through working groups, advisory committees and GSA board seats. While a "Somewhat" score was given to plans where GSAs had public meetings, email notifications list and public comment process. A "No" score was given to plans where the GSAs failed to identify and engage stakeholders.

However, it is important to note here that it is nearly impossible through reading the plans to decipher whether stakeholder voices are being heard and empowered via these processes. To assess actual engagement, local stakeholders would need to be directly consulted to share their feedback, which was not possible for us to assess during our evaluation of the 2022 GSPs. The expectation is that robust stakeholder engagement includes active and targeted outreach to ensure that stakeholder concerns are consistently understood and stakeholder feedback is incorporated in the decision making process. Because our evaluation of stakeholder engagement across the 2022 GSPs is limited to what is presented in the GSP text, it is possible that despite stakeholders being represented on a GSA board or advisory group that stakeholder feedback was not fully considered and incorporated into the GSP. When stakeholders are considered and empowered in the GSP development process, we would expect to see stakeholder interests adequately reflected throughout the plan.

Table 1 provides a list of questions we used to evaluate how stakeholder engagement was documented in the GSP for key stakeholders, such as DACs, tribes, and the environment. The GSP satisfactorily answered one of seven questions for this criteria. Recommendations from our Draft GSP comment letter that have not been addressed in the Final GSP are listed below.

Table 1. Questions used to evaluate stakeholder engagement in the GSP.

Does the GSP engage stakeholders?	No	Somewhat	Yes	Draft vs. Final GSP
Does the GSP document how DAC stakeholders were given opportunities to engage in the GSP development process?	Little to no mention or details of engagement	Inform OR consult	Involve, collaborate, OR empower	No Change
Does the GSP document how tribal stakeholders were given opportunities to engage in the GSP development process?	Little to no mention or details of engagement	Inform OR consult	Involve, collaborate, OR empower	No Change
Does the GSP document how environmental stakeholders were given opportunities to engage in the GSP development process?	Little to no mention or details of engagement	Inform OR consult	Involve, collaborate, OR empower	No Change
Does the Stakeholder Communication and Engagement Plan or GSP include outreach to DACs during GSP implementation?	Little to no mention or details of engagement	Inform OR consult	Involve, collaborate, OR empower	No Change

⁵ "A communication section of the Plan shall include a requirement that the GSP identify how it encourages the active involvement of diverse social, cultural, and economic elements of the population within the basin." [23 CCR §354.10(d)(3)]

⁶ California Department of Water Resources. 2018. Guidance Document for Groundwater Sustainability Plan: Stakeholder Communication and Engagement. Available at: <https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Groundwater-Management/Assistance-and-Engagement/Files/Guidance-Doc-for-GSP---Stakeholder-Communication-and-Engagement.pdf>

Does the Stakeholder Communication and Engagement Plan or GSP include outreach to tribes during GSP implementation?	Little to no mention or details of engagement	Inform OR consult	Involve, collaborate, OR empower	No Change
Does the Stakeholder Communication and Engagement Plan or GSP include outreach to environmental stakeholders during GSP implementation?	Little to no mention or details of engagement	Inform OR consult	Involve, collaborate, OR empower	No Change
Does the GSP include a Stakeholder Communication and Engagement Plan?	Not Included		Included	Draft Sufficient

RECOMMENDATIONS

- In the Outreach and Communication chapter, describe active and targeted outreach to engage DACs, drinking water users, and environmental stakeholders throughout the GSP development and implementation phases. Refer to “Collaborating for Success: Stakeholder Engagement for Sustainable Groundwater Management Act Implementation” for specific recommendations on how to actively engage stakeholders during all phases of the GSP process.⁷
- Utilize DWR’s tribal engagement guidance to comprehensively address all tribes and tribal interests in the basin within the GSP.⁸

⁷ Collaborating for Success: Stakeholder Engagement for Sustainable Groundwater Management Act Implementation. Available at:

https://static1.squarespace.com/static/5e83c5f78f0db40cb837cfb5/t/5f3ca8c136dbe60157dd5664/1597810892937/S_GMA_Stakeholder_Engagement_White_Paper.pdf

⁸ Engagement with Tribal Governments Guidance Document. Available at:

https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Groundwater-Management/Sustainable-Groundwater-Management/Best-Management-Practices-and-Guidance-Documents/Files/Guidance-Doc-for-SGM-Engagement-with-Tribal-Govt_av_19.pdf

2. Identification of DACs, domestic wells, and tribes

The consideration of beneficial uses and users in GSP development is contingent upon adequate identification of *all* beneficial users, including DACs, domestic wells, and tribes.^{1,2} Table 2 provides a list of questions we used to evaluate how these beneficial users were identified in the GSP. These elements are critical for the GSA to fully understand the specific interests and water demands of these beneficial users, and to support their consideration in the development of sustainable management criteria and selection of projects and management actions.

In our review of the identification of DACs, domestic wells, and tribes, we found that the GSP did not map the locations of tribal lands or tribal interests in the basin. The GSP did not map the depth of domestic wells (such as minimum well depth, average well depth, or depth range). This information is necessary to understand the distribution of shallow and vulnerable drinking water wells within the basin. Furthermore, the GSP did not identify the sources of drinking water for DAC members.

Table 2 shows the GSP satisfactorily answered three of six questions for this criteria. Recommendations from our Draft GSP comment letter that have not been addressed in the Final GSP are listed below.

Table 2. Questions used to evaluate the identification of DACs, domestic wells, and tribes in the GSP.

Does the GSP identify DACs, domestic wells, and tribes?	No	Somewhat	Yes	Draft vs. Final GSP
Does the GSP identify each DAC by name and location on a map?	Neither mapped NOR identified by name in text	Mapped OR identified by name in text	Mapped AND identified by name in text	Draft Sufficient
Are tribal lands identified and mapped in the basin?	Neither mapped NOR identified in text	Mapped OR identified in text	Mapped AND identified in text	No Change
Does the GSP describe the size of the population in each DAC?	Not included	Vaguely mentioned or mapped	Explicitly mentioned or mapped	Draft Sufficient
Does the GSP map minimum well depth, or depth range of domestic wells?	Neither mapped NOR depth ranges included	Map OR depth ranges included	Map AND depth ranges included	No Change
Does the GSP map the density of domestic wells in the basin?	Not included		Included	Draft Sufficient
Does the GSP identify the water source for DACs?	No mention	Only general reference	Explicit identification	No Change

RECOMMENDATIONS

- Consult with tribal representatives to identify and map any potential tribal interests within the basin.
- Include a map showing domestic well locations and average well depth across the basin.
- Identify the sources of drinking water for DAC members, including an estimate of how many people rely on groundwater (e.g., domestic wells, state small water systems, and public water systems).

3. Identification of interconnected surface waters

SGMA requires that the GSP identify ISWs in the basin, including estimates of the quantity and timing of depletions.⁹ Table 3 provides a list of questions we used to evaluate how well ISWs were identified in the GSP. The complete analysis of ISWs requires mapping of gaining and losing reaches and assessing the temporal variability in stream depletions to account for the inherent variability within California's Mediterranean climate. Since this relies upon seasonal and multiple water years of data, the GSP should discuss the spatial and temporal gaps in data needed to adequately characterize the interaction between groundwater and surface water within the basin. In the absence of data, the GSP should not exclude any segments with data gaps from the ISW map and instead consider and map them explicitly as potential ISWs until data gaps are reconciled. The absence of evidence is not the evidence of absence.

In our review of the identification of interconnected surface waters, we found that the GSP did not retain stream reaches as potential ISWs in the GSP in areas of data gaps. The GSP does not evaluate the interaction of streams in the Sutter Buttes foothills with underlying water table because the C2VSimFG-Sutter model does not contain stream nodes in those areas. We recommend that these stream reaches are retained as potential ISWs in the GSP until further data is gathered.

Table 3 shows the GSP satisfactorily answered three of five questions for this criteria. Recommendations from our Draft GSP comment letter that have not been fully addressed in the Final GSP are listed below.

Table 3. Questions used to evaluate the identification of ISWs in the GSP.

Does the GSP identify interconnected surface water (ISW)?	No	Somewhat	Yes	Draft vs. Final GSP
Are gaining and losing reaches adequately assessed spatially and temporally?	No ISW map	ISW map with single water year data; unclear methods	ISW map with multiple water year data; clear methods	Draft Sufficient
Are the conclusions of ISWs consistent with the assessment?	Vague and contradictory with analysis OR No evidence to support conclusion.	Lacking some detail and evidence	Coherent with analysis and available data	Draft Sufficient
Are all shallow principal aquifers acknowledged in defining ISW?	Not acknowledged	Not explicitly or adequately acknowledged	Acknowledged	Draft Sufficient
Were data gaps identified when mapping ISWs?	Not identified	Vague description	Clear identification	No Change
In the case of data gaps and uncertainty, were streams mapped and described as potential ISWs in the GSP?	Not described NOR mapped	Vague description OR no map	Clearly described AND mapped temporarily and spatially	No Change

⁹ "Each plan shall provide a description of current and historic groundwater conditions in the basin, including data from January 1, 2015, to current conditions, based on the best available information that includes [...] (f) Identification of interconnected surface water systems within the basin and an estimate of the quantity and timing of depletions of those systems, utilizing data available from the Department, as specified in Section 353.2, or the best available information." [23 CCR § 354.16(f)]

RECOMMENDATIONS

- To confirm the results of the groundwater modeling analysis and support conclusions about the Sutter Buttes foothills stream reaches, overlay the stream reaches shown with depth-to-groundwater contour maps to illustrate groundwater depths and the groundwater gradient near the stream reaches. For the depth-to-groundwater contour maps, use the best practices presented in The Nature Conservancy's "Identifying GDEs under SGMA: Best Practices for using the NC Dataset."¹⁰ Specifically, ensure that the first step is contouring groundwater elevations, and then subtracting this layer from land surface elevations from a Digital Elevation Model (DEM) to estimate depth-to-groundwater contours across the landscape. This will provide accurate contours of depth to groundwater along streams and other land surface depressions where GDEs are commonly found.
- Describe data gaps for the ISW analysis in the ISW section, in addition to the discussion in Section 7.2.6.6.5 (Interconnected Surface Water Monitoring Network Data Gaps). While the GSP identifies data gaps and their locations in the text, we recommend that the GSP considers any segments with data gaps as potential ISWs and clearly marks them as such on maps provided in the GSP.

¹⁰ The Nature Conservancy's "Identifying GDEs under SGMA: Best Practices for using the NC Dataset." Available at: https://groundwaterresourcehub.org/public/uploads/pdfs/TNC_NCdataset_BestPracticesGuide_2019.pdf

4. Identification of groundwater dependent ecosystems

SGMA requires that GDEs be identified in the GSP.^{11,12} Table 4 provides a list of questions we used to evaluate how these beneficial users were identified in the GSP. These elements are critical for the GSA to fully understand the specific interests and water demands of these beneficial users, and to support their consideration in the development of sustainable management criteria and selection of projects and management actions.

In our review of the identification of GDEs, we found that the GSP improperly disregarded some mapped features in the NC dataset.¹³ NC dataset polygons were incorrectly removed in areas adjacent to irrigated fields or adjacent to rivers and streams. However, this removal criteria is flawed since GDEs can rely on multiple water sources – including shallow groundwater receiving inputs from surface water flow or irrigation return flow from nearby irrigated fields – simultaneously and at different temporal/spatial scales. NC dataset polygons adjacent to irrigated land or surface water supplies can still potentially be reliant on shallow groundwater aquifers, and therefore should not be removed solely based on their proximity to these additional water sources.

We also found that the GSP did not describe or present the groundwater data used to characterize groundwater conditions supporting the basin's GDEs (such as depth-to-groundwater contour maps). Furthermore, it is unclear which GDEs are retained as potential GDEs for the purposes of establishing monitoring and sustainable management criteria.

Table 4 shows the GSP satisfactorily answered four of eight questions for this criteria. Recommendations from our Draft GSP comment letter that have not been addressed in the Final GSP are listed below.

Table 4. Questions used to evaluate the identification of GDEs in the GSP.

Does the GSP identify groundwater dependent ecosystems (GDEs)?	No	Somewhat	Yes	Draft vs. Final GSP
Is there an inventory, map, or description of fauna (e.g., birds, fish, amphibian) and flora (e.g., plants) species or habitat types in the basin's GDEs? Please indicate in the notes if threatened and endangered species are identified in the GSP.	No description of flora NOR fauna in GDEs	Some details lacking on flora, fauna OR threatened or endangered species	Includes flora, fauna AND threatened or endangered species	Draft Sufficient
Were GDEs in the basin identified (mapped) and described in the GSP using best available data (e.g., NC dataset, localized VegMap data)?	No GDE map	GDE map provided, but based on unclear or incorrect data/methods	GDE map included with best available data	Draft Sufficient
Was depth-to-groundwater data from the underlying principal aquifer used to verify the NC dataset?	Not incorporated	Incorporated, but unclear spatial or temporal data	Clearly incorporated and described	No Change
Did the GSP avoid using any of the following criteria when deciding whether or not to remove NC dataset polygons from the final GDE map: 1) presence of surface water, 2) distance from agricultural fields, 3) shallow principal aquifer was not considered main pumping aquifer, 4) groundwater connection only some percentage of the time, 5) other?	No	Unclear	Yes	No Change
Were multiple water year types (e.g., wet, average, dry) of groundwater level data used to characterize groundwater conditions in the GDEs?	No	Unclear	Yes	Draft Sufficient

¹¹ "Each plan shall provide a description of current and historic groundwater conditions in the basin, including data from January 1, 2015, to current conditions, based on the best available information that includes [...] (g) Identification of GDEs within the basin, utilizing data available from the Department, as specified in Section 353.2, or the best available information." [23 CCR § 354.16(g)]

¹² Refer to Attachment B for a list of freshwater species located in the basin.

¹³ Department of Water Resources. 2018. Natural Communities Commonly Associated with Groundwater dataset (NC Dataset). Available at: <https://qis.water.ca.gov/app/NCDataSetViewer/>.

Were depth-to-groundwater measurements under GDEs corrected for land surface elevations?	No	Unclear	Yes	No Change
Were data gaps identified when mapping GDEs?	Data gaps not identified	Data gaps described vaguely	Data gaps described clearly	Final Improved
In the case of data gaps and uncertainty, were potential GDEs mapped and described in the GSP?	Not mapped NOR described	No map OR vague description	Clearly mapped AND described	No Change

RECOMMENDATIONS

- Re-evaluate the NC dataset polygons that are adjacent to irrigated fields or streams and rivers. Refer to best practices for using local groundwater data to verify whether polygons in the NC Dataset are supported by groundwater in an aquifer.¹⁰
- Use depth-to-groundwater data from multiple seasons and water year types (e.g., wet, dry, average, drought) to determine the range of depth to groundwater around NC dataset polygons. We recommend that a baseline period (10 years from 2005 to 2015) be established to characterize groundwater conditions over multiple water year types.
- Provide depth-to-groundwater contour maps, noting best practices.¹⁰ Specifically, ensure that the first step is contouring groundwater elevations, and then subtracting this layer from land surface elevations from a DEM to estimate depth-to-groundwater contours across the landscape.
- Refer to The Nature Conservancy's plant rooting depth database.¹⁴ Deeper thresholds are necessary for plants that have reported maximum root depths that exceed the averaged 30-ft threshold, such as Valley Oak (*Quercus lobata*). We recommend that the reported max rooting depth for these deeper-rooted plants be used. For example, a depth-to-groundwater threshold of 80 feet should be used instead of the 30-ft threshold, when verifying whether Valley Oak polygons from the NC Dataset are connected to groundwater. It is important to emphasize that actual rooting depth data are limited and will depend on the plant species and site-specific conditions such as soil and aquifer types, and proximity to other water sources.
- If insufficient data are available to describe groundwater conditions within or near polygons from the NC dataset, include those polygons as "potential GDEs" in the GSP until data gaps are reconciled in the monitoring network.
- For more information on shallow groundwater conditions in the basin, refer to The Nature Conservancy's new tool, "SAGE: Shallow Groundwater Estimation Tool", which uses machine learning and 35 years of satellite data to predict depth to groundwater and determine groundwater level trends for every polygon within the NC Dataset.^{15,16}

¹⁴ The Nature Conservancy's plant rooting depth database. Available at:

<https://groundwaterresourcehub.org/sgma-tools/gde-rooting-depths-database-for-gdes/>

¹⁵ Webtool available at: <https://igde-work.earthengine.app/view/sage>

¹⁶ Rohde, M.M., T. Biswas, I.W. Housman, L.S. Campbell, K.R. Klausmeyer, J.K. Howard. 2021. A machine learning approach to predict groundwater levels in California reveals ecosystems at risk. *Frontiers in Earth Science*, doi: 10.3389/feart.2021.784499. Available at: <https://www.frontiersin.org/articles/10.3389/feart.2021.784499/full>

5. Incorporation of climate change in the water budget

The SGMA statute identifies climate change as a significant threat to groundwater resources and one that must be examined and incorporated in the GSPs. The GSP Regulations require integration of climate change into the projected water budget to ensure that projects and management actions sufficiently account for the range of potential climate futures.¹⁷

In our review of climate change in the projected water budget, we found that the GSP did incorporate climate change into the projected water budget using DWR change factors for 2070. The plan reports some calculations in the Appendix for an Extremely Dry scenario to stress-test the system, but does not seem to report and compare such results outside the Appendix or incorporate them into the projected water budget. The GSP would benefit from clearly and transparently incorporating the extremely wet and dry scenarios provided by DWR into projected water budgets or selecting more appropriate extreme scenarios for the basin. While these extreme scenarios may have a lower likelihood of occurring and their consideration is only suggested by DWR, their consequences could be significant and their inclusion can help identify important vulnerabilities in the basin's approach to groundwater management.

We also found that imported water was not adjusted for climate change and incorporated into the surface water flow inputs of the projected water budget.

Table 5 shows the GSP satisfactorily answered four of six relevant questions for this criteria. Recommendations from our Draft GSP comment letter that have not been addressed in the Final GSP are listed below.

Table 5. Questions used to evaluate whether the GSP accounted for climate change.

Does the GSP account for climate change in the water budget?	No	Somewhat	Yes	Draft vs. Final GSP
Does the GSP incorporate climate change into the projected water budget using DWR change factors or other source?	No	Unclear	Yes	Draft Sufficient
Does the GSP consider multiple climate scenarios (e.g., the 2070 wet and 2070 extremely dry) scenarios in the projected water budget?	No	Somewhat	Yes	No Change
Does the GSP incorporate climate change into precipitation inputs for the projected water budget?	No	Unclear	Yes	Draft Sufficient
Does the GSP incorporate climate change into evapotranspiration inputs for the projected water budget?	No	Unclear	Yes	Draft Sufficient
Does the GSP incorporate climate change into surface water flow inputs (e.g., imported water, streamflow) for the projected water budget?	No	Unclear	Yes	No Change
Does the GSP incorporate climate change into sea level inputs for the projected water budget?	No	Unclear	Yes	Not Applicable
Does the GSP calculate a sustainable yield based on the projected water budget with climate change incorporated?	No		Yes	Draft Sufficient

¹⁷ "Each Plan shall rely on the best available information and best available science to quantify the water budget for the basin in order to provide an understanding of historical and projected hydrology, water demand, water supply, land use, population, climate change, sea level rise, groundwater and surface water interaction, and subsurface groundwater flow." [23 CCR §354.18(e)]

RECOMMENDATIONS

- Integrate climate change, including extreme climate scenarios, into all elements of the projected water budget to form the basis for development of sustainable management criteria and projects and management actions.
- Incorporate climate change into surface water flow inputs, including imported water, for the projected water budget.

6. Inclusion of ecosystems in the water budget

Native vegetation and managed wetlands are water use sectors that are required to be included into the water budget.^{18,19} Based on our review, we found native vegetation and managed wetlands were properly included in the historical, current, and projected water budgets.

Table 6 shows the GSP satisfactorily answered both questions for this criteria.

Table 6. Questions used to evaluate whether the GSP accounted for ecosystems in the water budget.

Does the GSP account for ecosystems in the water budget?	No	Somewhat	Yes	Draft vs. Final GSP
Does the GSP include water demands for native vegetation in the historic, current, and projected water budgets?	No	Vague description	Yes	Draft Sufficient
Does the GSP include water demands for managed wetlands in the historic, current, and projected water budgets?	No	Vague description	Yes	Draft Sufficient

¹⁸ “‘Water use sector’ refers to categories of water demand based on the general land uses to which the water is applied, including urban, industrial, agricultural, managed wetlands, managed recharge, and native vegetation.” [23 CCR §351(al)]

¹⁹ “The water budget shall quantify the following, either through direct measurements or estimates based on data: (3) Outflows from the groundwater system by water use sector, including evapotranspiration, groundwater extraction, groundwater discharge to surface water sources, and subsurface groundwater outflow.” [23 CCR §354.18]

7. Consideration of impacts to DACs, drinking water users, and environmental users in the sustainable management criteria?

The consideration of potential impacts on *all* beneficial users of groundwater in the basin are required when defining undesirable results and establishing minimum thresholds.^{20,21,22} Table 7 provides a list of questions we used to evaluate the consideration of DACs, drinking water users, and environmental users in the sustainable management criteria of the GSP. Adequate consideration of potential impacts on these beneficial users is contingent upon adequate identification and engagement of the appropriate stakeholders, and is essential for ensuring the GSP integrates existing state policies on the Human Right to Water and the Public Trust Doctrine.²³

SGMA requires that the sustainable management criteria be consistent with the Human Right to Water policy and avoid significant and unreasonable impacts on drinking water users. The GSP should describe direct and indirect impacts on DACs and drinking water users when defining undesirable results and minimum thresholds for chronic lowering of groundwater levels and degraded water quality.

Disadvantaged Communities (DACs)

The GSP does not provide an analysis of the direct or indirect impacts on DACs when defining undesirable results. In addition, the GSP does not provide an analysis of the impacts of the proposed minimum thresholds nor measurable objectives for the groundwater elevation nor water quality sustainability indicators. This is particularly concerning given the absence of a drinking water well mitigation plan in the GSP.

Drinking Water Users

The GSP mentions but does not fully analyze the direct or indirect impacts on drinking water users when defining undesirable results. While the GSP provides an analysis of the impacts of the proposed minimum thresholds for the groundwater elevation and water quality sustainability indicators, it does not provide an analysis of the impacts of the proposed measurable objectives for these sustainability indicators. This is particularly concerning given the absence of a drinking water well mitigation plan in the GSP.

SGMA specifically requires that GSPs include “impacts on groundwater dependent ecosystems” and to assess whether surface water depletions caused by groundwater use are having an adverse impact on beneficial users of surface water and groundwater.^{24,25,26} The GSP should describe direct and indirect impacts on GDEs and instream habitats within ISWs when defining undesirable results and minimum thresholds for chronic lowering of groundwater levels, degraded water quality, and depletion of interconnected surface water.

²⁰ “The description of undesirable results shall include [...] potential effects on the beneficial uses and users of groundwater, on land uses and property interests, and other potential effects that may occur or are occurring from undesirable results.” [23 CCR §354.26(b)(3)]

²¹ “The description of minimum thresholds shall include [...] how minimum thresholds may affect the interests of beneficial uses and users of groundwater or land uses and property interests.” [23 CCR §354.28(b)(4)]

²² “The description of minimum thresholds shall include [...] how state, federal, or local standards relate to the relevant sustainability indicator. If the minimum threshold differs from other regulatory standards, the agency shall explain the nature of and the basis for the difference.” [23 CCR §354.28(b)(5)]

²³ “The Department shall consider the state policy regarding the human right to water when implementing these regulations.” [23 CCR §350.4(g)]

²⁴ “The minimum threshold for depletions of interconnected surface water shall be the rate or volume of surface water depletions caused by groundwater use that has adverse impacts on beneficial uses of the surface water and may lead to undesirable results.” [23 CCR §354.28(c)(6)]

²⁵ “The description of minimum thresholds shall include the following: [...] (4) How minimum thresholds may affect the interests of beneficial uses and users of groundwater or land uses and property interests.” [23 CCR §354.28(b)(4)]

²⁶ Water Code §10727.4(l)

Environmental Users

The GSP mentions but does not fully analyze the direct or indirect impacts on GDEs and environmental beneficial users of surface water when defining undesirable results. In addition, the GSP mentions but does not fully analyze the impacts of the proposed minimum thresholds for the groundwater elevation, water quality, and depletion of surface water sustainability indicators. The GSP does not mention or analyze the impacts of the proposed measurable objectives for the groundwater elevation, water quality, nor depletion of surface water sustainability indicators.

Table 7 shows the GSP satisfactorily answered one of eleven questions for this criteria. Recommendations from our Draft GSP comment letter that have not been fully addressed in the Final GSP are listed below.

Table 7. Questions used to evaluate the consideration of DACs, drinking water users, and environmental users in the sustainable management criteria of the GSP.

Does the GSP consider impacts to DACs, drinking water users, and GDEs in the sustainable management criteria?	No	Somewhat	Yes	Draft vs. Final GSP
Does the GSP analyze direct or indirect impacts on domestic drinking wells when defining Undesirable Results?	No mention	Mentioned, but not well analyzed	Analyzed and described	No Change
Does the GSP analyze direct and indirect impacts on DACs when defining Undesirable Results?	No mention	Mentioned, but not well analyzed	Analyzed and described	No Change
Does the GSP analyze direct and indirect impacts on GDEs when defining Undesirable Results?	No mention	Mentioned, but not well analyzed	Analyzed and described	No Change
Does the GSP evaluate the cumulative or indirect impacts of proposed groundwater elevation and water quality minimum thresholds on drinking water users (e.g., domestic wells, municipal water suppliers)?	No mention	Mentioned, but not well analyzed for all relevant sustainability indicators	Analyzed and described	Draft Sufficient
Does the GSP evaluate the cumulative or indirect impacts of proposed groundwater elevation and water quality minimum thresholds on DACs?	No mention	Mentioned, but not well analyzed for all relevant sustainability indicators	Analyzed and described	No Change
Does the GSP evaluate the cumulative or indirect impacts of proposed minimum thresholds for groundwater elevations and ISW on GDEs or environmental beneficial users of surface water?	No mention	Mentioned, but not well analyzed for all relevant sustainability indicators	Analyzed and described	No Change
Does the GSP establish Water Quality minimum thresholds and measurable objectives for the identified constituents/contaminants identified in the plan area?	No	Only for some constituents of concern	Yes	No Change
Are Water Quality minimum thresholds based on or within the Maximum Contaminant levels (MCLs)?	No	Only for some constituents of concern	Yes	No Change
Does the GSP consider drinking water users when establishing water quality and groundwater elevation measurable objectives?	No mention	Mentioned, but not well analyzed for all relevant sustainability indicators	Analyzed and described	No Change
Does the GSP consider DACs when establishing water quality and groundwater elevation measurable objectives?	No mention	Mentioned, but not well analyzed for all relevant sustainability indicators	Analyzed and described	No Change
Does the GSP consider GDEs when establishing ISW and groundwater elevation measurable objectives?	No mention	Mentioned, but not well analyzed for all relevant sustainability indicators	Analyzed and described	No Change

RECOMMENDATIONS

- Describe direct and indirect impacts on drinking water users and DACs when describing undesirable results and defining minimum thresholds for chronic lowering of groundwater levels.
- Consider and evaluate the impacts of selected minimum thresholds and measurable objectives on drinking water users and DACs within the basin. Further describe the impact of passing the minimum threshold for these users. For example, provide the number of domestic wells that would be fully or partially de-watered at the minimum threshold.
- Describe direct and indirect impacts on drinking water users and DACs when defining undesirable results for degraded water quality.²⁷ For specific guidance on how to consider these users, refer to “Guide to Protecting Water Quality Under the Sustainable Groundwater Management Act.”²⁸
- Evaluate the cumulative or indirect impacts of proposed minimum thresholds for degraded water quality on drinking water users and DACs.
- For total dissolved solids (TDS) and nitrate, provide a summary table that presents the pre-2015 historical maximums, the objectives from the Basin Plan, the maximum contaminant levels (MCLs), and the resulting minimum thresholds. Ensure that the minimum thresholds do not exceed the objectives in the Basin Plan.
- Set minimum thresholds and measurable objectives for all water quality constituents within the basin that can be impacted and/or exacerbated as a result of groundwater use or groundwater management.
- Set minimum thresholds that do not allow water quality to degrade to levels at or above the MCL trigger level.
- When defining undesirable results for chronic lowering of groundwater levels, provide specifics on what biological responses (e.g., extent of habitat, growth, recruitment rates) would best characterize a significant and unreasonable impact to GDEs. Undesirable results to environmental users occur when ‘significant and unreasonable’ effects on beneficial users are caused by one of the sustainability indicators (i.e., chronic lowering of groundwater levels, degraded water quality, or depletion of interconnected surface water). Thus, potential impacts on environmental beneficial uses and users need to be considered when defining undesirable results in the basin.²⁹ Defining undesirable results is the crucial first step before the minimum thresholds can be determined.³⁰

²⁷ “Degraded Water Quality [...] collect sufficient spatial and temporal data from each applicable principal aquifer to determine groundwater quality trends for water quality indicators, as determined by the Agency, to address known water quality issues.” [23 CCR §354.34(c)(4)]

²⁸ Guide to Protecting Water Quality under the Sustainable Groundwater Management Act
https://d3n8a8pro7vhmx.cloudfront.net/communitywatercenter/pages/293/attachments/original/1559328858/Guide_to_Protecting_Drinking_Water_Quality_Under_the_Sustainable_Groundwater_Management_Act.pdf?1559328858

²⁹ “The description of undesirable results shall include [...] potential effects on the beneficial uses and users of groundwater, on land uses and property interests, and other potential effects that may occur or are occurring from undesirable results”. [23 CCR §354.26(b)(3)]

³⁰ The description of minimum thresholds shall include [...] how minimum thresholds may affect the interests of beneficial uses and users of groundwater or land uses and property interests.” [23 CCR §354.28(b)(4)]

- When defining undesirable results for depletion of interconnected surface water, include a description of potential impacts on instream habitats within ISWs when minimum thresholds in the basin are reached.³¹ The GSP should confirm that minimum thresholds for ISWs avoid adverse impacts to environmental beneficial users of interconnected surface waters as these environmental users could be left unprotected by the GSP. These recommendations apply especially to environmental beneficial users that are already protected under pre-existing state or federal law.^{20,32}
- When establishing SMC for the basin, consider that the SGMA statute [Water Code §10727.4(l)] specifically calls out that GSPs shall include “impacts on groundwater dependent ecosystems”.
- To identify beneficial users in the basin that may be at risk to groundwater level declines, refer to The Nature Conservancy’s new tool, “SAGE: Shallow Groundwater Estimation Tool”, which uses machine learning and 35 years of satellite data to predict depth to groundwater for each polygon within the NC Dataset.^{33,34}

³¹ “The minimum threshold for depletions of interconnected surface water shall be the rate or volume of surface water depletions caused by groundwater use that has adverse impacts on beneficial uses of the surface water and may lead to undesirable results.” [23 CCR §354.28(c)(6)]

³² Rohde MM, Seapy B, Rogers R, Castañeda X, editors. 2019. Critical Species LookBook: A compendium of California’s threatened and endangered species for sustainable groundwater management. The Nature Conservancy, San Francisco, California. Available at:

https://groundwaterresourcehub.org/public/uploads/pdfs/Critical_Species_LookBook_91819.pdf

³³ Webtool available at: <https://igde-work.earthengine.app/view/sage>

³⁴ Rohde, M.M., T. Biswas, I.W. Housman, L.S. Campbell, K.R. Klausmeyer, J.K. Howard. 2021. A machine learning approach to predict groundwater levels in California reveals ecosystems at risk. *Frontiers in Earth Science*, doi: 10.3389/feart.2021.784499. Available at: <https://www.frontiersin.org/articles/10.3389/feart.2021.784499/full>

8. Identification and reconciliation of data gaps

Adaptive Management is at the core of SGMA. SGMA also requires that impacts to beneficial uses or users of groundwater be monitored.³⁵ Beneficial users may remain unprotected by the GSP without adequate monitoring. When data gaps are not identified, particularly in shallow aquifers, impacts disproportionately threaten GDEs, aquatic habitats, and shallow domestic well water users. In addition to monitoring wells, biological monitoring is an important component to ensure impacts to GDEs do not occur.¹² Table 8 provides a list of questions we used to evaluate whether the GSP identified data gaps in the monitoring network and made plans to reconcile them. In many cases, GSPs did not provide adequate mapping to clearly convey whether current and proposed monitoring well locations sufficiently monitored groundwater conditions for key beneficial users. For this reason, we created a set of maps (provided in Attachment C) that we included in the draft GSP comment letters to help us evaluate the questions in Table 8.

In our review, we found that the GSP did not identify and reconcile data gaps for some beneficial users in the basin. Table 8 shows the GSP satisfactorily answered one of four questions for this criteria. Recommendations from our Draft GSP comment letter that have not been addressed in the Final GSP are listed below.

Table 8. Questions used to evaluate whether the GSP identified data gaps and made plans to reconcile them.

Does the GSP identify and reconcile data gaps?	No	Somewhat	Yes	Draft vs. Final GSP
Do the Representative Monitoring Sites (RMS) in the monitoring network adequately represent water quality conditions around DACs, domestic wells, tribes, and GDEs (in the case of data gaps, evaluate proposed monitoring sites)?	Not present within DAC, domestic well, tribal areas, NOR GDEs.	Not adequately cover DAC, domestic well, tribal areas, OR GDEs.	Adequately distributed (<1 mi) across DAC, domestic well, tribal areas, AND GDEs.	No Change
Do the Representative Monitoring Sites (RMS) in the monitoring network adequately represent shallow groundwater elevations around DACs, domestic wells, tribes, and GDEs (in the case of data gaps, evaluate proposed monitoring sites).	Not present within DAC, domestic well, tribal areas, NOR GDEs.	Not adequately cover DAC, domestic well, tribal areas, OR GDEs.	Adequately distributed (<1 mi) across DAC, domestic well, tribal areas, AND GDEs.	No Change
Does the GSP include a plan to identify and fill shallow monitoring well data gaps around GDEs and ISWs in the monitoring network?	No	Vague description	Yes	Draft Sufficient
Does the GSP include any plans to incorporate GDE-related biological monitoring into the monitoring network?	No	Vague description	Yes	No Change

RECOMMENDATIONS

- Provide maps that overlay current and proposed monitoring well locations with the locations of DACs, domestic wells, and GDEs to clearly identify monitored areas.
- Increase the number of representative monitoring sites (RMSs) in the shallow aquifer across the basin as needed to map ISWs and adequately monitor all groundwater condition indicators across the basin and at appropriate depths for *all* beneficial users. Prioritize proximity to DACs, domestic wells, GDEs, and ISWs when identifying new RMSs.

³⁵ "The monitoring network objectives shall be implemented to accomplish the following: [...] (2) Monitor impacts to the beneficial uses or users of groundwater." [23 CCR §354.34(b)(2)]

- Ensure groundwater elevation and water quality RMSs are monitoring groundwater conditions spatially and at the correct depth for *all* beneficial users - especially DACs, domestic wells, and GDEs.
- Provide further details for the biological monitoring (described in the Projects and Management Actions section of the GSP) that can be used to assess the potential for significant and unreasonable impacts to GDEs or ISWs due to groundwater conditions in the basin.
- Prioritize the installation of new wells around beneficial uses most susceptible to groundwater decline by referring to The Nature Conservancy's new tool, "SAGE: Shallow Groundwater Estimation Tool", which uses machine learning and 35 years of satellite data to predict depth to groundwater for each polygon within the NC Dataset.^{36,37}

³⁶ Webtool available at: <https://igde-work.earthengine.app/view/sage>

³⁷ Rohde, M.M., T. Biswas, I.W. Housman, L.S. Campbell, K.R. Klausmeyer, J.K. Howard. 2021. A machine learning approach to predict groundwater levels in California reveals ecosystems at risk. *Frontiers in Earth Science*, doi: 10.3389/feart.2021.784499. Available at: <https://www.frontiersin.org/articles/10.3389/feart.2021.784499/full>

9. Identification of potential impacts to beneficial users in the Project and Management Actions

Project and Management Actions are essential for ensuring the basin stays within or achieves its sustainable yield and avoids undesirable results for *all* beneficial users in the basin. Therefore, it is important that the GSP identifies benefits or impacts of project and management actions to key beneficial users. Table 9 provides a list of questions we used to evaluate whether benefits and potential impacts to beneficial users were identified in the GSP's Project and Management Actions. While not all projects and management actions are applicable to every basin, the GSP should include benefits and evaluate impacts to vulnerable beneficial users in all planned projects and management actions, and include a drinking water well mitigation program to protect drinking water. We assessed whether or not the projects had specific plans (such as a timeline and funding) in place during the GSP planning horizon, or whether it was described as a potential future project.

Table 9 shows the GSP satisfactorily answered five of six questions for this criteria. The GSP scored a "Yes" for the third question in the table because the GSP included project and management actions that benefit GDEs and other environmental beneficial users. There were no other PMAs that identified benefits or impacts to other beneficial users such as DACs and drinking water users. Recommendations from our Draft GSP comment letter that have not been addressed in the Final GSP are listed below.

Table 9. Questions used to evaluate whether potential impacts to beneficial users were identified in the GSP's Project and Management Actions.

Does the GSP identify potential impacts to beneficial users in the Project and Management Actions?	No	Somewhat	Yes	Draft vs. Final GSP
Does the GSP include any recharge projects with explicit benefits to the environment?	No	Vague description or listed as potential project	Yes	Draft Sufficient
Does the GSP include any habitat or stream restoration or invasive species removal projects (e.g., to improve water supply in the basin or GDE habitats)?	No	Vague description or listed as potential project	Yes	Draft Sufficient
Does the GSP identify benefits or impacts of identified projects and management actions to key beneficial users such as GDEs, drinking water users, tribes, DACs?	No	Vague description	Yes	Draft Sufficient
Does the GSP include any recharge projects with explicit benefits to DACs?	No	Vague description or listed as potential project	Yes	Draft Sufficient
Does the GSP include a drinking water well mitigation program to avoid significant and unreasonable loss of drinking water?	No	Vague description or listed as potential project	Yes	No Change
Does the GSP identify potential impacts to water quality from Projects and Management Actions?	No	Vague description or listed as potential project	Yes	Draft Sufficient

RECOMMENDATIONS

- For DACs and domestic well owners, include a drinking water well impact mitigation program to proactively monitor and protect drinking water wells through GSP implementation. Refer to "Framework for a Drinking Water Well Impact Mitigation Program" for specific recommendations on how to implement a drinking water well mitigation program.³⁸

³⁸ Framework for a Drinking Water Well Impact Mitigation Program. Available at: https://static1.squarespace.com/static/5e83c5f78f0db40cb837cfb5/t/5f3ca9389712b732279e5296/1597811008129/Well_Mitigation_English.pdf

Attachment B

Freshwater Species Located in the Sutter Basin

To assist in identifying the beneficial users of surface water necessary to assess the undesirable result “depletion of interconnected surface waters”, Attachment C provides a list of freshwater species located in the Sutter Basin. To produce the freshwater species list, we used ArcGIS to select features within the California Freshwater Species Database version 2.0.9 within the basin boundary. This database contains information on ~4,000 vertebrates, macroinvertebrates and vascular plants that depend on fresh water for at least one stage of their life cycle. The methods used to compile the California Freshwater Species Database can be found in Howard et al. 2015¹. The spatial database contains locality observations and/or distribution information from ~400 data sources. The database is housed in the California Department of Fish and Wildlife’s BIOS² as well as on The Nature Conservancy’s science website³.

Scientific Name	Common Name	Legal Protected Status		
		Federal	State	Other
BIRDS				
Coccyzus americanus occidentalis	Western Yellow-billed Cuckoo	Candidate - Threatened	Endangered	
Laterallus jamaicensis coturniculus	California Black Rail	Bird of Conservation Concern	Threatened	
Riparia riparia	Bank Swallow		Threatened	
Actitis macularius	Spotted Sandpiper			
Aechmophorus clarkii	Clark's Grebe			
Aechmophorus occidentalis	Western Grebe			
Agelaius tricolor	Tricolored Blackbird	Bird of Conservation Concern	Special Concern	BSSC - First priority
Aix sponsa	Wood Duck			
Anas acuta	Northern Pintail			
Anas americana	American Wigeon			
Anas clypeata	Northern Shoveler			
Anas crecca	Green-winged Teal			

¹ Howard, J.K. et al. 2015. Patterns of Freshwater Species Richness, Endemism, and Vulnerability in California. PLoS ONE, 11(7). Available at: <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0130710>

² California Department of Fish and Wildlife BIOS: <https://www.wildlife.ca.gov/data/BIOS>

³ Science for Conservation: <https://www.scienceforconservation.org/products/california-freshwater-species-database>

Anas cyanoptera	Cinnamon Teal			
Anas discors	Blue-winged Teal			
Anas platyrhynchos	Mallard			
Anas strepera	Gadwall			
Anser albifrons	Greater White-fronted Goose			
Ardea alba	Great Egret			
Ardea herodias	Great Blue Heron			
Aythya affinis	Lesser Scaup			
Aythya americana	Redhead		Special Concern	BSSC - Third priority
Aythya collaris	Ring-necked Duck			
Aythya marila	Greater Scaup			
Aythya valisineria	Canvasback		Special	
Botaurus lentiginosus	American Bittern			
Bucephala albeola	Bufflehead			
Bucephala clangula	Common Goldeneye			
Butorides virescens	Green Heron			
Calidris alpina	Dunlin			
Calidris mauri	Western Sandpiper			
Calidris minutilla	Least Sandpiper			
Chen caerulescens	Snow Goose			
Chen rossii	Ross's Goose			
Chlidonias niger	Black Tern		Special Concern	BSSC - Second priority
Cistothorus palustris palustris	Marsh Wren			
Cygnus columbianus	Tundra Swan			
Egretta thula	Snowy Egret			
Empidonax traillii	Willow Flycatcher	Bird of Conservation Concern	Endangered	
Fulica americana	American Coot			
Gallinago delicata	Wilson's Snipe			
Grus canadensis	Sandhill Crane			

<i>Haliaeetus leucocephalus</i>	Bald Eagle	Bird of Conservation Concern	Endangered	
<i>Himantopus mexicanus</i>	Black-necked Stilt			
<i>Icteria virens</i>	Yellow-breasted Chat		Special Concern	BSSC - Third priority
<i>Ixobrychus exilis hesperis</i>	Western Least Bittern		Special Concern	BSSC - Second priority
<i>Limnodromus scolopaceus</i>	Long-billed Dowitcher			
<i>Lophodytes cucullatus</i>	Hooded Merganser			
<i>Megaceryle alcyon</i>	Belted Kingfisher			
<i>Mergus merganser</i>	Common Merganser			
<i>Numenius americanus</i>	Long-billed Curlew			
<i>Numenius phaeopus</i>	Whimbrel			
<i>Nycticorax nycticorax</i>	Black-crowned Night-Heron			
<i>Oxyura jamaicensis</i>	Ruddy Duck			
<i>Pelecanus erythrorhynchos</i>	American White Pelican		Special Concern	BSSC - First priority
<i>Phalacrocorax auritus</i>	Double-crested Cormorant			
<i>Phalaropus tricolor</i>	Wilson's Phalarope			
<i>Piranga rubra</i>	Summer Tanager		Special Concern	BSSC - First priority
<i>Plegadis chihi</i>	White-faced Ibis		Watch list	
<i>Pluvialis squatarola</i>	Black-bellied Plover			
<i>Podiceps nigricollis</i>	Eared Grebe			
<i>Podilymbus podiceps</i>	Pied-billed Grebe			
<i>Porzana carolina</i>	Sora			
<i>Rallus limicola</i>	Virginia Rail			
<i>Recurvirostra americana</i>	American Avocet			
<i>Setophaga petechia</i>	Yellow Warbler			BSSC - Second priority

Tachycineta bicolor	Tree Swallow			
Tringa melanoleuca	Greater Yellowlegs			
Tringa semipalmata	Willet			
Tringa solitaria	Solitary Sandpiper			
Xanthocephalus xanthocephalus	Yellow-headed Blackbird		Special Concern	BSSC - Third priority
CRUSTACEANS				
Linderiella occidentalis	California Fairy Shrimp		Special	IUCN - Near Threatened
Cambaridae fam.	Cambaridae fam.			
Hyaella spp.	Hyaella spp.			
FISHES				
Acipenser medirostris ssp. 1	Southern green sturgeon	Threatened	Special Concern	Endangered - Moyle 2013
Oncorhynchus mykiss irideus	Coastal rainbow trout			Least Concern - Moyle 2013
Pogonichthys macrolepidotus	Sacramento splittail		Special Concern	Vulnerable - Moyle 2013
Oncorhynchus mykiss - CV	Central Valley steelhead	Threatened	Special	Vulnerable - Moyle 2013
Oncorhynchus tshawytscha - CV spring	Central Valley spring Chinook salmon	Threatened	Threatened	Vulnerable - Moyle 2013
Oncorhynchus tshawytscha - CV winter	Central Valley winter Chinook salmon	Endangered	Endangered	Vulnerable - Moyle 2013
HERPS				
Actinemys marmorata marmorata	Western Pond Turtle		Special Concern	ARSSC
Ambystoma californiense californiense	California Tiger Salamander	Threatened	Threatened	ARSSC
Anaxyrus boreas boreas	Boreal Toad			
Rana boylei	Foothill Yellow- legged Frog	Under Review in the Candidate or Petition Process	Special Concern	ARSSC
Spea hammondi	Western Spadefoot	Under Review in the Candidate	Special Concern	ARSSC

		or Petition Process		
Thamnophis gigas	Giant Gartersnake	Threatened	Threatened	
Thamnophis sirtalis sirtalis	Common Gartersnake			
Pseudacris regilla	Northern Pacific Chorus Frog			
Thamnophis atratus atratus	Santa Cruz Gartersnake			Not on any status lists
INSECTS & OTHER INVERTS				
Aeshnidae fam.	Aeshnidae fam.			
Belostoma spp.	Belostoma spp.			
Caenis spp.	Caenis spp.			
Callibaetis spp.	Callibaetis spp.			
Centroptilum spp.	Centroptilum spp.			
Chironomidae fam.	Chironomidae fam.			
Coenagrionidae fam.	Coenagrionidae fam.			
Corixidae fam.	Corixidae fam.			
Enallagma carunculatum	Tule Bluet			
Ephydriidae fam.	Ephydriidae fam.			
Hydrophilidae fam.	Hydrophilidae fam.			
Hydroptila spp.	Hydroptila spp.			
Hydroptilidae fam.	Hydroptilidae fam.			
Ischnura cervula	Pacific Forktail			
Ischnura spp.	Ischnura spp.			
Leptoceridae fam.	Leptoceridae fam.			
Libellula luctuosa	Widow Skimmer			
Libellula pulchella	Twelve-spotted Skimmer			
Libellula saturata	Flame Skimmer			
Liodessus spp.	Liodessus spp.			
Mideopsis spp.	Mideopsis spp.			
Oxyethira spp.	Oxyethira spp.			
Pachydiplax longipennis	Blue Dasher			

Rhionaeschna multicolor	Blue-eyed Darner			
Sperchon spp.	Sperchon spp.			
Trichocorixa spp.	Trichocorixa spp.			
Tricorythodes spp.	Tricorythodes spp.			
Veliidae fam.	Veliidae fam.			
MAMMALS				
Castor canadensis	American Beaver			Not on any status lists
Lontra canadensis canadensis	North American River Otter			Not on any status lists
Neovison vison	American Mink			Not on any status lists
Ondatra zibethicus	Common Muskrat			Not on any status lists
MOLLUSKS				
Anodonta californiensis	California Floater		Special	
Ferrissia spp.	Ferrissia spp.			
Gonidea angulata	Western Ridged Mussel		Special	
Gyraulus spp.	Gyraulus spp.			
Hydrobiidae fam.	Hydrobiidae fam.			
Lymnaeidae fam.	Lymnaeidae fam.			
Margaritifera falcata	Western Pearlshell		Special	
Physa spp.	Physa spp.			
PLANTS				
Hibiscus lasiocarpus occidentalis			Special	CRPR - 1B.2
Alopecurus carolinianus	Tufted Foxtail			
Ammannia robusta	Grand Redstem			
Anemopsis californica	Yerba Mansa			
Arundo donax	NA			
Bacopa rotundifolia	NA			

Bolboschoenus fluviatilis				Not on any status lists
Callitriche marginata	Winged Water-starwort			
Crassula aquatica	Water Pygmyweed			
Cyperus erythrorhizos	Red-root Flatsedge			
Cyperus iria	NA			Not on any status lists
Downingia bicornuta	NA			
Downingia ornatissima	NA			
Echinodorus berteroi	Upright Burhead			
Eleocharis engelmannii engelmannii	Engelmann's Spikerush			Not on any status lists
Eleocharis macrostachya	Creeping Spikerush			
Epilobium cleistogamum	Cleistogamous Spike-primrose			
Eryngium castrense	Great Valley Eryngo			
Eryngium vaseyi vaseyi	Vasey's Coyote-thistle			Not on any status lists
Euthamia occidentalis	Western Fragrant Goldenrod			
Isoetes howellii	NA			
Lemna minuta	Least Duckweed			
Ludwigia peploides peploides	NA			Not on any status lists
Lythrum californicum	California Loosestrife			
Marsilea vestita vestita	NA			Not on any status lists
Mimulus tricolor	Tricolor Monkeyflower			
Najas guadalupensis guadalupensis	Southern Naiad			
Navarretia cotulifolia	Cotula Navarretia			

Navarretia intertexta	Needleleaf Navarretia			
Navarretia leucocephala leucocephala	White-flower Navarretia			
Panicum dichotomiflorum	NA			
Paspalum distichum	Joint Paspalum			
Persicaria lapathifolia				Not on any status lists
Persicaria maculosa	NA			Not on any status lists
Persicaria punctata	NA			Not on any status lists
Phacelia distans	NA			
Phyla nodiflora	Common Frog- fruit			
Pilularia americana	NA			
Plantago elongata elongata	Slender Plantain			
Platanus racemosa	California Sycamore			
Pogogyne douglasii	NA			
Psilocarphus brevissimus brevissimus	Dwarf Woolly- heads			
Psilocarphus oregonus	Oregon Woolly- heads			
Rorippa curvisiliqua curvisiliqua	Curve-pod Yellowcress			
Sagittaria latifolia latifolia	Broadleaf Arrowhead			
Sagittaria longiloba	Longbarb Arrowhead			
Sagittaria montevidensis calycina				Not on any status lists
Salix exigua exigua	Narrowleaf Willow			
Salix gooddingii	Goodding's Willow			

Salix lasiolepis lasiolepis	Arroyo Willow			
Schoenoplectus acutus occidentalis	Hardstem Bulrush			
Sinapis alba	NA			
Stachys stricta	Sonoma Hedge- nettle			
Typha latifolia	Broadleaf Cattail			

Attachment C

Maps of representative monitoring sites in relation to key beneficial users

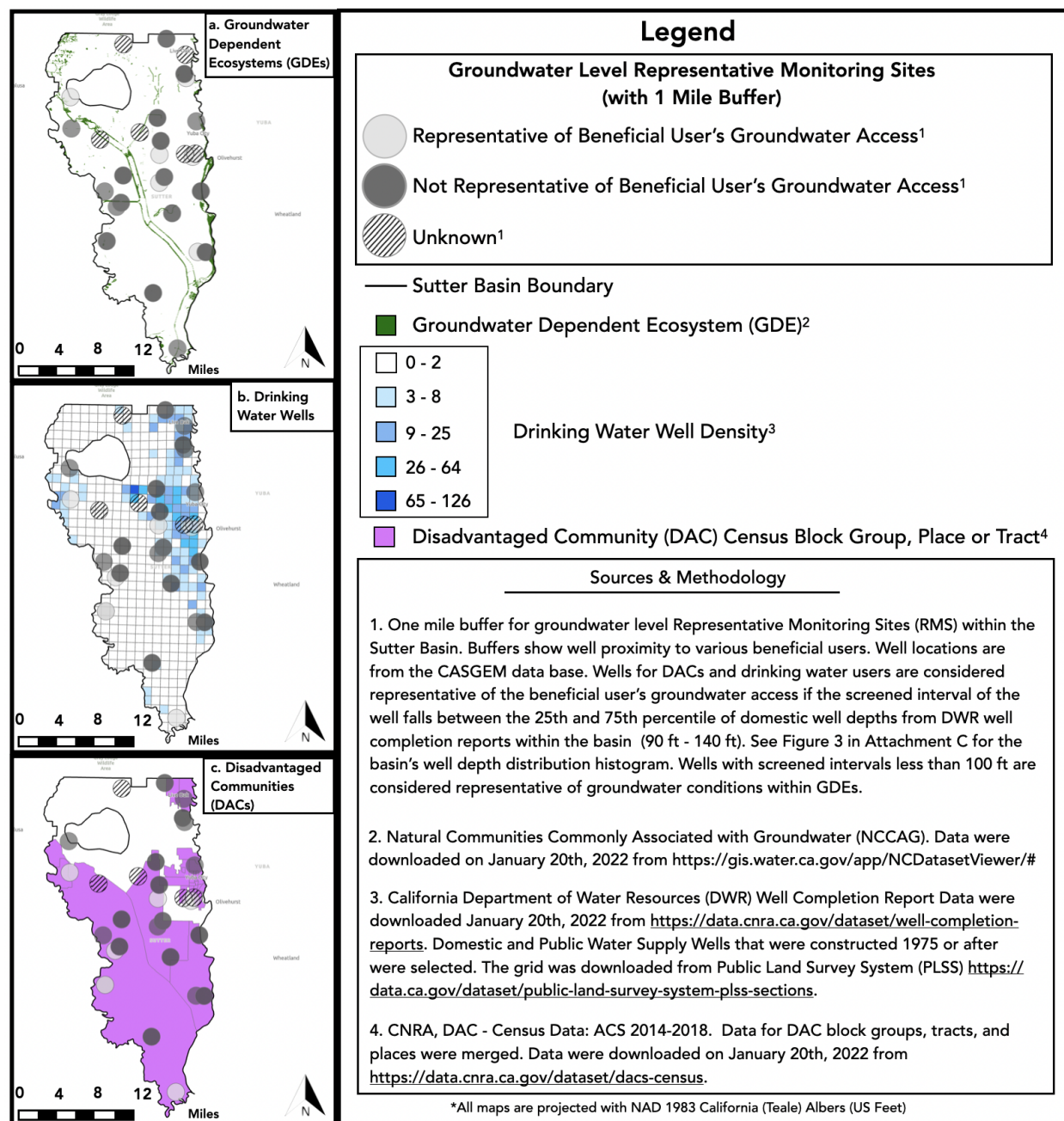


Figure 1. Groundwater elevation representative monitoring sites in relation to key beneficial users: a) Groundwater Dependent Ecosystems (GDEs), b) Drinking Water users, c) Disadvantaged Communities (DACs), and d) Tribes.

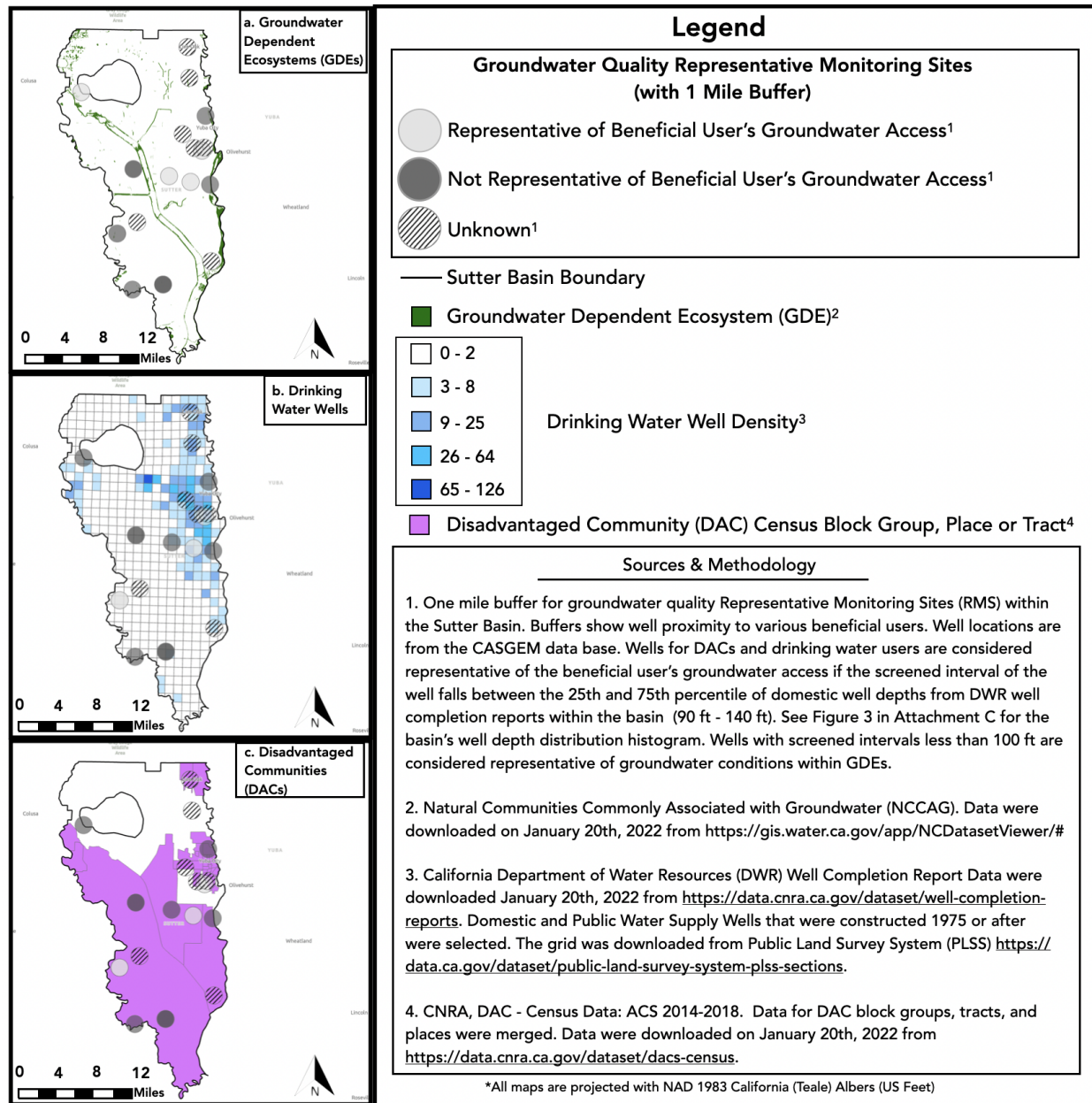


Figure 2. Groundwater quality representative monitoring sites in relation to key beneficial users: a) Groundwater Dependent Ecosystems (GDEs), b) Drinking Water users, c) Disadvantaged Communities (DACs), and d) Tribes.

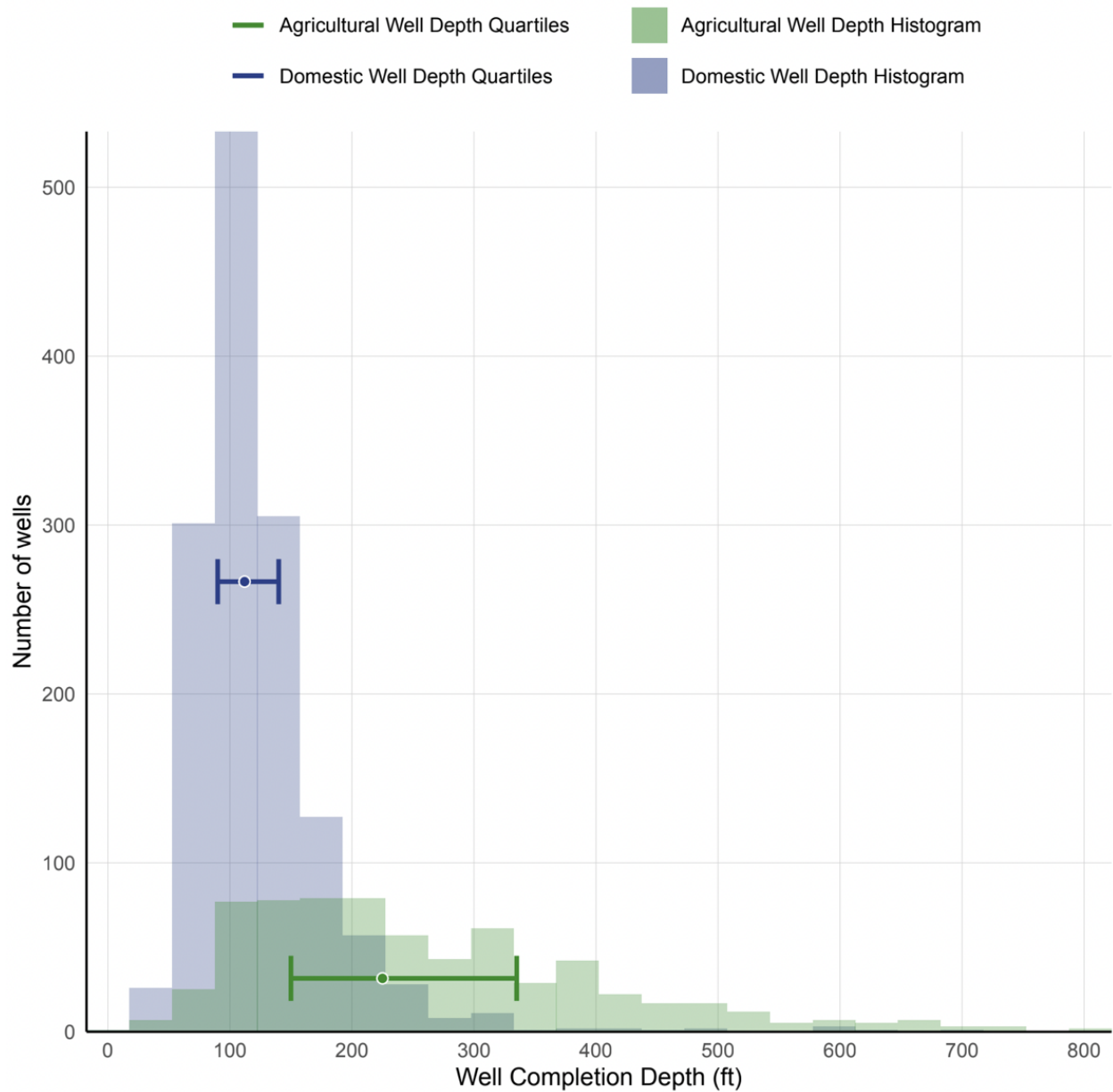


Figure 3. Groundwater well depth histogram for domestic (blue) and agricultural (green) wells. If less than 10 agricultural or domestic wells are present within the basin, the sector histogram is not shown. Data from California Department of Water Resources' Online System for Well Completion Reports (<https://data.cnra.ca.gov/dataset/well-completion-reports>).

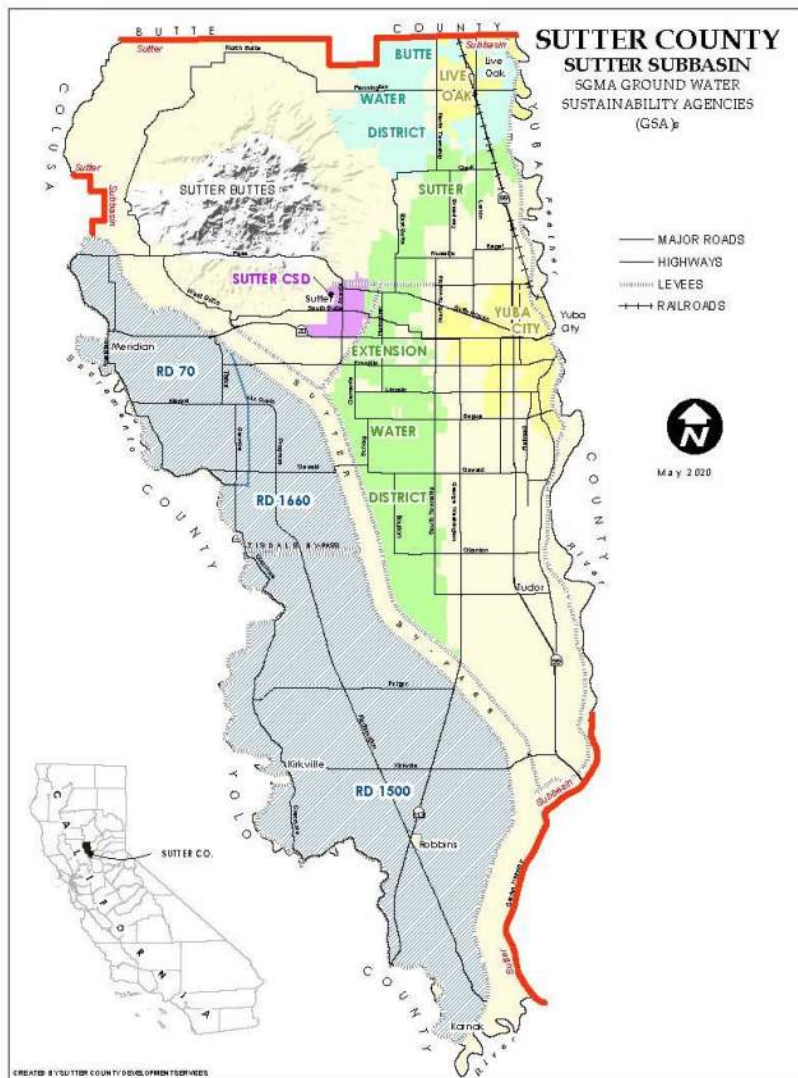
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Appendix 4-D
Notice of Intent to Prepare a Groundwater Sustainability
Plan

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Notice of Intent to Begin Preparation of a Groundwater Sustainability Plan for the Sutter Subbasin of the Sacramento Valley Groundwater Basin

This is to notify the California Department of Water Resources (DWR) and interested parties of the intent to begin activities to prepare a Groundwater Sustainability Plan (GSP) for the Sutter Subbasin in a portion of Sutter County. Also being notified are the applicable cities in the Sutter Subbasin, as well as the California Public Utilities Commission. The Sutter Subbasin includes nine Groundwater Sustainability Agencies (GSAs): Butte Water District GSA; City of Live Oak GSA; City of Yuba City GSA; RD 70 GSA; RD 1500 GSA; RD 1660 GSA; Sutter Community Service District GSA; Sutter County GSA; and Sutter Extension Water District GSA. The nine GSAs are closely coordinating to prepare a single GSP for the Sutter Subbasin. Sutter County has been authorized by the Sutter Subbasin GSAs to submit the GSP Initial Notification to DWR. The process for developing the GSP will begin with completion of a communication and outreach plan by each GSA. Additionally, a webpage is anticipated to be developed that will be used for continued interested party engagement. When complete, interested parties will be able to sign up to receive notifications related to GSP development activities of any of the Sutter Subbasin GSAs. The next phase of GSP development will involve filling of critical data gaps to improve the understanding of conditions relative to groundwater in the Subbasin to assess current and future sustainability of the Subbasin's groundwater resources. With this information, a draft GSP will be developed with a planned public draft release in the third quarter of 2021 and a final GSP in the fourth quarter of 2021. Stakeholders interested in the development and future implementation of the Sutter Subbasin GSP may contact Guadalupe Rivera of the Sutter County GSA at GRivera@co.sutter.ca.us or 530-822-7400, extension 305. Additionally, stakeholders interested in a specific GSA area within the Sutter Subbasin can contact the individuals listed at the bottom of the enclosed map of the Subbasin area and GSA boundaries.



Contacts

Butte Water District GSA

Mark Orme
 530-846-3100 or morme@buttewater.net

City of Live Oak GSA

Nicole Rosser
 530-742-5982 or ndelerio@yubasutterlaw.com

City of Yuba City GSA

Kevin Bradford
 530-822-4786 or kbradfor@yubacity.net

RD 70 GSA

Rebecca Smith
 916-444-1000 or rsmith@downeybrand.com

RD 1500 GSA

Brad Mattson
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RD 1660 GSA

Rebecca Smith
 916-444-1000 or rsmith@downeybrand.com

Sutter Community Service District GSA

Leland Correll
 530-755-1733 or sutterwater@aol.com

Sutter County GSA

Guadalupe Rivera
 530-822-7400 or grivera@co.sutter.ca.us

Sutter Extension Water District GSA

Lynn Phillips
 530-870-1712 or lpsewd@hughes.net

Appendix 4-E
Notice of Intent to Adopt a Groundwater Sustainability Plan
and Adopting Resolutions

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SUTTER COUNTY

DEVELOPMENT SERVICES DEPARTMENT

Building Inspection
Code Enforcement

Engineering/Water Resources
Environmental Health

Planning
Road Maintenance

NOTICE OF INTENT TO ADOPT A GROUNDWATER SUSTAINABILITY PLAN

October 5, 2021

Via email

RE: Notice of Intent to Adopt a Groundwater Sustainability Plan – Sutter Subbasin

To Whom It May Concern,

On behalf of the Groundwater Sustainability Agencies (GSAs) comprising the Sutter Groundwater Subbasin (as listed below), pursuant to California Water Code Section 10728.4, the Sutter County Groundwater Sustainability Agency (Sutter County GSA) hereby provides notice to the legislative body of any City, County, or Public Utilities Commission-regulated company within the geographic area covered by the pending Sutter Groundwater Sustainability Plan (GSP) that it intends to adopt the GSP for the Sutter Groundwater Subbasin (Basin No. 5-021.62). A map of the GSP area is included herein.

Interested parties may provide comments on the Public Draft GSP during the scheduled public comment period, October 1 through November 12, 2021. Information regarding the Draft GSP has been posted on the Subbasin website at www.suttersubbasin.org. In accordance with California Water Code Section 10728.4, the Sutter Subbasin GSAs will review and consider comments on the GSP from any city or county who receives this notification and will provide consultation upon request. Requests for consultation, however, must be received within 30 days from receipt of this notification. Interested parties wishing to provide comments on the GSP or requesting consultation are encouraged to do so electronically at the following site: www.suttersubbasin.org/contact-us.html.

The Sutter GSP will be adopted individually by each Subbasin GSA. Adopting meetings will be held between December 1, 2021 and January 30, 2022. The dates for adopting meetings will vary by GSA; for information on individual GSA adoption dates, please refer to the Sutter Subbasin website.

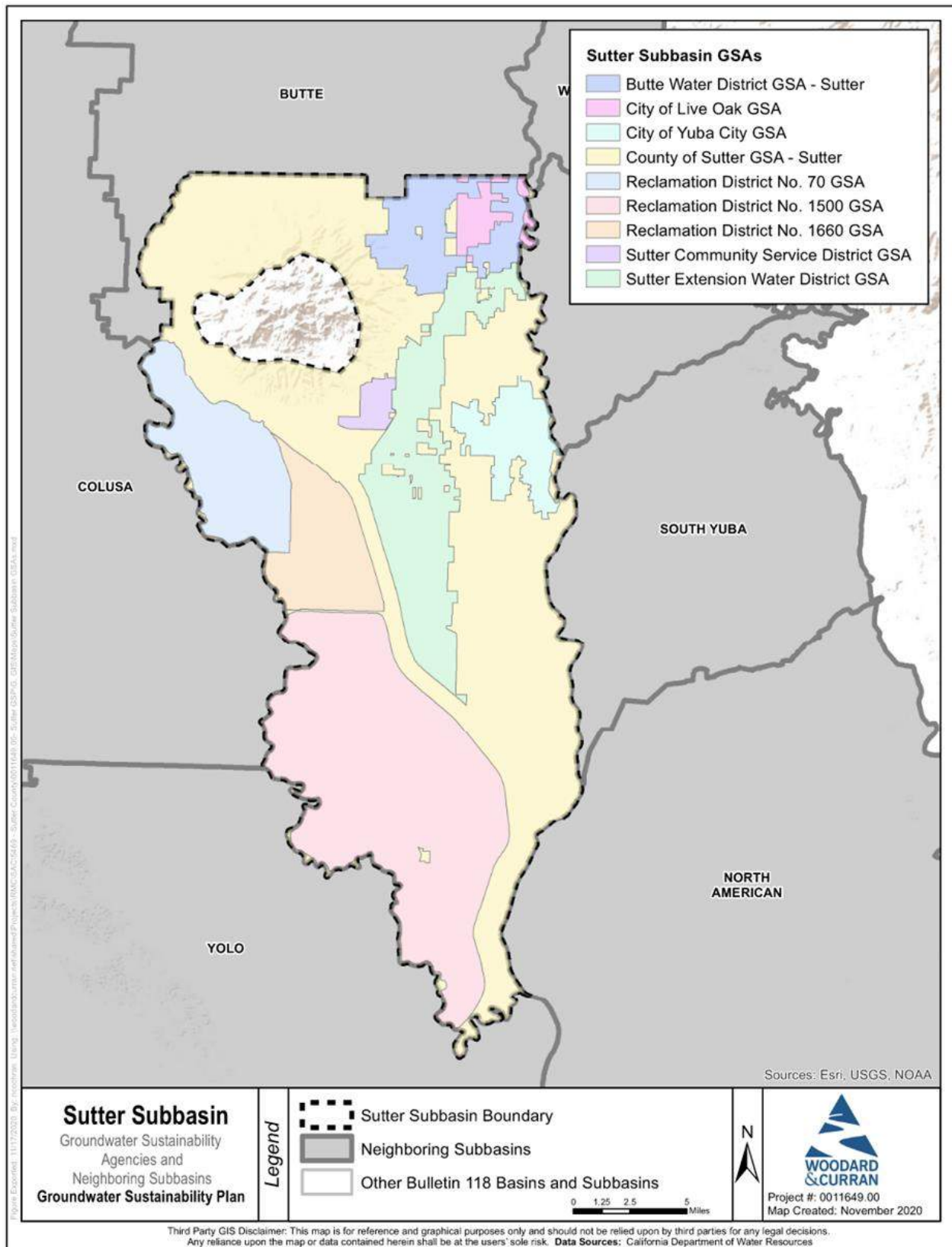
The Sutter GSAs look forward to adopting the GSP in the Sutter Subbasin. Should you have any questions about this notice, please feel free to contact me by email at GRivera@co.sutter.ca.us or by phone at 530.822.7400, Ext. 305.

Sincerely,

Guadalupe Rivera, PE
Principal Engineer
Sutter Subbasin Plan Administrator

Sutter Subbasin GSAs:

- Sutter County
- Butte Water District
- City of Live Oak
- Sutter Extension Water District
- Sutter Community Services District
- City of Yuba City
- Reclamation District 70
- Reclamation District 1660
- Reclamation District 1500



DIRECTORS:

*Charlie Etcheverry
Darin Pantaleoni
Pete Righero
Dale Smith
Pete Waller*



*Mark Orme
Secretary-Manager*

*735 Virginia Street
Gridley, California 95948*

*Phone 530-846-3100
buttewaterdistrict.org*

NOTICE/AGENDA
REGULAR BOARD MEETING OF THE BOARD OF DIRECTORS OF
BUTTE WATER DISTRICT
JANUARY 13, 2022 AT 1:00PM

1. BWD Call to Order – President, Darin Pantaleoni:

a. Flag Salute

2. Acknowledgement of Visitors and Public Comments:

The public will be given an opportunity to address the Board on matters within the District's jurisdiction that are not scheduled on the agenda, although the Board cannot take action on any matter not on the agenda. An opportunity for comments on agenda items will be provided at the time they are discussed by the Board. All comments will be limited to 5 minutes per speaker

3. Approval of the Minutes:

4. Approval of the Bills:

5. Conduct Public Hearing and Consider Adoption of Sutter Subbasin Groundwater Sustainability Plan:

A. Staff Introduction

B. Public Hearing

C. Consider Adoption of Resolution 2022-01

6. SGMA Report:

7. Manager's/Joint Report:

8. Adjournment:

RESOLUTION NO. 2022-01

**RESOLUTION ADOPTING THE SUTTER SUBBASIN GROUNDWATER
SUSTAINABILITY PLAN**

A. WHEREAS, in August 2014, the California Legislature passed, and in September 2014 the Governor signed, legislation creating the Sustainable Groundwater Management Act (“SGMA”) “to provide local groundwater sustainability agencies with the authority and technical and financial assistance necessary to sustainably manage groundwater” (Wat. Code, § 10720, (d)); and

B. WHEREAS, SGMA requires sustainable management through the development of groundwater sustainability plans (“GSPs”), which can be a single plan developed by one or more groundwater sustainability agency (“GSA”) or multiple coordinate plans within a basin or subbasin (Wat. Code, § 10727); and

C. WHEREAS, SGMA requires a GSA manage groundwater in all basins designated by the Department of Water Resources (“DWR”) as a medium or high priority, including the Sutter Subbasin (designated basin number 5-021.62); and

D. WHEREAS, BUTTE WATER DISTRICT elected to become a GSA, known as the BUTTE WATER DISTRICT GSA, on September 10, 2015 for the purposes of sustainably managing groundwater in the Sutter Subbasin, within its jurisdictional and GSA boundaries, pursuant to the requirements of SGMA; and

E. WHEREAS, the BUTTE WATER DISTRICT GSA has the authority to draft, adopt, and implement a GSP (Wat. Code, § 10725 *et seq.*); and

F. WHEREAS, the BUTTE WATER DISTRICT GSA is a member of the Sutter Subbasin Groundwater Management Coordination Committee formed for the purpose of developing a GSP and coordinating sustainable groundwater management in the Sutter Subbasin (Wat. Code, § 10723.6(i)); and

G. WHEREAS, Sutter County (“County”) submitted an Initial Notification to DWR on behalf of the members of the Sutter Subbasin to jointly develop a GSP for their respective portions of the Sutter Subbasin on May 29, 2020; and

H. WHEREAS, the BUTTE WATER DISTRICT has cooperated with all other GSAs in the Sutter Subbasin to draft a single GSP; and

I. WHEREAS, all the GSAs in the Sutter Subbasin have jointly developed the draft of the Sutter Subbasin GSP and released the draft Sutter Subbasin GSP for public comment on October 4, 2021;

J. WHEREAS, the GSAs comprising the Sutter Subbasin reviewed and considered comments on the Sutter Subbasin GSP; and

K. WHEREAS, on October 5, 2021, Sutter County released the Notice of Intent on behalf of all GSAs pursuant to Water Code § 10728.4; and

L. WHEREAS, on January 6, 2022 the GSAs in the Sutter Subbasin unanimously recommended each of its members adopt the final Sutter Subbasin GSP for their respective jurisdiction and GSA area; and

M. WHEREAS, the BUTTE WATER DISTRICT pursuant to Water Code section 10728.4 noticed and held a public hearing to receive comments on the Sutter Subbasin GSP.

NOW, THEREFORE, BE IT RESOLVED that the Board of Directors of the BUTTE WATER DISTRICT GSA finds as follows:

1. The above Recitals are true and correct and are incorporated herein as findings of the Board of Directors.
2. BUTTE WATER DISTRICT GSA hereby approves and adopts the Sutter Subbasin GSP as attached in Exhibit A.
3. Preparation and adoption of the Sutter Subbasin GSP through to this Resolution is not subject to the California Environmental Quality Act pursuant to Water Code section 10728.6.
4. BUTTE WATER DISTRICT GSA authorizes Sutter County, its consultants, and the Plan Manager to take such other actions as may be reasonably necessary to submit the Sutter GSP to DWR by January 31, 2022, and implement the purpose of this Resolution.

PASSED, APPROVED, AND ADOPTED this 13th day of January, 2022
by the following vote:

AYES: 4 Smith, Waller, Pantaleoni, Righero
NAYS: 0
ABSTAIN: 0
ABSENT: 1 Etcheverry



President of the Board

Attest:



Secretary to the Board

Date: 1/13/22



LIVE OAK CITY COUNCIL

REGULAR MEETING AGENDA JANUARY 19, 2022 6:00 PM

MEETING LOCATION
LIVE OAK COUNCIL CHAMBERS
9955 LIVE OAK BOULEVARD
LIVE OAK, CALIFORNIA 95953

MEMBERS OF THE COUNCIL

NANCY SANTANA, MAYOR
BOB WOTEN, VICE MAYOR
JERAMY CHAPDELAINE, COUNCILMEMBER
LAKHVIR GHAG, COUNCILMEMBER
J.R. THIARA, COUNCILMEMBER

AARON PALMER,
CITY MANAGER

NICOLE ROSSER,
CITY ATTORNEY

The Council may take up any agenda item at any time, regardless of the order listed. Action may be taken on any item on this agenda. Materials related to an item on this Agenda submitted to the Council after distribution of the agenda packet are available for public inspection at City Hall, 9955 Live Oak Boulevard, Live Oak, during normal business hours. Such documents are also available on the City of Live Oak's website at www.liveoakcity.org, subject to staff's availability to post the documents before the meeting.

In compliance with the Americans with Disabilities Act, the meeting room is wheelchair accessible and disabled parking is available. If you have a disability and need disability-related modifications or accommodations to participate in this meeting, please contact the City Clerk's office at (530) 695-2112 x107. Requests must be made at least 24 hours in advance.

Pursuant to Governor Newsom's Executive Orders N-25-20 and N-29-20, members of the Live Oak City Council or staff may participate in this meeting via a teleconference. In the interest of the maintaining appropriate social distancing, members of the public are encouraged to participate in the meeting in the following ways:

- **Remote Viewing:**

- Members of the public can view a livestream of the meeting online at https://liveoakca.granicus.com/ViewPublisher.php?view_id=1.
- Members of the public can access the Zoom webinar as follows:
 - **Join by Electronic Device:**
<https://us02web.zoom.us/j/87584004245>
 - **Join by Phone:**
1-669-900-6833 or 1-833-548-0282 (Toll Free)
Webinar ID: 875 8400 4245

- **Public Comment:** Members of the public can submit general public comments, as well as comment on specific agenda items in the following ways:
 - **Public Attendance:** Members of the public who attend in person may make comments from the Council Chamber podium.
 - **Live Remote Public Comment:** Members of the public can submit a live remote public comment by:
 - Joining the virtual Council meeting via the link below. When public comment is opened, raise your virtual hand and be called upon to speak for up to 3 minutes.

<https://us02web.zoom.us/j/87584004245>
 - Joining the virtual Council meeting by calling the phone number below. When public comment is opened, dial *9 to raise your hand and be called upon to speak for up to 3 minutes.

1-669-900-6833 or 1-833-548-0282 (Toll Free)
Webinar ID: 875 8400 4245
 - **Email Public Comment:** Comments from the public on agenda items will be accepted until 1:00 pm on the date of the meeting, via email to the City Clerk at cmenchaca@liveoakcity.org, and read into the record during public comment.
 - **eComment Feature:** Public Comment will be accepted online between Thursday, January 13th through Wednesday, January 19th at 1:00 pm through the eComment feature at: https://liveoakca.granicus.com/ViewPublisher.php?view_id=1.
-

CALL TO ORDER**ROLL CALL****PLEDGE OF ALLEGIANCE AND INVOCATION****CORRECTIONS AND/OR CHANGES TO THE AGENDA BY CITY MANAGER ONLY****PRESENTATIONS AND RECOGNITIONS****A. Holiday Lights Decorating Contest Winners****PUBLIC COMMENT**

Any person wishing to address the City Council on general jurisdictional matters or consent calendar items may do so at this time. If you are commenting on an agenda item, your comments will be heard at the time that item is scheduled for discussion. The City Council adopted a time limit of three minutes per person. The Brown Act does not allow for Council discussion of items not on the agenda. Councilmembers may only a) refer the matter to staff; b) ask for additional information; c) request a report back; or d) provide a limited factual response for items not listed on the agenda.

CONSENT ITEMS

Consent Calendar is passed by one motion with exceptions and separate votes as noted.

1. City Council Meeting Minutes
Recommendation: Approve the January 5, 2022 City Council Regular Meeting minutes.
(Clarissa Menchaca, City Clerk)
2. 2022 HOME Program Application Resolution
Recommendation: Adopt resolution authorizing the submittal of an application for HOME Grant Funds from the State Department of Housing and Community Development and the execution of agreements and documents necessary to participate in the HOME program.
(Alison Schmidt, Acting Chief Building Official)
3. Emergency Repair of Screening Unit at Wastewater Treatment Plant
Recommendation: Accept manufacturer's quote.
(Ron Walker, Public Works Director)

BUSINESS ITEMS

4. 2022 Council Member Committee Assignments
Recommendation: Approve the 2022 committee assignments as presented.
(Aaron Palmer, City Manager)
5. Council Discussion and Possible Action to Adopt a Resolution Approving and Adopting the Final Draft Sutter Subbasin Groundwater Sustainability Plan and Authorizing Submittal of the Final Draft Plan to the Department of Water Resources
Recommendation: Adopt resolution approving and adopting the final draft Sutter Subbasin Groundwater Sustainability Plan and authorizing submittal of the final draft plan to the Department of Water Resources.
(Scott Rolls, City Engineer)

6. Council Discussion and Possible Action to Adopt a Resolution Authorizing the Designation of Certain Products, Brands or Services and the Waiver of the Competitive Bidding Requirements for the Purchase of Standardized Equipment for Use in the Live Oak Streetscape Project
Recommendation: Adopt resolution authorizing the designation of certain products, brands or services and the waiver of the competitive bidding requirements for the purchase of standardized equipment for use in the Live Oak Streetscape Project.
(Scott Rolls, City Engineer)

ITEMS REMOVED FROM THE CONSENT AGENDA FOR COUNCIL CONSIDERATION AND ACTION

UPDATES AND ANNOUNCEMENTS FROM THE CITY ATTORNEY AND CITY MANAGER

COUNCILMEMBER COMMENTS (WRITTEN ONLY)

CLOSED SESSION

7. Conference with Labor Negotiators Pursuant to California Government Code Section 54957.6:
Agency Designated Representatives: Aaron Palmer, City Manager
Employee Organization: Confidential and Unrepresented Employees

ADJOURNMENT

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF LIVE OAK ADOPTING THE SUTTER SUBBASIN GROUNDWATER SUSTAINABILITY PLAN

WHEREAS, in August 2014, the California Legislature passed, and in September 2014 the Governor signed, legislation creating the Sustainable Groundwater Management Act ("SGMA") "to provide local groundwater sustainability agencies with the authority and technical and financial assistance necessary to sustainably manage groundwater" (Water Code, § 10720, (d)); and

WHEREAS, SGMA requires sustainable management through the development of groundwater sustainability plans ("GSPs"), which can be a single plan developed by one or more groundwater sustainability agency ("GSA") or multiple coordinate plans within a basin or subbasin (Water Code, § 10727); and

WHEREAS, SGMA requires a GSA manage groundwater in all basins designated by the Department of Water Resources ("DWR") as a medium or high priority, including the Sutter Subbasin (designated basin number 5-021.62); and

WHEREAS, City of Live Oak GSA was formed as a GSA on November 4, 2015, for the purposes of sustainably managing groundwater in the underlying subbasin, within its jurisdictional boundaries, pursuant to the requirements of SGMA; and

WHEREAS, City of Live Oak GSA is within the Sutter Subbasin (designated basin number 5-021.62); and

WHEREAS, City of Live Oak GSA has the authority to draft, adopt, and implement a GSP (Water Code, § 10725 et seq.); and

WHEREAS, the City of Live Oak GSA is a member of the Sutter Subbasin Groundwater Management Coordination Committee formed for the purpose of developing a GSP and coordinating sustainable groundwater management in the Sutter Subbasin (Water Code, § 10723.6); and

WHEREAS, Sutter County ("County") submitted an Initial Notification to DWR on behalf of the Sutter Subbasin GSAs to jointly develop a GSP for their respective portions of the Sutter Subbasin on May 29, 2020; and

WHEREAS, the City of Live Oak GSA has coordinated with all other GSAs in the Sutter Subbasin to draft a single GSP for the subbasin; and

WHEREAS, all the GSAs overlying the Sutter Subbasin have jointly developed the draft of the Sutter Subbasin GSP ("Sutter GSP") and released the draft Sutter GSP for public comment on October 4, 2021;

WHEREAS, the GSAs comprising the Sutter Subbasin Groundwater Management Coordination Committee reviewed comments on the Sutter GSP on behalf of its members; and

WHEREAS, on October 5, 2021, Sutter County released the Notice of Intent to Adopt a Groundwater Sustainability Plan on behalf of the Sutter Subbasin GSAs, pursuant to Water Code § 10728.4; and

WHEREAS, on January 6, 2022, the GSAs comprising the Sutter Subbasin Groundwater Management Coordination Committee recommended each of its members adopt the final draft Sutter GSP for their respective jurisdiction.

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of Live Oak finds as follows:

1. The City of Live Oak GSA hereby approves and adopts the final draft Sutter GSP, dated November 2021, incorporated herein by reference.
2. The City of Live Oak GSA authorizes Sutter County, its consultants, and the Plan Manager to take such other actions as may be reasonably necessary to submit the Sutter GSP to DWR by January 31, 2022 and implement the purpose of this Resolution.

PASSED AND ADOPTED by the City Council of the City of Live Oak this 19th day of January, 2022, by the following vote:

AYES: Councilmembers Thiara, Chapdelaine, Vice Mayor Woten, and Mayor Santana

NOES: None

ABSENT: Councilmember Ghag

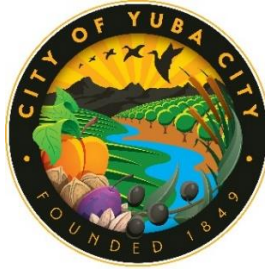
NOT VOTING: None

APPROVED:


Nancy Santana, Mayor

ATTEST:


Luis Cibrian, Deputy City Clerk



SPECIAL NOTICE

Precautions to address COVID-19 will apply to this meeting.

DECEMBER 21, 2021

REGULAR MEETING OF THE CITY COUNCIL

The Governor has declared a State of Emergency to exist in California as a result of the threat of COVID-19 (aka the "Coronavirus"). While the Governor recently issued Executive Orders N-07-21, which lifted certain orders and associated restrictions, there are still public health guidance's in place. The City is providing multiple alternatives to viewing Council meetings and providing comments on items on the agenda, including:

- Web Conference: The meeting will be conducted live over the internet by PC or Smartphone. Members of the public can join the web-based virtual meeting. (See instructions, below.)
- Email: You can email comments to cityclerk@yubacity.net any time before the meeting, or before the hearing is closed on the agenda item, and your comments will be read aloud. Please identify the Agenda item you wish to address in your comments.
- Public Attendance: Due to COVID-19, residents are encouraged to attend the City Council meeting via web conference or submit comments by email. Consistent with public health guidelines for social distancing, seating is available in the Council Chamber. A facial covering will be available upon request by any attendee. Comments may be made from the Council Chamber podium. Please participate via web conference or email if you are ill or have been exposed to COVID-19.

To join the web base virtual meeting please follow these instructions:

Click the link to sign up for the webinar at the specified time and date:

https://us06web.zoom.us/webinar/register/WN_DVqnnDjDSbm6ubr86NsjtA

You will need to register for the teleconference. Once registered, the following information will pop up.

Yuba City Council Meeting – 12/21/2021

Click here to [join the webinar](#).

Before joining, be sure to [check system requirements](#) to avoid any connection issues.

A confirmation email with information on how to join the webinar has been sent to you and with audio instructions. Questions or Comments? Email contact: cityclerk@yubacity.net

Note – currently the video conferencing process does not allow for verbal comments, but does have a chat function where comments will be read. Comments will also be received via email to cityclerk@yubacity.net.



AGENDA

DECEMBER 21, 2021

**REGULAR MEETING
CITY COUNCIL
CITY OF YUBA CITY**

**5:00 P.M. CLOSED SESSION:
SUTTER ROOM/VIRTUAL**

**6:00 P.M. REGULAR MEETING
COUNCIL CHAMBERS/VIRTUAL**

MAYOR	• Dave Shaw
VICE MAYOR	• Wade Kirchner
COUNCILMEMBER	• Marc Boomgaarden
COUNCILMEMBER	• Grace Espindola
COUNCILMEMBER	• Shon Harris
CITY MANAGER	• Diana Langley
CITY ATTORNEY	• Shannon L. Chaffin

**1201 Civic Center Blvd
Yuba City CA 95993**

Wheelchair Accessible



*If you need assistance in order to attend the City Council meeting, or if you require auxiliary aids or services, e.g., hearing aids or signing services to make a presentation to the City Council, the City is happy to assist you. Please contact City offices at (530) 822-4817 at least 72 hours in advance so such aids or services can be arranged. **City Hall TTY: 530-822-4732***

**AGENDA
REGULAR MEETING
CITY COUNCIL - CITY OF YUBA CITY
DECEMBER 21, 2021
5:00 P.M. CLOSED SESSION:
SUTTER ROOM/VIRTUAL

6:00 P.M. REGULAR MEETING
COUNCIL CHAMBERS/VIRTUAL**

Materials related to an item on this Agenda submitted to the Council after distribution of the agenda packet are available for public inspection in the City Clerk's office at 1201 Civic Center Blvd., Yuba City, during normal business hours. Such documents are also available on the City of Yuba City's website at www.yubacity.net, subject to staff's availability to post the documents before the meeting.

Public Comment:

Any member of the public wishing to address the City Council on any item listed on the closed session agenda will have an opportunity to present testimony to the City Council in the Council Chamber prior to the City Council convening into closed session. Comments from the public will be limited to three minutes. No member of the public will be allowed to be present once the City Council convenes into closed session.

Closed Session

1. **A. Threats to Public Services or Facilities (Pursuant to Government Code section 54957(a).) Consultation with: City Attorney, and/or Yuba City Fire Chief, Police Chief, Director of Public Works, IT Manager, and City Manager**

B. Conference With Legal Counsel—Anticipated Litigation Significant exposure to litigation pursuant to paragraph (2) of Government Code Section 54956.9(d): (One case)

C. Conference With Legal Counsel—Initiation of litigation pursuant to paragraph (4) of subdivision (d) of Section 54956.9: (One case)

Regular Meeting

Call to Order

Roll Call

- ☐ Mayor Shaw
- ☐ Vice Mayor Kirchner
- ☐ Councilmember Boomgaarden
- ☐ Councilmember Espindola
- ☐ Councilmember Harris

Invocation/Inspiration

Pledge of Allegiance to the Flag

Agenda Modifications/Approval of Agenda

Ceremonial Presentations

2. Economic Development Commissioners Recognition

3. Retirement Proclamation for Devin Barber, IT Manager - Special Projects

Public Communication

4. Appearance of Interested Citizens

You are welcome and encouraged to participate in this meeting. Public comment is taken on items listed on the agenda when they are called. Public comment on items not listed on the agenda will be considered at this time. Comments on controversial items may be limited and large groups are encouraged to select representatives to express the opinions of the group.

- **For Items on the Agenda**

Public comments on items on the agenda are taken during Council's consideration of each agenda item. If you wish to comment on any item appearing on the agenda, please note the number of the agenda item about which you wish to comment. If you wish to comment on more than one item, please send an email for each item.

- **Items not listed on the Agenda**

Public comments on items not listed on the agenda will be considered at this time. Members of the public submitting written requests at least 24 hours prior to the meeting will normally be allotted 5 minutes to comment. In addition to written comments, the public is welcome to submit a video presentation in electronic format to be played during public comment or during the hearing item. Due to COVID-19 staffing limitations, formatting, and video streaming related issues, presentations must be submitted to the City Clerk no later than 5:00 p.m. the day before the meeting to ensure the presentation is available for streaming at the time the Agenda item is called. Presentations submitted after 5:00 p.m. the day before the meeting may not be available to be streamed at the meeting.

Consent Calendar

All matters listed under Consent Calendar are considered to be routine and can be enacted in one motion. There will be no separate discussion of these items prior to the time that Council votes on the motion unless members of the City Council, staff or public request specific items to be discussed or removed from the Consent Calendar for individual action.

5. Minutes of the November 16, 23 and December 7, 2021

Recommendation: Approve the City Council minutes of November 16, 23 and December 7, 2021

6. Sutter Subbasin Groundwater Sustainability Plan Tentative Adoption

Recommendation: Adopt a Resolution to adopt the Sutter Subbasin Groundwater Sustainability Plan acting as the City of Yuba City Groundwater Sustainability Agency

7. Destruction of Specified Yuba City Police Department Records

Recommendation: Adopt a Resolution authorizing the Chief of Police to destroy specified Yuba City Police Department records which have exceeded their retention period, occupy valuable storage space and are of no further use to the City of Yuba City or Yuba City

Police Department

8. Submission of Recertification Application for Tree City USA Designation

Recommendation: Adopt a Resolution authorizing the City to submit an application for recertification to the National Arbor Day Foundation for the City to continue its designation as a Tree City USA community

9. River Valley High School Striping and Marking Improvement Project (Plans & Specifications)

Recommendation: Adopt a Resolution which adopts a CEQA Class 1 Categorical Exemption, approves the plans and specifications for the River Valley High School Striping and Marking Improvement Project, and authorizes Public Works staff to solicit quotes from qualified contractors to perform the work

10. 2021 Urban and Multibenefit Drought Relief Funding Grant Application

Recommendation: Adopt a Resolution authorizing the grant application, acceptance, and execution for the Aquifer Storage Recovery System Project, and designate the Public Works Director or designee to execute any documents required for applying to the grant program and executing a funding agreement and related documents on behalf of the City

11. 2022 City Council Meeting Calendar

Recommendation: Cancel the January 5th, May 3rd, and August 3rd 2022 Regular Council Meetings and provide for Special Workshops to be scheduled as needed

12. Appointments to City Council Regional Boards and Committees

Recommendation: Approve the City Council Assignments to Regional Boards and Committees for Calendar Year 2022

13. Feasibility Study for Abandoned Railroad Corridor

Recommendation: Adopt a Resolution which takes the following actions:

1. Awards a Professional Services Agreement to Dokken Engineering of Folsom, CA for the Feasibility Study for Abandoned Railroad Corridor Project in the amount of \$224,169.50, subject to material terms, with the finding that it is in the best interest of the City

2. Authorizes the Finance Director to accept grant funds into Account No. 301-43495 in the grant award amount of \$200,000

3. Authorizes the Finance Director to make a supplemental appropriation in the amount of \$200,000 from Account No. 301-43495 to CIP Account No. 901282-65501

4. Authorizes the Finance Director to make a supplemental appropriation in the amount of \$55,377.98 from unallocated Transportation Development Act funds to CIP Account No. 911282-65501

14. Monroe Road Sewer Improvements Award

Recommendation: Adopt a Resolution approving a sole source justification and awarding a construction contract to Lund Construction Co. of North Highlands, CA in the amount of \$52,255.00 and authorizing the City Manager to execute a Standard Agreement on behalf of the City

15. Accept California Water and Wastewater Arrearage Payment Program financial assistance funding

Recommendation: Adopt a Resolution accepting the California Water and Wastewater Arrearage Payment Program benefits and authorize the Finance Director to make the necessary supplemental appropriations for related revenues and expenditures to 507-43481 and 7120-64103 for the 2021-22 fiscal year

16. Parcel Creation/Lot Line Adjustment – Harter Specific Plan

Recommendation: Adopt a Resolution authorizing the City Manager to execute a Grant Deed and associated documents, to create a new legal parcel for the future park on Harter Parkway, and participate in a Lot Line Adjustment to help facilitate development of the Harter Specific Plan for properties southerly of Butte House Road, westerly of Harter Parkway, and northerly of future Jefferson Avenue

17. National Opioid Settlement

Recommendation: A. Approve Settlement Participation Form for the City's participation in the National Opioid Settlement with McKesson Corporation, Cardinal Health, Inc., and AmerisourceBergen Corporation
B. Approve Settlement Participation Form for the City's participation in the National Opioid Settlement with Johnson & Johnson, Janssen Pharmaceuticals, Inc., Ortho-McNeil-Janssen Pharmaceuticals, Inc., and Janssen Pharmaceutica, Inc
C. Approve the California State-Subdivision Agreement Regarding Distribution and Use of Settlement Funds - Distributor Settlement
D. Approve the California State-Subdivision Agreement Regarding Distribution and Use of Settlement Funds - Janssen Settlement
E. Adopt a Resolution authorizing the City Manager to execute the documents identified in Recommendations A through D
F. Authorize the City Manager to carry out all necessary acts such that the City can participate in the National Opioid Settlements, including, but not limited to, the transmittal of the executed documents in Recommendations A through D (as necessary and applicable)

18. Annual Investment Policy Adoption

Recommendation: Approve Investment Policy as presented

19. CalPERS Employer Paid Member Contribution Resolutions

Recommendation: Adopt Resolutions for CalPERS to pay and report the value of Employer Paid Member Contributions for the Police Sworn Mid-Managers, Mid-Managers and Unrepresented Executive Team

20. Gauche Aquatic Park Verkada Camera System Upgrade (FB22-06)

Recommendation: Adopt a Resolution awarding the contract for the Gauche Aquatic Park Verkada Camera System upgrade to Gaynor Telesystems of Redding, CA in the total amount of \$65,085 plus a 10% contingency for a not to exceed amount of \$71,594 with the finding that it is in the best interest of the City

21. Purchase of four (4) Ford F-150 Police Responders (FB22-04)

Recommendation: Adopt a Resolution awarding the purchase of four (4) Ford F-150 Police Responder vehicles to Geweke Ford of Yuba City, CA, in the amount of \$166,444. Sole source the equipment purchase and install to Cop Shop Installations of Yuba City, CA in the estimated amount of \$157,363

22. Utility Payment Processing and Statement Printing and Mailing Proposal (RFP22-02)

Recommendation: Adopt a Resolution awarding the contract for utility payment processing, statement printing and mailing, bill presentment online, and IVR services to InfoSend, Inc. of Anaheim, CA with the finding that it is in the best interest of the City. The agreement will be in the estimated amount of \$141,400 for one (1) year with the option of four (4) one-year extensions. Authorize the City Manager to approve contract extensions

23. Yuba Sutter Salvation Army Professional Services Agreement - CDBG-CV Low-Income Mortgage Subsistence Program

Recommendation: Adopt a Resolution approving a Professional Services Agreement with Yuba Sutter Salvation Army for the 2020 Community Development Block Grant CARES Act (CDBG-CV) Low-Income Mortgage Subsistence Program

24. Finance Department Position Modifications

Recommendation: Adopt a Resolution approving the following changes to the Finance Department's positions in the FY 2021-22 Operating Budget:

1. Add an Administrative Analyst II and;
2. Reclassify a vacant Field Customer Service Representative I/II to Customer Service Representative I/II; and
3. Authorize a supplemental appropriation to the appropriate Finance Department salary and benefits accounts in the amount of \$45,200

25. Annual Report from the Downtown Yuba City Business Improvement District and Proposed Levy of Annual Assessment for 2022

Recommendation: A. Adopt a Resolution Accepting and Approving the 2021-2022 Annual Report of the Downtown Yuba City Business Improvement District

B. Adopt a Resolution of Intention to Levy and Collect 2022 Annual Assessments and set a Public Hearing for January 18, 2022

26. Blackburn Talley Field Lighting Phase III Project Award

Recommendation: A. Adopt a Resolution adopting a CEQA Class 1 Categorical Exemption; awarding a construction contract to Musco Sports Lighting, LLC in the amount of \$261,866 through Sourcewell Contract No. 071619-MSL, with the finding that it is in the best interest of the City; and authorizing the City Manager to execute an agreement for the Blackburn Talley Field Lighting Phase III project

B. Authorize the Finance Director to make a supplemental appropriation and related transfers in the amount of \$14,959.30 from unallocated general capital improvement project funds to CIP Account No. 901234-65501 for the additional funds necessary to complete construction

27. City of Yuba City Advisory Board Appointment List

Recommendation: Note and File the 2021 Local Appointment List and Direct Staff to post on the City's website

28. Sidewalk Maintenance and Repairs Ordinance

Recommendation: Adopt an Ordinance of the City Council of the City of Yuba City establishing sidewalk maintenance and repair responsibilities by adding Chapter 11 (Sidewalk Maintenance and Repairs) to Title 6 of the Yuba City Municipal Code by title only, and waive the second reading

Business Items

29. Homekey 2.0 Habitat for Humanity Presentation

Recommendation: Provide direction regarding the project application, as needed

30. Public Hearing No. 3 – Consideration of proposed maps for District voting divisions per California Elections Code Sections 10010(a)(2) and 10010(b)

Recommendation: A. Receive NDC's presentation of draft District voting division maps and the sequencings of division elections and public comments regarding the draft maps

B. Provide direction on preferred map(s) for additional analysis, revisions, or comment and possibly new maps

C. Provide comments on the sequencing of elections for the divisions to be established

D. Confirm the next public hearing for January 18, 2022

31. Yuba City Purchasing System Ordinance and Purchasing Policies Update

Recommendation: A. Introduce an Ordinance amending Chapter 6 (Purchasing System) of Title 2 of the Yuba City Municipal Code by title only, and waive the first reading

B. Adopt a Resolution adopting the Purchasing Policies and Procedures Manual Update (to become effective concurrently with the proposed ordinance)

32. Yuba City Wastewater Collection and Treatment Ordinance Update

Recommendation: Introduce an ordinance amending Chapter 5 (Wastewater Collection and Treatment) of Title 6 of the Yuba City Municipal Code by title only, and waive the first reading

33. Bridge Street Widening Project (21-01) – Plans & Specifications

Recommendation: Adopt a Resolution approving the plans and specifications for the Bridge Street Widening Project (21-01) and authorizing advertisement for bids on the project.

34. Harter Parkway Park Project Award

Recommendation: Adopt a Resolution which makes the following actions:

1. Awards a construction contract to Marina Landscape, Inc. of Orange, CA in the amount of their total bid \$2,507,985.49 and authorizes the City Manager to execute the contract on behalf of the City, subject to review and approval as to legal from by the City Attorney
2. Awards a construction contract to American Ramp Company, Inc. in the amount of \$227,401.57 through Sourcewell Contract No. 112420-ARC, with the finding that it is in the best interest of the City; and authorizes the City Manager to execute an agreement for the Bike Park project
3. Awards a contract for construction and inspection services to Coastland Civil Engineering, Inc. of Auburn, CA in the amount of \$141,850 and authorizes the City Manager to execute the contract on behalf of the City, subject to review and approval as to form by the City Attorney
4. Authorizes the Finance Director to make necessary appropriations from American Rescue Plan Act funds, in the amount of \$1,260,480.77 to CIP Account No. 941207-65501 (Harter Parkway Park and Bike Connection) in order to bridge the funding shortfall and ultimately fund the Park project

35. City Manager Employment Agreement

Recommendation: Adopt a Resolution Approving A City Manager Employment

Agreement between the City of Yuba City and Diana Langley,
Effective December 10, 2021 at 5:00 p.m.

Future Agenda Items

- 36. Future Agenda Items:**
- Councilmember Boomgaarden
 - Councilmember Espindola
 - Councilmember Harris
 - Vice Mayor Kirchner
 - Mayor Shaw

Reports and Communications

The following reports and communication items are provided for the Council's information. No action can be taken on items under this section unless the Council agrees to include it on a subsequent agenda

37. City Manager Report

38. City Council Reports

- Councilmember Boomgaarden
- Councilmember Espindola
- Councilmember Harris
- Vice Mayor Kirchner
- Mayor Shaw

Adjournment

RESOLUTION NO. 21-174

**RESOLUTION OF THE CITY COUNCIL OF THE CITY OF YUBA CITY ADOPTING
THE SUTTER SUBBASIN GROUNDWATER SUSTAINABILITY PLAN**

WHEREAS, the City of Yuba City recognizes the importance of regional groundwater sources for the environmental and economic stability of our City and the surrounding region; and

WHEREAS, the State of California adopted the legislation known collectively as the Sustainable Groundwater Management Act (the Act) in 2014 in order to facilitate sustainable management of groundwater basins statewide; and

WHEREAS, the Act requires all Groundwater Sustainability Agencies (GSAs) to develop and adopt a Groundwater Sustainability Plan (the Plan) in order to establish and ensure the sustainable groundwater management practices; and

WHEREAS, the City of Yuba City formally elected to become a GSA to represent the Sutter Subbasin within the limits of the City of Yuba City on March 21, 2017 in order to act as a stakeholder in the development and implementation of groundwater monitoring and management within the region; and

WHEREAS, the City of Yuba City entered into a Memorandum of Understanding and a Memorandum of Agreement with the other Sutter Subbasin GSAs on April 6, 2021 for the funding and development of the Plan; and

WHEREAS, the Sutter Subbasin GSAs have completed the development of the Plan and issued a Notice of Intention on October 5, 2021 regarding submittal of the proposed Plan to all cities and counties within the Sutter Subbasin to invite public comment. The required 90-day public comment period will conclude on January 3, 2022; and

WHEREAS, the Sutter Subbasin GSAs will submit the Plan to the California Department of Water Resources prior to January 31, 2022 for review and approval in accordance with the Act, upon the conclusion of the public comment period and the official adoption by the participating GSAs.

NOW, THEREFORE, be it resolved that the City Council of the City of Yuba City hereby adopts the "Sutter Subbasin Groundwater Sustainability Plan" as an official plan, acting as the City of Yuba City Groundwater Sustainability Agency, inclusive of any edits to the Plan as part of the public comment period and effective as of January 4, 2022.

The forgoing resolution was duly and regularly introduced, passed, and adopted by the City Council of the City of Yuba City at a regular meeting thereof held on the 21st day of December, 2021.

AYES: Councilmembers Boomgaarden, Espindola, Harris, Kirchner, and
Mayor Shaw

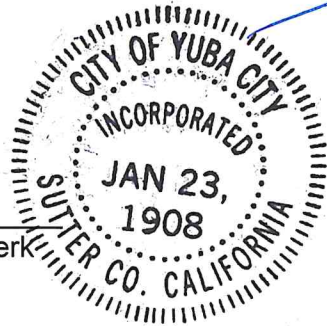
NOES: None

ABSENT: None


Dave Shaw, Mayor

ATTEST:


Ciara Wakefield, Deputy City Clerk



APPROVED AS TO FORM
COUNSEL FOR YUBA CITY:


Shannon Chaffin, City Attorney
Aleshire & Wynder, LLP

Reclamation District No. Seventy
PO Box 129 • Meridian, CA 95957
Office: (530) 696-2569
Fax: (530) 696-2551

Andy Duffey
Manager

AGENDA
BOARD OF TRUSTEES MEETING
1138 4th Ave
Meridian, CA 95957

DATE: January 5, 2022

TIME: 9:30 AM

- 1. ROLL CALL AND CALL TO ORDER**
- 2. READING OF THE MINUTES OF THE PREVIOUS MEETINGS**
- 3. BUSINESS WITH LANDOWNERS OR GUESTS PRESENT**
- 4. OLD BUSINESS**
 - A. AT&T**
- 5. MANAGER'S REPORT**
- 6. FINANCIAL REPORT**
 - A. Review Bills**
- 7. NEW BUSINESS**
 - A. Resolution #2022-0105, Adopting the Sutter Subbasin Groundwater Sustainability Plan**
- 8. ADJOURN**
- 9. CLOSED SESSION (IF NEEDED)**

“Any documents related to agenda items that are made available to the board before the meeting will be available for review by the public at 1138 4th Street, Meridian, CA 95957.”

RESOLUTION NO. 2022-0105

**RESOLUTION ADOPTING THE SUTTER SUBBASIN GROUNDWATER
SUSTAINABILITY PLAN**

A. WHEREAS, in August 2014, the California Legislature passed, and in September 2014 the Governor signed, legislation creating the Sustainable Groundwater Management Act (“SGMA”) “to provide local groundwater sustainability agencies with the authority and technical and financial assistance necessary to sustainably manage groundwater” (Wat. Code, § 10720, (d)); and

B. WHEREAS, SGMA requires sustainable management through the development of groundwater sustainability plans (“GSPs”), which can be a single plan developed by one or more groundwater sustainability agency (“GSA”) or multiple coordinate plans within a basin or subbasin (Wat. Code, § 10727); and

C. WHEREAS, SGMA requires a GSA manage groundwater in all basins designated by the Department of Water Resources (“DWR”) as a medium or high priority, including the Sutter Subbasin (designated basin number 5-021.62); and

D. WHEREAS, Reclamation District No. 70 was formed as a GSA on May 3, 2017 for the purposes of sustainably managing groundwater in the Sutter Subbasin, within its jurisdictional boundaries, pursuant to the requirements of SGMA; and

E. WHEREAS, Reclamation District No. 70 has the authority to draft, adopt, and implement a GSP (Wat. Code, § 10725 *et seq.*); and

F. WHEREAS, the Reclamation District No. 70 is a member of the Sutter Subbasin Groundwater Management Coordination Committee formed for the purpose of developing a GSP and coordinating sustainable groundwater management in the Sutter Subbasin (Wat. Code, § 10723.6(i)); and

G. WHEREAS, Sutter County (“County”) submitted an Initial Notification to DWR on behalf of the members of the Sutter Subbasin to jointly develop a GSP for their respective portions of the Sutter Subbasin on May 29, 2020; and

H. WHEREAS, the Reclamation District No. 70 has coordinated with all other GSAs in the Sutter Subbasin to draft a single GSP for its members; and

I. WHEREAS, all the GSAs overlying the Sutter Subbasin have jointly developed the draft of the Sutter Subbasin GSP (“Sutter GSP”) and released the draft Sutter GSP for public comment on October 4, 2021;

J. WHEREAS, the GSAs comprising the Sutter Subbasin reviewed comments on the Sutter GSP on behalf of its members; and

K. WHEREAS, on October 5, 2021, Sutter County released the Notice of Intent on behalf of its members pursuant to Water Code § 10728.4; and

L. WHEREAS, on January 6, 2022 the GSAs comprising the Sutter Subbasin recommended each of its members adopt the final draft Sutter GSP for their respective jurisdiction.

NOW, THEREFORE, BE IT RESOLVED that the Board of Trustees of the Reclamation District No. 70 finds as follows:

1. Reclamation District No. 70 authorizes Sutter County, its consultants, and the Plan Manager to take such other actions as may be reasonably necessary to submit the Sutter GSP to DWR by January 31, 2022, and implement the purpose of this Resolution.

PASSED, APPROVED, AND ADOPTED this 5th day of January, 2022 by the following vote:

AYES: 4
NAYS: 0
ABSTAIN: 0
ABSENT: 1


Chairman

Attest:


Secretary

Date: 1-5-2022

RECLAMATION DISTRICT NO. 1500

P.O. Box 96

Robbins, CA 95676

November 25 2021

NOTICE OF BOARD MEETING AND AGENDA

A regular Board of Trustees Meeting has been scheduled for **Tuesday November 30, 2021**, at the district office in Kirkville, CA at 9:00 a.m. **This meeting will be held in person and via Zoom if you would like to participate by Zoom, please contact the office.**

Order of business;

1. Approval of Agenda and October, 2021, regular Board Meeting minutes.
2. Public Comment
3. Controller report
 - a. Review financial reports.
 - b. Signature to County Accounts – Interim GM Scott, Brad Mattson
 - c. Approval of Warrant-
 - d. Draw of LOC/Repayment
 - e. Audit 20-21
4. General Managers Report
 - a. Planning for Solar, Switchgear, PL84-99 repairs, Second Beach progress/options
 - b. Status of District Activities- Trash rack, Water Shed report Kevin Johannsen
 - c. BIDA Report-
 - d. Office/House Report
 - e. Drain Pumping/Dams
 - f. SGMA- GSP Planning- Resolution 2021-7
 - g. Election
 - h. Dry Year planning
 - i. 2021/2022 Winter Outlook
5. Report on field and O&M matters
 - a. Maintenance and Operations
6. Status of USACE Matters: PIR, LOI-SWIF
 - a. Status of LOI/SWIF
7. Status of Regional Flood Management Plan (RFMP)
8. DWR Matters
 - a. Review Tisdale/Sutter Bypass Comprehensive Management Plan
 - b. Status of Small Communities grant
 - c. FMAP and FSRP- 2022 program, Resolution 2021-8
9. Status of SGMA matters-Groundwater Transfer, Monitoring Wells
10. Update on CCVFCA activities.
11. Update on levee encroachments
12. Other Business

AUDIT COMMITTEE:

Bill Driver, Steve Butler

RESOLUTION NO. 2021-8

**RESOLUTION ADOPTING THE SUTTER SUBBASIN GROUNDWATER
SUSTAINABILITY PLAN**

A. WHEREAS, in August 2014, the California Legislature passed, and in September 2014 the Governor signed, legislation creating the Sustainable Groundwater Management Act ("SGMA") "to provide local groundwater sustainability agencies with the authority and technical and financial assistance necessary to sustainably manage groundwater" (Wat. Code, § 10720, (d)); and

B. WHEREAS, SGMA requires sustainable management through the development of groundwater sustainability plans ("GSPs"), which can be a single plan developed by one or more groundwater sustainability agency ("GSA") or multiple coordinate plans within a basin or subbasin (Wat. Code, § 10727); and

C. WHEREAS, SGMA requires a GSA manage groundwater in all basins designated by the Department of Water Resources ("DWR") as a medium or high priority, including the Sutter Subbasin (designated basin number 5-021.62); and

D. WHEREAS, Reclamation District 1500 (RD 1500) was formed as a GSA for the purposes of sustainably managing groundwater in the Sutter Subbasin, within its jurisdictional boundaries, pursuant to the requirements of SGMA; and

E. WHEREAS, RD 1500 has the authority to draft, adopt, and implement a GSP (Wat. Code, § 10725 *et seq.*); and

F. WHEREAS, the RD 1500 is a member of the Sutter Subbasin Groundwater Management Coordination Committee formed for the purpose of developing a GSP and coordinating sustainable groundwater management in the Sutter Subbasin (Wat. Code, § 10723.6 (i)); and

G. WHEREAS, Sutter County ("County") submitted an Initial Notification to DWR on behalf of the members of the Sutter Subbasin to jointly develop a GSP for their respective portions of the Sutter Subbasin on May 29, 2020; and

H. WHEREAS, the RD 1500 has coordinated with all other GSAs in the Sutter Subbasin to draft a single GSP for its members; and

I. WHEREAS, all the GSAs overlying the Sutter Subbasin have jointly developed the draft of the Sutter Subbasin GSP ("Sutter GSP") and released the draft Sutter GSP for public comment on October 4, 2021;

J. WHEREAS, the GSAs comprising the Sutter Subbasin reviewed comments on the Sutter GSP on behalf of its members; and

K. WHEREAS, on October 5, 2021, Sutter County released the Notice of Intent on behalf of its members pursuant to Water Code § 10728.4; and

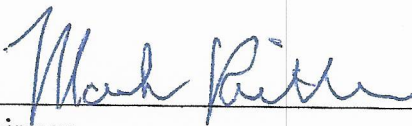
L. WHEREAS, on November 16, 2021 the GSAs comprising the Sutter Subbasin recommended each of its members adopt the final draft Sutter GSP for their respective jurisdiction.

NOW, THEREFORE, BE IT RESOLVED that the Board of Trustees of the RD 1500 finds as follows:

1. RD 1500 hereby approves and adopts the final draft Sutter GSP as attached in Exhibit A.
2. RD 1500 authorizes Sutter County, its consultants, and the Plan Manager to take such other actions as may be reasonably necessary to submit the Sutter GSP to DWR by January 31, 2022, and implement the purpose of this Resolution.

PASSED, APPROVED, AND ADOPTED this 30th day of November, 2021 by the following vote:

AYES: 4
NAYS: 0
ABSTAIN: 0
ABSENT: 3


Chairman

Attest:


Secretary

Date: 11-30-21

ATTACHMENT B

Local Maintaining Agency Authorizing Resolution
Resolution No. 2021-9

A Resolution by the Board of Trustees
 of the Reclamation District No. 1500

Authorizing a Proposal for funding from the Department of Water Resources and Designating a
 Representative to Execute the Agreement and any Amendments thereto, for the
2022-FMAP-RD1500-01 Project

WHEREAS, the Reclamation District No. 1500 is a California
 Public Agency with responsibility for flood maintenance and right-of-way authority of the Project facilities;

WHEREAS the Reclamation District No. 1500 acknowledges
 that it must submit a new operations, maintenance, repair, rehabilitation, and replacement agreement
 with the Central Valley Flood Protection Board prior to the receipt of Flood Maintenance Assistance
 Program funds;

WHEREAS, the Reclamation District No. 1500 is authorized to
 enter into an agreement with the Department of Water Resources and the State of California;

THEREFORE, BE IT RESOLVED by the Board of Trustees
 of the Reclamation District No. 1500 as follows:

1. That pursuant and subject to all of the terms and conditions of the Budget Act of 2021, the
Board of Trustees authorize the
General Manager, or designee, to execute the funding agreement
 with the Department of Water Resources and any amendments thereto.
2. That the General Manager, or designee, shall prepare the necessary data,
 make investigations, and take other such actions as necessary and appropriate to obtain funding
 for the 2022-FMAP-RD1500-01 Project.

CERTIFICATION

I hereby certify that the foregoing Resolution No. 2021-9 was duly and regularly
 adopted by the Board of Trustees of
 the Reclamation District No. 1500 at the
 meeting held on Nov 30, 2021, motion by Trustee Dimer and
 seconded by Trustee Alonso, motion passed by the following vote:

AYES: 4
 NOES: 0
 ABSTAIN: 0
 ABSENT: 3

Attest:

Mark Renteria

Jon Scott
 Jon Scott, General Manager
 Reclamation District No. 1500

Board of Trustees
Chris Capaul, President
Robert Chesini
David Giampaoli
Jim Wallace
Mike Cole

Reclamation District No. Sixteen Sixty
PO Box 35 • Meridian, CA 95957
Office: (530) 696-0349
Fax: (530) 696-2551

Andy Duffey, Manager

BOARD OF TRUSTEES MEETING

TUESDAY

January 11, 2022
2:00 p.m.
6724 Progress Rd, Meridian

AGENDA

- 1) CALL TO ORDER AND ROLL CALL
- 2) READING OF THE MINUTES OF THE PREVIOUS BOARD MEETING HELD
- 3) BUSINESS WITH LANDOWNERS OR GUESTS
- 4) OLD BUSINESS
- 5) MANAGER'S REPORT
- 6) FINANCIAL REPORT OF THE DISTRICT
 - a) Review of the bills for the previous month
- 7) NEW BUSINESS
 - a) Resolution 2022-0111 Sutter Subbasin Groundwater Sustainability Plan
- 8) ADJOURN
- 9) CLOSED SESSION (IF NEEDED)

“Any documents related to agenda items that are made available to the board before the meeting will be made available for review by the public at 1138 4th Street, Meridian, CA 95957.”

RESOLUTION NO. 2022-0111

**RESOLUTION ADOPTING THE SUTTER SUBBASIN GROUNDWATER
SUSTAINABILITY PLAN**

A. WHEREAS, in August 2014, the California Legislature passed, and in September 2014 the Governor signed, legislation creating the Sustainable Groundwater Management Act ("SGMA") "to provide local groundwater sustainability agencies with the authority and technical and financial assistance necessary to sustainably manage groundwater" (Wat. Code, § 10720, (d)); and

B. WHEREAS, SGMA requires sustainable management through the development of groundwater sustainability plans ("GSPs"), which can be a single plan developed by one or more groundwater sustainability agency ("GSA") or multiple coordinate plans within a basin or subbasin (Wat. Code, § 10727); and

C. WHEREAS, SGMA requires a GSA manage groundwater in all basins designated by the Department of Water Resources ("DWR") as a medium or high priority, including the Sutter Subbasin (designated basin number 5-021.62); and

D. WHEREAS, Reclamation District No. 1660 was formed as a GSA on May 9, 2017 for the purposes of sustainably managing groundwater in the Sutter Subbasin, within its jurisdictional boundaries, pursuant to the requirements of SGMA; and

E. WHEREAS, Reclamation District No. 1660 has the authority to draft, adopt, and implement a GSP (Wat. Code, § 10725 *et seq.*); and

F. WHEREAS, the Reclamation District No. 1660 is a member of the Sutter Subbasin Groundwater Management Coordination Committee formed for the purpose of developing a GSP and coordinating sustainable groundwater management in the Sutter Subbasin (Wat. Code, § 10723.6(i)); and

G. WHEREAS, Sutter County ("County") submitted an Initial Notification to DWR on behalf of the members of the Sutter Subbasin to jointly develop a GSP for their respective portions of the Sutter Subbasin on May 29, 2020; and

H. WHEREAS, the Reclamation District No. 1660 has coordinated with all other GSAs in the Sutter Subbasin to draft a single GSP for its members; and

I. WHEREAS, all the GSAs overlying the Sutter Subbasin have jointly developed the draft of the Sutter Subbasin GSP ("Sutter GSP") and released the draft Sutter GSP for public comment on October 4, 2021;

J. WHEREAS, the GSAs comprising the Sutter Subbasin reviewed comments on the Sutter GSP on behalf of its members; and

K. WHEREAS, on October 5, 2021, Sutter County released the Notice of Intent on behalf of its members pursuant to Water Code § 10728.4; and

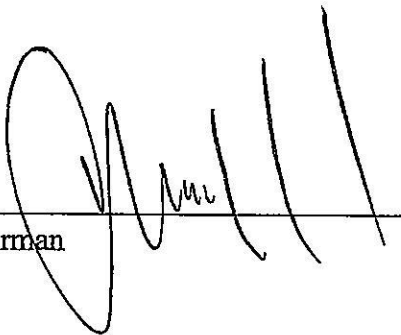
L. WHEREAS, on January 6, 2022 the GSAs comprising the Sutter Subbasin recommended each of its members adopt the final draft Sutter GSP for their respective jurisdiction.

NOW, THEREFORE, BE IT RESOLVED that the Board of Trustees of the Reclamation District No. 1660 finds as follows:

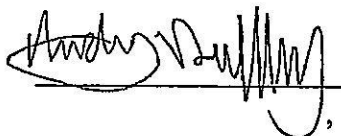
1. Reclamation District No. 1660 authorizes Sutter County, its consultants, and the Plan Manager to take such other actions as may be reasonably necessary to submit the Sutter GSP to DWR by January 31, 2022, and implement the purpose of this Resolution.

PASSED, APPROVED, AND ADOPTED this 11th day of January, 2022 by the following vote:

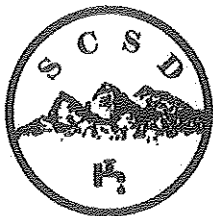
AYES: 5
NAYS: 0
ABSTAIN: 0
ABSENT: 0


Chairman

Attest:


Secretary

Date: January 11, 2022



SUTTER COMMUNITY SERVICES DISTRICT

1880 ACACIA AVENUE
P.O. BOX 710
SUTTER, CALIFORNIA 95982-0710

PHONE (530) 755-1733

FAX (530) 755-1777

AGENDA REGULAR MEETING Monday January 3, 2022 6:30 P.M.

DAVID WILLIAMS, PRESIDENT
ANNETTE BABB, VICE PRESIDENT
JIM BARRINGER, DIRECTOR
JOEL FARIAS, JR., DIRECTOR
LARRY CRABTREE, DIRECTOR
Leland Correll, Board Secretary

I. CALL TO ORDER-QUORUM

A. Pledge of Allegiance

II. PUBLIC PARTICIPATION:

Persons wishing to address the Board during consideration of matters listed on the agenda will be allowed to do so. If you intend to speak on an issue, please submit a yellow Speakers Notice sheet to the Board Secretary. When the matter is announced, please stand and wait to be recognized by the President. Testimony should always begin with the speaker giving his or her name and place of residence. The Board requests that comments be limited to three (3) minutes.

DISABLED ACCOMMODATION: If you have a disability which requires an accommodation, an alternative format or requires another person to assist you while attending this meeting, please contact staff at the Sutter CSD office at (530) 755-1733 as soon as possible (no later than 4 days Before scheduled meeting) to ensure that arrangements for accommodation may be provided.

III. CORRESPONDENCE



SUTTER COMMUNITY SERVICES DISTRICT

1880 ACACIA AVENUE
P.O. BOX 710
SUTTER, CALIFORNIA 95982-0710

PHONE (530) 755-1733

FAX (530) 755-1777

IV. CONSENT CALENDAR

- A. November 2021 Regular Meeting Minutes
- B. Nov & Dec 2021 Expenditures
- C. Nov & Dec 2021 Operators Report

V. MANAGERS REPORT:

- A. Ranch Sub Division

VI. DISCUSSION AND ACTION ITEMS

- A. Sutter Sub Basin / Sustainable Groundwater Management Resolution
- B. Gem Car
- C. Copy Machine
- D. Backhoe
- E. David Swartz

ADJOURNMENT: IN MEMORY OF Stephen DeWitt

RESOLUTION NO. 2022-01

**RESOLUTION ADOPTING THE SUTTER SUBBASIN GROUNDWATER
SUSTAINABILITY PLAN**

A. WHEREAS, in August 2014, the California Legislature passed, and in September 2014 the Governor signed, legislation creating the Sustainable Groundwater Management Act ("SGMA") "to provide local groundwater sustainability agencies with the authority and technical and financial assistance necessary to sustainably manage groundwater" (Wat. Code, § 10720, (d)); and

B. WHEREAS, SGMA requires sustainable management through the development of groundwater sustainability plans ("GSPs"), which can be a single plan developed by one or more groundwater sustainability agency ("GSA") or multiple coordinate plans within a basin or subbasin (Wat. Code, § 10727); and

C. WHEREAS, SGMA requires a GSA manage groundwater in all basins designated by the Department of Water Resources ("DWR") as a medium or high priority, including the Sutter Subbasin (designated basin number 5-021.62); and

D. WHEREAS, SUTTER COMMUNITY SERVICES DISTRICT was formed as a GSA on Sept 14, 2015 for the purposes of sustainably managing groundwater in the Sutter Subbasin, within its jurisdictional boundaries, pursuant to the requirements of SGMA; and

E. WHEREAS, SUTTER COMMUNITY SERVICES DISTRICT has the authority to draft, adopt, and implement a GSP (Wat. Code, § 10725 *et seq.*); and

F. WHEREAS, the SUTTER COMMUNITY SERVICES DISTRICT is a member of the Sutter Subbasin Groundwater Management Coordination Committee formed for the purpose of developing a GSP and coordinating sustainable groundwater management in the Sutter Subbasin (Wat. Code, § 10723.6(i)); and

G. WHEREAS, Sutter County ("County") submitted an Initial Notification to DWR on behalf of the members of the Sutter Subbasin to jointly develop a GSP for their respective portions of the Sutter Subbasin on May 29, 2020; and

H. WHEREAS, the SUTTER COMMUNITY SERVICE DISTRICT has coordinated with all other GSAs in the Sutter Subbasin to draft a single GSP for its members; and

I. WHEREAS, all the GSAs overlying the Sutter Subbasin have jointly developed the draft of the Sutter Subbasin GSP ("Sutter GSP") and released the draft Sutter GSP for public comment on October 4, 2021;

J. WHEREAS, the GSAs comprising the Sutter Subbasin reviewed comments on the Sutter GSP on behalf of its members; and

K. WHEREAS, on OCTOBER 5, 2021, Sutter County released the Notice of Intent on behalf of its members pursuant to Water Code § 10728.4; and

NOW, THEREFORE, BE IT RESOLVED that the Board of Directors of the SUTTER COMMUNITY SERVICES DISTRICT finds as follows:

1. SUTTER COMMUNITY SERVICES DISTRICT hereby approves and adopts the final draft Sutter GSP as referenced.
2. SUTTER COMMUNITY SERVICES DISTRICT authorizes Sutter County, its consultants, and the Plan Manager to take such other actions as may be reasonably necessary to submit the Sutter GSP to DWR by January 31, 2022, and implement the purpose of this Resolution.

PASSED, APPROVED, AND ADOPTED this 3rd day of JANUARY, 2022 by the following vote:

AYES: 5

NAYS: 0

ABSTAIN: 0

ABSENT: 0


Chairman

Attest:


, Secretary

Date: 1/3/2022



AGENDA SUMMARY

SUTTER COUNTY BOARD OF SUPERVISORS

Nicholas Micheli, District 1
Dan Flores, Chair, District 2
Mike Ziegenmeyer, Vice-Chair, District 3
Karm Bains, District 4
Mat Conant, District 5

The Agenda is posted in the entrance of the County Office Building at 1160 Civic Center Blvd., Yuba City.
The Agenda Summary, backup materials, and Approved Minutes are also posted on the Sutter County Website at:

<http://suttercountyca.igm2.com/Citizens/Default.aspx>

Materials related to an item on this Agenda submitted to the Board after distribution of the Agenda packet are available for public inspection in the office of the Clerk of the Board at 1160 Civic Center Blvd., Yuba City, during normal business hours.

January 25, 2022

**11:00 A.M. SPECIAL MEETING
THE SOUTH GYM AT SUTTER UNION HIGH SCHOOL
2665 ACACIA AVENUE ♦ SUTTER, CA**

Members of the public attending this meeting: After arriving at Sutter Union High School, please park in the rear parking lot and access the SOUTH GYM through the WEST DOOR

The Sutter County Board of Supervisor's meetings will be open to the public subject to social distancing requirements. Those that wish to attend the Board meeting are encouraged to wear a face covering as recommended by the California Department of Public Health (CDPH).

PROCEDURE FOR PUBLIC PARTICIPATION

Members of the Public will be allowed to address the Board with respect to the items listed on the Agenda only. The law requires that business not appearing on the Agenda may not be discussed at a special meeting. If you wish to speak on any item appearing on the Agenda, please fill out a Speaker Card, noting the number of the Agenda item about which you wish to speak, and present it to the Board Clerk. When the matter is announced, please approach the speakers' lectern after being recognized by the Chair.

11:00 AM SPECIAL MEETING/CALL TO ORDER

Roll Call
Invocation
Pledge of Allegiance

ELECTION OF CHAIR AND VICE-CHAIR FOR 2022

- a) Nominations for Chair
- b) Election of Chair
- c) Comments by incoming Chair
- d) Nominations for Vice-Chair
- e) Election of Vice-Chair
- f) Comments by incoming Vice-Chair

SPECIAL PRESENTATION

Presentation of a Certificate to Sutter High School Football Team in honor of winning the Northern Section Division III Championships

PUBLIC COMMENT

Members of the public will be allowed to address the Board on items of interest to the public that are within the subject matter jurisdiction of the Board of Supervisors. State law provides that no discussion or action may be taken on any item not appearing on the posted Agenda.

CONSENT AGENDA

The Consent Calendar groups together those items which are considered noncontroversial or for which prior policy direction has been given to staff and that require only routine action by the Board. The Chair will advise the audience that the matters may be adopted in total by one motion; however, the Board may, at its option or upon request of a member of the public, consider any matter separately.

Agricultural Commissioner

- 1) Authorization for the Sutter County Purchasing Agent to procure a new aerial photograph (survey) of Sutter County as a Software Capital Asset for the Agricultural Commissioner, and approval of the related adjustment to the Fiscal Year 2021-22 Adopted Budget in the amount of \$42,455 (4/5 vote required) (BTV2022051) (MT4110)

Board of Supervisors

- 2) Approval of the Board Committee Assignments for 2022 (MT4009)

Clerk of the Board

- 3) Approval of the Minutes of the Board of Supervisors January 11, 2022, Regular Session
- 4) Approval of the reappointment of Gabrielle Stadem to the Natomas Basin Conservancy Board of Directors for a three-year term ending December 31, 2024 (MT4121)

County Administrator

- 5) Approval of an adjustment to the Fiscal Year 2021-22 Adopted Budget in the amount of \$1,545,791 reflecting the re-budget of uncompleted projects/purchases that were included in the Fiscal Year 2020-21 Adopted Budget and its subsequent Board-approved amendments (4/5 vote required) (BTV Pending) (MT4001)

Development Services

- 6) Authorization to execute a Funding Letter of Agreement with the Placer County Transportation Planning Agency in the amount of \$20,000; and authorization for the Director of Development Services to execute and administer the agreement (MT4066)

Emergency Services

- 7) Authorization for the County Administrator's office to apply for, execute and administer the Fiscal Year 2020 Homeland Security Grant Program in the amount of \$175,009 and approval of an adjustment to the Fiscal Year 2021-22 Adopted Budget (2-401 Office of Emergency Management) to appropriate grant funds (4/5 vote required) (BTV pending) (MT4120)

Health and Human Services

- 8) Approval of the release of a Request for Proposal to solicit proposals for programs that reduce child abuse in the community, to be funded by Child Abuse Prevention, Intervention and Treatment; Community Based Child Abuse Prevention; and the County Children's Trust Fund (MT4112)
- 9) Approval of the Child Health and Disability Prevention Program, Health Care Program for Children in Foster Care, and California Children's Services Plan and Budget for Fiscal Year 2021-22 (MT4118)
- 10) Approval to waive the requirement for a Request for a Proposal per the provisions of Sutter County Ordinance Code 16-050, and approval of an agreement with Wellpath, LLC for intensive

outpatient treatment and outpatient drug free services for Fiscal Year 2021-22 in the amount of \$100,000 (MT4097)

- 11) Approval of a Peer Support Participation Agreement with California Mental Health Services Authority for implementation of a Medi-Cal Peer Support Specialist Certification Program for Sutter-Yuba Behavioral Health (MT4104)

Human Resources

- 12) Approval of job description and salary recommendation for the new classification of Cooperative Education Specialist I (MT4124)
- 13) Approval to adjust salaries for the Confidential Unit to comply with minimum wage requirements and address internal salary relationship inequities, and approval of salary adjustments for Food Service Worker and Correctional Food Services Supervisor (MT4125)

Probation

- 14) Approval of an adjustment to the Fiscal Year 2021-22 Adopted Budget in the amount of \$110,000 for the purchase of fifteen Department of Justice-compliant encrypted radios for Community Corrections Partnership (CCP)-funded law enforcement positions using CCP Planning and Setup Funds (4/5 vote required) (BTV2022055) (MT4115)

Sheriff-Coroner

- 15) Approval of an adjustment to the Fiscal Year 2021-22 Adopted Budget in the amount of \$22,000 to purchase four portable Motorola Radios as capital asset equipment within Public Safety Fund 0015, Sheriff-Coroner Budget Unit 2-201 (4/5 vote required) (BTV 2022054) (MT4129)

PUBLIC HEARING

- 16) Public Hearing to consider an additional recording fee of two dollars (\$2), to be paid at the time of the recording of every real estate instrument, paper, or notice required or permitted by law to be recorded, for the purpose of funding a restrictive covenant program pursuant to the provision of Assembly Bill 1466, Chapter 359 – an act to amend sections of the Government Code relating to real property (MT4013)

APPEARANCE ITEMS

GUADALUPE RIVERA, SENIOR CIVIL ENGINEER

- 17) Approval of a construction contract with Twin Trees, Inc. dba Twin Builders, in the amount of \$245,595.11, for the 1160 Civic Center 2nd Floor Tenant Improvement Project, Project Number C191800001: authorization for the Director of Development Services to execute the contract; authorization for the Director of Development Services to execute change orders in an amount not to exceed \$24,550; and approval of an adjustment in the amount of \$124,000 to the Fiscal Year 2021-22 Adopted Budget, C191800001: 1160 ADA Phase II, in Fund 0016, Budget1800 (4/5 vote required) (BTV pending) (MT4123)
- 18) Adoption of a resolution approving and adopting the Groundwater Sustainability Plan for the Sutter Groundwater Subbasin (MT4126)

NEAL HAY, DIRECTOR OF DEVELOPMENT SERVICES

- 19) Authorization for the dedication of a portion of Pass Road in the memory of Christopher Steidlmeyer (MT4130)
- 20) Award an Independent Contractor Agreement to Wood Rodgers in the amount of \$400,643 for engineering and environmental services for temporary and permanent repairs to Pass Road between Bridge 18C-0111 (over Butte Slough) and the western levee of the Sutter Bypass; waive the requirement for a Request for Proposals for consultant selection under the provisions of Sutter County Ordinance Code 16-050; and authorization for the Director of Development Services to execute and administer all contract documents (MT4128)

- 21) Approval to purchase equipment from the Gilsizer County Drainage District in an amount not to exceed \$98,228; and approval of an adjustment to the Fiscal Year 2021-22 Adopted Budget in the same amount to account for the purchases in the Road Fund (3100) (BTV pending) (MT4095)
- 22) Approval to purchase replacement radar speed signs for 14 locations in an amount not to exceed \$65,000 (MT4122)

GINA ROWLAND, HUMAN RESOURCES DIRECTOR

- 23) Approval to reinstate the vacation accrual limit for County employees (MT4096)
- 24) Approval of a new Memorandum of Understanding with the Sutter County Professional Firefighters' Association for the period of January 1, 2020 through June 30, 2023 (MT4100)

STEVEN M. SMITH, COUNTY ADMINISTRATOR

- 25) Approval to waive competitive bidding requirement, approve purchase of a capital asset Type 1 Fire Engine in the County Service Area - F budget (Fund 0305), approval of an adjustment to the Fiscal Year 2021-22 Adopted Budget increasing appropriations in the amount of \$630,000 for the purchase offset by a reduction in the General Fund Appropriation for Contingency (9-900), and authorize the Auditor-Controller to issue prepayment for the capital asset in advance of delivery (4/5 vote required) (BTV pending) (MT4079)
- 26) Ratify the County Administrator's authorization of the purchase of \$65,000 in COVID-19 rapid antigen tests and approval of an adjustment to the Fiscal Year 2021-22 Adopted Budget for the American Rescue Plan Act program (Fund 0269, Dept. 4155) increasing revenue and appropriations in the amount of \$150,000 to allow for the future purchase of COVID-19 rapid antigen tests for the County and community (BTV pending) (MT4133)
- 27) Approval of a 1st Amendment to a Professional Services Agreement with The Lew Edwards Group for Consultant Services modifying the scope of services, extending the term to November 30, 2022, and increasing compensation not to exceed \$97,500 (MT4134)
- 28) Approval of a letter authorizing the Regional Waste Management Authority (RWMA) to apply for CalRecycle SB 1383 grants on behalf of the County of Sutter and authorization for the County Administrator to approve future similar actions for RWMA (MT4138)
- 29) Follow-up reports and announcements

CORRESPONDENCE

- 30) Receive the Monthly Sutter County Code Enforcement Activity Report through December 2021 (MT4127)

DISTRICT REPORTS - BOARD OF SUPERVISORS

BOARD CONSIDERATION OF SYMPATHY OR HONOR OF CERTAIN INDIVIDUALS AND AGENCIES

ADJOURNMENT

BOARD COMMITTEE ASSIGNMENTS

BOARD COMMITTEE ASSIGNMENTS JANUARY 24, 2022 – FEBRUARY 4, 2022				
Monday 1/24	Tuesday 1/25	Wednesday 1/26	Thursday 1/27	Friday 1/28
3:30 pm – AG, PP, & GG		6:00 pm – YS Arts Council	8:30 am – Public Works/Support Servs 3:30 pm – Food Bank Board	8:30 am – Juvenile Rehabilitation Committee
Monday 1/31	Tuesday 2/1	Wednesday 2/2	Thursday 2/3	Friday 2/4
4:00 pm – SASA	8:30 am – H&W Committee	12:15 pm – Regional Housing Authority		7:30 am – EDC Board of Directors

CURRENT BOARDS AND COMMISSIONS VACANCIES (FOR INFORMATIONAL PURPOSES ONLY)

- Agency on Aging/Area 4 – Commission Appointee, Governing Board
- Behavioral Health Advisory Board – Consumer Representative, Family Representative
- Child Care Planning Council
- Countywide Oversight Board
- Environmental Health Appeals Board – Public Representative, Environmental Health Specialist, Engineer, Contractor, Medical Doctor
- In-Home Supportive Services Advisory Committee – Current or Past Provider, Current or Past Users, Senior Advocate, Disabled Persons Advocate
- Live Oak Cemetery
- Natomas Basin Conservancy Board of Directors
- Sutter Cemetery District
- Sutter County Advisory Commission on Aging – At Large
- Sutter County Advisory Commission on Aging – District 1
- Sutter County Advisory Commission on Aging – District 2
- Sutter County Advisory Commission on Aging – District 3
- Sutter County Advisory Commission on Aging – District 4
- Sutter County Advisory Commission on Aging – District 5
- Sutter County Community Action Agency – Low-income
- Sutter County Fish and Game Advisory Commission – Alternate
- Sutter County Housing Appeals Board – At-Large, Architect, Building Official, Contractor, Engineer

Requests for assistive listening devices or other accommodations, such as interpretive services, should be made through the Clerk of the Board at (530) 822-7106. Requests should be made at least 72 hours prior to the meeting. Later requests will be accommodated.

**BEFORE THE BOARD OF SUPERVISORS
COUNTY OF SUTTER, STATE OF CALIFORNIA**

A RESOLUTION OF THE SUTTER COUNTY)
BOARD OF SUPERVISORS ADOPTING THE)
SUTTER SUBBASIN GROUNDWATER)
SUSTAINABILITY PLAN)

RESOLUTION NO. 22-005

A. **WHEREAS**, in August 2014, the California Legislature passed, and in September 2014 the Governor signed, legislation creating the Sustainable Groundwater Management Act (“SGMA”) “to provide local groundwater sustainability agencies with the authority and technical and financial assistance necessary to sustainably manage groundwater” (Wat. Code, § 10720, (d)); and

B. **WHEREAS**, SGMA requires sustainable management through the development of groundwater sustainability plans (“GSPs”), which can be a single plan developed by one or more groundwater sustainability agency (“GSA”) or multiple coordinate plans within a basin or subbasin (Wat. Code, § 10727); and

C. **WHEREAS**, SGMA requires a GSA manage groundwater in all basins designated by the Department of Water Resources (“DWR”) as a medium or high priority, including the Sutter Subbasin (designated basin number 5-021.62); and

D. **WHEREAS**, the Sutter County GSA was formed as a GSA on February 28, 2017, for the purposes of sustainably managing groundwater in the Sutter Subbasin, within its jurisdictional boundaries, pursuant to the requirements of SGMA; and

E. **WHEREAS**, the Sutter County GSA has the authority to draft, adopt, and implement a GSP (Wat. Code, § 10725 *et seq.*); and

F. **WHEREAS**, the Sutter County GSA is a member of the Sutter Subbasin Groundwater Management Coordination Committee formed for the purpose of developing a GSP and coordinating sustainable groundwater management in the Sutter Subbasin (Wat. Code, § 10723.6(i)); and

G. **WHEREAS**, Sutter County (“County”) submitted an Initial Notification to DWR on behalf of the members of the Sutter Subbasin to jointly develop a GSP for their respective portions of the Sutter Subbasin on May 29, 2020; and

H. **WHEREAS**, the Sutter County GSA has coordinated with all other GSAs in the Sutter Subbasin to draft a single GSP for its members; and

I. **WHEREAS**, all the GSAs overlying the Sutter Subbasin have jointly developed the draft of the Sutter Subbasin GSP (“Sutter GSP”) and released the draft Sutter GSP for public comment on October 4, 2021; and

J. **WHEREAS**, the GSAs comprising the Sutter Subbasin reviewed comments on the Sutter GSP on behalf of its members; and

K. **WHEREAS**, on October 5, 2021, Sutter County released the Notice of Intent on behalf of its members pursuant to Water Code § 10728.4; and

L. **WHEREAS**, on January 6, 2022, the GSAs comprising the Sutter Subbasin recommended each of its members adopt the final draft Sutter GSP for their respective jurisdiction.

NOW, THEREFORE, BE IT RESOLVED that the Board of Supervisors of the Sutter County GSA finds as follows:

1. Sutter County GSA hereby approves and adopts the final draft Sutter GSP.
2. Sutter County GSA authorizes Sutter County, its consultants, and the Plan Manager to take such other actions as may be reasonably necessary to submit the Sutter GSP to DWR by January 31, 2022, and implement the purpose of this Resolution.

PASSED AND ADOPTED by the Board of Supervisors of the County of Sutter, State of California, this 25th day of January, 2022, by the following vote:

AYES: Supervisors Micheli, Flores, Ziegenmeyer, Bains, and Conant

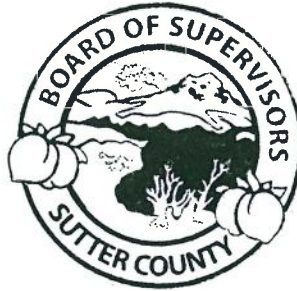
NOES: None

ABSENT: None


MIKE ZIEGENMEYER, CHAIR

ATTEST:
DONNA M. JOHNSTON, CLERK

By 
Deputy



SUTTER EXTENSION WATER DISTRICT
BOARD OF DIRECTORS REGULAR MEETING
DECEMBER 21, 2021 AT THE HOUR 1:00 PM

THE SUTTER EXTENSION WATER DISTRICT BOARD OF DIRECTORS WILL MEET IN
SPECIAL SESSION AT THE DISTRICT'S BOARD ROOM VIA TELECONFERENCE,
LOCATED AT 4525 FRANKLIN ROAD, YUBA CITY.

Teleconference Access: 1(310) 372-7549

Conference Code: 520576

Please Take Notice, as a result of the COVID-19 pandemic, California Governor Gavin Newsom issued Executive Order (EO) N-29-20, which waives certain requirements of the Ralph M. Brown Act (Brown Act). Specifically: EO N-29-20 waives the requirements that local public agencies (1) notice each teleconference location from which a Board member will participate, (2) make each teleconference location accessible to the public, (3) allow the public to address the agency from each teleconference location, (4) post the agenda at each teleconference location, and (5) ensure that a quorum of the board participate in locations within the boundary of the agency. EO N-29-20 requires local public agencies that conduct public meetings telephonically to allow members of the public to observe and address the meeting telephonically or otherwise electronically.

In order to protect the health and safety of the public and District employees, District facilities, including the District Office located at 4525 Franklin Road, Yuba City, CA 95993, is closed to the public until further notice. In accordance with EO N-29-20, the public may participate in the District's December 21, 2021 special meeting by teleconference via the instructions provided above. Members of the public who observe the meeting via teleconference will be given the opportunity to provide public comment on the agenda item, and their comments will be included in the recording of the meeting.

AGENDA

1. Approval of November 9th, November 17th, December 3rd Meeting Minutes
2. Approval of Monthly Invoices
3. Public Participation
4. Consider Adoption of the Sutter Sub-basin Groundwater Sustainability Plan (Presentation by Leslie Dumas with Woodard and Curran)
5. Sunset Dam Removal Project Update
6. Looney Weir Modernization Project Update

7. SEWD Solar Project Update
8. Sutter National Wildlife Refuge Water Supply Study
9. 2022 Water Transfer
10. 2022 Water Season and Lake Oroville Operations Update
11. Consider Adoption of Resolution Regarding Teleconference Meetings
12. Directors Time
13. Adjournment

RESOLUTION NO. 2021-06

RESOLUTION ADOPTING THE SUTTER SUBBASIN GROUNDWATER SUSTAINABILITY PLAN

A. WHEREAS, in August 2014, the California Legislature passed, and in September 2014 the Governor signed, legislation creating the Sustainable Groundwater Management Act (“SGMA”) “to provide local groundwater sustainability agencies with the authority and technical and financial assistance necessary to sustainably manage groundwater” (Wat. Code, § 10720, (d)); and

B. WHEREAS, SGMA requires sustainable management through the development of groundwater sustainability plans (“GSPs”), which can be a single plan developed by one or more groundwater sustainability agency (“GSA”) or multiple coordinate plans within a basin or subbasin (Wat. Code, § 10727); and

C. WHEREAS, SGMA requires a GSA manage groundwater in all basins designated by the Department of Water Resources (“DWR”) as a medium or high priority, including the Sutter Subbasin (designated basin number 5-021.62); and

D. WHEREAS, Sutter Extension Water District Groundwater Sustainability Agency (SEWD-GSA) was formed as a GSA on September 24, 2015 for the purposes of sustainably managing groundwater in the Sutter Subbasin, within its jurisdictional boundaries, pursuant to the requirements of SGMA; and

E. WHEREAS, SEWD GSA has the authority to draft, adopt, and implement a GSP (Wat. Code, § 10725 *et seq.*); and

F. WHEREAS, the SEWD GSA is a member of the Sutter Subbasin Groundwater Management Coordination Committee formed for the purpose of developing a GSP and coordinating sustainable groundwater management in the Sutter Subbasin (Wat. Code, § 10723.6 (i)); and

G. WHEREAS, Sutter County (“County”) submitted an Initial Notification to DWR on behalf of the members of the Sutter Subbasin to jointly develop a GSP for their respective portions of the Sutter Subbasin on May 29, 2020; and

H. WHEREAS, the SEWD GSA has coordinated with all other GSAs in the Sutter Subbasin to draft a single GSP for its members; and

I. WHEREAS, all the GSAs overlying the Sutter Subbasin have jointly developed the draft of the Sutter Subbasin GSP (“Sutter GSP”) and released the draft Sutter GSP for public comment on October 4, 2021;

J. WHEREAS, the GSAs comprising the Sutter Subbasin reviewed comments on the Sutter GSP on behalf of its members; and

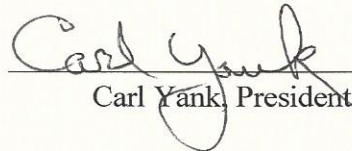
K. WHEREAS, on October 5th, 2021, Sutter County released the Notice of Intent on behalf of its members pursuant to Water Code § 10728.4;

NOW, THEREFORE, BE IT RESOLVED that the Board of Directors of the SEWD GSA finds as follows:

1. SEWD GSA hereby approves and adopts the final draft Sutter GSP as referenced in attached Notice of Intent..
2. SEWD GSA authorizes Sutter County, its consultants, and the Plan Manager to take such other actions as may be reasonably necessary to submit the Sutter GSP to DWR by January 31, 2022, and implement the purpose of this Resolution.

PASSED, APPROVED, AND ADOPTED this 21st day of December, 2021 by the following vote:

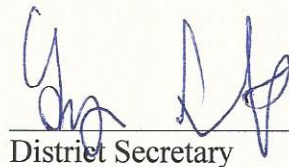
AYES: 5
NAYS: 0
ABSTAIN: 0
ABSENT: 0



Carl Yank, President

Certification

I, Lynn Phillips hereby certify that I am and at all times mentioned herein was duly elected, qualified and acting Secretary of the Sutter Extension Water District organized and existing under and by virtue of the laws of the State of California, that the foregoing is a full, true and correct copy of a Resolution duly and regularly adopted at a meeting of the Board of Trustees of said District duly held on December 21, 2021, a majority and quorum of the members of said Board of Trustees being present and voting in favor of said Resolution; and that said Resolution has not been modified, rescinded, altered or amended and is now in full force and effect.



District Secretary

Appendix 4-F
Responses to Stakeholder Surveys

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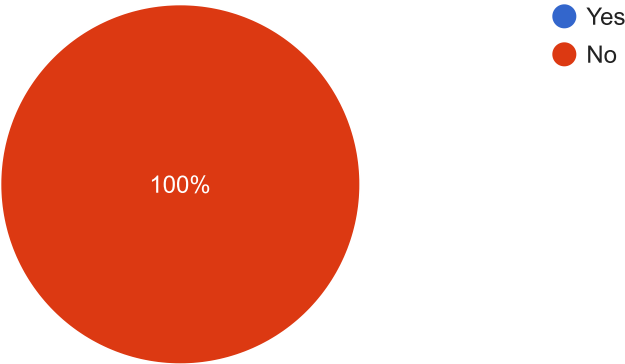
Sustainability Plan - Stakeholder Input

5 responses

[Publish analytics](#)

Did you attend our first public workshop on December 14?

5 responses



How did you hear about us?

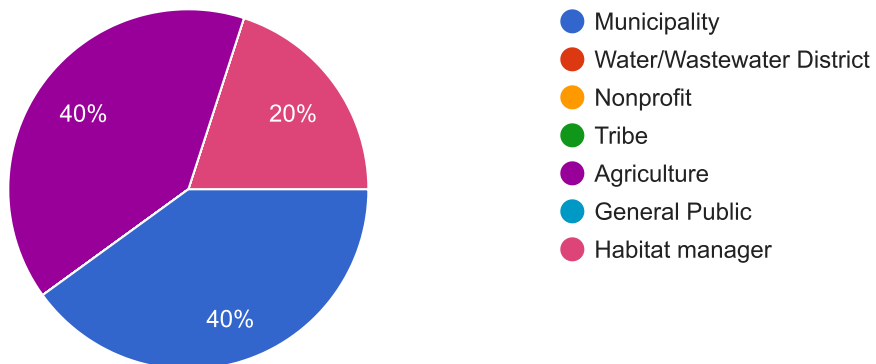
5 responses

- Employed by municipality within Sutter Subbasin
- through my water association
- email
- city of live oak
- online



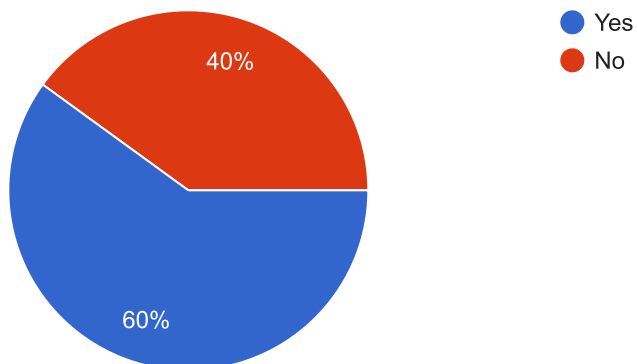
Who do you represent?

5 responses



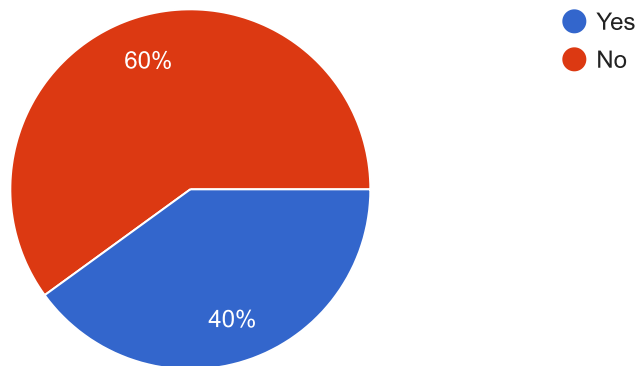
Are you familiar with the Sustainable Groundwater Management Act (SGMA) regulations?

5 responses



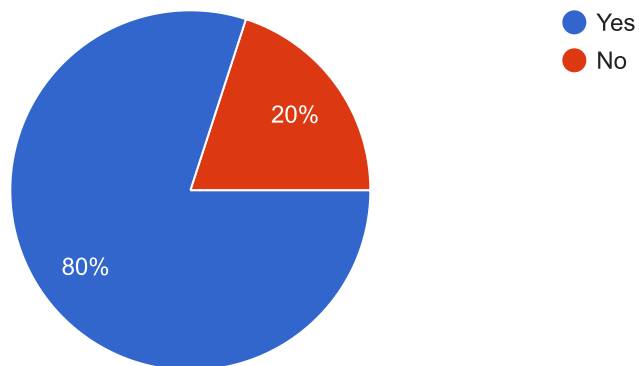
Are you currently engaged in activity or discussions regarding groundwater management in the region?

5 responses



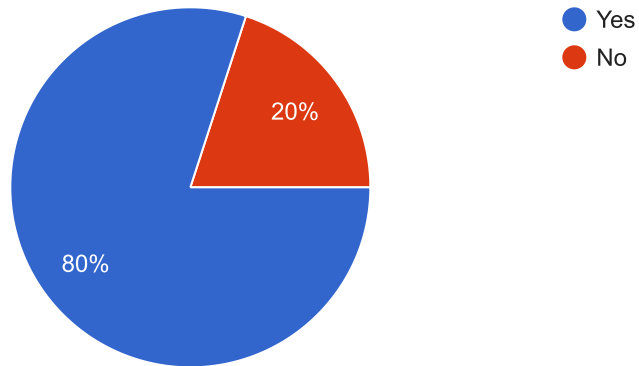
Do you own, manage, or operate land in this region?

5 responses



Do you manage water resources?

5 responses



If you answered yes to the question above, what is your role?

4 responses

Stormwater Program Coordinator/Engineer

Land Manager

I irrigate 7 acres with a ground water pump

Farmer owner



What is your primary interest in land or water resources management?

5 responses

Increasing groundwater recharge to have as a resource during droughts affecting surface water supplies.

sustainable water for wildlife habitat

to be informed

investing in green solutions while building jobforce in live oak

Farming

Do you have concerns about groundwater management? If so, what are they?

5 responses

Agriculture activities causing pollution to groundwater supply and salt issues

concerned about overdraft

Yes, I don't want anyone to pump our ground water for sale to southern California

no concerns. lets start to build in live oak

That they will cut off my well water.



Do you have recommendations regarding groundwater management? If so, what are they?

3 responses

N/A

I want our ground water to be utilized to grow our crops

open up in city of live oak

What else do you want the planning team to know?

2 responses

Keep up the great work!

I feel monitoring of ground water levels is important in strategic areas of our county to determine long term trends of water table depths. I feel some volunteer growers could monitor their water tables end of August and report back to the ground water management team. I say grower volunteer instead of creating another commission to hire a person to measure water tables. In case of many drought years in a row and plunging water tables, crop restrictions would need to be advised to curtail water usage. Also fallow crop land where possible.

Please provide contact information of anyone else you think should be involved

0 responses

No responses yet for this question.

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Google Forms



Sutter Subbasin GSP Project and Management Action Submittal Form

Please complete this form and email it to info@suttersubbasin.org

Overview

The purpose of this form is to gather ideas for potential projects and management actions (PMAs) that could be evaluated and ultimately included in the Sutter Subbasin Groundwater Sustainability Plan (GSP). An initial screening and evaluation process has been initiated and will be continued as suggested projects are submitted. Potential PMAs will be ranked for inclusion in the initial GSP.

Potential PMAs may fall under several categories, including but not limited to the following:

- Recharge projects
- Supply augmentation projects
- Water conservation projects
- Projects to reduce non-beneficial consumptive use
- Groundwater pumping allocations
- Monitoring programs (inter-basin flows, stream-aquifer interactions, groundwater pumping, water levels, etc.)
- Information collection and management (e.g., voluntary well registration program)

Please provide supporting documentation and/or links that documentation for each question, if available. NOTE: It is recognized that much of the requested information may not be available at this time; please do your best to supply what information is available at this time.

Project or Management Action Name and Contact

Project or Management Action Name:

Contact Person:

Organization/Affiliation:

Contact Phone:

Contact Email:

Project or Management Action Description and Status

Project or Management Action Name:

Project or Management Action Type:

Project or Management Action Proponent(s):

Project or Management Action Location:

Project or Management Action Status (Planned, Potential, or Conceptual):

Brief Project or Management Action Description (1-2 short paragraphs):

Measurable Objectives Expected to Benefit

Implementation Timing/ Criteria for Implementation:

Estimated Cost:

Potential Funding Sources:

Required Permitting and Regulatory Process:

Expected Yield (e.g. water contributed to the groundwater system, acre-feet per year):

Status of permitting and CEQA/NEPA compliance:

Does this Management Action or Project serve a disadvantaged community? If so, which one(s)?

Additional Information Sources:

Other:



Colusa Subbasin GSP Projects and Management Actions (PMAs) Submittal Form

Overview

The purpose of this form is to gather ideas for potential projects and management actions (PMAs) that could be evaluated and ultimately included in the Colusa Subbasin GSP. Once ideas are gathered, an initial screening and evaluation process will be conducted, followed by ranking of potential PMAs for more detailed evaluation and inclusion in the initial GSP.

Potential PMAs may fall under several categories, including but not limited to the following:

- Recharge projects
- Supply augmentation projects
- Water conservation projects
- Projects to reduce non-beneficial consumptive use
- Groundwater pumping allocations
- Monitoring programs (groundwater pumping, water levels, stream flows, etc.)

Please provide supporting documentation and/or links to that documentation for each question, if available. **NOTE: It is recognized that much of the requested information may not be available at this time. Please provide as much information as you can.**

Project Name and Contact

Project or Management Action Name: Springhorn Sutter Buttes and Willows Fault Arsenic and Salt Water Study

Contact Person: Ben King

Organization/Affiliation (Project Proponent): Stakeholder

Contact Phone: (530) 723-3119

Contact Email: bking@pacgoldag.com

Project or Management Action Description and Status

Project or Management Action Description: Colusa Groundwater Authority and Glenn Groundwater Authority should collaborate with counterparts in Butte, Sutter, Yuba and Yolo to request a USGS Study based on the recommended Future Work in Sections 6.0 to 6.3 of the Masters Thesis of Stephen Taylor Springhorn " **Stratigraphic Analysis and Hydrogeologic Characterization of Cenozoic Strata in the Sacramento Valley Near the Sutter Buttes**" submitted April 22, 2008. The recommended Study and Study area should be extended into Glenn and Yolo Counties based on the presence of the Willows Fault and the findings of the



potential of lateral movement of natural occurring contaminants like arsenic and connate sea water via faults as described in the USGS Paper 1358 “ **Water Quality in Basin-Fill Aquifers of the Southwestern United States: Arizona, California, Nevada, New Mexico and Utah, 1993-2009**”. Springhorns recommended study should be expanded and supplemented since this publication was published in 2014.

Project or Management Action Location (please provide a map if available): See (A) Fault Activity Map of California regarding the location of the Willows Fault near the City of Colusa and the Colusa Rancheria from the California Geological Survey and (B) Figure 6.1 from Springhorn “Areas where subsurface information is needed”

Which Sustainability Indicator(s) does this Project or Management Action address
Groundwater Quality

Project or Management Action Status (Conceptual, In Design, Ready for Implementation): Springhorn has identified specific Management Actions in his “Future Work” to address Data Gaps. The USGS Paper 1358 has documented the lateral movement of natural occurring contaminants via faults like the Willows Fault and the predicted presence and movement of arsenic in aquifers with high pH salt water and volcanic rock formations such as the Sutter Buttes geologic formation. The Boards of the Colusa, Glenn, Butte, Sutter, Yuba and Yolo groundwater sustainability agencies should seek the input of the DWR, SWRCB, USGS and the USEPA to find consensus on the scope of the study.

Has a feasibility assessment been conducted? If so, please list the agency and provide the documentation (or provide web link to download). The USGS Paper 1358 highlights the similar work done in the Middle Rio Grande Basin regarding the arsenic contamination in Albuquerque New Mexico and the USGS has also done work in California regarding movement of natural occurring contaminants via faults.

Estimated Cost: \$ 1 million estimated unless offset by USGS.



Potential Funding Sources: USGS Budget – recommend that Congressmen Garamendi and LaMalfa be contacted for support of proposed Study.

Management Action or Project Yield (e.g. water contributed to the groundwater system, acre-feet per year): The safe conjunctive use of groundwater in the affected area will be protected since the aquifer ground water quality will be sustained.

Please describe any required Permitting and Regulatory Process and status of permitting and CEQA/NEPA compliance: None

Does this Management Action or Project serve a disadvantaged community? If so, which one(s)? Various SDAC areas in multiple counties and also potentially impacts the water quality for the Colusa Rancheria, the community supply systems of Princeton, Colusa, Grimes and various others in the several impacted Counties.

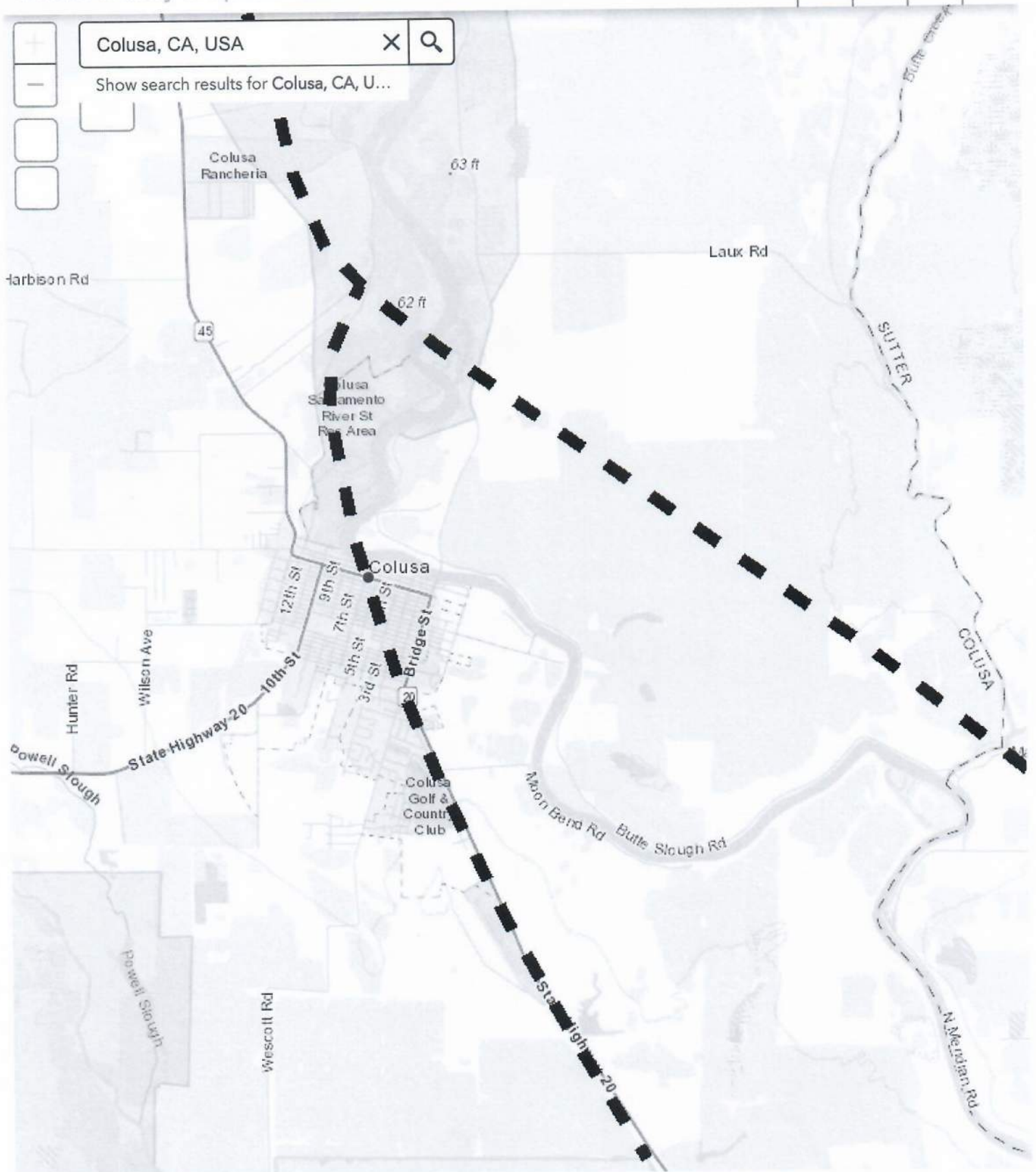
Additional Information Sources: Groundwater degradation was reported in the 1930s according the Sutter-Yuba Counties Investigation published by the SWRCB in September 1952. George Curtin discussed the presence of connate seawater near the Sutter Buttes in his 1971 Thesis " Hydrogeology of the Sutter Basin, Sacramento Valley, California"

Other Information: Well Log from well located at the Colusa County Airport in Colusa showing "black sand" at 135 feet which is evidence of the extent of the Sutter Buttes Rampart under the City of Colusa. Also copy of SWRCB Compliance Order (No. 1-21-10) regarding an regulatory action for arsenic contamination in excess of the USEPA MCL on July 15, 2010 to highlight the presence of arsenic within the boundary of the City of Colusa. It is my understanding that this well was contaminated by arsenic and the nearby Del Oro Walnut Ranch well was abandoned.

MAP A

Fault Activity Map of California

California Geological Survey



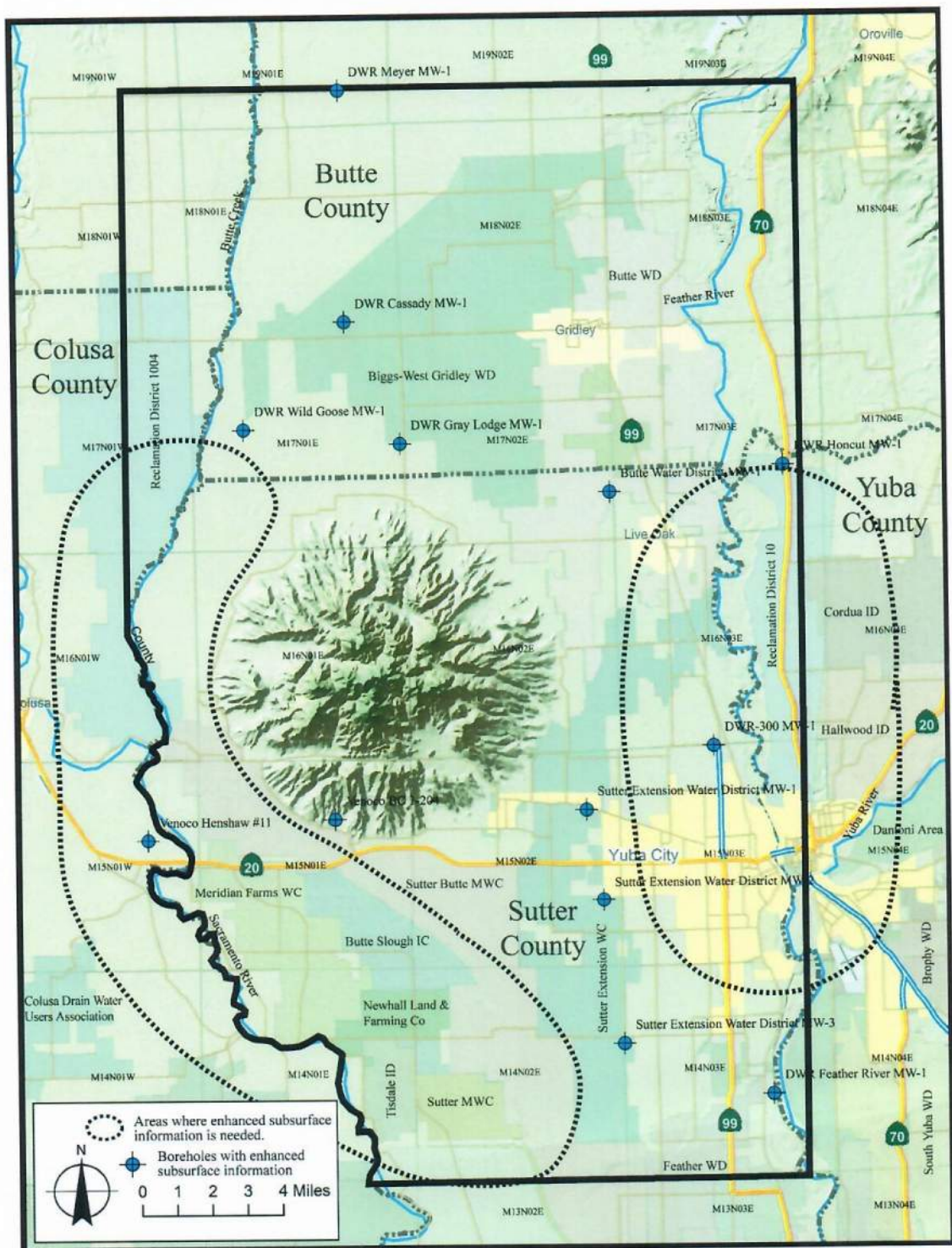


Figure 6.1: Areas where subsurface information is needed.

ATTACHMENT 1

STRATIGRAPHIC ANALYSIS AND HYDROGEOLOGIC CHARACTERIZATION OF CENOZOIC STRATA IN THE SACRAMENTO VALLEY NEAR THE SUTTER BUTTES

Steven Taylor Springhorn
B.S., California State University, Chico, 2005

THESIS

Submitted in partial satisfaction of
the requirements for the degree of

MASTER OF SCIENCE

in

GEOLOGY

at

CALIFORNIA STATE UNIVERSITY, SACRAMENTO

SPRING
2008

Abstract
of
STRATIGRAPHIC ANALYSIS AND HYDROGEOLOGIC CHARACTERIZATION
OF CENOZOIC STRATA IN THE SACRAMENTO VALLEY NEAR THE SUTTER
BUTTES

by
Steven Taylor Springhorn

Stratigraphic and hydrogeologic characterization of Cenozoic strata in the central Sacramento Valley near the Sutter Buttes was completed to establish a conceptual understanding of the subsurface geology and hydrostratigraphy, and provide a foundation for future water resource investigations. The regional stratigraphy and stratigraphic nomenclature for Cenozoic deposits in the study area are synthesized, a subsurface stratigraphic framework is established, the subsurface extent and volume of the Sutter Buttes Rampart is estimated, and the thickness of the freshwater aquifer is delineated.

Subsurface interpretation was achieved by maximizing the use of existing datasets (drillers' logs, Division of Oil, Gas, and Geothermal Resources well files) and integration of new data (logs of recent Department of Water Resources wells) in the Valley. Nine stratigraphic units are defined and make up the stratigraphic framework of the central Sacramento Valley. The units, from oldest to youngest, are the Capay Formation, Ione Formation, Lovejoy Basalt, Sutter formation (containing the Valley Springs, Mehrten, and Tuscan Formations), Rhyolitic Rampart, Andesitic Rampart, Laguna Formation, Turlock Lake Formation, and Alluvial deposits (containing the Riverbank and Modesto

Formations). Distinctive subsurface characteristics of each stratigraphic unit were summarized to create a type log that was used for subsurface correlation.

Four regional geologic cross sections along with a chronostratigraphic framework chart illustrate the temporal, genetic, and stratigraphic relationships between the subsurface units, and provide insights into the paleogeography and basin evolution of the study area. The chronostratigraphic units identified suggest the depositional history of the central Sacramento Valley has been dominated by alluvial and fluvial processes from the late Tertiary through the Quaternary with a lacustrine environment during the middle Pleistocene as indicated by the Turlock Lake Formation, a diatomaceous clay interval (~25 feet average thickness) ranging from 0 to -150 feet mean sea level encountered in eleven recent boreholes distributed throughout the Sacramento Valley. In addition, dome eruptions and explosive magmatism occurred at the Sutter Buttes in the early Pleistocene.

A distinctive increase or baseline shift in the natural gamma ray signature coincides with the Sutter Buttes Rampart material in well logs. This distinctive signature enhances the subsurface characterization of the Rampart. The source of the high natural gamma ray values was determined, using the spectral gamma ray log, to be a pronounced increase in potassium and uranium, and a minor increase in thorium. These findings were substantiated by lithologic samples. Volcaniclastic material of the Rampart extends into the subsurface approximately 10 miles (16 km) to the north from the contact between the Rampart and the Sacramento Valley sediments, 5 miles (8 km) to the south, 4 miles (6 km) to the west near the Sacramento River, and 5 miles (8 km) to the east near the Feather River, and has an estimated minimum volume of 72 km³. The areal extent of the

Rampart is elongated to the north and slightly to the south while the areal extent is reduced on the east and west suggesting truncation and reworking by fluvial processes. The coarse-grained nature and considerable subsurface extent of the Rampart forms a significant aquifer in this area. However, analyses of water quality samples collected in the study area suggest there is a connection between elevated arsenic concentrations in groundwater and the presence of Rampart volcanoclastic material. In stratigraphic units above and below the Rampart, arsenic concentrations in groundwater are generally less than 10 µg/l. In contrast, within Rampart material, arsenic concentrations in groundwater samples are found in much higher concentrations (10 to 370 µg/l). Concentrations of arsenic in 27 spatially and depth distributed water samples from DWR monitoring wells ranged from < 0.1 to 370 µg/l. Concentrations in 15 of the samples exceed the USEPA drinking water Maximum Contaminant Level (MCL) of 10 µg/l, and 92 percent of groundwater samples collected from monitoring wells screened in Rampart volcanoclastic material have arsenic concentrations exceeding the MCL.

Fresh groundwater occurs primarily in late Tertiary to Quaternary unconsolidated sediments that extend to depths ranging from 0 to greater than -2,000 feet mean sea level. The configuration of the base of fresh groundwater is an uneven surface that commonly reflects the underlying geologic structure of the Valley. The maximum depth of the base of fresh groundwater in the study area is just south of the Sutter Buttes (greater than -2,000 ft. msl). The occurrence of freshwater at this depth may be produced by the combination of the structural complexity related to the uplift of the Buttes and the exposure of Eocene to Cretaceous units (Ione and Kione Formation) and subsequent

flushing of meteoric water through these units. On the west side of the study area the base of fresh groundwater reflects the underlying Colusa Buttes, which at the crest of this structure the Eocene-age Capay Formation is within 500 feet of the surface. The base of fresh groundwater boundary in the study area is consistently at or above the top of Eocene marine strata and is observed in Pliocene to Miocene continental deposits. This is likely caused by high artesian pressures and upward vertical gradients in deep aquifers in the Valley, which have been documented in deep (600-1,200 ft bgs) DWR monitoring wells. The brackish water in the lower part of aquifers near the base of fresh groundwater is classified as sodium-chloride (Na-Cl) water. The presence of brackish water in these deeper aquifers combined with upward vertical gradients creates the potential for continued upward migration of brackish water into overlying fresh water aquifers, or upconing beneath areas of pumping. Prolonged well pumping in these areas is likely to result in regional water quality degradation and may ultimately reduce the thickness of the fresh groundwater in Sacramento Valley aquifers.

Brian Hausback Committee Chair
Dr. Brian P. Hausback

April 22, 2008
Date

6.0 FUTURE WORK

This study has focused on maximizing the use of existing data and integration of new data to generate a stratigraphic framework of the Valley and improve the overall understanding of the aquifer system. Based on the information collected, a number of data gaps exist and future work is needed. In this section, additional data collection needs are identified including:

- Elevated arsenic concentrations in groundwater related to the Sutter Buttes Rampart material.
- Additional subsurface information is needed in several areas within the central Sacramento Valley.
- Sequence stratigraphic analysis.

These data collection needs are essential to better understand the groundwater resources in the Sacramento Valley near the Sutter Buttes. These additional data will improve knowledge of the basin hydrogeology and significantly enhance the ability of water managers to cooperatively manage the shared resources in a manner that is economically and environmentally sustainable.

6.1 Elevated Arsenic Concentrations in Groundwater Related to Sutter Buttes Rampart Material

Data analyses suggest there is a connection between elevated arsenic concentrations in groundwater and the presence of the Sutter Buttes Rampart volcanoclastic material (which is derived from silicic and intermediate volcanic rocks). In stratigraphic units that occur above and below the Rampart, arsenic concentrations in

groundwater are generally less than 10 $\mu\text{g/l}$ (micrograms/liter). In contrast, within Rampart material, arsenic concentrations in groundwater are found in much higher concentrations (10 to 370 $\mu\text{g/l}$).

Concentrations of arsenic in 27 spatially and depth distributed samples from DWR multi-completion monitoring wells ranged from < 0.1 to 370 $\mu\text{g/l}$. Concentrations in 15 of the samples exceeded the USEPA current drinking water Maximum Contaminant Level (MCL) of 10 $\mu\text{g/l}$, and 90 percent of groundwater samples collected from monitoring wells screened in Rampart volcanoclastic material have arsenic concentrations exceeding the MCL.

A detailed geochemical analysis of the relationship between elevated arsenic concentrations and Sutter Buttes Rampart material is needed, because of the health risks associated with this constituent. If a strong link is found between arsenic in groundwater and Rampart volcanoclastic material, the subsurface distribution of the Rampart presented in this thesis can be used in future geochemical investigations to delineate areas that have a high probability of containing elevated arsenic concentrations.

6.2 Location of Data Gaps and Additional Subsurface Data Needed

A significant amount of geologic, geophysical, and hydrogeologic data has been collected to date in the study area; however, there are many areas in the central Sacramento Valley that would benefit from additional geologic, geophysical, and dedicated groundwater monitoring data. These areas include (Figure 6.1):

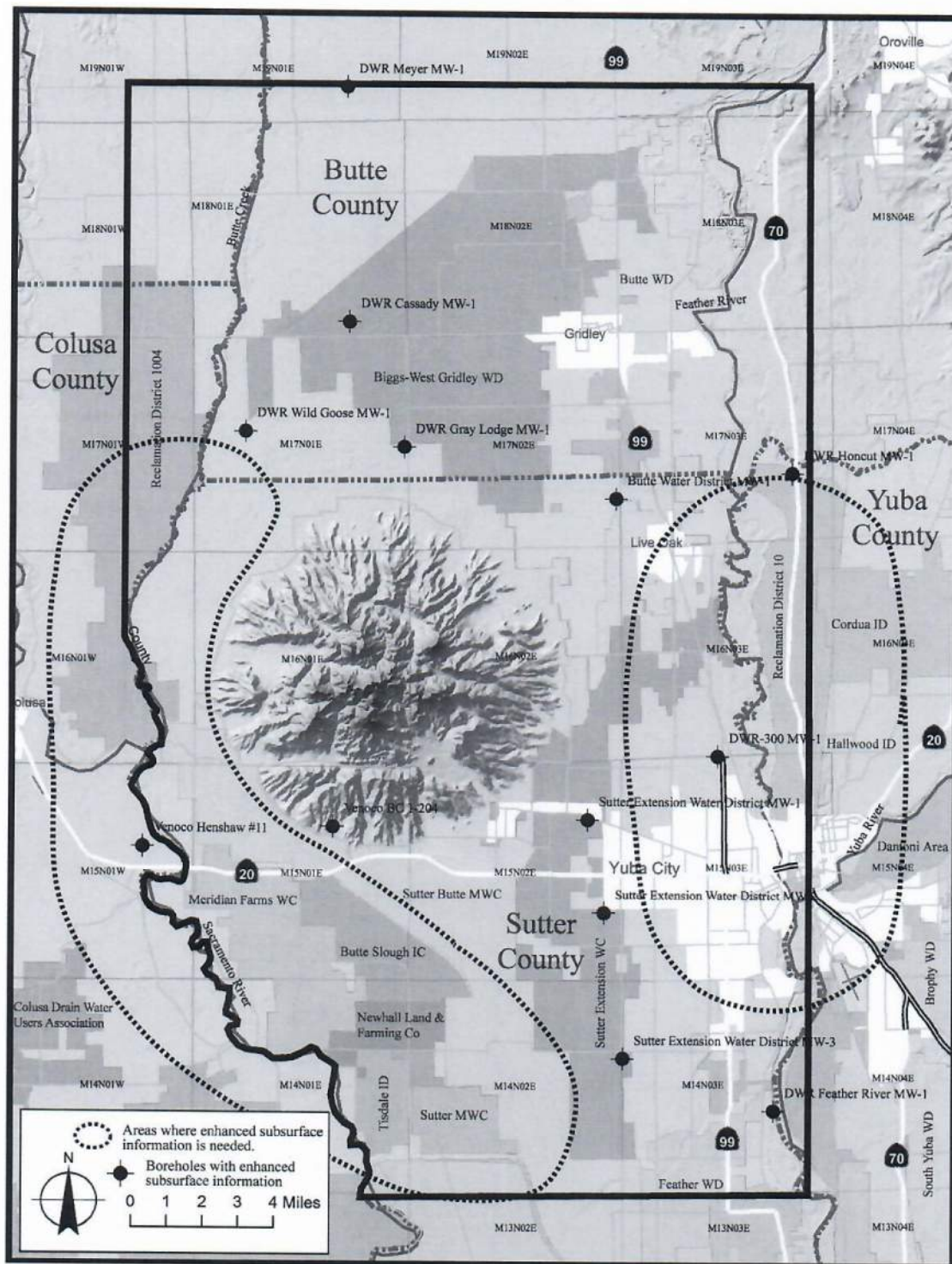


Figure 6.1: Areas where subsurface information is needed.

- East of the Sutter Buttes near the Feather River (between Live Oak and Marysville/Yuba City): The BFW appears to be significantly shallower in depth than the regional BFW trend. However, there is only one monitoring well in the area that has penetrated the BFW. Additional deep boreholes need to be installed to understand the hydrogeology and confirm the shallow BFW in this area because the majority of the local population is located here, and future development will likely increase groundwater demand.
- South and west of the Sutter Buttes: The subsurface geology and hydrogeology in these areas are poorly understood, due to the lack of boreholes and monitoring wells. Important features that may impact groundwater availability and water quality within these areas include deformation associated with the buried Colusa Dome (shallow BFW) and the subsurface extent of the Sutter Buttes Rampart.

Additional deep (1,000-2,000 ft) boreholes that penetrate the entire fresh water interval will help characterize the extent, distribution, and subsurface properties of aquifer materials in the Valley. Increased numbers of borings with subsurface information in the Valley will produce a higher resolution stratigraphic framework and understanding of the aquifer system.

Perhaps the most effective way to further the understanding of the Sacramento Valley aquifer system is to collect core samples in representative areas in the Valley for each fresh water bearing unit, and then log the core hole with an enhanced suite of borehole geophysics. The log signatures from the borehole geophysics can be correlated

directly with the lithologies observed in the core and can then be used to accurately interpret the many electric logs that are available from water wells and DOGGR well files in the Valley. With outcrop, core, and borehole geophysical data a higher resolution subsurface stratigraphy can be developed for the Valley. The lithology, thickness of beds, and the connectivity of the porous sandstone units are useful information for the development of a more accurate groundwater model for the Sacramento Valley.

Additional multiple-depth monitoring wells (in areas of identified data gaps) will help identify aquifer material, allow for measurement of vertical differences in hydraulic head, and quantify vertical changes in ground-water quality. Aquifer testing can be performed using the new wells as monitoring points, and aquifer parameters (transmissivity and storativity) can be quantified.

6.3 Sequence Stratigraphic Analysis

This study has established an initial stratigraphic framework and documented chronostratigraphically significant surfaces and marker-beds in the region. Once additional enhanced subsurface information is collected (borehole geophysics, core, and aquifer characteristics) the initial stratigraphic framework can be reevaluated using sequence stratigraphic principles. Sequence stratigraphy is a method of describing the aquifers and aquitards in the subsurface that relates the depositional environment of the sediments to the stratigraphic framework in which they were deposited. Sequence stratigraphy provides a tool for predicting the lateral and vertical extent of geologic units and the migration pathways of fluids (water, hydrocarbons, and contaminants) in the subsurface.

ORIGINAL

File with DWR

WATER WELL DRILLERS REPORT

(Sections 7079, 7080, 7081, 7082, Water Code)

(MISC)
Do Not Fill In

CONFIDENTIAL LOG

Water Code Sec. 13752

THE RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF WATER RESOURCES

No 12982

CONFIDENTIAL

Water Code Sec. 13752

Well No.

15N/1W-56

(1) OWNER:

Name

Colusa County Airport

Address

Colusa, Calif.

(2) LOCATION OF WELL:

County

Colusa

Owner's number, if any

Township, Range, and Section

Distance from cities, roads, railroads, etc.

(3) TYPE OF WORK (check):

New Well ☒ Deepening ☐ Reconditioning ☐ Destroying ☐

If destruction, describe material and procedure in Item 11.

(4) PROPOSED USE (check):

Domestic ☒ Industrial ☐ Municipal ☐Irrigation ☐ Test Well ☐ Other ☐

(5) EQUIPMENT:

Rotary ☐Cable ☒Other ☐

(6) CASING INSTALLED:

STEEL:

OTHER:

SINGLE ☒ DOUBLE ☐

If gravel packed

From ft.	To ft.	Diam.	Gage or Wall	Diameter of Bore	From ft.	To ft.
0	75	8"	BPA			

Size of shoe or well ring: 24 x 18"

Size of gravel:

Describe joint: B/W

(7) PERFORATIONS OR SCREEN:

Type of perforation or name of screen

From ft.	To ft.	Perf. per row	Rows per ft.	Size in. x in.

(8) CONSTRUCTION:

Was a surface sanitary seal provided? Yes ☒ No ☐ To what depth ft.Were any strata sealed against pollution? Yes ☐ No ☐ If yes, note depth of strata

From 0 ft. to 75 ft.

From ft. to ft.

Method of sealing

Clay

(9) WATER LEVELS:

Depth at which water was first found, if known 20 ft.

Standing level before perforating, if known ft.

Standing level after perforating and developing 20 ft.

(10) WELL TESTS:

Was pump test made? Yes ☐ No ☒ If yes, by whom?

d: gal./min. with ft. drawdown after hrs.

Temperature of water Was a chemical analysis made? Yes ☐ No ☒Was electric log made of well? Yes ☐ No ☒ If yes, attach copy

(11) WELL LOG:

Total depth 140 ft. Depth of completed well 140 ft.

Formation: Describe by color, character, size of material, and structure

0 ft. to 10 Top Soil ft.
10 30 Sandy musk
30 30 clay
30 50 Gravel & sand
50 55 yellow clay
55 72 sand & gravel
72 135 Blue clay
135 140 Black sand

This Well is located at
the Airport in Colusa.

Plotted and Coded

As Well 15N/1W-5680

Work started 8/19/71, Completed 8/20/71

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME Beauman & Son Pump Co.

(Person, firm, or corporation) (Typed or printed)

Address 470 S. Pershing St. Col.

Hickory Camp, Calif.

(Signed) J. J. Beauman

(Well Driller)

License No. 196093 Dated 9/24/71

SKETCH LOCATION OF WELL ON REVERSE SIDE

JUL 14 1994 15N-1W-5G1 State No.

WELL DATA

DISTRICT Northern

Owner Colusa Co. Airport State No. 15N/1W-5G1
Address Colusa 2915 Hwy. 20 - COLUSA Other No. _____
Tenant Caretaker: Connor Davis
Address _____

Type of Well: Hydrograph ☐ Key ☐ Index ☐ Semiannual ☐
Location: County Colusa Basin Colusa
U.S.G.S. Quad. Meridian Quad. No. 5456

Description @ the Colusa Co. Airport. SE 1/4 of Colusa on State Hwy 20 about 1 mile. Well is inside an aluminum clad P.H. 100' S/o HWY & 300' W/o gas pumps

Reference Point description Hole T.O.C.

which is 4.0 ft. above land surface. Ground Elevation 45.0 ft.
Reference Point Elev. 46.4 ft. Determined from Quad

Well: Use Industrial - Dem. Condition _____ Depth 146 ft.
Casing, size 8 in., perforations 0-75 USG, OPEN HOLE TO 140'

Measurements By: DWR ☐ USGS ☐ USBR ☐ County ☐ Irr. Dist. ☐ Water Dist. ☐ Cons. Dist. ☐
Chief Aquifer: Name _____ Depth to Top Aq. _____
Type of Material _____ Perm. Rating _____
Gravel Packed? Yes ☐ No ☐ Depth to Top Gr. _____
Supp. Aquifer _____ Depth to Top Aq. _____
Driller Beamer & Son Pump Co. Depth to Bot. Aq. _____
Date drilled 8/20/71 Log, filed #12982 open (1) _____ confidential (2) 12982
Equipment: Pump, type Sub make _____
Serial No. _____ Size of discharge pipe _____ in.
Power, Kind _____ Make _____
H. P. _____ Motor Serial No. _____
Elec. Meter No. _____ Transformer No. _____
Yield _____ G.P.M. Pumping level _____ ft.

Water Analysis: Min. (1) _____ San. (2) _____ H.M. (3) _____
Water Levels available: Yes (1) ✓ No _____
Period of Record: Begin 10-21-75 End ACTIVE
Collecting Agency: _____
Prod. Rec. (1) _____ Pump Test (2) _____ Yield (3) _____

SKETCH



REMARKS

On 11-28-01 I SURVEYED IN A ACCURATE ELEV. TO THE R.P. FROM USGS B.M. THE R.P. WELL CASING HAD BEEN EXTENDED IN FALL OF 2000. NO ACCURATE RECORD OF THE EXTENSION WAS MADE SO I DID THIS. EWH

WELL MEASUREMENT QUALIFICATION
By: P. FORENS Date 6/11/99
Qualification COMPOSITE Semi-Confined
Confidence DEFINITE

Water Body: FLOODPLAIN DEPOSITS & older Basin Deposits

Recorded by: J. Bonomini
Date June 1989

WILLIAMS 9.5 MI.
COLUSA 1.5 MI.

T. 16 N.
1562 II NE
(COLUSA)
T. 15 N.

4337

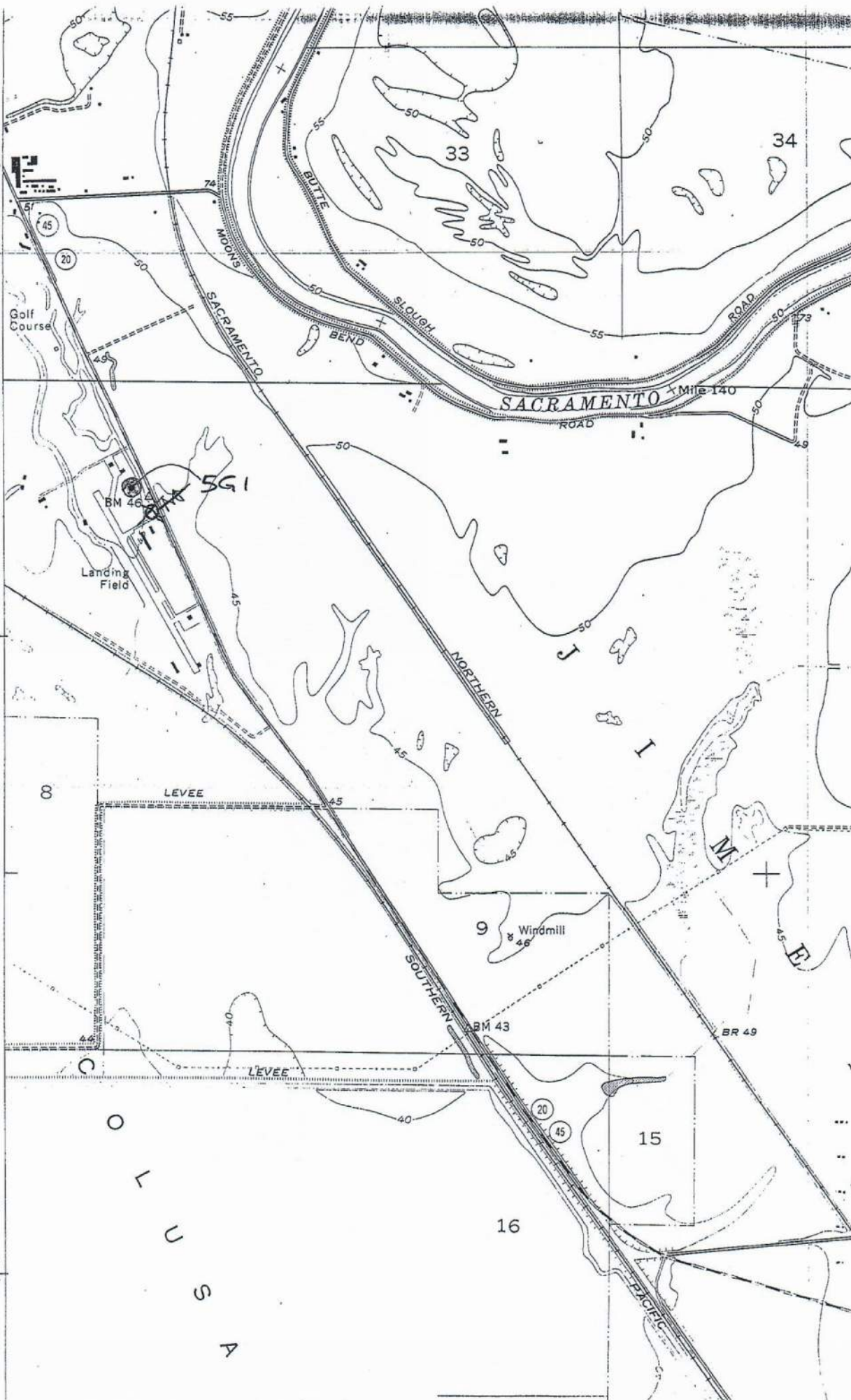
4336

10'

4335

4334

540 000
FEET



#12982

WATER WELL DRILLERS REPORT

FIELD WORK SHEET

Report No. 12982

Owner Colusa County Airport

Pump No. -

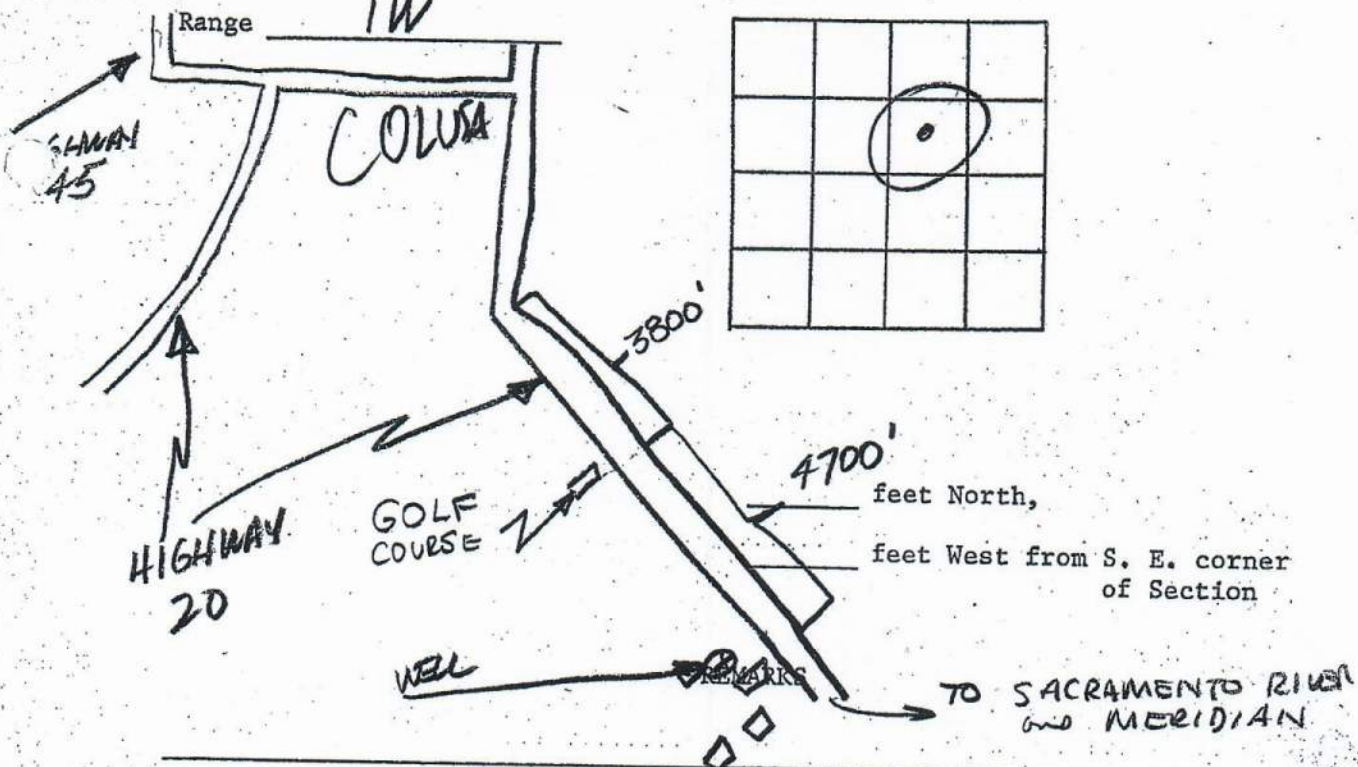
Meter No. -

LOCATION

Section 5G

Township 15N

Range 1W



location not confirmed by owner well, I think
is behind trailer at north gated airport

Sam
Field Checked by

8-13-74
Date



November 3, 2015

Advice Letter No. 424

TO THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Del Oro Water Company, Inc. on behalf of its Walnut Ranch District (District) hereby transmits for filing the following Advice Letter No. 424 to recover costs associated with both the District's reimbursement of City of Colusa fees incurred in contract negotiations for the Emergency Transmission Intertie Project as well as District costs incurred with the Colusa Industrial Park Intertie Project. Changes in the respective District tariff schedule are attached hereto:

<u>Cal. P.U.C. Sheet No.</u>	<u>Title of Sheet</u>	<u>Schedule No.</u>	<u>Canceling Cal. P.U.C. Sheet No.</u>
-W	Schedule No. WR-2 (cont.) Residential Flat Rate Service	WR-2	1701-W
-W	Table of Contents		-W
-W			-W

Purpose

DOWC hereby submits this filing and the attached calculations [Exhibit A] in support of its claim for reimbursement of the costs associated with both the Emergency Transmission Intertie Project with the City of Colusa as well as those incurred with the Colusa Industrial Park Intertie Project. All costs have been tracked in DOWC's Preliminary Statement Paragraph S "Del Oro Water Company Extraordinary Events Emergency Water and/or Supplemental Water Memorandum Account (EEEW/SWMA)" [Exhibit B]. This account tracks costs which are incurred from time-to-time in purchasing water from outside agencies and/or interconnecting to outside agencies (either temporarily or permanently) in order to facilitate delivery of water for any of DOWC's districts. The EEEW/SWMA for the District has tracked all costs [Exhibit C] totaling \$93,845.29 specifically relating to contract negotiations with the City regarding the Emergency Transmission Intertie Project as well as the legal and engineering costs of the proposed Colusa Industrial Park Intertie Project.



Del Oro Water Co., Inc.
Advice Letter No. 424, WR (EEEW/SWMA)
Page Two

Background

CITY OF COLUSA/DOWC WALNUT RANCH EMERGENCY TRANSMISSION INTERTIE PROJECT

On August 18, 2008 Del Oro Water Company (DOWC), on behalf of its Walnut Ranch District, contacted Mr. Rob Hickey, then City Manager for the City of Colusa, and requested the City Council consider a permanent intertie to their system as an alternative to the Colusa Industrial Park Intertie Project which was suspended while the customers and the City explored the City purchasing the District's assets. DOWC thought an intertie with the City would provide its customers with potable water at the most reasonable cost. The City's ultimate position was that an intertie could only be used on an emergency basis and not considered a permanent solution to the water issues within the District.

As part of the agreement executed on February 3, 2009 with the City [Exhibit D], DOWC agreed to pay all City costs in bringing the emergency contract to fruition. A recent internal audit has found the costs totaling \$8,184.11 were not addressed for reimbursement to the District in discussions with the City. These costs are included in the total requested reimbursement.

THE COLUSA/DOWC INDUSTRIAL PARK INTERTIE PROJECT

→ In 2005, the District began working on an intertie project with the Colusa Industrial Park knowing the water issues within the District required an alternative source. Efforts were also required as a response to The State Water Resources Control Board's (formerly The State Department of Public Health) Compliance Order No. 01-21-10 on July 15, 2010 ordering the District to achieve compliance with the maximum contaminant level for Arsenic, which the District's water supply exceeded. Tremendous efforts and cooperation between the parties resulted in the Colusa Industrial Park Intertie Project [Exhibit E], approved by CPUC Res. W-4761, dated May 7, 2009 [Exhibit F], but which was stalled due to customers' desire to annex to the City of Colusa. In that regard, the District suspended work on the project and the project was classified in CPUC Res. W-4873 [Exhibit G] as "... currently suspended Industrial Park Intertie Project...". Point being made that the project was not disapproved but reimbursement was on hold pending the customers' and City's efforts to have the City of Colusa acquire the District.

Now comes forth the City of Colusa, as of October 29, 2015, with an officially tendered 'sole tentative offer' on fair market value as well as their recognition of the Purchase Water Surcharge (Advice Letter No. 366-A). However, we believe we have a disconnect regarding the recovery process for costs incurred in bringing the Colusa Industrial Park Intertie Project to a shovel ready status, and DOWC's entitlement to reimbursement for legal and associated appraisal costs to date.



Del Oro Water Co., Inc.
Advice Letter No. 424, WR (EEEW/SWMA)
Page Three

Therefore, The District proposes to collect the \$93,845.29 reflecting both the Emergency Transmission Intertie Project and the Colusa Industrial Park Intertie costs in a surcharge of \$20.58 per customer per month for sixty (60) months or until the full amount is collected.

Requested Effective Date

DOWC is submitting the attached as a Tier 3 filing and requests that it become effective at the earliest date as the Commission's decision is critical in negotiating with the City of Colusa.

Notice and Service

All customers and interested parties will be notified of the request for reimbursement of costs associated with the Colusa Industrial Park Intertie Project for Commission consideration and approval and its rate impact by way of direct mail on Tuesday, November 3, 2015 [Exhibit H].

File a PROTEST:

A protest is a document stating that you object to the utility receiving all or some part of its request. If you wish to file a protest, you must state the facts constituting the grounds for the protest, how the advice letter affects you, and the reasons why you believe the whole advice letter, or part of it, is not justified.

If the protest requests an evidentiary hearing (an evidentiary hearing is a legal proceeding held before an administrative law judge at the Commission to obtain evidence), your protest must state the facts you would present at the evidentiary hearing to support your request for a complete or a partial denial of the advice letter. The filing of a protest does not ensure that an evidentiary hearing will be held. The decision whether or not to hold an evidentiary hearing will be based on the contents of the protest.

File a RESPONSE:

A response is a document that does not object to the request sought in the application, but nevertheless, presents information you believe would be useful to the Commission in acting on the application.



Del Oro Water Co., Inc.
Advice Letter No. 424, WR (EEEW/SWMA)
Page Four

Whether you wish to file a PROTEST or send a RESPONSE you must:

- Send a copy of your document to the utility.
- A protest must be emailed or mailed (email preferred) within (20) days of the date you received this notice.

The utility must respond to your protest or response within five (5) days. All protests or responses to this filing should be sent to:

California Public Utilities Commission, and
Water Division
505 Van Ness Avenue
San Francisco, California 94102
E-Mail: water_division@cpuc.ca.gov

Director of Community Relations
Drawer 5172
Chico, CA 95927
(530) 717-2509 / Fax: (530) 894-7645
E-Mail: communityrelations@delorowater.com

If you have not received a reply to your protest within ten (10) business days, contact Del Oro Water Company at 1-530-717-2509.

This filing will not cause withdrawal of service nor conflict with any other schedule or rule.

A copy of Del Oro Water Company's filing may be inspected in its business office: 426 Broadway, Suite 301, Chico, California 95928 or by visiting the website at www.delorowater.com. Further information may be obtained from the utility at its business office or from the Commission at the above address.

Del Oro Water Company, Inc.

Janice Hanna
JANICE HANNA
Director, Corporate Accounting

Attachments

DRAWER 5172 CHICO, CALIFORNIA 95927 - WWW.DELOROWATER.COM

PARADISE PINES - LIME SADDLE - MAGALIA - FERNDALE - JOHNSON PARK - COUNTRY ESTATES - PINE MOUNTAIN - PINE FLAT
WALNUT RANCH - ARBUCKLE - STRAWBERRY - MT. LASSEN - RIVER ISLAND - EAST PLANO - GRANDVIEW - METROPOLITAN

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**Appendix 4-G
Outreach Materials**

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Sutter Subbasin <info@suttersubbasin.org>

You are Invited to Participate in the Sutter Subbasin Groundwater Sustainability Plan Development

Sutter Subbasin <info@suttersubbasin.org>

Fri, Oct 9, 2020 at 10:04 AM

To: Guadalupe Rivera <grivera@co.sutter.ca.us>, Leslie Dumas <ldumas@woodardcurran.com>, Nicole Poletto <NPoletto@woodardcurran.com>

Bcc: Natalie Cochran <ncochran@woodardcurran.com>, "jon@montnafarms.com" <jon@montnafarms.com>, "aduffey@succeed.net" <aduffey@succeed.net>, "jtdfwd@yahoo.com" <jtdfwd@yahoo.com>, "dd49erdd@yahoo.com" <dd49erdd@yahoo.com>, "Pschubert@gswater.com" <Pschubert@gswater.com>, "Grivera@co.sutter.ca.us" <Grivera@co.sutter.ca.us>, "morme@buttewater.net" <morme@buttewater.net>, "srolls@rarcivil.com" <srolls@rarcivil.com>, "lphillips@sutterewd.com" <lphillips@sutterewd.com>, "sutterwater@aol.com" <sutterwater@aol.com>, "kwillis@yubacity.net" <kwillis@yubacity.net>, "brad@sutterbasinwater.com" <brad@sutterbasinwater.com>, "carlyank48@gmail.com" <carlyank48@gmail.com>, "pelgerwater@comcast.net" <pelgerwater@comcast.net>, "Bridget.Gibbons@wildlife.ca.gov" <Bridget.Gibbons@wildlife.ca.gov>, "Lindsay@ysfarmbureau.com" <Lindsay@ysfarmbureau.com>, "Rachel@buttefarmbureau.com" <Rachel@buttefarmbureau.com>, "cjdobbas@yahoo.com" <cjdobbas@yahoo.com>, "ecenter@ecenter.org" <ecenter@ecenter.org>, "westbuttefarms@gmail.com" <westbuttefarms@gmail.com>, "wooleyfarms@msn.com" <wooleyfarms@msn.com>, "DhootFamilyFarms@gmail.com" <DhootFamilyFarms@gmail.com>, "randtthomas@sbcglobal.net" <randtthomas@sbcglobal.net>, "placersierraclub@gmail.com" <placersierraclub@gmail.com>, "lherbert@co.sutter.ca.us" <lherbert@co.sutter.ca.us>, "justine@ysfarmbureau.com" <justine@ysfarmbureau.com>, "melinda@yubariver.org" <melinda@yubariver.org>, "ashley@yubariver.org" <ashley@yubariver.org>, "creigm@enterpriserancheria.org" <creigm@enterpriserancheria.org>, "info@enterpriserancheria.org" <info@enterpriserancheria.org>, "barbarav@aqualliance.net" <barbarav@aqualliance.net>, "elias@bylt.org" <elias@bylt.org>, "erin@bylt.org" <erin@bylt.org>, "vgetz@ducks.org" <vgetz@ducks.org>, "eric@friendsoftheriver.org" <eric@friendsoftheriver.org>, "tobybriggs@friendsoftheriver.org" <tobybriggs@friendsoftheriver.org>, "kklausmeyer@tnc.org" <kklausmeyer@tnc.org>, "smatsumoto@tnc.org" <smatsumoto@tnc.org>, "melissa.rohde@tnc.org" <melissa.rohde@tnc.org>, "wetemplin@att.net" <wetemplin@att.net>, "claudia@ysfarmbureau.com" <claudia@ysfarmbureau.com>, "bill_mattos@yahoo.com" <bill_mattos@yahoo.com>, "bjennings@calsport.org" <bjennings@calsport.org>, "blancapaloma@msn.com" <blancapaloma@msn.com>, "lippelaw@sonic.net" <lippelaw@sonic.net>, "sarthur@audubon.org" <sarthur@audubon.org>, "jclary@cleanwater.org" <jclary@cleanwater.org>, "srothert@americanrivers.org" <srothert@americanrivers.org>, "lshunt@americanrivers.org" <lshunt@americanrivers.org>, "amassell@americanrivers.org" <amassell@americanrivers.org>, "jportiz@ucsusa.org" <jportiz@ucsusa.org>, "CWeintraub@ucsusa.org" <CWeintraub@ucsusa.org>, "espe@ejcw.org" <espe@ejcw.org>, "ktempleton@puentesca.org" <ktempleton@puentesca.org>, "info@communityresourceproject.org" <info@communityresourceproject.org>, "ssilva@newcurrentwater.com" <ssilva@newcurrentwater.com>, "rstork@friendsoftheriver.org" <rstork@friendsoftheriver.org>, "info@sutterbutteslandtrust.org" <info@sutterbutteslandtrust.org>, "erin.strange@noaa.gov" <erin.strange@noaa.gov>, "jkatz@caltrout.org" <jkatz@caltrout.org>, "bzzroost@gmail.com" <bzzroost@gmail.com>, "jmerill@calclimateag.org" <jmerill@calclimateag.org>, "brian@calclimateag.org" <brian@calclimateag.org>, "info@caff.org" <info@caff.org>, "dave@caff.org" <dave@caff.org>, "info@communitywatercenter.org" <info@communitywatercenter.org>, "info@ejcw.org" <info@ejcw.org>, "cori@ejcw.org" <cori@ejcw.org>, "ddolan@lgc.org" <ddolan@lgc.org>, "efinnegan@lgc.org" <efinnegan@lgc.org>, "akeller@lgc.org" <akeller@lgc.org>, "erik@thefreshwatertrust.org" <erik@thefreshwatertrust.org>, "info@waterfdn.org" <info@waterfdn.org>



Good day,

The nine Groundwater Sustainability Agencies (GSAs) of Sutter Groundwater Subbasin are beginning to prepare a Groundwater Sustainability Plan (GSP) in response to the Sustainable Groundwater Management Act (SGMA). We are inviting local community members, non-profit organizations, farmers, landowners,

business owners, tribes, municipal agency staffers, and any other interested local stakeholders to participate in the process through public workshops, meetings, draft document review and direct input into the GSP development process. This is a great opportunity to get involved, learn about the planning process, and provide input on the future of groundwater management in the Sutter Subbasin.

Please let us know if you are interested in being included on the Interested Parties mailing list for the Sutter Subbasin GSP, respond back to npoletto@woodardcurran.com to be included. Updates on the GSP development process and notice of meetings and public workshops will be distributed via email (in addition to being posted on the GSP website). It is important that we hear your voice, as this GSP will be used to reliably meet current and future water demands in a cost-effective and sustainable manner within your area. Your participation is greatly appreciated.

Visit our website to learn more: www.SutterSubbasin.org. You can contact either me or Leslie Dumas of Woodard & Curran via email at the addresses included on this transmittal if you have any questions.

Thank You,

Guadalupe Rivera on behalf of Sutter Subbasin GSAs
Sutter County Development Services



Learn more at www.SutterSubbasin.org

Preparation of the 2022 Sutter Subbasin Groundwater Sustainability Plan is underway.

The nine Groundwater Sustainability Agencies of Sutter Groundwater Subbasin are beginning to prepare a Groundwater Sustainability Plan (GSP) in response to the Sustainable Groundwater Management Act (SGMA). In 2014, California enacted the SGMA to provide a framework for long-term sustainable groundwater management across California. The Sutter Subbasin is part of the Sacramento Valley Groundwater Basin and will submit a GSP to the State no later than January 31, 2022.

Sutter Subbasin GSP — Public Workshop #1

Monday, December 14, 2020 at 4:00 P.M. – 6:00 P.M.
Virtual meeting due to COVID-19

GET INVOLVED! *To sign up for our stakeholder list or learn more information visit our website.*

SutterSubbasin.org

Preparación del Plan de Sostenibilidad del Agua Subterránea (GSP) de la Subcuenca Sutter ha comenzado.

Las nueve agencias de Sostenibilidad del Agua Subterránea de la Subcuenca Sutter están comenzando a preparar un plan de GSP conforme a los requisitos de la Ley de Gestión Sostenible del Agua Subterránea (Sustainable Groundwater Management Act, SGMA). En 2014, California promulgó SGMA para proporcionar pautas para la gestión sostenible de las aguas subterráneas a largo plazo en todo California. La Subcuenca Sutter es parte de la Cuenca de Aguas Subterráneas del Valle de Sacramento y presentará un GSP al Estado a más tardar el 31 de enero de 2022.

Subcuenca Sutter GSP - Taller Público #1

Lunes, 14 de diciembre 2020 de 4:00 P.M. – 6:00 P.M.
Reunión virtual debido a COVID-19

¡INVOLÚCRATE! Visite nuestro sitio web y registrarte para obtener más información.

SutterSubbasin.org



Good afternoon,

The nine Groundwater Sustainability Agencies (GSAs) of Sutter Groundwater Subbasin are beginning to prepare a Groundwater Sustainability Plan (GSP) in response to the Sustainable Groundwater Management Act (SGMA). The GSP will be complete by the end of 2021.

We are inviting local community members, non-profit organizations, farmers, landowners, business owners, tribes, municipal agency staffers, and any other interested local stakeholders to participate in our first public workshop. This is a great opportunity to get involved, learn about the planning process, and provide input on the future of groundwater management in the Sutter Subbasin. The workshop will be held virtually due to COVID-19:

Sutter Subbasin GSP – Public Workshop #1

Monday, December 14, 2020 at 4:00 pm – 6:00 pm

GoToMeeting

Please join my meeting from your computer, tablet or smartphone:
<https://global.gotomeeting.com/join/537972085>.

You can also dial in using your phone: +1 (571) 317-3112, *Access Code*: 537-972-085

Discussion topics will include:

- Overview of SGMA
- Water management planning in the Sutter Subbasin
- Development of Sutter Subbasin Groundwater Sustainability Plan
- Basin Conditions

It is important that we hear your voice, as this GSP will be used to reliably meet current and future water demands in a cost-effective and sustainable manner within your area. Your participation is greatly appreciated.

Visit our website to learn more: www.SutterSubbasin.org. You can contact either me or Leslie Dumas of Woodard & Curran via email at the addresses included on this transmittal if you have any questions.

Thank You,

Guadalupe Rivera on behalf of Sutter Subbasin GSAs

Sutter County Development Services



Learn more at www.SutterSubbasin.org



Buenas tardes,

Las nueve agencias de Sostenibilidad del Agua Subterránea (Groundwater Sustainability Agencies, GSAs) de la Subcuenca Sutter están comenzando a preparar un plan de sostenibilidad del agua subterránea (GSP) conforme a los requisitos de la Ley de Gestión Sostenible del Agua Subterránea (Sustainable Groundwater Management Act, SGMA). El GSP será terminado hacia el final del año 2021.

Invitamos a miembros de la comunidad local, organizaciones sin fines de lucro, agricultores, terratenientes, dueños de negocios, tribus, personal de agencias municipales y cualquier otro interesado local interesado a participar en nuestro primer taller público. Esta es una gran oportunidad para involucrarse, aprender sobre el proceso de planificación y brindar información sobre el futuro de la gestión del agua subterránea en la Subcuenca Sutter. El taller se realizará virtualmente debido al COVID-19.

Subcuenca Sutter GSP – Taller Público #1

Lunes, 14 de diciembre 2020 de 4:00 pm – 6:00 pm

GoToMeeting

Únase a nuestra reunión desde su computadora, tableta o teléfono inteligente:
<https://global.gotomeeting.com/join/537972085>

También pueden marcar con su teléfono al: 1 (571) 317-3112, *código de acceso: 537-972-085*

Los temas de discusión incluirán:

- Descripción general de SGMA
- Planificación de la gestión del agua en la Subcuenca Sutter

- Desarrollo del Plan de Sostenibilidad del agua subterránea de la Subcuenca Sutter
- Condiciones de la cuenca

Es importante que escuchemos su voz, ya que este GSP se utilizará para satisfacer de manera confiable las demandas de agua actuales y futuras de una manera sostenible dentro de su área. Su participación es sumamente apreciada.

Visite nuestro sitio web para obtener más información: www.SutterSubbasin.org. Puede ponerse en contacto conmigo o con Guadalupe Rivera de Conando de Sutter por correo electrónico a las direcciones incluidas en esta notificación si tiene alguna pregunta.

Gracias,

Guadalupe Rivera, en nombre de los GSAs de la Subcuenca Sutter
Servicios de Desarrollo del Condado de Sutter



Aprende más en www.SutterSubbasin.org



ਨਮਸਕਾਰ,

ਸਟਰ ਗਰਾਊਂਡ ਵਾਟਰ ਸਬਬੇਸਿਨ ਦੀਆਂ ਨੌਂ ਏਜੰਸੀਆਂ ਧਰਤੀ ਹੇਠਲੇ ਪਾਣੀ ਦੀ ਸਥਿਰਤਾ ਲਈ ਸਥਾਈ ਧਰਤੀ ਹੇਠਲਾ ਪ੍ਰਬੰਧਨ ਐਕਟ (ਐਸਜੀਐਮਏ) ਦੇ ਜਵਾਬ ਵਿੱਚ ਧਰਤੀ ਹੇਠਲੇ ਪਾਣੀ ਦੀ ਸਥਿਰਤਾ ਯੋਜਨਾ (ਜੀਐਸਪੀ) ਤਿਆਰ ਕਰਨ ਲੱਗੀਆਂ ਹਨ। ਜੀਐਸਪੀ 2021 ਦੇ ਅੰਤ ਤੱਕ ਪੂਰਾ ਹੋ ਜਾਵੇਗਾ।

ਅਸੀਂ ਸਥਾਨਕ ਕਮਿਨਿਟੀ ਮੈਂਬਰਾਂ, ਗੈਰ-ਮੁਨਾਫਾ ਸੰਗਠਨਾਂ, ਕਿਸਾਨਾਂ, ਜ਼ਿਮੀਂਦਾਰਾਂ, ਕਾਰੋਬਾਰੀ ਮਾਲਕਾਂ, ਗੋਤਾਂ, ਨਗਰ ਨਿਗਮ ਏਜੰਸੀ ਦੇ ਕਰਮਚਾਰੀਆਂ ਅਤੇ ਕਿਸੇ ਵੀ ਹੋਰ ਦਿਲਚਸਪੀ ਵਾਲੇ ਸਥਾਨਕ ਹਿੱਸੇਦਾਰਾਂ ਨੂੰ ਸਾਡੀ ਪਹਿਲੀ ਜਨਤਕ ਵਰਕਸ਼ਾਪ ਵਿੱਚ ਹਿੱਸਾ ਲੈਣ ਲਈ ਸੱਦਾ ਦੇ ਰਹੇ ਹਾਂ। ਸ਼ਾਮਲ ਹੋਣ, ਯੋਜਨਾਬੰਦੀ ਪ੍ਰਕਿਰਿਆ ਬਾਰੇ ਜਾਣਨ ਅਤੇ ਸਟਰ ਸਬਬੇਸਿਨ ਵਿੱਚ ਧਰਤੀ ਹੇਠਲੇ ਪਾਣੀ ਦੇ ਪ੍ਰਬੰਧਨ ਦੇ ਭਵਿੱਖ ਬਾਰੇ ਜਾਣਕਾਰੀ ਪ੍ਰਦਾਨ ਕਰਨ ਦਾ ਇਹ ਇਕ ਵਧੀਆ ਮੌਕਾ ਹੈ। ਵਰਕਸ਼ਾਪ COVID-19 ਦੇ ਕਾਰਨ ਵਰਚੁਅਲੀ ਆਯੋਜਿਤ ਕੀਤੀ ਜਾਵੇਗੀ।

ਸਟਰ ਸਬਬੇਸਿਨ ਜੀਐਸਪੀ - ਪਬਲਿਕ ਵਰਕਸ਼ਾਪ # 1

ਸੋਮਵਾਰ, 14 ਦਸੰਬਰ, 2020 ਸ਼ਾਮ 4:00 ਵਜੇ - ਸ਼ਾਮ 6 ਵਜੇ

ਮੁਲਾਕਾਤ ਕਰਨ ਲਈ ਜਾਓ

ਕਿਰਪਾ ਕਰਕੇ ਆਪਣੇ ਕੰਪਿਓਟਰ, ਟੈਬਲੇਟ ਜਾਂ ਸਮਾਰਟਫੋਨ ਤੋਂ ਮੇਰੀ ਮੀਟਿੰਗ ਵਿੱਚ ਸ਼ਾਮਲ ਹੋਵੋ:

<https://global.gotomeeting.com/join/537972085>.

ਤੁਸੀਂ ਆਪਣੇ ਫੋਨ ਦੀ ਵਰਤੋਂ ਕਰਕੇ ਵੀ ਡਾਇਲ ਕਰ ਸਕਦੇ ਹੋ: +1 (571) 317-3112, ਐਕਸੈਸ ਕੋਡ: 537-972-085

ਵਿਚਾਰ ਵਿਸ਼ਾਵਾਂ ਵਿੱਚ ਸ਼ਾਮਲ ਹੋਣਗੇ:

- ਐਸਜੀਐਮਏ ਬਾਰੇ ਸੰਖੇਪ ਜਾਣਕਾਰੀ
- ਸਟਰ ਸਬਬੇਸਿਨ ਵਿਚ ਪਾਣੀ ਪ੍ਰਬੰਧਨ ਦੀ ਯੋਜਨਾਬੰਦੀ
- ਸਟਰ ਸਬਬੇਸਿਨ ਧਰਤੀ ਹੇਠਲੇ ਪਾਣੀ ਦੀ ਸਥਿਰਤਾ ਯੋਜਨਾ ਦਾ ਵਿਕਾਸ
- ਬੇਸਿਨ ਦੇ ਹਾਲਾਤ

ਇਹ ਮਹੱਤਵਪੂਰਨ ਹੈ ਕਿ ਅਸੀਂ ਤੁਹਾਡੀ ਆਵਾਜ਼ ਸੁਣੀਏ, ਕਿਉਂਕਿ ਇਹ ਜੀਐਸਪੀ ਤੁਹਾਡੇ ਖੇਤਰ ਦੇ ਅੰਦਰ ਲਾਗਤ-ਪ੍ਰਭਾਵਸ਼ਾਲੀ ਅਤੇ ਭਰੋਸੇ ਨਾਲ ਮੌਜੂਦਾ ਅਤੇ ਭਵਿੱਖ ਦੀਆਂ ਪਾਣੀ ਦੀਆਂ ਮੰਗਾਂ ਨੂੰ ਭਰੋਸੇਯੋਗ ਤਰੀਕੇ ਨਾਲ ਪੂਰਾ ਕਰਨ ਲਈ ਵਰਤੀ ਜਾਏਗੀ। ਤੁਹਾਡੀ ਭਾਗੀਦਾਰੀ ਦੀ ਬਹੁਤ ਪ੍ਰਸ਼ੰਸਾ ਕੀਤੀ ਗਈ।

ਵਧੇਰੇ ਜਾਣਨ ਲਈ ਸਾਡੀ ਵੈਬਸਾਈਟ ਤੇ ਜਾਓ: www.SutterSubbasin.org ਜੇ ਤੁਹਾਡੇ ਕੋਈ ਪ੍ਰਸ਼ਨ ਹਨ, ਤਾਂ ਤੁਸੀਂ ਇਸ ਸੰਚਾਰ 'ਤੇ ਸ਼ਾਮਲ ਪਤੇ' ਤੇ ਜਾਂ ਤਾਂ ਮੇਰੇ ਜਾਂ ਵੁਡਾਰਡ ਐਂਡ ਕੁਰਾਨ ਦੇ ਲੈਸਲੀ ਡੇਮਸ ਨਾਲ ਈਮੇਲ ਰਾਹੀਂ ਸੰਪਰਕ ਕਰ ਸਕਦੇ ਹੋ।

ਤੁਹਾਡਾ ਧੰਨਵਾਦ,

ਗੁੱਡਾਲੂਪ ਰਿਵੇਰਾ ਸਟਰ ਸਬਬੇਸਿਨ ਜੀਐਸਏ ਦੀ ਤਰਫੋਂ
ਸਟਰ ਕਾਉਂਟੀ ਡਿਵੈਲਪਮੈਂਟ ਸਰਵਿਸਿਜ਼



ਵਧੇਰੇ ਜਾਣੋ www.SutterSubbasin.org



Public Workshop #1

Monday, December 14, 2020

Learn more at SutterSubbasin.org

The nine Groundwater Sustainability Agencies (GSAs) of Sutter Groundwater Subbasin are beginning to prepare a Groundwater Sustainability Plan (GSP) in response to the Sustainable Groundwater Management Act (SGMA). Participants are encouraged to attend and provide feedback for the Sutter Subbasin GSP.

Sutter Subbasin GSP — Public Workshop #1

Monday, December 14, 2020 at 4:00 P.M. – 6:00 P.M.

GoToMeeting (remote/virtual)

Please join from your computer, tablet or smartphone:

 <https://global.gotomeeting.com/join/537972085>

Or dial-in:

 (571) 317-3112, Code: 537-972-085

Traducción al Español
disponible. Contacto
Guadalupe Rivera si tiene
alguna pregunta.

info@suttersubbasin.org

Discussion topics will include:

-  Overview of SGMA
-  Water management planning in the Sutter Subbasin
-  Development of Sutter Subbasin Groundwater Sustainability Plan
-  Basin Conditions



It is important that we hear your voice, as this GSP will be used to reliably meet current and future water demands in a cost-effective and sustainable manner within your area. *Your participation is greatly appreciated!*

Preparation of the 2022 Sutter Subbasin Groundwater Sustainability Plan is underway.

The nine Groundwater Sustainability Agencies of Sutter Groundwater Subbasin are beginning to prepare a Groundwater Sustainability Plan (GSP) in response to the Sustainable Groundwater Management Act (SGMA). In 2014, California enacted the SGMA to provide a framework for long-term sustainable groundwater management across California. The Sutter Subbasin is part of the Sacramento Valley Groundwater Basin and will submit a GSP to the State no later than January 31, 2022.

Sutter Subbasin GSP - Public Workshop 2/8/21

All meetings will be held virtually due to COVID-19 until further notice. Visit our website for more information.

GET INVOLVED! To sign up for our stakeholder list or learn more information visit our website.

SutterSubbasin.org

Aviso

Preparación del Plan de Sostenibilidad del Agua Subterránea (GSP) de la Subcuenca Sutter ha comenzado.

Las nueve agencias de Sostenibilidad del Agua Subterránea de la Subcuenca Sutter están comenzando a preparar un plan de GSP conforme a los requisitos de la Ley de Gestión Sostenible del Agua Subterránea (Sustainable Groundwater Management Act, SGMA). En 2014, California promulgó SGMA para proporcionar pautas para la gestión sostenible de las aguas subterráneas a largo plazo en todo California. La Subcuenca Sutter es parte de la Cuenca de Aguas Subterráneas del Valle de Sacramento y presentará un GSP al Estado a más tardar el 31 de enero de 2022.

Subcuenca Sutter GSP - Taller Público 2/8/21

Debido a COVID-19, todas las reuniones se llevarán a cabo virtualmente hasta nuevo aviso.

¡INVOLÚCRATE! Visite nuestro sitio web y registrarse para obtener más información.

SutterSubbasin.org

ਨੋਟਿਸ

2022 ਦੀ ਸਟਰ ਸਬਬੇਸਨਿ ਧਰਤੀ ਹੇਠਲੇ ਪਾਣੀ ਦੀ ਸਥਰਿਤਾ ਯੋਜਨਾ ਦੀ ਤਿਆਰੀ ਚੱਲ ਰਹੀ ਹੈ।

ਸਟਰ ਗਰਾਊਂਡ ਵਾਟਰ ਸਬਬੇਸਨਿ ਦੀਆਂ ਨੌਂ ਏਜੰਸੀਆਂ ਧਰਤੀ ਹੇਠਲੇ ਪਾਣੀ ਦੀ ਸਥਰਿਤਾ ਲਈ 'ਸਥਾਈ ਧਰਤੀ ਹੇਠਲਾ ਪ੍ਰਬੰਧਨ ਐਕਟ' (ਐਸਜੀਐਮਏ) ਦੇ ਜਵਾਬ ਵਿੱਚ ਧਰਤੀ ਹੇਠਲੇ ਪਾਣੀ ਦੀ ਸਥਰਿਤਾ ਯੋਜਨਾ (ਜੀਐਸਪੀ) ਤਿਆਰ ਕਰਨ ਲੱਗੀਆਂ ਹਨ। 2014 ਵਿੱਚ ਕੈਲੀਫੋਰਨੀਆ ਨੇ ਕੈਲੀਫੋਰਨੀਆ ਵਿੱਚ ਲੰਬੇ ਸਮੇਂ ਲਈ ਟੁਕਣ ਵਾਲੇ ਧਰਤੀ ਹੇਠਲੇ ਪਾਣੀ ਪ੍ਰਬੰਧਨ ਲਈ ਇੱਕ ਢਾਂਚਾ ਪ੍ਰਦਾਨ ਕਰਨ ਲਈ ਐਸਜੀਐਮਏ ਨੂੰ ਲਾਗੂ ਕੀਤਾ। ਸਟਰ ਸਬਬੇਸਨਿ ਸੈਕਰਾਮੈਂਟੋ ਵੈਲੀ ਗਰਾਊਂਡ ਵਾਟਰ ਬੇਸਨਿ ਦਾ ਹੱਸਿ ਹੈ ਅਤੇ 31 ਜਨਵਰੀ, 2022 ਤੱਕ ਕੈਲੀਫੋਰਨੀਆ ਸਟੇਟ ਨੂੰ ਜੀਐਸਪੀ ਤਿਆਰ ਕਰਕੇ ਦੇਵੇਗਾ।

ਸਟਰ ਸਬਬੇਸਨਿ ਜੀਐਸਪੀ - ਪਬਲਿਕ ਵਰਕਸ਼ਾਪ 2/8/21

ਅਗਲੀਆਂ ਸੂਚਨਾਵਾਂ ਤਕ ਸਾਰੀਆਂ ਮੀਟਿੰਗਾਂ ਵਰਚੁਅਲ ਹੋਣਗੀਆਂ। ਵਧੇਰੇ ਜਾਣਕਾਰੀ ਲਈ ਸਾਡੀ ਵੈਬਸਾਈਟ ਵੇਖੋ

ਸ਼ਾਮਲ ਹੋਵੋ! ਸਾਡੇ ਹੱਸਿਦਾਰਾਂ ਦੀ ਸੂਚੀ ਲਈ ਸਾਈਨ-ਅਪ ਕਰਨ ਜਾਂ ਵਧੇਰੇ ਜਾਣਕਾਰੀ ਲਈ ਸਾਡੀ ਵੈਬਸਾਈਟ ਤੇ ਜਾਓ

SutterSubbasin.org



Good afternoon,

The nine Groundwater Sustainability Agencies (GSAs) of Sutter Groundwater Subbasin are preparing a Groundwater Sustainability Plan (GSP) in response to the Sustainable Groundwater Management Act (SGMA). The GSP will be complete by the end of 2021.

We are inviting local community members, non-profit organizations, farmers, landowners, business owners, tribal communities, municipal agency staffers, and any other interested local stakeholders to participate in our second public workshop. Meeting materials from our first public workshop can be found on our website at www.suttersubbasin.org. This is a great opportunity to get involved, learn about the planning process, and provide input on the future of groundwater management in the Sutter Subbasin. The workshop will be held virtually due to COVID-19:

Sutter Subbasin GSP – Public Workshop #2

Monday, February 8, 2021 at 4:00 pm – 6:00 pm

GoToMeeting

Please join my meeting from your computer, tablet or smartphone:
<https://global.gotomeeting.com/join/567184029>.

You can also dial in using your phone: +1 (571) 317-3112, *Access Code*: 567-184-029

Discussion topics will include:

- Review of Basin Conditions
- Hydrogeologic Conceptual Model
- Introduction to Groundwater Flow Modeling
- Significant and Unreasonable Undesirable Results
- Preliminary List of Projects and Management Actions

We are interested in hearing more from you! Please participate in our stakeholder survey found on the homepage of our website. It is important that we hear your voice, as this GSP will be used to reliably meet current and future water demands in a cost-effective and sustainable manner within your area. Your participation in our survey and public workshops is greatly appreciated.

Visit our website to learn more: www.SutterSubbasin.org. You can contact either me or Leslie Dumas of Woodard & Curran via email at the addresses included on this transmittal if you have any questions.

Thank You,

Guadalupe Rivera on behalf of Sutter Subbasin GSAs
Sutter County Development Services



Learn more at www.SutterSubbasin.org



Buenas tardes,

Las nueve agencias de Sostenibilidad del Agua Subterránea (Groundwater Sustainability Agencies, GSAs) de la Subcuenca Sutter comenzaron a preparar un plan de sostenibilidad del agua subterránea (GSP) conforme a los requisitos de la Ley de Gestión Sostenible del Agua Subterránea (Sustainable Groundwater Management Act, SGMA). El GSP será terminado hacia el final del año 2021.

Invitamos a miembros de la comunidad local, organizaciones sin fines de lucro, agricultores, terratenientes, dueños de negocios, comunidades tribales, personal de agencias municipales y cualquier otro interesado local interesado a participar en nuestro segundo taller público. Los materiales de la reunión de nuestro primer taller público se pueden encontrar en nuestro sitio web en www.suttersubbasin.org. Esta es una gran oportunidad para involucrarse, aprender sobre el proceso de planificación y brindar información sobre el futuro de la gestión del agua subterránea en la Subcuenca Sutter. El taller se realizará virtualmente debido al COVID-19.

Subcuenca Sutter GSP – Taller Público #2

Lunes, 8 de febrero 2021 de 4:00 pm – 6:00 pm

GoToMeeting

Únase a nuestra reunión desde su computadora, tableta o teléfono inteligente:
<https://global.gotomeeting.com/join/567184029>.

También pueden marcar con su teléfono al: 1 (571) 317-3112, *código de acceso*: 567-184-029

Los temas de discusión incluirán:

- Revisión de las condiciones de la cuenca
- Modelo conceptual hidrogeológico
- Introducción al modelado de flujo de agua subterránea
- Resultados no deseados importantes e irrazonables
- Lista preliminar de proyectos y acciones de gestión

¡Estamos interesados en saber más de usted! Participe en nuestra encuesta que se encuentra en la página de inicio de nuestro sitio web. Es importante que escuchemos su voz, ya que este GSP se utilizará para satisfacer de manera confiable las demandas de agua actuales y futuras de una manera sostenible dentro de su área. Su participación en nuestra encuesta y talleres públicos es sumamente apreciada.

Visite nuestro sitio web para obtener más información: www.SutterSubbasin.org. Puede ponerse en contacto conmigo o con Guadalupe Rivera de Conando de Sutter por correo electrónico a las direcciones incluidas en esta notificación si tiene alguna pregunta.

Gracias,

Guadalupe Rivera, en nombre de los GSAs de la Subcuenca Sutter
Servicios de Desarrollo del Condado de Sutter



Aprende más en www.SutterSubbasin.org



ਨਮਸਕਾਰ,

ਸਟਰ ਗਰਾਊਂਡ ਵਾਟਰ ਸਬਬੇਸਿਨ ਦੀਆਂ ਨੌਂ ਏਜੰਸੀਆਂ ਧਰਤੀ ਹੇਠਲੇ ਪਾਣੀ ਦੀ ਸਥਿਰਤਾ ਲਈ ਸਥਾਈ ਧਰਤੀ ਹੇਠਲਾ ਪ੍ਰਬੰਧਨ ਐਕਟ (ਐਸਜੀਐਮਏ) ਦੇ ਜਵਾਬ ਵਿੱਚ ਧਰਤੀ ਹੇਠਲੇ ਪਾਣੀ ਦੀ ਸਥਿਰਤਾ ਯੋਜਨਾ (ਜੀਐਸਪੀ) ਤਿਆਰ ਕਰਨ ਲੱਗੀਆਂ ਹਨ। ਜੀਐਸਪੀ 2021 ਦੇ ਅੰਤ ਤੱਕ ਪੂਰਾ ਹੋ ਜਾਵੇਗਾ। ਅਸੀਂ ਸਥਾਨਕ ਕਮਿਨਿਟੀ ਮੈਂਬਰਾਂ, ਗੈਰ-ਮੁਨਾਫਾ ਸੰਗਠਨਾਂ, ਕਿਸਾਨਾਂ, ਜ਼ਿਮੀਂਦਾਰਾਂ, ਕਾਰੋਬਾਰੀ ਮਾਲਕਾਂ, ਗੇਤਾਂ, ਨਗਰ ਨਿਗਮ ਏਜੰਸੀ ਦੇ ਕਰਮਚਾਰੀਆਂ ਅਤੇ ਕਿਸੇ ਵੀ ਹੋਰ ਦਿਲਚਸਪੀ ਵਾਲੇ ਸਥਾਨਕ ਹਿੱਸੇਦਾਰਾਂ ਨੂੰ ਸਾਡੀ ਦੂਜੀ ਜਨਤਕ ਵਰਕਸ਼ਾਪ ਵਿੱਚ ਹਿੱਸਾ ਲੈਣ ਲਈ ਸੱਦਾ ਦੇ ਰਹੇ ਹਾਂ। ਸ਼ਾਮਲ ਹੋਣ, ਯੋਜਨਾਬੰਦੀ ਪ੍ਰਕਿਰਿਆ ਬਾਰੇ ਜਾਣਨ ਅਤੇ

ਸਟਰ ਸਬਬੇਸਿਨ ਵਿਚ ਧਰਤੀ ਹੇਠਲੇ ਪਾਣੀ ਦੇ ਪ੍ਰਬੰਧਨ ਦੇ ਭਵਿੱਖ ਬਾਰੇ ਜਾਣਕਾਰੀ ਪ੍ਰਦਾਨ ਕਰਨ ਦਾ ਇਹ ਇਕ ਵਧੀਆ ਮੌਕਾ ਹੈ । ਵਰਕਸ਼ਾਪ COVID-19 ਦੇ ਕਾਰਨ ਵਰਚੁਅਲੀ ਆਯੋਜਿਤ ਕੀਤੀ ਜਾਏਗੀ ।

ਸਟਰ ਸਬਬੇਸਿਨ ਜੀਐਸਪੀ - ਪਬਲਿਕ ਵਰਕਸ਼ਾਪ # 2

ਸੋਮਵਾਰ, 14 ਦਸੰਬਰ, 2021 ਸ਼ਾਮ 4:00 ਵਜੇ - ਸ਼ਾਮ 6 ਵਜੇ

ਮੁਲਾਕਾਤ ਕਰਨ ਲਈ ਜਾਓ

ਕਿਰਪਾ ਕਰਕੇ ਆਪਣੇ ਕੰਪਿਓਟਰ, ਟੈਬਲੇਟ ਜਾਂ ਸਮਾਰਟਫੋਨ ਤੋਂ ਮੇਰੀ ਮੀਟਿੰਗ ਵਿੱਚ ਸ਼ਾਮਲ ਹੋਵੋ:

<https://global.gotomeeting.com/join/567184029>

ਤੁਸੀਂ ਆਪਣੇ ਫੋਨ ਦੀ ਵਰਤੋਂ ਕਰਕੇ ਵੀ ਡਾਇਲ ਕਰ ਸਕਦੇ ਹੋ: +1 (571) 317-3112, ਐਕਸੈਸ ਕੋਡ: 567-184-029.

ਵਿਚਾਰ ਵਿਸ਼ਾਵਾਂ ਵਿੱਚ ਸ਼ਾਮਲ ਹੋਣਗੇ:

- ਬੇਸਿਨ ਦੇ ਹਾਲਾਤ
- ਹਾਈਡਰੋਜੇਲੋਜੀਕਲ ਸੰਕਲਪ ਮਾਡਲ
- ਧਰਤੀ ਹੇਠਲੇ ਪਾਣੀ ਦੇ ਪ੍ਰਵਾਹ ਮਾਡਲਿੰਗ
- ਅਣਚਾਹੇ ਨਤੀਜੇ
- ਪ੍ਰੋਜੈਕਟਾਂ ਦੀ ਸੂਚੀ

ਸਾਡੀ ਵਰਕਸ਼ਾਪਾਂ ਤੋਂ ਮਿਲਣ ਵਾਲੀ ਸਮੱਗਰੀ ਸਾਡੀ ਵੈਬਸਾਈਟ www.suttersubbasin.org 'ਤੇ ਪਾਈ ਜਾ ਸਕਦੀ ਹੈ. ਇਹ ਮਹੱਤਵਪੂਰਨ ਹੈ ਕਿ ਅਸੀਂ ਤੁਹਾਡੀ ਆਵਾਜ਼ ਸੁਣੀਏ, ਕਿਉਂਕਿ ਇਹ ਜੀਐਸਪੀ ਤੁਹਾਡੇ ਖੇਤਰ ਦੇ ਅੰਦਰ ਲਾਗਤ-ਪ੍ਰਭਾਵਸ਼ਾਲੀ ਅਤੇ ਭਰੋਸੇ ਨਾਲ ਮੌਜੂਦਾ ਅਤੇ ਭਵਿੱਖ ਦੀਆਂ ਪਾਣੀ ਦੀਆਂ ਮੰਗਾਂ ਨੂੰ ਭਰੋਸੇਯੋਗ ਤਰੀਕੇ ਨਾਲ ਪੂਰਾ ਕਰਨ ਲਈ ਵਰਤੀ ਜਾਏਗੀ. ਤੁਹਾਡੀ ਭਾਗੀਦਾਰੀ ਦੀ ਬਹੁਤ ਪ੍ਰਸ਼ੰਸਾ ਕੀਤੀ ਗਈ ।

ਵਧੇਰੇ ਜਾਣਨ ਲਈ ਸਾਡੀ ਵੈਬਸਾਈਟ ਤੇ ਜਾਓ: www.SutterSubbasin.org ਜੇ ਤੁਹਾਡੇ ਕੋਈ ਪ੍ਰਸ਼ਨ ਹਨ, ਤਾਂ ਤੁਸੀਂ ਇਸ ਸੰਚਾਰ 'ਤੇ ਸ਼ਾਮਲ ਪਤੇ' ਤੇ ਜਾਂ ਤਾਂ ਮੇਰੇ ਜਾਂ ਵੁਡਾਰਡ ਐਂਡ ਕੁਰਾਨ ਦੇ ਲੈਸਲੀ ਡੋਮਸ ਨਾਲ ਈਮੇਲ ਰਾਹੀਂ ਸੰਪਰਕ ਕਰ ਸਕਦੇ ਹੋ ।

ਤੁਹਾਡਾ ਧੰਨਵਾਦ,

ਗੁੱਡਾਲੂਪ ਰਿਵੇਰਾ ਸਟਰ ਸਬਬੇਸਿਨ ਜੀਐਸਪੀ ਦੀ ਤਰਫੋਂ
ਸਟਰ ਕਾਉਂਟੀ ਡਿਵੈਲਪਮੈਂਟ ਸਰਵਿਸਿਜ਼



ਵਧੇਰੇ ਜਾਣੇ www.SutterSubbasin.org



Public Workshop #2

Monday, February 8, 2021

Learn more at SutterSubbasin.org

The nine Groundwater Sustainability Agencies (GSAs) of Sutter Groundwater Subbasin are preparing a Groundwater Sustainability Plan (GSP) in response to the Sustainable Groundwater Management Act (SGMA). Participants are encouraged to attend and provide feedback for the Sutter Subbasin GSP.

Sutter Subbasin GSP — Public Workshop #2

Monday, February 8, 2021 at 4:00 P.M. – 6:00 P.M.

GoToMeeting (remote/virtual)

Please join from your computer, tablet or smartphone:

 <https://global.gotomeeting.com/join/567184029>

Or dial-in:

 **1 (571) 317-3112**, Code: 567-184-029

Discussion topics will include:

-  Review of Basin Conditions
-  Hydrogeologic Conceptual Model
-  Introduction to Groundwater Flow Modeling
-  Significant and Unreasonable Undesirable Results
-  Preliminary List of Projects and Management Actions

Para obtener ayuda con traducción al español, comuníquese con Guadalupe Rivera a través de correo electrónico al info@suttersubbasin.org por lo menos 72 horas antes de la reunión.

ਅਨੁਵਾਦ ਸਹਾਇਤਾ ਲਈ,
ਕਰਿਪਾ ਕਰਕੇ ਮੀਟਿੰਗ ਤੋਂ
ਘੱਟੋ ਘੱਟ 72 ਘੰਟੇ ਪਹਿਲਾਂ
info@suttersubbasin.org
ਤੇ ਲੈਸਲੀ ਡੂਮਾਸ ਨਾਲ
ਸੰਪਰਕ ਕਰੋ



It is important that we hear your voice, as this GSP will be used to reliably meet current and future water demands in a cost-effective and sustainable manner within your area.
Your participation is greatly appreciated!

Preparation of the 2022 Sutter Subbasin Groundwater Sustainability Plan is underway.

The nine Groundwater Sustainability Agencies of Sutter Groundwater Subbasin are beginning to prepare a Groundwater Sustainability Plan (GSP) in response to the Sustainable Groundwater Management Act (SGMA). In 2014, California enacted the SGMA to provide a framework for long-term sustainable groundwater management across California. The Sutter Subbasin is part of the Sacramento Valley Groundwater Basin and will submit a GSP to the State no later than January 31, 2022.

Sutter Subbasin GSP - Public Workshop 6/15/21

All meetings will be held virtually due to COVID-19 until further notice. Visit our website for more information.

GET INVOLVED! To sign up for our stakeholder list or learn more information visit our website.

SutterSubbasin.org

Aviso

Preparación del Plan de Sostenibilidad del Agua Subterránea (GSP) de la Subcuenca Sutter ha comenzado.

Las nueve agencias de Sostenibilidad del Agua Subterránea de la Subcuenca Sutter están comenzando a preparar un plan de GSP conforme a los requisitos de la Ley de Gestión Sostenible del Agua Subterránea (Sustainable Groundwater Management Act, SGMA). En 2014, California promulgó SGMA para proporcionar pautas para la gestión sostenible de las aguas subterráneas a largo plazo en todo California. La Subcuenca Sutter es parte de la Cuenca de Aguas Subterráneas del Valle de Sacramento y presentará un GSP al Estado a más tardar el 31 de enero de 2022.

Subcuenca Sutter GSP - Taller Público 6/15/21

Debido a COVID-19, todas las reuniones se llevarán a cabo virtualmente hasta nuevo aviso.

¡INVOLÚCRATE! Visite nuestro sitio web y registrarse para obtener más información.

SutterSubbasin.org

ਨੋਟਿਸ

2022 ਦੀ ਸਟਰ ਸਬਬੇਸਿਨ ਧਰਤੀ ਹੇਠਲੇ ਪਾਣੀ ਦੀ ਸਥਰਿਤਾ ਯੋਜਨਾ ਦੀ ਤਿਆਰੀ ਚੱਲ ਰਹੀ ਹੈ।

ਸਟਰ ਗਰਾਊਂਡ ਵਾਟਰ ਸਬਬੇਸਿਨ ਦੀਆਂ ਨੌਂ ਏਜੰਸੀਆਂ ਧਰਤੀ ਹੇਠਲੇ ਪਾਣੀ ਦੀ ਸਥਰਿਤਾ ਲਈ 'ਸਥਾਈ ਧਰਤੀ ਹੇਠਲਾ ਪ੍ਰਬੰਧਨ ਐਕਟ' (ਐਸਜੀਐਮਏ) ਦੇ ਜਵਾਬ ਵਿੱਚ ਧਰਤੀ ਹੇਠਲੇ ਪਾਣੀ ਦੀ ਸਥਰਿਤਾ ਯੋਜਨਾ (ਜੀਐਸਪੀ) ਤਿਆਰ ਕਰਨ ਲੱਗੀਆਂ ਹਨ। 2014 ਵਿੱਚ ਕੈਲੀਫੋਰਨੀਆ ਨੇ ਕੈਲੀਫੋਰਨੀਆ ਵਿੱਚ ਲੰਬੇ ਸਮੇਂ ਲਈ ਟੁਕਣ ਵਾਲੇ ਧਰਤੀ ਹੇਠਲੇ ਪਾਣੀ ਪ੍ਰਬੰਧਨ ਲਈ ਇੱਕ ਢਾਂਚਾ ਪ੍ਰਦਾਨ ਕਰਨ ਲਈ ਐਸਜੀਐਮਏ ਨੂੰ ਲਾਗੂ ਕੀਤਾ। ਸਟਰ ਸਬਬੇਸਿਨ ਸੈਕਰਾਮੈਂਟੋ ਵੈਲੀ ਗਰਾਊਂਡ ਵਾਟਰ ਬੇਸਿਨ ਦਾ ਹਿੱਸਾ ਹੈ ਅਤੇ 31 ਜਨਵਰੀ, 2022 ਤੱਕ ਕੈਲੀਫੋਰਨੀਆ ਸਟੇਟ ਨੂੰ ਜੀਐਸਪੀ ਤਿਆਰ ਕਰਕੇ ਦੇਵੇਗਾ।

ਸਟਰ ਸਬਬੇਸਿਨ ਜੀਐਸਪੀ - ਪਬਲਿਕ ਵਰਕਸ਼ਾਪ 6/15/21

ਅਗਲੀਆਂ ਸੂਚਨਾਵਾਂ ਤਕ ਸਾਰੀਆਂ ਮੀਟਿੰਗਾਂ ਵਰਚੁਅਲ ਹੋਣਗੀਆਂ।
ਵਧੇਰੇ ਜਾਣਕਾਰੀ ਲਈ ਸਾਡੀ ਵੈਬਸਾਈਟ ਵੇਖੋ

ਸ਼ਾਮਲ ਹੋਵੋ! ਸਾਡੇ ਹੱਸਿਦਾਰਾਂ ਦੀ ਸੂਚੀ ਲਈ ਸਾਈਨ-ਅਪ ਕਰਨ ਜਾਂ ਵਧੇਰੇ ਜਾਣਕਾਰੀ ਲਈ ਸਾਡੀ ਵੈਬਸਾਈਟ ਤੇ ਜਾਓ

SutterSubbasin.org



Good afternoon,

The nine Groundwater Sustainability Agencies (GSAs) of Sutter Groundwater Subbasin are preparing a Groundwater Sustainability Plan (GSP) in response to the Sustainable Groundwater Management Act (SGMA). The GSP will be complete by the end of 2021.

Our third public workshop for the 2022 *Sutter Subbasin Groundwater Sustainability Plan* is next **Tuesday, June 15, 2021 from 6pm to 8pm**. We encourage all local community members, non-profit organizations, farmers, landowners, business owners, tribal communities, municipal agency staffers, and any other interested local stakeholders to participate. The workshop will be held virtually due to COVID-19. Our meeting materials, including the PowerPoint presentation will be available on our website www.suttersubbasin.org.

Sutter Subbasin GSP – Public Workshop #3

Tuesday, Jun 15, 2021 at 6:00 pm – 8:00 pm

GoToMeeting

Please join my meeting from your computer, tablet or smartphone:
<https://global.gotomeeting.com/join/391717261>.

You can also dial in using your phone: +1 (872) 240-3212, Access Code: 391-717-261.

Discussion topics will include:

- Hydrogeologic Conceptual Model Update
- Review of Basin Conditions
- Mapping GDEs and Interconnected Surface Water
- Water Budgets
- Projects and Management Actions

This public workshop is a great opportunity to get involved, learn about the planning process, and provide input on the future of groundwater management in the Sutter Subbasin.

Visit our website to learn more: www.SutterSubbasin.org. You can contact either me or Leslie Dumas of Woodard & Curran via email at the addresses included on this transmittal if you have any questions.

Thank You,

Guadalupe Rivera on behalf of Sutter Subbasin GSAs
 Sutter County Development Services



Learn more at www.SutterSubbasin.org



Buenas tardes,

Las nueve agencias de Sostenibilidad del Agua Subterránea (Groundwater Sustainability Agencies, GSAs) de la Subcuenca Sutter comenzaron a preparar un plan de sostenibilidad del agua subterránea (GSP) conforme a los requisitos de la Ley de Gestión Sostenible del Agua Subterránea (Sustainable Groundwater Management Act, SGMA). El GSP será terminado hacia el final del año 2021.

Invitamos a miembros de la comunidad local, organizaciones sin fines de lucro, agricultores, terratenientes, dueños de negocios, comunidades tribales, personal de agencias municipales y cualquier otro interesado local interesado a participar en nuestro taller público. Los materiales de la reunión de nuestro primer taller público se pueden encontrar en nuestro sitio web en www.suttersubbasin.org. Esta es una gran oportunidad para involucrarse, aprender sobre el proceso de planificación y brindar información sobre el futuro de la gestión del agua subterránea en la Subcuenca Sutter. El taller se realizará virtualmente debido al COVID-19. Visite nuestra página web (www.SutterSubbasin.org) para tener acceso a los materiales de la reunión.

Subcuenca Sutter GSP – Taller Público #3

martes 15 de junio de 2021 de 6pm a 8pm

GoToMeeting

Únase a nuestra reunión desde su computadora, tableta o teléfono inteligente: <https://global.gotomeeting.com/join/391717261>.

También pueden marcar con su teléfono al: 1 (872) 240-3212, *código de acceso*: 391-717-261.

Visite nuestro sitio web para obtener más información: www.SutterSubbasin.org. Puede ponerse en contacto conmigo o con Guadalupe Rivera de Conando de Sutter por correo electrónico a las direcciones incluidas en esta notificación si tiene alguna pregunta.

Gracias,
Guadalupe Rivera, en nombre de los GSAs de la Subcuenca Sutter
Servicios de Desarrollo del Condado de Sutter



Aprende más en www.SutterSubbasin.org



ਨਮਸਕਾਰ,

ਸਟਰ ਗਰਾਊਂਡ ਵਾਟਰ ਸਬਬੇਸਿਨ ਦੀਆਂ ਨੌਂ ਏਜੰਸੀਆਂ ਧਰਤੀ ਹੇਠਲੇ ਪਾਣੀ ਦੀ ਸਥਿਰਤਾ ਲਈ ਸਥਾਈ ਧਰਤੀ ਹੇਠਲਾ ਪ੍ਰਬੰਧਨ ਐਕਟ (ਐਸਜੀਐਮਏ) ਦੇ ਜਵਾਬ ਵਿੱਚ ਧਰਤੀ ਹੇਠਲੇ ਪਾਣੀ ਦੀ ਸਥਿਰਤਾ ਯੋਜਨਾ (ਜੀਐਸਪੀ) ਤਿਆਰ ਕਰਨ ਲੱਗੀਆਂ ਹਨ। ਜੀਐਸਪੀ 2021 ਦੇ ਅੰਤ ਤੱਕ ਪੂਰਾ ਹੋ ਜਾਵੇਗਾ। ਅਸੀਂ ਸਥਾਨਕ ਕਮਿਨਿਟੀ ਮੈਂਬਰਾਂ, ਗੈਰ-ਮੁਨਾਫ਼ਾ ਸੰਗਠਨਾਂ, ਕਿਸਾਨਾਂ, ਜ਼ਿਮੀਂਦਾਰਾਂ, ਕਾਰੋਬਾਰੀ ਮਾਲਕਾਂ, ਗੋਤਾਂ, ਨਗਰ ਨਿਗਮ ਏਜੰਸੀ ਦੇ ਕਰਮਚਾਰੀਆਂ ਅਤੇ ਕਿਸੇ ਵੀ ਹੋਰ ਦਿਲਚਸਪੀ ਵਾਲੇ ਸਥਾਨਕ ਹਿੱਸੇਦਾਰਾਂ ਨੂੰ ਸਾਡੀ ਜਨਤਕ ਵਰਕਸ਼ਾਪ ਵਿੱਚ ਹਿੱਸਾ ਲੈਣ ਲਈ ਸੱਦਾ ਦੇ ਰਹੇ ਹਾਂ। ਸ਼ਾਮਲ ਹੋਣ, ਯੋਜਨਾਬੰਦੀ ਪ੍ਰਕਿਰਿਆ ਬਾਰੇ ਜਾਣਨ ਅਤੇ ਸਟਰ ਸਬਬੇਸਿਨ ਵਿੱਚ ਧਰਤੀ ਹੇਠਲੇ ਪਾਣੀ ਦੇ ਪ੍ਰਬੰਧਨ ਦੇ ਭਵਿੱਖ ਬਾਰੇ ਜਾਣਕਾਰੀ ਪ੍ਰਦਾਨ ਕਰਨ ਦਾ ਇਹ ਇਕ ਵਧੀਆ ਮੌਕਾ ਹੈ। ਵਰਕਸ਼ਾਪ COVID-19 ਦੇ ਕਾਰਨ ਵਰਚੁਅਲੀ ਆਯੋਜਿਤ ਕੀਤੀ ਜਾਏਗੀ। ਮੀਟਿੰਗ ਦੀ ਸਮੱਗਰੀ ਸਾਡੀ ਵੈਬਸਾਈਟ 'ਤੇ ਅਪਲੋਡ ਕੀਤੀ ਜਾਏਗੀ।

ਸਟਰ ਸਬਬੇਸਿਨ ਜੀਐਸਪੀ - ਪਬਲਿਕ ਵਰਕਸ਼ਾਪ # 3

ਮੰਗਲਵਾਰ, 15 ਜੂਨ, 2021 ਸ਼ਾਮ 6 ਵਜੇ ਤੋਂ 8 ਵਜੇ ਤੱਕ ਦੀ ਤਾਰੀਖ ਯਾਦ ਰੱਖੋ

ਮੁਲਾਕਾਤ ਕਰਨ ਲਈ ਜਾਓ

ਕਿਰਪਾ ਕਰਕੇ ਆਪਣੇ ਕੰਪਿਓਟਰ, ਟੈਬਲੇਟ ਜਾਂ ਸਮਾਰਟਫੋਨ ਤੋਂ ਮੇਰੀ ਮੀਟਿੰਗ ਵਿੱਚ ਸ਼ਾਮਲ ਹੋਵੋ: <https://global.gotomeeting.com/join/391717261>.

ਤੁਸੀਂ ਆਪਣੇ ਫੋਨ ਦੀ ਵਰਤੋਂ ਕਰਕੇ ਵੀ ਡਾਇਲ ਕਰ ਸਕਦੇ ਹੋ: 1 (872) 240-3212, ਐਕਸੈਸ ਕੋਡ: 391-717-261.

ਵਧੇਰੇ ਜਾਣਨ ਲਈ ਸਾਡੀ ਵੈਬਸਾਈਟ 'ਤੇ ਜਾਓ: www.SutterSubbasin.org ਜੇ ਤੁਹਾਡੇ ਕੋਈ ਪ੍ਰਸ਼ਨ ਹਨ, ਤਾਂ ਤੁਸੀਂ ਇਸ ਸੰਚਾਰ 'ਤੇ ਸ਼ਾਮਲ ਪਤੇ 'ਤੇ ਜਾਂ ਤਾਂ ਮੇਰੇ ਜਾਂ ਵੁਡਾਰਡ ਐਂਡ ਕੁਰਾਨ ਦੇ ਲੈਸਲੀ ਡੇਮਸ ਨਾਲ ਈਮੇਲ ਰਾਹੀਂ ਸੰਪਰਕ ਕਰ ਸਕਦੇ ਹੋ।

ਤੁਹਾਡਾ ਧੰਨਵਾਦ,

ਗੁੱਡਾਲੂਪ ਰਿਵੇਰਾ ਸਟਰ ਸਬਬੇਸਿਨ ਜੀਐਸਏ ਦੀ ਤਰਫੋਂ
ਸਟਰ ਕਾਉਂਟੀ ਡਿਵੈਲਪਮੈਂਟ ਸਰਵਿਸਿਜ਼



ਵਧੇਰੇ ਜਾਣੋ www.SutterSubbasin.org



Public Workshop #3

Tuesday, June 15, 2021

Learn more at SutterSubbasin.org

The nine Groundwater Sustainability Agencies (GSAs) of Sutter Groundwater Subbasin are preparing a Groundwater Sustainability Plan (GSP) in response to the Sustainable Groundwater Management Act (SGMA). Participants are encouraged to attend and provide feedback for the Sutter Subbasin GSP.

Sutter Subbasin GSP — Public Workshop #3

Tuesday June 15, 2021 at 6:00 P.M. – 8:00 P.M.

GoToMeeting (remote/virtual)

Please join from your computer, tablet or smartphone:

 <https://global.gotomeeting.com/join/391717261>

Or dial-in:

 1 (872) 240-3212, Code: 391-717-261

Discussion topics will include:

-  Hydrogeologic Conceptual Model Update
-  Basin Conditions Update
-  Mapping GDEs and Interconnected Surface Water
-  Water Budgets
-  Projects and Management Actions

Para obtener ayuda con traducción al español, comuníquese con Guadalupe Rivera a través de correo electrónico al info@suttersubbasin.org por lo menos 72 horas antes de la reunión.

ਅਨੁਵਾਦ ਸਹਾਇਤਾ ਲਈ,
ਕਰਿਪਾ ਕਰਕੇ ਮੀਟਿੰਗ ਤੋਂ
ਘੱਟੋ ਘੱਟ 72 ਘੰਟੇ ਪਹਿਲਾਂ
info@suttersubbasin.org
ਤੇ ਲੈਸਲੀ ਡੂਮਾਸ ਨਾਲ
ਸੰਪਰਕ ਕਰੋ



It is important that we hear your voice, as this GSP will be used to reliably meet current and future water demands in a cost-effective and sustainable manner within your area.
Your participation is greatly appreciated!

Preparation of the 2022 Sutter Subbasin Groundwater Sustainability Plan is underway.

The nine Groundwater Sustainability Agencies of Sutter Groundwater Subbasin are preparing a Groundwater Sustainability Plan (GSP) in response to the Sustainable Groundwater Management Act (SGMA). In 2014, California enacted the SGMA to provide a framework for long-term sustainable groundwater management across California. The Sutter Subbasin is part of the Sacramento Valley Groundwater Basin and will submit a GSP to the State no later than January 31, 2022.

Sutter Subbasin GSP - Public Workshop 8/11/21

All meetings will be held virtually due to COVID-19 until further notice. Visit our website for more information.

GET INVOLVED! To sign up for our stakeholder list or learn more information visit our website.

SutterSubbasin.org

Aviso

Preparación del Plan de Sostenibilidad del Agua Subterránea (GSP) de la Subcuenca Sutter ha comenzado.

Las nueve agencias de Sostenibilidad del Agua Subterránea de la Subcuenca Sutter están comenzando a preparar un plan de GSP conforme a los requisitos de la Ley de Gestión Sostenible del Agua Subterránea (Sustainable Groundwater Management Act, SGMA). En 2014, California promulgó SGMA para proporcionar pautas para la gestión sostenible de las aguas subterráneas a largo plazo en todo California. La Subcuenca Sutter es parte de la Cuenca de Aguas Subterráneas del Valle de Sacramento y presentará un GSP al Estado a más tardar el 31 de enero de 2022.

Subcuenca Sutter GSP - Taller Público 8/11/21

Debido a COVID-19, todas las reuniones se llevarán a cabo virtualmente hasta nuevo aviso.

¡INVOLÚCRATE! Visite nuestro sitio web y registrarse para obtener más información.

SutterSubbasin.org

ਨੋਟਿਸ

2022 ਦੀ ਸਟਰ ਸਬਬੇਸਿਨ ਧਰਤੀ ਹੇਠਲੇ ਪਾਣੀ ਦੀ ਸਥਰਿਤਾ ਯੋਜਨਾ ਦੀ ਤਿਆਰੀ ਚੱਲ ਰਹੀ ਹੈ।

ਸਟਰ ਗਰਾਊਂਡ ਵਾਟਰ ਸਬਬੇਸਿਨ ਦੀਆਂ ਨੌਂ ਏਜੰਸੀਆਂ ਧਰਤੀ ਹੇਠਲੇ ਪਾਣੀ ਦੀ ਸਥਰਿਤਾ ਲਈ 'ਸਥਾਈ ਧਰਤੀ ਹੇਠਲਾ ਪ੍ਰਬੰਧਨ ਐਕਟ' (ਐਸਜੀਐਮਏ) ਦੇ ਜਵਾਬ ਵਿੱਚ ਧਰਤੀ ਹੇਠਲੇ ਪਾਣੀ ਦੀ ਸਥਰਿਤਾ ਯੋਜਨਾ (ਜੀਐਸਪੀ) ਤਿਆਰ ਕਰਨ ਲੱਗੀਆਂ ਹਨ। 2014 ਵਿੱਚ ਕੈਲੀਫੋਰਨੀਆ ਨੇ ਕੈਲੀਫੋਰਨੀਆ ਵਿੱਚ ਲੰਬੇ ਸਮੇਂ ਲਈ ਟੁਕਣ ਵਾਲੇ ਧਰਤੀ ਹੇਠਲੇ ਪਾਣੀ ਪ੍ਰਬੰਧਨ ਲਈ ਇੱਕ ਢਾਂਚਾ ਪ੍ਰਦਾਨ ਕਰਨ ਲਈ ਐਸਜੀਐਮਏ ਨੂੰ ਲਾਗੂ ਕੀਤਾ। ਸਟਰ ਸਬਬੇਸਿਨ ਸੈਕਰਾਮੈਂਟੋ ਵੈਲੀ ਗਰਾਊਂਡ ਵਾਟਰ ਬੇਸਿਨ ਦਾ ਹੱਸਿ ਹੈ ਅਤੇ 31 ਜਨਵਰੀ, 2022 ਤੱਕ ਕੈਲੀਫੋਰਨੀਆ ਸਟੇਟ ਨੂੰ ਜੀਐਸਪੀ ਤਿਆਰ ਕਰਕੇ ਦੇਵੇਗਾ।

ਸਟਰ ਸਬਬੇਸਿਨ ਜੀਐਸਪੀ - ਪਬਲਿਕ ਵਰਕਸ਼ਾਪ 8/11/21

ਅਗਲੀਆਂ ਸੂਚਨਾਵਾਂ ਤਕ ਸਾਰੀਆਂ ਮੀਟਿੰਗਾਂ ਵਰਚੁਅਲ ਹੋਣਗੀਆਂ।
ਵਧੇਰੇ ਜਾਣਕਾਰੀ ਲਈ ਸਾਡੀ ਵੈਬਸਾਈਟ ਵੇਖੋ

ਸ਼ਾਮਲ ਹੋਵੋ! ਸਾਡੇ ਹੱਸਿਦਾਰਾਂ ਦੀ ਸੂਚੀ ਲਈ ਸਾਈਨ-ਅਪ ਕਰਨ ਜਾਂ ਵਧੇਰੇ ਜਾਣਕਾਰੀ ਲਈ ਸਾਡੀ ਵੈਬਸਾਈਟ ਤੇ ਜਾਓ

SutterSubbasin.org



Please **save the date** for our fourth public workshop for the 2022 *Sutter Subbasin Groundwater Sustainability Plan* on **Wednesday, August 11, 2021 from 4 pm to 6 pm**. We encourage all local community members, non-profit organizations, farmers, landowners, business owners, tribal communities, municipal agency staffers, and any other interested local stakeholders to participate.

The workshop will be held virtually due to COVID-19.

Sutter Subbasin GSP – Public Workshop #4

Wednesday, August 11, 2021 at 4:00 pm – 6:00 pm

GoToMeeting

Please join my meeting from your computer, tablet or smartphone:

<https://global.gotomeeting.com/join/668712749>.

You can also dial in using your phone: +1 (224) 501-3412, Access Code: 668-712-749

Discussion topics will include:

- Sustainable Management Criteria
- Water Budgets with Projects and Management Actions
- Monitoring Networks
- Sustainable Yield Estimate
- Groundwater Sustainability Plan Implementation

The nine Groundwater Sustainability Agencies (GSAs) of Sutter Groundwater Subbasin have been preparing a Groundwater Sustainability Plan (GSP) in response to the Sustainable Groundwater Management Act (SGMA). The GSP will be complete by the end of 2021. This public workshop is a great opportunity to get involved, learn about the planning process, and provide input on the future of groundwater management in the Sutter Subbasin.

Visit our website to learn more: www.SutterSubbasin.org. You can contact either me or Leslie Dumas of Woodard & Curran via email at the addresses included on this transmittal if you have any questions.

Thank You,

Guadalupe Rivera on behalf of Sutter Subbasin GSAs
Sutter County Development Services



Learn more at www.SutterSubbasin.org



Por favor **reserve la fecha** para nuestro tercer taller público para el *Plan de Sostenibilidad del Agua Subterránea de la Subcuenca Sutter del 2022*, el **miércoles 11 de agosto de 2021 de 4pm a 6pm**. Alentamos a todos los miembros de la comunidad local, organizaciones sin fines de lucro, agricultores, terratenientes, dueños de negocios, comunidades tribales, personal de agencias municipales y cualquier otro interesado local a participar.

El taller se realizará virtualmente debido a COVID-19.

Sutter Subbasin GSP – Public Workshop #4
miércoles, 11 de agosto de 2021 de 4pm – 6pm
GoToMeeting

Únase a nuestra reunión desde su computadora, tableta o teléfono inteligente: <https://global.gotomeeting.com/join/668712749>.

También pueden marcar con su teléfono al: (224) 501-3412, *código de acceso*: 668-712-749

Las nueve Agencias de Sostenibilidad de Agua Subterránea (GSA) de la Subcuenca de Sutter de Agua Subterránea han estado preparando un Plan de Sostenibilidad de Agua Subterránea (GSP) en respuesta a la Ley de Gestión Sostenible del Agua Subterránea (SGMA). El GSP estará completo a fines de 2021.

Este taller público es una gran oportunidad para involucrarse, aprender sobre el proceso de planificación y brindar su opinión sobre el futuro de la gestión del agua subterránea en la Subcuenca Sutter.

Visite nuestro sitio web para obtener más información: www.SutterSubbasin.org. Puede ponerse en contacto conmigo o con Guadalupe Rivera de Conando de Sutter por correo electrónico a las direcciones incluidas en esta notificación si tiene alguna pregunta.

Gracias,

Guadalupe Rivera, en nombre de los GSAs de la Subcuenca Sutter
Servicios de Desarrollo del Condado de Sutter



Aprende más en www.SutterSubbasin.org



ਕਿਰਪਾ ਕਰਕੇ 2022 ਦੀ ਸਟਰ ਸਬਬੇਸਿਨ ਧਰਤੀ ਹੇਠਲੇ ਪਾਣੀ ਦੀ ਸਥਿਰਤਾ ਯੋਜਨਾ ਲਈ ਸਾਡੀ ਤੀਜੀ ਪਬਲਿਕ ਵਰਕਸ਼ਾਪ ਦੇ ਲਈ ਸੋਮਵਾਰ, 14 ਦਸੰਬਰ, 2021 ਸ਼ਾਮ 4:00 ਵਜੇ - ਸ਼ਾਮ 6 ਵਜੇ ਅਸੀਂ ਸਾਰੇ ਸਥਾਨਕ ਭਾਈਚਾਰੇ ਦੇ ਮੈਂਬਰਾਂ, ਗੈਰ-ਲਾਭਕਾਰੀ ਸੰਗਠਨਾਂ, ਕਿਸਾਨਾਂ, ਜ਼ਿੰਮੀਂਦਾਰਾਂ, ਕਾਰੋਬਾਰੀ ਮਾਲਕਾਂ, ਕਬਾਇਲੀ ਭਾਈਚਾਰਿਆਂ, ਮਿਊਂਸੀਪਲ ਏਜੰਸੀ ਦੇ ਕਰਮਚਾਰੀਆਂ ਅਤੇ ਕਿਸੇ ਹੋਰ ਦਿਲਚਸਪੀ ਰੱਖਣ ਵਾਲੇ ਸਥਾਨਕ ਹਿੱਸੇਦਾਰਾਂ ਨੂੰ ਭਾਗ ਲੈਣ ਲਈ ਬੇਨਤੀ ਕੇਵਿਡ-19 ਦੇ ਕਾਰਨ ਵਰਕਸ਼ਾਪ ਵਰਚੁਅਲ ਤੌਰ ਤੇ ਆਯੋਜਿਤ ਕੀਤੀ ਜਾਵੇਗੀ ਏਜੰਡਾ ਜਿਸ ਦੀ ਪਾਲਣਾ ਕਰਨੀ ਹੈ।

ਸਟਰ ਸਬਬੇਸਿਨ ਜੀਐਸਪੀ - ਪਬਲਿਕ ਵਰਕਸ਼ਾਪ # 4

ਬੁੱਧਵਾਰ, 11 ਅਗਸਤ, 2021 ਸ਼ਾਮ 4 ਵਜੇ - ਸ਼ਾਮ 6 ਵਜੇ

ਮੁਲਾਕਾਤ ਕਰਨ ਲਈ ਜਾਓ

ਕਿਰਪਾ ਕਰਕੇ ਆਪਣੇ ਕੰਪਿਊਟਰ, ਟੈਬਲੇਟ ਜਾਂ ਸਮਾਰਟਫੋਨ ਤੋਂ ਮੇਰੀ ਮੀਟਿੰਗ ਵਿੱਚ ਸ਼ਾਮਲ

ਜ਼ੋਨੇ: <https://global.gotomeeting.com/join/668712749>

ਤੁਸੀਂ ਆਪਣੇ ਫੋਨ ਦੀ ਵਰਤੋਂ ਕਰਕੇ ਵੀ ਡਾਇਲ ਕਰ ਸਕਦੇ ਹੋ: (224) 501-3412, ਐਕਸੈਸ ਕੋਡ: 668-712-749

ਸਟਰ ਸਬਬੇਸਿਨ ਧਰਤੀ ਹੇਠਲੇ ਪਾਣੀ ਦੀਆਂ ਨੌਂ ਧਰਤੀ ਹੇਠਲੇ ਪਾਣੀ ਦੀ ਸਥਿਰਤਾ ਦੀਆਂ ਏਜੰਸੀਆਂ (GSAs) ਧਰਤੀ ਹੇਠਲੇ ਪਾਣੀ ਦਾ ਟਿਕਾਊ ਪ੍ਰਬੰਧਨ ਐਕਟ (SGMA) ਦੇ ਜਵਾਬ ਵਿੱਚ ਧਰਤੀ ਹੇਠਲੇ ਪਾਣੀ ਦੀ ਸਥਿਰਤਾ ਯੋਜਨਾ (GSP) ਤਿਆਰ ਕਰ ਰਹੀਆਂ ਹਨ। GSP 2021 ਦੇ ਅੰਤ ਤੱਕ ਪੂਰਾ ਹੋ ਜਾਵੇਗਾ। ਇਹ ਜਨਤਕ ਵਰਕਸ਼ਾਪ ਸ਼ਾਮਲ ਹੋਣ, ਯੋਜਨਾਬੰਦੀ ਪ੍ਰਕਿਰਿਆ ਬਾਰੇ ਜਾਣਨ ਅਤੇ ਸਟਰ ਸਬਬੇਸਿਨ ਵਿੱਚ ਧਰਤੀ ਹੇਠਲੇ ਪਾਣੀ ਦੇ ਪ੍ਰਬੰਧਨ ਦੇ ਭਵਿੱਖ ਬਾਰੇ ਸੁਝਾਅ ਪੇਸ਼ ਕਰਨ ਦਾ ਇੱਕ ਵਧੀਆ ਮੌਕਾ ਹੈ।

ਵਧੇਰੇ ਜਾਣਨ ਲਈ ਸਾਡੀ ਵੈਬਸਾਈਟ ਤੇ ਜਾਓ: www.SutterSubbasin.org ਜੇ ਤੁਹਾਡੇ ਕੋਈ ਪ੍ਰਸ਼ਨ ਹਨ, ਤਾਂ ਤੁਸੀਂ ਇਸ ਸੰਚਾਰ 'ਤੇ ਸ਼ਾਮਲ ਪਤੇ' ਤੇ ਜਾਂ ਤਾਂ ਮੇਰੇ ਜਾਂ ਵੁਡਾਰਡ ਐਂਡ ਕੁਰਾਨ ਦੇ ਲੈਸਲੀ ਡੋਮਸ ਨਾਲ ਈਮੇਲ ਰਾਹੀਂ ਸੰਪਰਕ ਕਰ ਸਕਦੇ ਹੋ।

ਤੁਹਾਡਾ ਧੰਨਵਾਦ,

ਗੁੱਡਾਲੁਪ ਰਿਵੇਰਾ ਸਟਰ ਸਬਬੇਸਿਨ ਜੀਐਸਏ ਦੀ ਤਰਫੋਂ
ਸਟਰ ਕਾਉਂਟੀ ਡਿਵੈਲਪਮੈਂਟ ਸਰਵਿਸਿਜ਼



ਵਧੇਰੇ ਜਾਣੇ www.SutterSubbasin.org



Public Workshop #4

Wednesday, August 11, 2021

Learn more at SutterSubbasin.org

The nine Groundwater Sustainability Agencies (GSAs) of Sutter Groundwater Subbasin are preparing a Groundwater Sustainability Plan (GSP) in response to the Sustainable Groundwater Management Act (SGMA). Participants are encouraged to attend and provide feedback for the Sutter Subbasin GSP.

Sutter Subbasin GSP — Public Workshop #4

Wednesday August 11, 2021 at 4:00 P.M - 6:00 P.M.

GoToMeeting (remote/virtual)

Please join from your computer, tablet or smartphone:

 <https://global.gotomeeting.com/join/668712749>

Or dial-in:

 1 (224) 501-3412, Code: 668-712-749

Discussion topics will include:

-  Sustainable Management Criteria
-  Water Budgets with Projects and Management Actions
-  Monitoring Networks
-  Sustainable Yield Estimate
-  Groundwater Sustainability Plan Implementation

Para obtener ayuda con traducción al español, comuníquese con Guadalupe Rivera a través de correo electrónico al info@suttersubbasin.org por lo menos 72 horas antes de la reunión.

ਅਨੁਵਾਦ ਸਹਾਇਤਾ ਲਈ,
ਕਰਿਪਾ ਕਰਕੇ ਮੀਟਿੰਗ ਤੋਂ
ਘੱਟੋ ਘੱਟ 72 ਘੰਟੇ ਪਹਿਲਾਂ
info@suttersubbasin.org
ਤੇ ਲੈਸਲੀ ਡੂਮਾਸ ਨਾਲ
ਸੰਪਰਕ ਕਰੋ



It is important that we hear your voice, as this GSP will be used to reliably meet current and future water demands in a cost-effective and sustainable manner within your area.
Your participation is greatly appreciated!

Preparation of the 2022 Sutter Subbasin Groundwater Sustainability Plan is underway.

The nine Groundwater Sustainability Agencies of Sutter Groundwater Subbasin are preparing a Groundwater Sustainability Plan (GSP) in response to the Sustainable Groundwater Management Act (SGMA). In 2014, California enacted the SGMA to provide a framework for long-term sustainable groundwater management across California. The Sutter Subbasin is part of the Sacramento Valley Groundwater Basin and will submit a GSP to the State no later than January 31, 2022.

Sutter Subbasin GSP - Public Workshop 10/19/21

All meetings will be held virtually due to COVID-19 until further notice. Visit our website for more information.

GET INVOLVED! *To sign up for our stakeholder list or learn more information visit our website.*

SutterSubbasin.org

Public Comment Period - 10/1/21 to 11/12/21

The Public Draft GSP will be available October 1st at www.SutterSubbasin.org.
Comments can be submitted to info@suttersubbasin.org.

Ya está en marcha la preparación del Plan de sostenibilidad del agua subterránea de la Subcuenca de Sutter 2022.

Las nueve Agencias de sostenibilidad del agua subterránea (Groundwater Sustainability Agencies, GSA) de la Subcuenca de agua subterránea de Sutter están preparando un Plan de sostenibilidad del agua subterránea (Groundwater Sustainability Plan, GSP) en respuesta a la Ley de gestión sostenible del agua subterránea (Sustainable Groundwater Management Act, SGMA). En 2014, California promulgó la SGMA para proporcionar un marco a largo plazo para la gestión sostenible del agua subterránea en California. La Subcuenca de Sutter es parte de la Cuenca de agua subterránea del Valle de Sacramento y presentará un GSP al Estado a más tardar el 31 de enero de 2022.

Taller público sobre el GSP de la Subcuenca de Sutter el 10/19/21

Todas las reuniones se realizarán virtualmente debido a la COVID-19 hasta nuevo aviso. Visite nuestro sitio web para obtener más información.

¡PARTICIPE! Para inscribirse en nuestra lista de actores interesados o para obtener más información visite nuestro sitio web.

SutterSubbasin.org

Periodo de comentario público - 10/1/21 a 11/12/21

El borrador público del GSP estará disponible el 1º de octubre en www.SutterSubbasin.org. Los comentarios pueden enviarse a info@suttersubbasin.org.

2022 ਸਟਰ ਸਬਬੇਸਨਿ ਦੀ ਤਿਆਰੀ ਗ੍ਰਾਊਡਵਾਟਰ ਸਸਟੇਨੇਬਲਟੀ ਪਲਾਨ ਪ੍ਰਕਰਿਆ ਵੱਚ ਹੈ।

ਸਟਰ ਗ੍ਰਾਊਡਵਾਟਰ ਸਬਬੇਸਨਿ ਦੀਆਂ ਨੌਂ ਗ੍ਰਾਊਡਵਾਟਰ ਸਸਟੇਨੇਬਲਟੀ ਏਜੰਸੀਆਂ ਸਸਟੇਨੇਬਲ ਗ੍ਰਾਊਡਵਾਟਰ ਮੈਨੇਜਮੈਂਟ ਐਕਟ (SGMA) ਦੀ ਪ੍ਰਤੀਕਰਿਆ ਵੱਚ ਗ੍ਰਾਊਡਵਾਟਰ ਸਸਟੇਨੇਬਲਟੀ ਪਲਾਨ (GSP) ਤਿਆਰ ਕਰ ਰਹੀਆਂ ਹਨ। 2014 ਵੱਚ, ਕੈਲੀਫੋਰਨੀਆ ਨੇ ਕੈਲੀਫੋਰਨੀਆ ਵੱਚ ਦੀਰਘਕਾਲੀਨ ਚਰਿਕਾਲੀਨ ਭੂਮੀਗਤ ਜਲ ਲਈ ਇੱਕ ਰੂਪ-ਰੇਖਾ ਦੇਣ ਲਈ SGMA ਨੂੰ ਅਧਿਨਿਯਮਤ ਕੀਤਾ ਹੈ। ਦ ਸਟਰ ਸਬਬੇਸਨਿ ਸੈਕਰਾਮੈਂਟੋ ਵੈਲੀ ਗ੍ਰਾਊਡਵਾਟਰ ਬੇਸਨਿ ਦਾ ਇੱਕ ਹੱਸਾ ਹੈ ਅਤੇ ਇਹ 31 ਜਨਵਰੀ, 2022 ਤੱਕ ਰਾਜ ਨੂੰ GSP ਸਬਮਟਿ ਕਰੇਗਾ।

ਸਟਰ ਸਬਬੇਸਨਿ GSP ਪਬਲਕਿ ਵਰਕਸ਼ਾਪ 10/19/21

ਅਗਲੀਆਂ ਸੂਚਨਾਵਾਂ ਤਕ ਸਾਰੀਆਂ ਮੀਟਿੰਗਾਂ ਵਰਚੁਅਲ ਹੋਣਗੀਆਂ।
ਵਧੇਰੇ ਜਾਣਕਾਰੀ ਲਈ ਸਾਡੀ ਵੈਬਸਾਈਟ ਵੇਖੋ

ਸ਼ਾਮਲਿ ਹੋ ਜਾਓ! ਸਾਡੇ ਹੱਸੇਦਾਰ ਸੂਚੀ
ਲਈ ਸਾਇਨ ਅਪ ਕਰਨ ਲਈ ਜਾਂ ਜਾਣਨ
ਲਈ ਸਾਡੀ ਵੈਬਸਾਈਟ 'ਤੇ ਜਾਓ।

SutterSubbasin.org

ਪਬਲਕਿ ਕੁਮੈਂਟ ਪੀਰੀਅਡ - 10/1/21 ਤੋਂ 11/12/21

ਪਬਲਕਿ ਡ੍ਰਾਫਟ GSP 1 ਅਕਤੂਬਰ ਤੋਂ www.SutterSubbasin.org 'ਤੇ ਉਪਲਬਧ ਹੋਵੇਗਾ। ਟਾਪਿਣੀਆਂ
info@suttersubbasin.org 'ਤੇ ਸਬਮਟਿ ਕੀਤੀਆਂ ਜਾ ਸਕਦੀਆਂ ਹਨ।



Good morning,

Please **save the date** for our fifth public workshop for the 2022 *Sutter Subbasin Groundwater Sustainability Plan* on **Tuesday, October 19, 2021 from 4pm to 6pm**. We encourage all local community members, non-profit organizations, farmers, landowners, business owners, tribal communities, municipal agency staffers, and any other interested local stakeholders to participate.

The workshop will be held virtually due to COVID-19. Agenda to follow.

The nine Groundwater Sustainability Agencies (GSAs) of Sutter Groundwater Subbasin have been preparing a Groundwater Sustainability Plan (GSP) in response to the Sustainable Groundwater Management Act (SGMA). The GSP will be complete by the end of 2021 and submitted to the State prior to the January 31, 2022 deadline. This public workshop is a great opportunity to get involved, learn about the contents of the Sutter Subbasin GSP, and provide input on the future of groundwater management in the Sutter Subbasin.

Visit our website to learn more: www.SutterSubbasin.org. You can contact either me or Leslie Dumas of Woodard & Curran via email at the addresses included on this transmittal if you have any questions.

Thank You,

Guadalupe Rivera on behalf of Sutter Subbasin GSAs
Sutter County Development Services



Learn more at www.SutterSubbasin.org



Buenos días,

Por favor **anote la fecha** de nuestro quinto taller público sobre el *Plan de sostenibilidad del agua subterránea para la Subcuenca de Sutter 2022* el **martes, 19 de octubre de 2021 de 4 pm a 6 pm**. Animamos a participar a todos los miembros de la comunidad, organizaciones sin fines de lucro, agricultores, hacendados, propietarios de negocios, comunidades tribales, personal de agencias municipales y otros actores interesados locales.

El taller se realizará virtualmente debido a la COVID-19. Agenda a seguir.

Las nueve Agencias de sostenibilidad del agua subterránea (Groundwater Sustainability Agencies, GSA) de la Subcuenca de agua subterránea de Sutter han estado preparando un Plan de sostenibilidad del agua subterránea (Groundwater Sustainability Plan, GSP) en respuesta a la Ley de gestión sostenible del agua subterránea (Sustainable Groundwater Management Act, SGMA). El GSP estará completo para finales de 2021 y se presentará al Estado antes de la fecha límite del 31 de enero de 2022. Este taller público es una excelente oportunidad para involucrarse, aprender sobre los contenidos del GSP de la Subcuenca de Sutter y dar su opinión sobre el futuro de la gestión del agua subterránea en la Subcuenca de Sutter.

Visite nuestro sitio web para aprender más: www.SutterSubbasin.org. Puede ponerse en contacto conmigo o con Leslie Dumas de Woodward & Curran por correo electrónico a las direcciones incluidas en este mensaje si tiene alguna pregunta.

Gracias,

Guadalupe Rivera, en nombre de las GSA de la Subcuenca de Sutter
Servicios de desarrollo del Condado de Sutter



Puede encontrar más información en www.SutterSubbasin.org



ਸੁੱਭ ਸਵੇਰ,

ਕਿਰਪਾ ਕਰਕੇ ਮੰਗਲਵਾਰ, 19 ਅਕਤੂਬਰ, 2021 ਨੂੰ ਸ਼ਾਮ 4 ਤੋਂ 6 ਵਜੇ ਤੱਕ 2022 ਸਟਰ ਸਬਬੇਸਿਨ ਗ੍ਰਾਊਂਡਵਾਟਰ ਸਸਟੇਨੇਬਲਿਟੀ ਪਲਾਨ ਲਈ ਸਾਡੀ ਪੰਜਵੀਂ ਪਬਲਿਕ ਵਰਕਸ਼ਾਪ ਲਈ ਤਾਰੀਖ ਸੇਵ ਕਰੋ। ਅਸੀਂ ਹਿੱਸਾ ਲੈਣ ਵਾਲੇ ਸਾਰੇ ਸਮੁਦਾਇਕ ਕਮਿਊਨਿਟੀ ਮੈਂਬਰ, ਗੈਰ-ਲਾਭ ਸੰਗਠਨ, ਕਿਸਾਨ, ਜ਼ਮੀਂਦਾਰ, ਬਿਜਨਿਸ ਮਾਲਿਕ, ਕਬੀਲਾ ਸਮੁਦਾਇ, ਨਗਰਪਾਲਿਕਾ ਏਜੰਸੀ ਸਟਾਫ਼ਰ, ਅਤੇ ਕੋਈ ਹੋਰ ਚਾਹਵਾਨ ਸਥਾਨਕ ਹਿੱਸੇਦਾਰ ਨੂੰ ਉਤਸ਼ਾਹਿਤ ਕਰਦੇ ਹਾਂ।

ਕੋਵਿਡ-19 ਕਾਰਨ ਵਰਕਸ਼ਾਪ ਵਰਚੁਅਲੀ ਹੋਵੇਗੀ। ਫਾਲੋ ਕਰਨ ਲਈ ਏਜੰਡਾ।

ਸਟਰ ਗ੍ਰਾਊਂਡਵਾਟਰ ਸਬਬੇਸਿਨ ਦੀਆਂ ਨੌਂ ਗ੍ਰਾਊਂਡਵਾਟਰ ਸਸਟੇਨੇਬਲਿਟੀ ਏਜੰਸੀਆਂ (GSAs) ਸਸਟੇਨੇਬਲ ਗ੍ਰਾਊਂਡਵਾਟਰ ਮੈਨੇਜਮੈਂਟ ਐਕਟ (SGMA) ਦੀ ਪ੍ਰਤੀਕਿਰਿਆ ਵਿੱਚ ਗ੍ਰਾਊਂਡਵਾਟਰ ਸਸਟੇਨੇਬਲਿਟੀ ਪਲਾਨ (GSP) ਤਿਆਰ ਕਰ ਰਹੀਆਂ ਹਨ। GSP 2021 ਦੇ ਅੰਤ ਤੱਕ ਪੂਰਾ ਹੋ ਜਾਵੇਗਾ ਅਤੇ ਇਹ 31 ਜਨਵਰੀ, 2022 ਦੀ ਸਮਾਂ-ਸੀਮਾ ਤੋਂ ਪਹਿਲਾਂ ਰਾਜ ਨੂੰ ਸਬਮਿਟ ਕੀਤਾ ਜਾਵੇਗਾ। ਇਹ ਪਬਲਿਕ ਵਰਕਸ਼ਾਪ ਸ਼ਾਮਲ ਹੋਣ, ਸਟਰ ਸਬਬੇਸਿਨ GSP ਦੀ ਸਮੱਗਰੀ ਬਾਰੇ ਸਿੱਖਣ ਦਾ ਵਧੀਆ ਮੌਕਾ ਹੈ ਅਤੇ ਸਟਰ ਸਬਬੇਸਿਨ ਵਿੱਚ ਗ੍ਰਾਊਂਡਵਾਟਰ ਮੈਨੇਜਮੈਂਟ ਦੇ ਭਵਿੱਖ 'ਤੇ ਇਨਪੁਟ ਦੇਵੇਗਾ।

ਜ਼ਿਆਦਾ ਜਾਣਨ ਲਈ ਸਾਡੀ ਵੈਬਸਾਈਟ: www.SutterSubbasin.org 'ਤੇ ਜਾਓ। ਤੁਸੀਂ ਜਾਂ ਤਾਂ ਮੇਰੇ ਨਾਲ ਜਾਂ ਲੀਸੀਲੇ ਦੂਮਾਸ ਆੱਫ਼ ਵੁਡਾਰਡ ਅਤੇ ਕੁਰੈਨ ਨਾਲ ਇਸ ਪ੍ਰਸਾਰਣ 'ਤੇ ਸ਼ਾਮਲ ਪਤੇ 'ਤੇ ਈਮੇਲ ਕਰ ਸਕਦੇ ਹੋ।

ਧੰਨਵਾਦ,

ਸਟਰ ਸਬਬੇਸਿਨ GSAs ਵੱਲੋਂ ਗੁਆਡਾਲਪੇ ਰਿਵੇਰਾ

ਸਟਰ ਕਾਉਂਟੀ ਡਵੈਲਪਮੈਂਟ ਸਰਵਿਸਿਜ਼



ਜ਼ਿਆਦਾ ਜਾਣਕਾਰੀ ਲਈ www.SutterSubbasin.org 'ਤੇ ਜਾਓ



Public Workshop #5

Tuesday, October 19, 2021

Learn more at SutterSubbasin.org

The nine Groundwater Sustainability Agencies (GSAs) of Sutter Groundwater Subbasin are preparing a Groundwater Sustainability Plan (GSP) in response to the Sustainable Groundwater Management Act (SGMA). Participants are encouraged to attend and provide feedback for the Sutter Subbasin GSP.

Sutter Subbasin GSP — Public Workshop #5

Tuesday, October 19, 2021 at 4:00 P.M. – 6:00 P.M.

GoToMeeting (remote/virtual)

Please join from your computer, tablet or smartphone:

 <https://global.gotomeeting.com/join/214694605>

Or dial-in:

 **1 (408) 650-3123**, Code: 214-694-605

Discussion topics will include:

-  An overview of the Public Draft GSP
-  Public Comment Period
(open from October 1 through November 12)
-  GSP Adoption and Submittal timing

Para obtener ayuda con traducción al español, comuníquese con Guadalupe Rivera a través de correo electrónico al info@suttersubbasin.org por lo menos 72 horas antes de la reunión.

ਅਨੁਵਾਦ ਸਹਾਇਤਾ ਲਈ, ਕਰਿਪਾ ਕਰਕੇ ਮੀਟਿੰਗ ਤੋਂ ਘੱਟੋ ਘੱਟ 72 ਘੰਟੇ ਪਹਿਲਾਂ info@suttersubbasin.org ਤੇ ਲੈਸਲੀ ਡੂਮਾਸ ਨਾਲ ਸੰਪਰਕ ਕਰੋ



It is important that we hear your voice, as this GSP will be used to reliably meet current and future water demands in a cost-effective and sustainable manner within your area. *Your participation is greatly appreciated!*



Chapters of the Sutter Subbasin Groundwater Sustainability Plan are Available for Review!

The nine Groundwater Sustainability Agencies (GSAs) of Sutter Groundwater Subbasin have been preparing a Groundwater Sustainability Plan (GSP) in response to the Sustainable Groundwater Management Act (SGMA). Chapters will be released for public review as they are available. The first two chapters of the GSP are now available to download.

- Both the **Plan Area** and **Governance** chapters have been posted to the [Sutter Subbasin GSP website](https://www.suttersubbasin.org) for public review. Both chapters can be downloaded on the Resources page [here](#).
- The public **comment period is open until May 17, 2021**.
- Please email public comments to info@suttersubbasin.org and include "Sutter Subbasin GSP Plan Area and Governance comments" in the subject line.

Visit our website to learn more: www.SutterSubbasin.org. You can contact either me or Leslie Dumas of Woodard & Curran via email at the addresses included on this transmittal if you have any questions.

Additionally, we invite you to Save the Date for our third public workshop on June 15, 2021 from 6:00 pm to 8:00 pm.

Thank You,

Guadalupe Rivera on behalf of Sutter Subbasin GSAs
Sutter County Development Services



Learn more at www.SutterSubbasin.org



A Chapter of the Sutter Subbasin Groundwater Sustainability Plan is Available for Review!

The nine Groundwater Sustainability Agencies (GSAs) of Sutter Groundwater Subbasin have been preparing a Groundwater Sustainability Plan (GSP) in response to the Sustainable Groundwater Management Act (SGMA). Chapters will be released for public review as they are available. The first two chapters of the GSP were released in April; the comment period on these chapters closed in May. An additional chapter is now available to download and review. The plan will be released in its entirety in October for review.

- The **Hydrogeologic Conceptual Model** section of the Basin Setting Chapter (Section 5.1) has been posted to the [Sutter Subbasin GSP website](http://www.SutterSubbasin.org) for public review and can be downloaded on the Resources page [here](#).
- The public **comment period is open until August 9, 2021**.
- Please email public comments to info@suttersubbasin.org and include "Sutter Subbasin GSP HCM comments" in the subject line.

Visit our website to learn more: www.SutterSubbasin.org. You can contact either me or Leslie Dumas of Woodard & Curran via email at the addresses included on this transmittal if you have any questions.

Additionally, we invite you **to Save the Date for our fourth public workshop on August 11, 2021** from 4:00 pm to 6:00 pm. This is presently scheduled to be a virtual workshop.

Thank You,

Guadalupe Rivera on behalf of Sutter Subbasin GSAs
Sutter County Development Services



Learn more at www.SutterSubbasin.org



A Chapter of the Sutter Subbasin Groundwater Sustainability Plan is Available for Review!

The nine Groundwater Sustainability Agencies (GSAs) of Sutter Groundwater Subbasin have been preparing a Groundwater Sustainability Plan (GSP) in response to the Sustainable Groundwater Management Act (SGMA). Chapters will be released for public review as they are available. The first two chapters of the GSP were released in April; the comment period on these chapters closed in May. An additional chapter is now available to download and review. The plan will be released in its entirety in October for review.

- The **Groundwater Conditions** section of the Basin Setting Chapter (Section 5.2) has been posted to the [Sutter Subbasin GSP website](https://www.suttersubbasin.org) for public review and can be downloaded on the Resources page [here](#).
- The public **comment period is open until August 27, 2021**.
- Please email public comments to info@suttersubbasin.org and include "Sutter Subbasin GSP Groundwater Conditions comments" in the subject line.

Visit our website to learn more: www.SutterSubbasin.org. You can contact either me or Leslie Dumas of Woodard & Curran via email at the addresses included on this transmittal if you have any questions.

Additionally, we invite you **to Save the Date for our fourth public workshop on August 11, 2021** from 4:00 pm to 6:00 pm. This is presently scheduled to be a virtual workshop.

Thank You,

Guadalupe Rivera on behalf of Sutter Subbasin GSAs
Sutter County Development Services



Learn more at www.SutterSubbasin.org



Sutter Subbasin <info@suttersubbasin.org>

NOTICE (Aviso/नोटिस): The Sutter Subbasin Groundwater Sustainability Plan Public Draft is Available for Review!

Sutter Subbasin <info@suttersubbasin.org>

Fri, Oct 1, 2021 at 10:47 AM

Cc: Guadalupe Rivera <grivera@co.sutter.ca.us>, Leslie Dumas <ldumas@woodardcurran.com>, vdeanda@woodardcurran.com, Natalie Cochran <ncochran@woodardcurran.com>
 Bcc: Guadalupe Rivera <Grivera@co.sutter.ca.us>, morme@buttewater.net, scrolls@rarcivil.com, lphillips@sutterewd.com, sutterwater@aol.com, kwillis@yubacity.net, aduffey@succeed.net, brad@sutterbasinwater.com, jon@montnafarms.com, jtdfwd@yahoo.com, dd49erdd@yahoo.com, Pschubert@gswater.com, Colleen@buttefarmbureau.com, Cbuck@buttecounty.net, lhunter@countyofglenn.net, sstockton@countyofglenn.net, bryce@lundberg.com, mfahey@countyofcolusa.com, pgosselin@buttecounty.net, cbuck@buttecounty.net, kpeterson@buttecounty.net, caikens@yubawater.org, smatyac@yubawater.org, justine@ysfarmbureau.com, yuba-sutterfb@sbcglobal.net, afecko@pcwa.net, Chanson@placer.ca.gov, bgray@natomaswater.com, Tjoseph@roseville.ca.us, tohalloran@ycfcwcd.org, ksicke@ycfcwcd.org, rcornwell@rivergardenfarms.com, dguy@norcalwater.org, arobin@norcalwater.org, tmanley@norcalwater.org, alexis@sacfarmbureau.org, staff@sacfarmbureau.org, rswartz@rwah2o.org, chanson@placer.ca.gov, sswd@hughes.net, rd1001@syix.com, info@enterpriserancheria.org, frontdesk@mooretown.org, rcuellar@ssband.org, tinagoodwin@washoetanf.org, bguth@auburnrancheria.com, aroberts@yochadehe-nsn.gov, ibojorquez@yochadehe-nsn.gov, lbill@yochadehe-nsn.gov, thpo@yochadehe-nsn.gov, pelgerwater@comcast.net, tobymoore@gswater.com, asteidleo@gmail.com, ashley@yubariver.org, ssilva@newcurrentwater.com, Bridget.Gibbons@wildlife.ca.gov, jimwallace@ecolusa.com, chad.l.oliver@gmail.com, lherbert@co.sutter.ca.us, ddolan@lgc.org, mdavis@americanrivers.org, jportiz@ucsusa.org, Xeronimo.Castaneda@audubon.org, sarthur@audubon.org, ellen.mcbride@noaa.gov, Margaret.Janes@water.ca.gov, amanda.cranford@noaa.gov, carlosgrebt@gmail.com, Maria.Jochimsen@water.ca.gov, Wjow@yubacity.net, jamarel@reasonfarms.com, stnanrsn@comcast.net, Chelsea.Spier@water.ca.gov, wooleyfarms@msn.com, DhootFamilyFarms@gmail.com, melinda@yubariver.org, Dave Runsten <dave@caff.org>, cruzmora5149@gmail.com, Andy Jansen <andy@sillerhelicopters.com>, wjow@yubacity.net, rfiroved@calrice.org, ewedemeyer@co.shasta.ca.us, amerill@americanrivers.org, jnguyen@woodardcurran.com, johnnguyenvincent@gmail.com, brian@sgtrees.com, gstadem@lundberg.com, reid@sgtrees.com, Maureen79@gmail.com, hcurrent@renewablegroup.com, dawnc@sutter.k12.ca.us, jstep1938@gmail.com, writingbyb@gmail.com, tncgroundwater@gmail.com, eugenio.castro@gmail.com, liz@northbutterealestate.com, matteolibros@matteolibros.com, lindamillerleads@gmail.com, mgause@westervelt.com, abbottbillwilliam@gmail.com, gwen.hartford@gmail.com, lambertj283@gmail.com, 67mikesmith@gmail.com, bking@pacgoldag.com, kanddboeger@gmail.com, ashlayhazalton36145@gmail.com, alsaeedcorporation963@gmail.com, ahmedkirillov5@gmail.com, shivers.bryant@gmail.com, nick@saaytext.com, olegivanover1@gmail.com, janlecompte7162@gmail.com, ShanCarney@gmail.com, davidmitchell7162@gmail.com, lshi@anatolygroup.com, qlouk@taikz.com, eric.jones.z.mail@gmail.com, peterson.betty@gmail.com, RudolphFriar@gmail.com, gafinan.c.ier@gmail.com, bowens.danae62@gmail.com, FerdinandPunter@hotmail.com, TennilleNesland@gmail.com, trena@sundatagroup.com, BlairLiberatore@gmail.com, olegivanover2@gmail.com, ClaudeGompf@gmail.com, jasonward9681@gmail.com, jesus.beltran@yahoo.com, no-replySterly@gmail.com, no-replyer@gmail.com, smorgan@yochadehe-nsn.gov, evie@businessleads101.com, KingBlackman@gmail.com, johanfourieltd@gmail.com



The Sutter Subbasin Groundwater Sustainability Plan Public Draft is Available for Review!

The nine Groundwater Sustainability Agencies (GSAs) of Sutter Groundwater Subbasin have been preparing a Groundwater Sustainability Plan (GSP) in response to the Sustainable Groundwater Management Act (SGMA). The Sutter Subbasin GSP will be complete by the end of 2021 and adopted prior to the regulatory deadline of January 31, 2022. The draft plan has been released in its entirety for public review.

- The **Sutter Subbasin GSP Public Draft** has been posted to the [Sutter Subbasin GSP website](http://www.SutterSubbasin.org) for public review and can be downloaded on the Resources page [here](#).
- The public **comment period is open until November 12, 2021**.
- Please email public comments to info@suttersubbasin.org and include "Sutter Subbasin GSP Public Draft comments" in the subject line.

Visit our website to learn more: www.SutterSubbasin.org. You can contact either me or Leslie Dumas of Woodard & Curran via email at the addresses included on this transmittal if you have any questions.

Additionally, we invite you **to Save the Date for our fifth public workshop on October 19, 2021** from 4:00 pm to 6:00 pm. This is presently scheduled to be a virtual workshop.

Thank You,

Guadalupe Rivera on behalf of Sutter Subbasin GSAs
Sutter County Development Services



Learn more at www.SutterSubbasin.org



¡El Borrador público del Plan de sostenibilidad del agua subterránea de la subcuenca de Sutter está disponible para revisión!

Las nueve Agencias de sostenibilidad del agua subterránea (Groundwater Sustainability Agencies, GSA) de la Subcuenca de agua subterránea de Sutter han estado preparando un Plan de sostenibilidad de agua subterránea (Groundwater Sustainability Plan, GSP) en respuesta a la Ley de gestión sostenible del agua subterránea (Sustainable Groundwater Management Act, SGMA). El GSP de la Subcuenca de Sutter se concluirá a fines de 2021, y se aprobará antes del plazo límite regulatorio del 31 de enero de 2022. El borrador del plan ha sido publicado para su revisión.

- El **Borrador público del Plan de sostenibilidad del agua subterránea de la subcuenca de Sutter** se ha publicado en el [sitio web del GSP de la subcuenca Sutter](http://www.SutterSubbasin.org) para revisión pública y se pueden descargar en la página Recursos [aquí](#).
- El **periodo para comentario público está abierto hasta el 12 de noviembre de 2021**.
- Por favor envíe sus comentarios públicos por correo electrónico a info@suttersubbasin.org e incluya en el asunto del correo el texto "Sutter Subbasin GSP Public Draft Comments".

Visite nuestro sitio web para saber más: www.SutterSubbasin.org. Puede ponerse en contacto conmigo o con Leslie Dumas de Woodard & Curran por correo electrónico a las direcciones incluidas en este mensaje si tiene alguna pregunta.

Además, lo invitamos **a apuntar la fecha para nuestro quinto taller público que tendrá lugar el 19 de octubre de 2021**, de 4:00 pm a 6:00 pm. Por ahora está previsto que este sea un taller virtual.

Gracias,

Guadalupe Rivera, en nombre de las GSA de la Subcuenca de Sutter
Servicios de desarrollo del Condado de Sutter



Puede encontrar más información en www.SutterSubbasin.org



ਜਨਤਕ ਸਮੀਖਿਆ ਅਤੇ ਟਿੱਪਣੀ ਲਈ ਡ੍ਰਾਫਟ ਗ੍ਰਾਊਂਡਵਾਟਰ ਸਸਟੇਨੇਬਲਿਟੀ ਪਲਾਨ ਉਪਲਬਧ ਹੈ!

ਸਟਰ ਗ੍ਰਾਊਂਡਵਾਟਰ ਸਬਬੇਸਿਨ ਦੀਆਂ ਨੌਂ ਗ੍ਰਾਊਂਡਵਾਟਰ ਸਸਟੇਨੇਬਲਿਟੀ ਏਜੰਸੀਆਂ (GSAs) ਸਸਟੇਨੇਬਲ ਗ੍ਰਾਊਂਡਵਾਟਰ ਮੈਨੇਜਮੈਂਟ ਐਕਟ (SGMA) ਦੀ ਪ੍ਰਤੀਕਿਰਿਆ ਵਿੱਚ ਗ੍ਰਾਊਂਡਵਾਟਰ ਸਸਟੇਨੇਬਲਿਟੀ ਪਲਾਨ (GSP) ਤਿਆਰ ਕਰ ਰਹੀਆਂ ਹਨ। ਸਟਰ ਸਬਬੇਸਿਨ GSP 2021 ਦੀ ਸਮਾਪਤੀ ਤੱਕ ਪੂਰੀ ਹੋਵੇਗੀ ਅਤੇ 31 ਜਨਵਰੀ, 2022 ਦੀ ਰੈਗੂਲੇਟਰੀ ਸਮਾਂ-ਸੀਮਾ ਤੋਂ ਪਹਿਲਾਂ ਗ੍ਰਹਿਣ ਕੀਤਾ ਜਾਵੇਗਾ। ਸਟਰ ਸਬਬੇਸਿਨ ਗ੍ਰਾਊਂਡਵਾਟਰ ਸਸਟੇਨੇਬਲਿਟੀ ਪਲਾਨ ਪਬਲਿਕ ਡ੍ਰਾਫਟ ਨੂੰ ਜਨਤਕ ਟਿੱਪਣੀ ਕਾਲ ਲਈ 1 ਅਕਤੂਬਰ ਤੋਂ 12 ਨਵੰਬਰ ਤੱਕ ਉਪਲਬਧ ਕਰਵਾਏ ਜਾਣ ਦੀ ਉਮੀਦ ਹੈ।

- ਨੂੰ ਜਨਤਕ ਸਮੀਖਿਆ ਲਈ [ਸਟਰ ਸਬਬੇਸਿਨ GSP ਵੈਬਸਾਈਟ](http://www.SutterSubbasin.org) 'ਤੇ ਪੋਸਟ ਕੀਤਾ ਗਿਆ ਹੈ ਅਤੇ ਇਸਨੂੰ [ਇੱਥੇ](mailto:info@suttersubbasin.org) ਰਿਸ਼ੱਰਸ ਪੇਜ 'ਤੇ ਡਾਊਨਲੋਡ ਕੀਤਾ ਜਾ ਸਕਦਾ ਹੈ।
- ਪਬਲਿਕ ਕੁਮੈਂਟ **ਅਵਧੀ 12 ਨਵੰਬਰ, 2021 ਤੱਕ ਖੁੱਲ੍ਹਾ ਹੈ।**
- ਕਿਰਪਾ ਕਰਕੇ info@suttersubbasin.org 'ਤੇ ਜਨਤਕ ਟਿੱਪਣੀਆਂ ਈਮੇਲ ਕਰੋ ਅਤੇ ਵਿਸ਼ਾ ਲਾਇਨ ਵਿੱਚ "ਸਟਰ ਸਬਬੇਸਿਨ GSP ਕੁਮੈਂਟਸ" ਸ਼ਾਮਲ ਕਰੋ।

ਜ਼ਿਆਦਾ ਜਾਣਕਾਰੀ ਲਈ ਸ਼ਾਡੀ ਵੈਬਸਾਈਟ 'ਤੇ ਜਾਓ: www.SutterSubbasin.org ਜੇ ਤੁਹਾਡਾ ਕੋਈ ਸਵਾਲ ਹੈ ਤੁਸੀਂ ਇਸ ਪ੍ਰਸਾਰਣ 'ਤੇ ਸ਼ਾਮਲ ਪਤੇ 'ਤੇ ਈਮੇਲ ਰਾਹੀਂ ਮੈਨੂੰ ਜਾਂ ਵੁਡਾਰਡ ਐਂਡ ਕੁਰੇਨ ਦੇ ਲੇਸਿਲ ਦਮਸ ਨਾਲ ਸੰਪਰਕ ਕਰ ਸਕਦੇ ਹੋ।

ਇਸ ਤੋਂ ਇਲਾਵਾ, ਅਸੀਂ ਸ਼ਾਮ 4:00 ਵਜੇ ਤੋਂ 6:00 ਵਜੇ ਤੱਕ **19 ਅਕਤੂਬਰ, 2021 ਨੂੰ ਸਾਡੀ #5 ਪਬਲਿਕ ਵਰਕਸ਼ਾਪ ਲਈ ਤਾਰੀਖ ਸੇਵ ਕਰਨ ਲਈ** ਸੱਦਾ ਦਿੰਦੇ ਹਾਂ। ਇਹ ਮੌਜੂਦਾ ਸਮੇਂ ਵਿੱਚ ਇੱਕ ਵਰਚੂਅਲ ਵਰਕਸ਼ਾਪ ਨਿਰਧਾਰਤ ਕੀਤੀ ਜਾਵੇਗੀ।

ਧੰਨਵਾਦ,

ਸਟਰ ਸਬਬੇਸਿਨ GSAs ਵੱਲੋਂ ਗੁਆਡਾਲੋਪ ਰਿਵੇਰਾ
ਸਟਰ ਕਾਉਂਟੀ ਡਵੈਲਪਮੈਂਟ ਸੇਵਾਵਾਂ



www.SutterSubbasin.org 'ਤੇ ਜ਼ਿਆਦਾ ਜਾਣਕਾਰੀ ਲਓ



Sutter Subbasin <info@suttersubbasin.org>

NOTICE (Aviso/नोटिस): The Sutter Subbasin Groundwater Sustainability Plan Public Draft is Available for Review!

Sutter Subbasin <info@suttersubbasin.org>

Mon, Nov 1, 2021 at 11:42 AM

To: Guadalupe Rivera <grivera@co.sutter.ca.us>, Leslie Dumas <ldumas@woodardcurran.com>, Natalie Cochran <ncochran@woodardcurran.com>, vdeanda@woodardcurran.com

Bcc: morme@buttewater.net, scrolls@rarcivil.com, lphillips@sutterewd.com, sutterwater@aol.com, kwillis@yubacity.net, aduffey@succeed.net, brad@sutterbasinwater.com, jon@montnafarms.com, jtdfwd@yahoo.com, dd49erdd@yahoo.com, Pschubert@gswater.com, dguy@norcalwater.org, arobin@norcalwater.org, tmanley@norcalwater.org, alexis@sacfarmbureau.org, staff@sacfarmbureau.org, rswartz@rwah2o.org, chanson@placer.ca.gov, sswd@hughes.net, rd1001@syix.com, info@enterpriserancheria.org, frontdesk@mooretown.org, rcuellar@ssband.org, tinagoodwin@washoetanf.org, bguth@auburnrancheria.com, aroberts@yochadehe-nsn.gov, ibojorquez@yochadehe-nsn.gov, lbill@yochadehe-nsn.gov, thpo@yochadehe-nsn.gov, pelgerwater@comcast.net, tobymoore@gswater.com, asteidleo@gmail.com, ashley@yubariver.org, justine@ysfarmbureau.com, ssilva@newcurrentwater.com, Bridget.Gibbons@wildlife.ca.gov, jimwallace@ecolusa.com, chad.l.oliver@gmail.com, lherbert@co.sutter.ca.us, ddolan@lgc.org, mdavis@americanrivers.org, jportiz@ucsusa.org, Xeronimo.Castaneda@audubon.org, sarthur@audubon.org, ellen.mcbride@noaa.gov, Margaret.Janes@water.ca.gov, amanda.cranford@noaa.gov, carlosgrebt@gmail.com, Maria.Jochimsen@water.ca.gov, Wjow@yubacity.net, jamarel@reasonfarms.com, stnansn@comcast.net, Chelsea.Spier@water.ca.gov, wooleyfarms@msn.com, DhootFamilyFarms@gmail.com, melinda@yubariver.org, Dave Runsten <dave@caff.org>, cruzmora5149@gmail.com, Andy Jansen <andy@sillerhelicopters.com>, wjow@yubacity.net, rfiroved@calrice.org, ewedemeyer@co.shasta.ca.us, amerill@americanrivers.org, jnguyen@woodardcurran.com, johnnguyenvincent@gmail.com, brian@sgtrees.com, gstadem@lundberg.com, reid@sgtrees.com, Maureen79@gmail.com, hcurrent@renewablegroup.com, dawnc@sutter.k12.ca.us, jstep1938@gmail.com, writingbyb@gmail.com, tncgroundwater@gmail.com, eugenio.castro@gmail.com, liz@northbutterealestate.com, matteolibros@matteolibros.com, lindamillerleads@gmail.com, mgause@westervelt.com, abbotbillwilliam@gmail.com, gwen.hartford@gmail.com, lambertj283@gmail.com, 67mikesmith@gmail.com, bking@pacgoldag.com, kanddboeger@gmail.com, ashlayhazalton36145@gmail.com, alsaeedcorporation963@gmail.com, ahmedkirillov5@gmail.com, shivers.bryant@gmail.com, nick@saaytext.com, cbuck@buttecounty.net, olegivanover1@gmail.com, janlecompte7162@gmail.com, ShanCarney@gmail.com, davidmitchell7162@gmail.com, lshi@anatolygroup.com, qlouk@taikz.com, eric.jones.z.mail@gmail.com, peterson.betty@gmail.com, RudolphFriar@gmail.com, gafinan.c.ier@gmail.com, bowens.danae62@gmail.com, FerdinandPunter@hotmail.com, TennilleNesland@gmail.com, trena@sundatagroup.com, BlairLiberatore@gmail.com, olegivanover2@gmail.com, ClaudeGompf@gmail.com, jasonward9681@gmail.com, jesus.beltran@yahoo.com, no-replySterly@gmail.com, no-replyer@gmail.com, smorgan@yochadehe-nsn.gov, evie@businessleads101.com, KingBlackman@gmail.com, johanfourieltd@gmail.com, AngeloJude@gmail.com, cole.mena@yahoo.com, ida@order-fulfillment.net, olegivanover3@gmail.com, alio.shivams@halumail.com, malinoleg91@mail.ru, bermingham.zelda@gmail.com, MaidaBurgener@hotmail.com, denisandreev1989521a1n+l7@list.ru, maks.gusarskiy.86@mail.ru, ivakhov1988@mail.ru, toby_knows@yahoo.com, svetlana.krasnodymova@mail.ru, olegivanover4@gmail.com, merabi_almerabi@carleton.ca, mvexbe05@hotmail.com, jerry.cutler@gmail.com, rollszerviz@gmail.com, olegivanover5@yahoo.com, medvedeva.pavlina2001@mail.ru, burg.laurinda27@msn.com, burton@order-fulfillment.net, dan.navarro@free.fr, garey.shavonne@gmail.com, steve@explainervideos4u.xyz, olegivanover6@yahoo.com, sfsdsvdsvdsv@yahoo.com



Reminder: The Sutter Subbasin Groundwater Sustainability Plan Public Draft is Available for Review!

Comments on the Sutter Subbasin GSP Public Draft are due **November 12, 2021** to info@suttersubbasin.org. The Public Draft can be downloaded on the Resources page [here](#). See original email below for

more information.

Additionally, a recording of our fifth public workshop from October 19, 2021 can be accessed on the Meetings page [here](#) with closed captions in English, Spanish, and Punjabi.

Thank You,

Guadalupe Rivera on behalf of Sutter Subbasin GSAs
Sutter County Development Services



Learn more at www.SutterSubbasin.org

[Quoted text hidden]



SUSTAINABLE GROUNDWATER MANAGEMENT ACT

Managing Our Water Resources for the Future

What is SGMA?

The **Sustainable Groundwater Management Act**, known as "SGMA" (pronounced sig-ma), is a California State law that was passed in 2014. SGMA's goal is to ensure the long-term sustainable management of the State's groundwater resources. SGMA requires agencies throughout California to meet certain requirements. These include:

- ◆ **Forming Groundwater Sustainability Agencies**
- ◆ **Developing Groundwater Sustainability Plans**
- ◆ **Achieving balanced groundwater levels within 20 years**

How Does This Impact Me?

Water is vital to the economy, the environment, and the quality of life in Sutter County. While this precious resource is visible every day in the Sacramento and Feather Rivers, water underground is no less important, providing about half of the region's water supply. Groundwater serves the needs of cities, farms and businesses and provides high quality drinking water to urban and rural residents, all while helping to sustain vital ecosystems.

What is the Sutter Subbasin?

The Sutter Subbasin is generally described as being in the "central portion of the Sacramento Valley Groundwater Basin." It is located within Sutter County and is bounded on the north by Butte-Sutter County line (except for the Sutter County portion of Biggs-West Gridley Water District), on the west by the Sacramento River, on the south by the confluence of the Sacramento River and the Feather River, and on the east by the Feather River and the eastern boundary with the Sutter-Yuba County line.

Who are the Sutter Subbasin GSAs

Groundwater Sustainability Agencies (GSAs) were formed in accordance with SGMA. The GSAs in the Subbasin are working together to meet SGMA requirements and collaboratively prepare a groundwater sustainability plan (GSP). This plan will outline how the agencies will implement, manage, and measure specific actions to sustainably manage the groundwater. The GSP for the Sutter Subbasin must be submitted to the State no later than January 31, 2022.

The Sutter Subbasin Groundwater Sustainability Agencies include:

- | | |
|---|------------------------------------|
| ◆ Sutter County | ◆ City of Yuba City |
| ◆ Butte Water District | ◆ Reclamation District 70 |
| ◆ City of Live Oak | ◆ Reclamation District 1500 |
| ◆ Sutter Extension Water District | ◆ Reclamation District 1660 |
| ◆ Sutter Community Services District | |

Why You Should Be Involved

Join us and learn about the condition and future health of your groundwater subbasin. Participate in the process to understand what needs to be done to protect the quality and availability of this valuable resource. Learn why maintaining a sustainable groundwater subbasin matters to the economy, environment, and quality of life of our urban and rural communities.



Your Community. Your Water. Get Involved.

-  Sign up for our stakeholder list
-  Talk to your local GSA representative
-  Attend public meetings and workshops
-  Provide input on the groundwater sustainability plan
-  Help us spread the word!

GET INVOLVED! To sign up for our stakeholder list or learn more information visit our website.

SutterSubbasin.org

Sutter Subbasin GSP — Public Workshops

See our website for information on how to join our upcoming committee meetings and public workshops!

<http://www.suttersubbasin.org/meetings.html>

All meetings will be held virtually due to COVID-19 until further notice.

Please email info@suttersubbasin.org if you have any questions.

California's Sustainable Groundwater Management Act (SGMA): Understanding the Law

The California Farm Bureau Federation developed this resource for farmers and landowners to help you understand why SGMA is important and how you can be involved.

SGMA requires formation of local agencies to develop new plans, called Groundwater Sustainability Plans or GSPs, to address and prevent problems in groundwater basins in most areas of the state. Signed into law in September 2014, SGMA focuses on protecting California's groundwater for generations to come.



How can I get involved?
How will it affect me?
Why do we have SGMA?
Where does it apply?

The Road to Sustainability

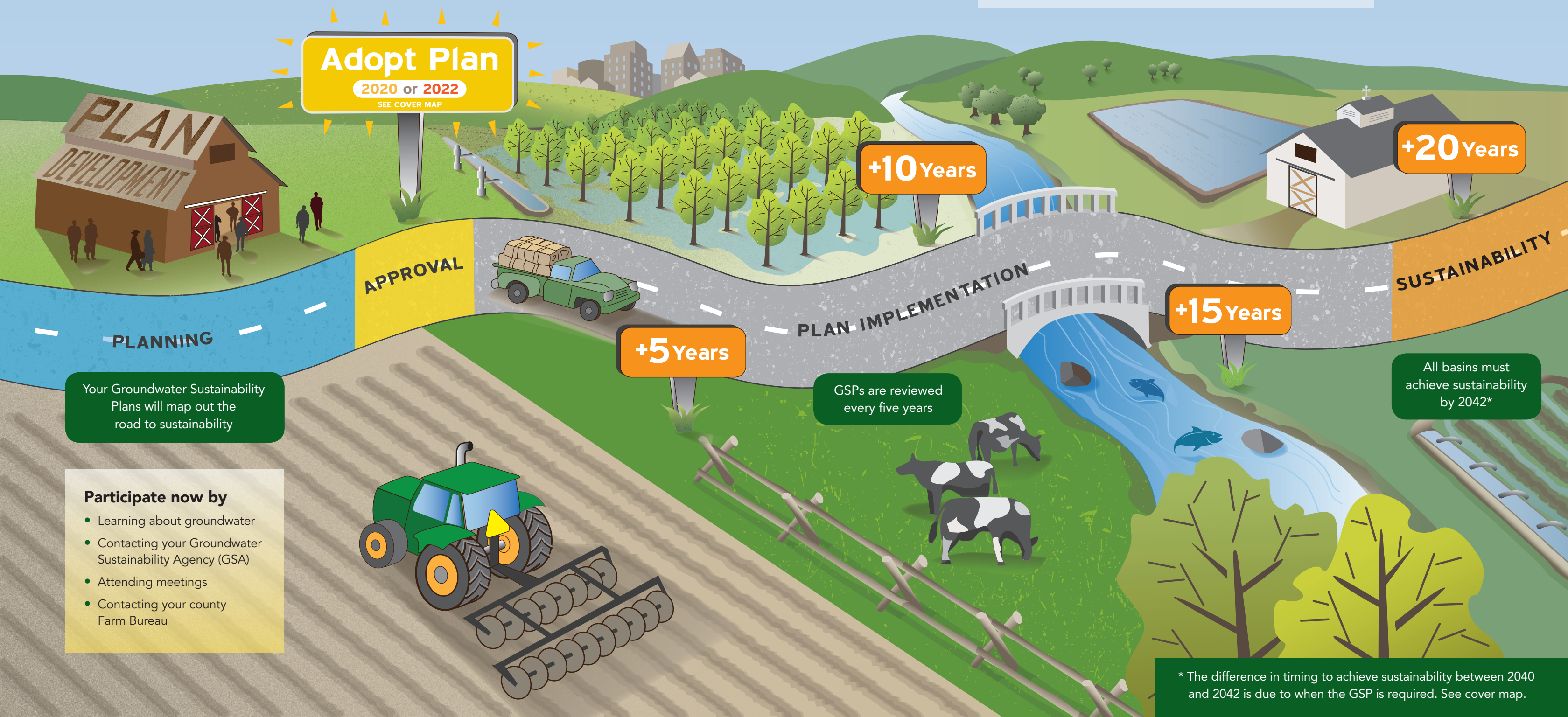
Learn and Engage!

Participate now to represent your interest. SGMA stresses local group formation, local plans and local management.

SGMA plans will reflect local conditions and can include local solutions. Once approved by the state, your local plan represents a commitment to future actions.

Let's be clear:

- SGMA will affect your groundwater pumping
- SGMA establishes new responsibilities to share groundwater
- SGMA will change how we use land and water
- SGMA does not change water rights

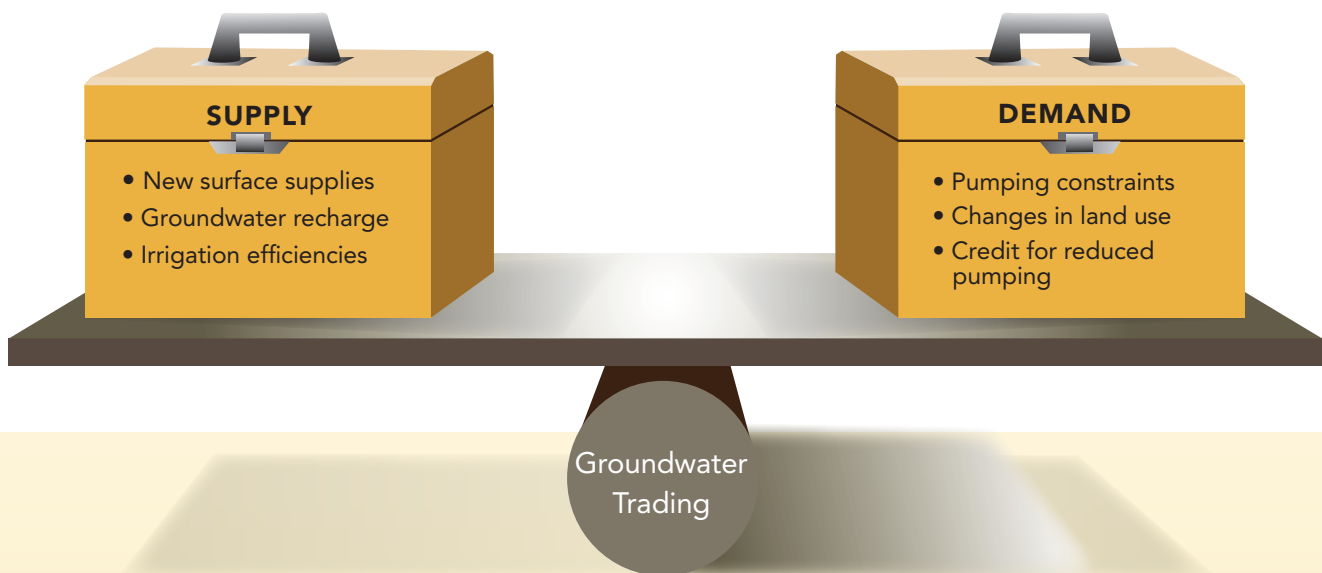


Opportunities and Challenges on the Road to Sustainability

GSP development and implementation will be a balancing act — among different interests, between water supply and water demand, and among beneficial uses. This is your opportunity to be involved, to ensure your interests are considered.

The primary tools your Groundwater Sustainability Agencies (GSA) have in the development of your GSP will be measures to either manage demand or manage supply.

Some tools to balance groundwater supply and demand



Groundwater Sustainability Plans (GSPs) will:

- Describe the basin
- Develop a water budget
- Set groundwater management standards and objectives
- Identify actions and projects to meet those standards and objectives
- Establish a monitoring program to measure success

GSPs will be geared to improvements over 20 years; plans will be reviewed every five years.

Groundwater Sustainability Agency (GSA) authorities:

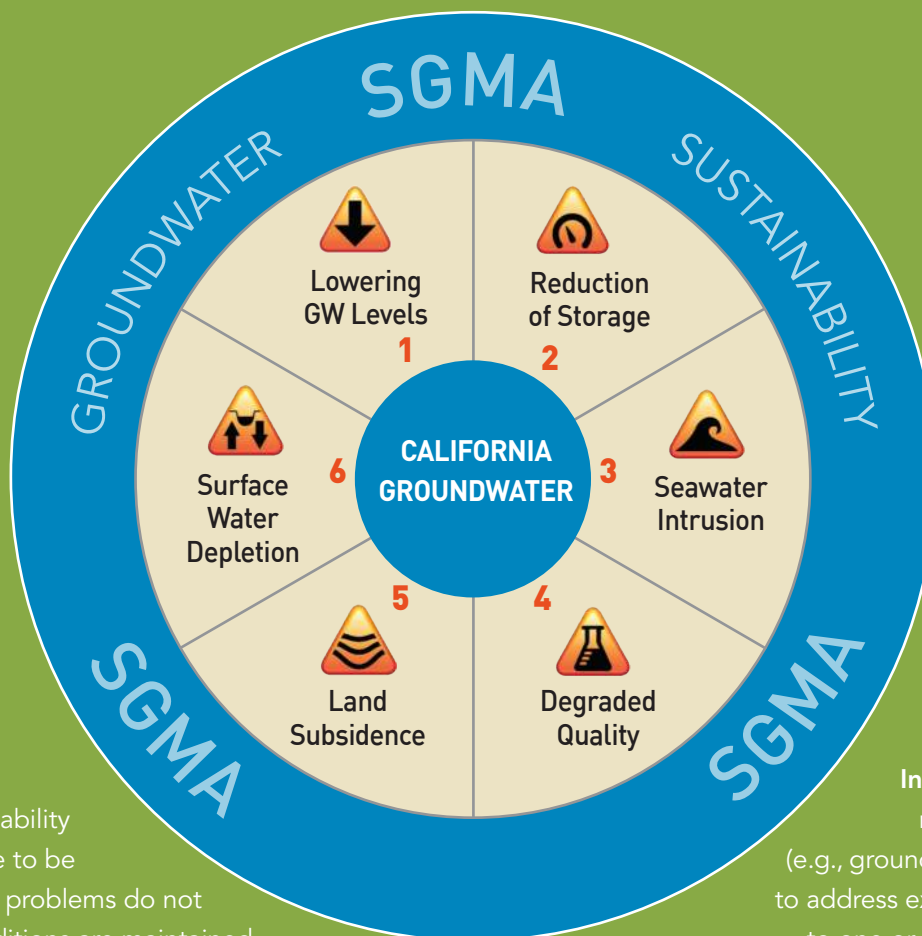
- Regulate pumping
- Require measurement and reporting of groundwater use
- Charge fees
- Enforce the GSP

GSAs will have the power to manage both supply and demand to meet objectives developed in the GSP.

Why SGMA?

California groundwater is an essential resource — we need it for farms, cities and other uses, today and tomorrow. SGMA seeks to ensure reliable groundwater supplies in the future through long-term groundwater management across California. The law creates a statewide process intended to protect future groundwater availability.

SGMA focuses on managing these six undesirable results



In some regions, Groundwater Sustainability Plans (GSPs) will have to be developed to ensure problems do not occur and good conditions are maintained over the next 20 years.

In other regions, GSPs will require significant actions (e.g., groundwater recharge projects) to address existing challenges related to one or more of the "undesirable results," shown above.

SGMA encourages local communities to work together to develop effective GSPs, and encourages neighboring basins to find common, acceptable solutions. Basins not managed locally will have plans written and implemented by the State Water Resources Control Board.

Terms to know

- **Adjudicated Areas:** Where disputes over legal rights to groundwater have resulted in a court-issued ruling (known as an adjudication). Adjudications can cover an entire basin, a portion of a basin, or a group of basins.
- **Basin Prioritization:** Classification of California's 517 groundwater basins and subbasins into priorities based primarily on the importance of groundwater to the area. The priority of basins and subbasins determines the schedule for completing GSPs and whether SGMA provisions apply in a given basin. High- and medium-priority basins must comply with SGMA.
- **Best Management Practices (BMPs):** Practices designed to help achieve sustainable groundwater management. BMPs are intended to be effective, practical, and based on best available science.
- **Bulletin 118:** A California Department of Water Resources (DWR) document outlining the locations and characteristics of groundwater basins in California.
- **Critically Overdrafted:** Basins and subbasins identified by DWR to be subject to conditions of critical overdraft. GSPs are due in 2020.
- **Groundwater Sustainability Agency (GSA):** One or more local agencies that implement the provisions of SGMA.
- **Groundwater Sustainability Plan (GSP):** A local plan proposed by a GSA and approved by the state.
- **Measurable Objectives:** Conditions linked to the sustainability goals of the GSP, to be achieved in the basin within 20 years.
- **Sustainability Goals:** Metrics established in the GSP planning process to ensure that a basin is operated within its sustainable yield.
- **Sustainable Yield:** The amount of water that can be extracted from a basin without causing problems to the groundwater basin. See undesirable results on "Why SGMA?" page.
- **Undesirable Results:** The problems that SGMA strives to solve or prevent. See undesirable results on "Why SGMA?" page.
- **Water Budget:** An estimated accounting of all the water (surface and groundwater) that flows into and out of a basin.

To learn more

Department of Water Resources
SGMA portal at:
sgma.water.ca.gov/portal

Groundwater Exchange
groundwaterexchange.org

California Farm
Bureau Federation
www.cfbf.com

How your involvement can help improve our collective understanding of local groundwater hydrology.

SGMA encourages a bottoms-up, stakeholder driven planning process, relying on the reporting from farmers, landowners and other stakeholders. The information collected at the local level adds up to make a big difference.

Good Local Information

The SGMA planning process relies on good local data to understand the groundwater basin and hydrology. Data on groundwater levels, stream flows, and irrigation patterns can all contribute to a better conceptual model of your basin and will help ensure effective management and continued availability of groundwater over time.



Good SGMA Modeling Tools

Modeling tools are an essential component of the SGMA process. These tools will rely on local data. It is important that local stakeholders assist in the development of these tools so that the output can be trusted. The tools can be used to inform the effectiveness of various management options and ensure the legal and technical adequacy of a local plan.



A Foundation For a Good GSP

A solid foundation of local information and output from modeling tools leads to well-informed decisions regarding management strategies, sustainable criteria and other important Groundwater Sustainability Plan (GSP) outcomes.

The California Farm Bureau developed this resource to assist farmers and landowners in understanding the concepts and terminology of groundwater hydrology that are important to the Sustainable Groundwater Management Act.

This brochure is a companion to the Farm Bureau's earlier publication titled: *California's Sustainable Groundwater Management Act (SGMA): Understanding the Law*. We suggest using these documents in tandem to provide an overview of the legal and technical underpinnings of SGMA.

Local information is needed to develop effective sustainability plans.

The balancing act required to develop effective Groundwater Sustainability Plans relies on the participation of farmers, landowners and other stakeholders to provide reliable and accurate local information. Shared understanding of the characteristics and functioning of your local groundwater basin is vital. **This is only achievable through your involvement.**

What types of local data are most important to the SGMA process?

- Groundwater elevations
- Farming practices
- Well logs
- Local stream flow conditions

This data will be used to create modeling output which will inform your Groundwater Sustainability Agency with historic, current and projected conditions. Local farmer and landowner involvement in ground truthing the validity of these modeling outputs is very helpful.

To learn more

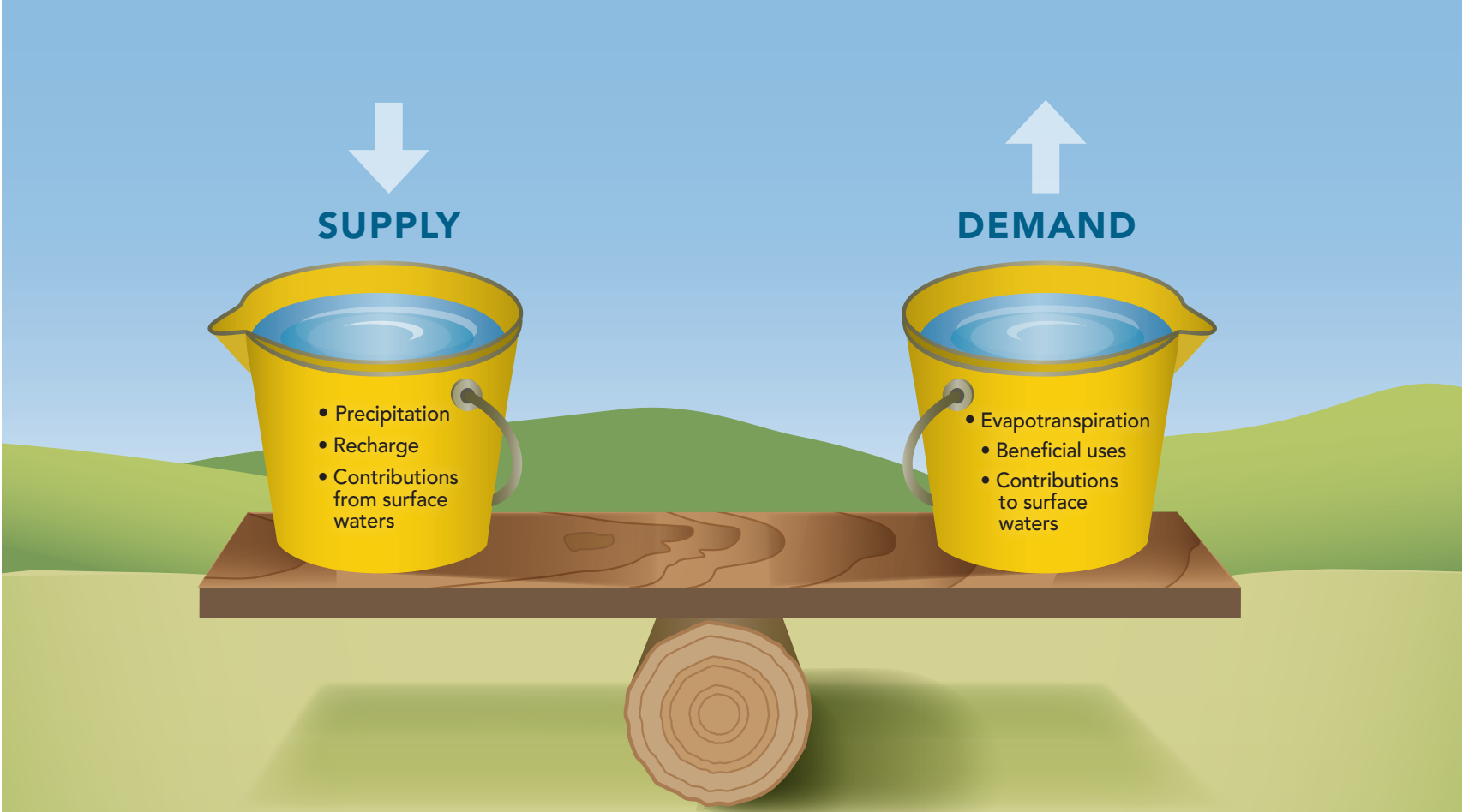
Department of Water Resources
SGMA portal at:
sgma.water.ca.gov/portal

Groundwater Exchange
groundwaterexchange.org

California Farm
Bureau Federation
www.cfbf.com



California's Sustainable Groundwater Management Act (SGMA): Groundwater Hydrology



Groundwater supply and demand is a balancing act.

At the core of SGMA is the need to manage supply and demand, creating groundwater conditions that are sustainable over the long term, protecting beneficial users.

How does this impact my farm and community?

How does understanding my local groundwater hydrology contribute?

What type of local information is important?

Water Budget

An accounting of all the water that flows into and out of a project area.

Groundwater basins operate like a bank account. Landowners and water users in a basin all draw from the same “account.” The goal is to balance the debits and credits, not draw down the principal. In some basins, we have depleted our groundwater “principal” by pumping more than what has been replenished.

How do we deposit water into the groundwater “account”?

Groundwater is *naturally* replenished through:

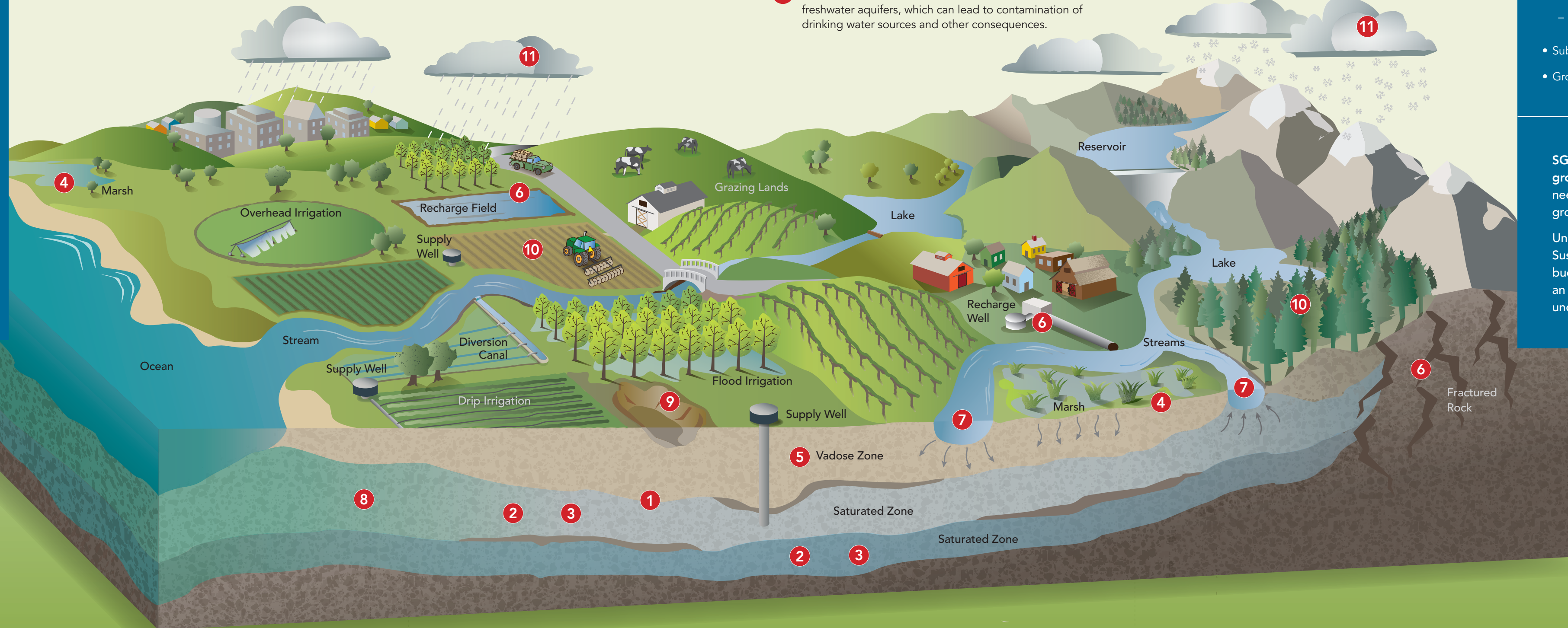
- Precipitation
- Infiltration from irrigation
- Infiltration from surface water systems (rivers, lakes, channels ...)
- Groundwater inflow (as lateral inflow from neighboring subbasins)

Groundwater can also be artificially replenished through the diversion or import of surface water supplies and through aquifer recharge and replenishment projects (Managed Aquifer Recharge (MAR), Aquifer Storage and Recovery (ASR)).

- 1 Water table:** The upper surface of the saturated zone; i.e. all soil pores are filled by water.
- 2 Groundwater:** Water available in the saturated zone below the water table is called groundwater.
- 3 Aquifer:** An aquifer is a body of saturated rock or sediment underneath the water table, where groundwater exists. Aquifers are permeable and porous.
- 4 Infiltration:** The process of water on the ground surface entering the soil.

- 5 Vadose zone:** The underlying, unsaturated earth material extending downward from the soil surface to where the soil becomes saturated; i.e. all soil pores are filled by water.
- 6 Recharge/replenishment:** The process of water moving downward through the soil or fractured rock. It can happen naturally to an aquifer, or artificially.
- 7 Gaining/losing streams:** When a stream reach is gaining, the groundwater moves from the ground into the channel. When a stream reach is losing, water moves from the channel into the aquifer.
- 8 Saltwater intrusion:** Movement of saline water into freshwater aquifers, which can lead to contamination of drinking water sources and other consequences.

- 9 Subsidence:** Lowering of the land-surface elevation due to changes that take place underground, such as lowering of groundwater levels.
- 10 Evapotranspiration:** The sum of evaporation from the land surface plus transpiration from plants. Put simply, evaporation occurs when water vapor leaves the soil or a plant's surface. Transpiration involves the passage of water through a plant, from its roots through its vascular system.
- 11 Precipitation:** Rain, snow, sleet or hail that falls to the ground.



Withdrawals from the groundwater “account” happen in various ways:

- Groundwater use/extractions:
 - Irrigation
 - Public supply for drinking water in cities and towns
 - Industrial uses
 - Domestic and livestock purposes
 - Natural ecosystems
- Subsurface groundwater outflows
- Groundwater discharge to surface water systems

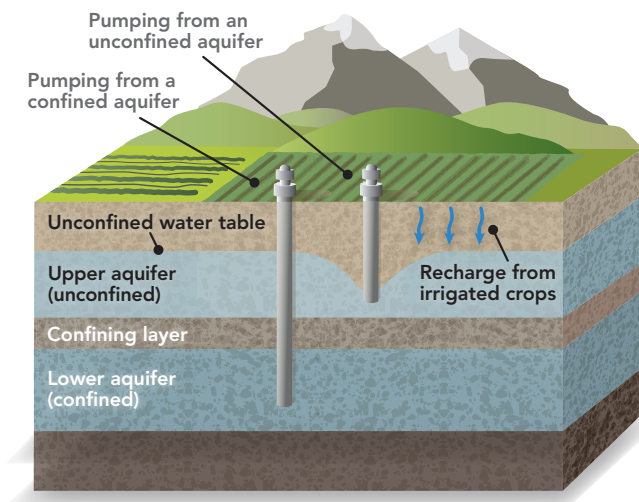
SGMA will lead to new actions to manage groundwater: To be involved with SGMA, you need to understand the terminology of how groundwater works and how it is sustained.

Under SGMA, local Groundwater Sustainability Agencies (GSAs) use the water budget to define “sustainable yield” — an amount that is locally defined and avoids undesirable results.

Lowering Groundwater Levels

Multiple factors affect groundwater levels.

Groundwater levels in aquifers vary over time, increasing when replenished by infiltration and recharge from surface water, precipitation and irrigation, and decreasing when groundwater discharges to surface water or when groundwater pumping occurs. Chronic lowering of groundwater levels can occur when the volume of groundwater pumped exceeds the volume of recharge, year over year. SGMA requires that Groundwater Sustainability Plans (GSPs) set forth actions to stabilize and/or improve groundwater levels.



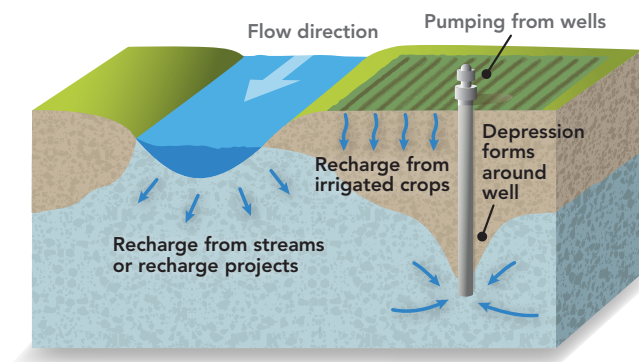
Groundwater responds differently to pumping based on geology and climate factors.

Geology controls how groundwater levels vary naturally and how they will respond to groundwater pumping. Local geology results in two kinds of aquifers: unconfined aquifers and confined aquifers. Unconfined aquifers often extend from the land surface and receive recharge directly from the overlying land surface. Confined aquifers have impermeable rock or clay layers that limit recharge from directly above the aquifer.

Why can groundwater levels decrease?

Groundwater levels in confined and unconfined aquifers typically vary seasonally. Over longer periods, groundwater levels can vary in response to multi-year wet or dry conditions. This natural variability can be exacerbated by over-reliance on groundwater when surface water supplies are limited, unavailable, or highly variable, year-to-year. Some areas of California have seen groundwater declines for decades as a result of groundwater pumping.

Aquifers in areas with higher rainfall can receive substantial natural recharge during winter months that may offset groundwater pumping impacts, while aquifers in arid areas that receive little natural recharge are more susceptible to over-pumping.



Why do groundwater levels matter?

How does groundwater pumping affect groundwater levels?

How might this impact future groundwater pumping?

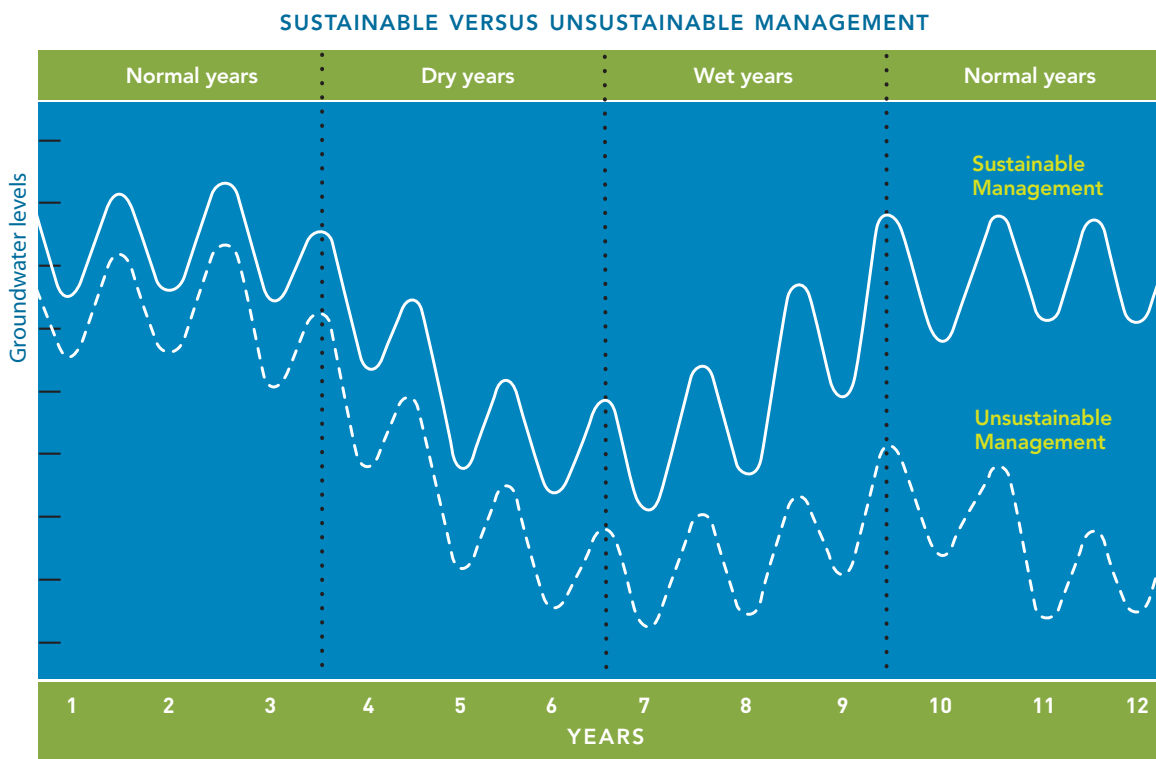
Will chronic lowering of groundwater levels affect me and my community?

In addition to decreasing the reliability of groundwater as a water supply at the basin scale, the chronic lowering of groundwater levels requires more energy to pump water. In some basins with specific types of geology, lowering groundwater levels can be associated with subsidence, which may permanently reduce the storage capacity of the aquifer system.

Lowering groundwater levels may require costly expenditures, like lowering a pump within a well casing, deepening an existing well, or even drilling a new well.

How can we monitor groundwater levels to demonstrate the success of our Groundwater Sustainability Plan?

The GSP may require modified operations of wells to minimize chronic lowering of groundwater levels. The GSP will establish a monitoring network to assess the success of such modifications by measuring groundwater levels at key locations within your groundwater basin.



In California's highly variable climate, groundwater levels will fluctuate naturally.

In sustainably managed basins, groundwater levels will have more opportunity to recover over time.

What might I be asked to do?

- Coordinate with my neighbors in development of a GSP through participation in my Groundwater Sustainability Agency (GSA)
- Adjust or reduce total pumping volumes
- Participate in or contribute to groundwater recharge programs or projects

Be involved in your local GSA

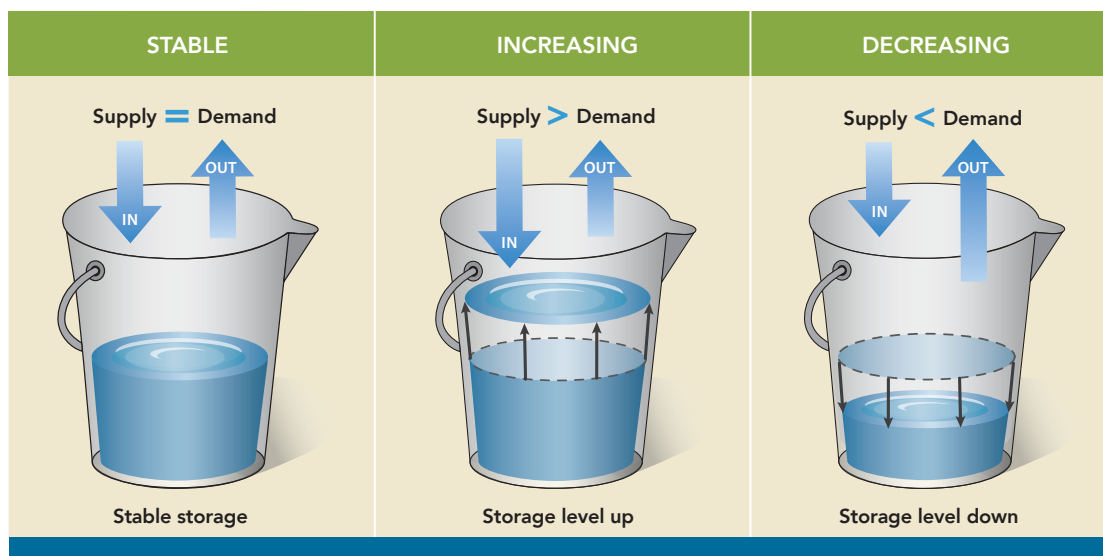
SGMA encourages local landowners to work together to develop effective GSPs, and encourages neighboring basins to find common, acceptable solutions. Basins not managed locally, that fail to take corrective action over time, may have plans written and implemented by the State Water Resources Control Board.

Reduction of Storage

Factors that affect groundwater storage.

Groundwater storage in an aquifer varies over time, increasing when replenished by infiltration and recharge from surface water, precipitation, and irrigation, and decreasing when groundwater discharges to surface water or when groundwater pumping occurs. Reductions in groundwater storage are reflected in falling groundwater levels and can occur when the volume of groundwater pumped exceeds the volume replenished, year over year. SGMA requires that Groundwater Sustainability Plans (GSPs) address significant and unreasonable reductions of groundwater storage.

Groundwater Storage Fluctuations



Supply (inflow):

- Precipitation
- Recharge
- Contributions from surface water

Demand (outflow):

- Evapotranspiration
- Beneficial users
- Contributions to surface water

Why can groundwater storage decrease?

Like a bank account, the amount of available groundwater storage volume in a basin is supplemented by groundwater inflows from precipitation, recharge, and contributions from surface water (deposits) and is depleted by pumping by beneficial users and discharge to surface water (withdrawals). When groundwater withdrawals exceed inflows and recharge, groundwater storage (the account balance) is

reduced. Like a household budget, a groundwater budget can be developed to evaluate groundwater inflows and outflows to guide management decisions. Measurements of groundwater levels, precipitation, streamflow, and evapotranspiration can be used in conjunction with computer groundwater models to develop a groundwater budget and help guide the development of the GSP.

Why does groundwater storage matter?

How does groundwater pumping affect groundwater storage?

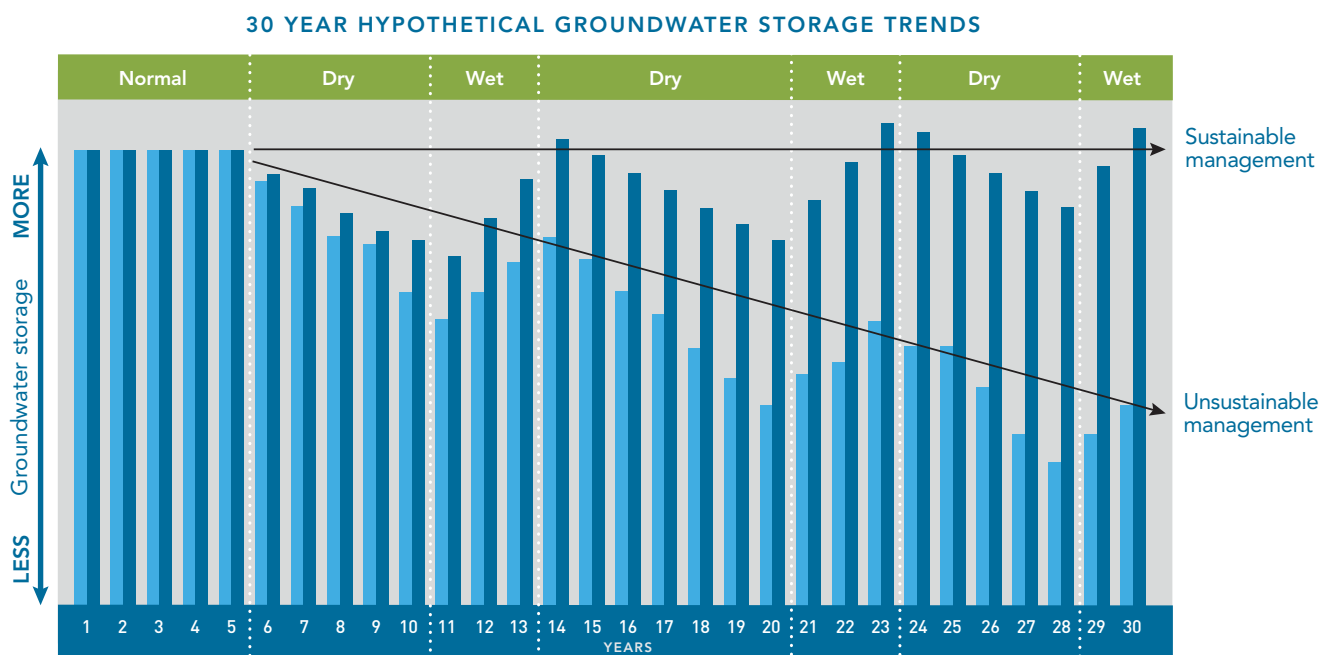
How might this impact future groundwater pumping?

How do decreases in groundwater storage affect me and my community?

Long term declines in groundwater storage volumes reduce the reliability of groundwater as a water supply for agricultural, municipal, domestic and industrial uses. In some basins with specific types of geology, declines in groundwater storage can be associated with subsidence, which may permanently reduce the storage capacity of the aquifer system.

How can we monitor groundwater storage to demonstrate the success of our plan?

Groundwater levels in various wells throughout a basin can be used in conjunction with computer models to estimate the overall groundwater storage in local aquifers. Since water levels can vary throughout an aquifer, it is important to monitor groundwater levels at multiple locations. The GSP will establish a monitoring network to assess the success of planned actions to stabilize groundwater storage.



In California's highly variable climate, groundwater storage will fluctuate naturally. In sustainably managed basins, groundwater levels will have more opportunity to recover over time.

What might I be asked to do?

- Coordinate with my neighbors and my Groundwater Sustainability Agency (GSA) in developing a GSP that stabilizes and restores groundwater storage
- Adjust or reduce total pumping volumes
- Participate in or contribute to groundwater recharge programs or projects
- Allow or participate in monitoring endorsed by my GSA

Be involved in your local GSA

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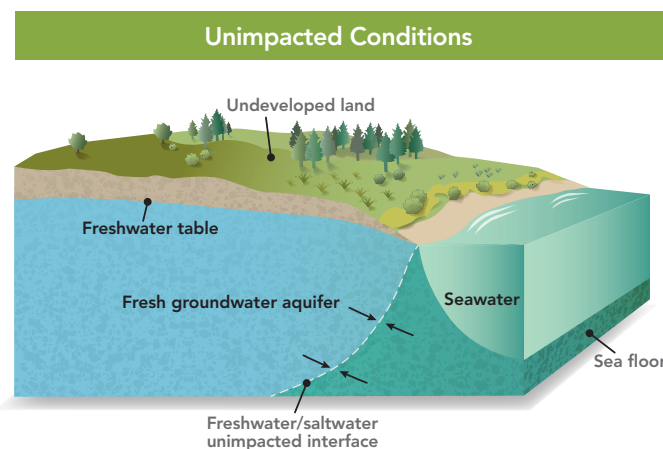
Seawater Intrusion



NO. 3
UNDESIRABLE
RESULT

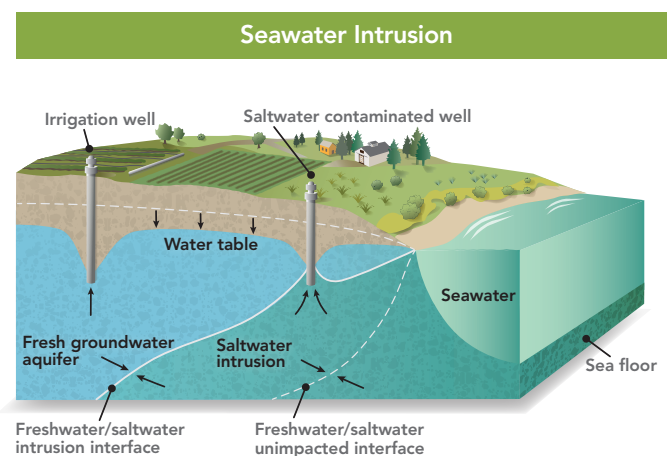
Seawater intrusion threatens water supply.

Seawater intrusion occurs in coastal groundwater aquifers when groundwater pumping or sea level rise causes saline groundwater to migrate inland toward freshwater portions of the aquifer, decreasing the capacity of the aquifer to store freshwater and potentially affecting water quality in coastal groundwater wells. SGMA requires that Groundwater Sustainability Plans (GSPs) set forth actions to limit further seawater intrusion in basins where it has occurred due to pumping.



Coastal groundwater under unimpacted conditions.

Under unimpacted conditions, density differences between fresh groundwater and saline groundwater maintain an interface between the two water sources, with less dense, fresh groundwater overlying denser seawater. As groundwater recharge replenishes coastal aquifers, fresh groundwater migrates seaward, preventing seawater from encroaching landward into coastal aquifers. Natural processes maintain this balance.



How can seawater intrusion occur?

Seawater intrusion can occur when groundwater pumping lowers water levels in a coastal aquifer, causing saline groundwater to be drawn into freshwater zones of an aquifer. Seawater intrusion may also result from sea level rise where increasing sea levels cause landward encroachment of saline groundwater.

How does seawater intrusion impact me?

Why does seawater intrusion occur?

What is the role of my GSA in preventing seawater intrusion?

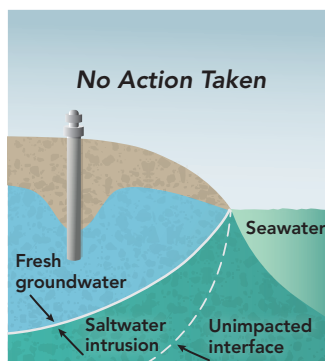
Will seawater intrusion affect me and my community?

Seawater intrusion can affect the quality of water supplies obtained from coastal groundwater wells by increasing salt concentrations, which then may require treatment or blending to return groundwater to drinking water or agricultural quality standards. In addition to treatment, management of seawater intrusion may require pumping reduction, managed aquifer recharge, or installing costly freshwater injection wells along the coast to limit further landward migration of saline groundwater.

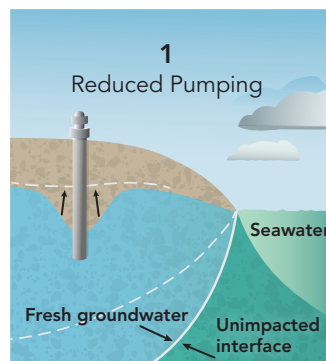
How can we monitor seawater intrusion to demonstrate the success of our Groundwater Sustainability Plan?

If seawater intrusion is an issue in your basin, the GSP will include a description of historical groundwater data and a monitoring network to assess groundwater elevations and chloride concentrations to identify locations where seawater intrusion has occurred or may occur in the future.

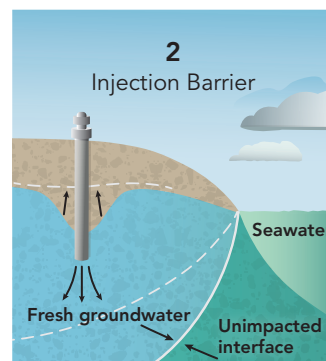
MANAGEMENT ACTIONS TO PREVENT OR REDUCE SEAWATER INTRUSION



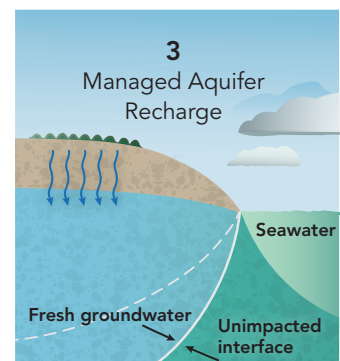
No actions are taken and the coastal aquifer shows seawater intruding.



1. Reduced pumping which raises the groundwater level or freshwater barrier over time.



2. A barrier of injection wells which causes seaward migration of the freshwater/saltwater interface.



3. Near shore managed aquifer recharge which also causes seaward migration of the freshwater/saltwater interface.

What might I be asked to do?

- Coordinate with my neighbors in development of a GSP through participation in my GSA
- Allow or participate in monitoring endorsed by my GSA
- Adjust or reduce pumping in areas susceptible to seawater intrusion
- Participate in funding projects to manage seawater intrusion

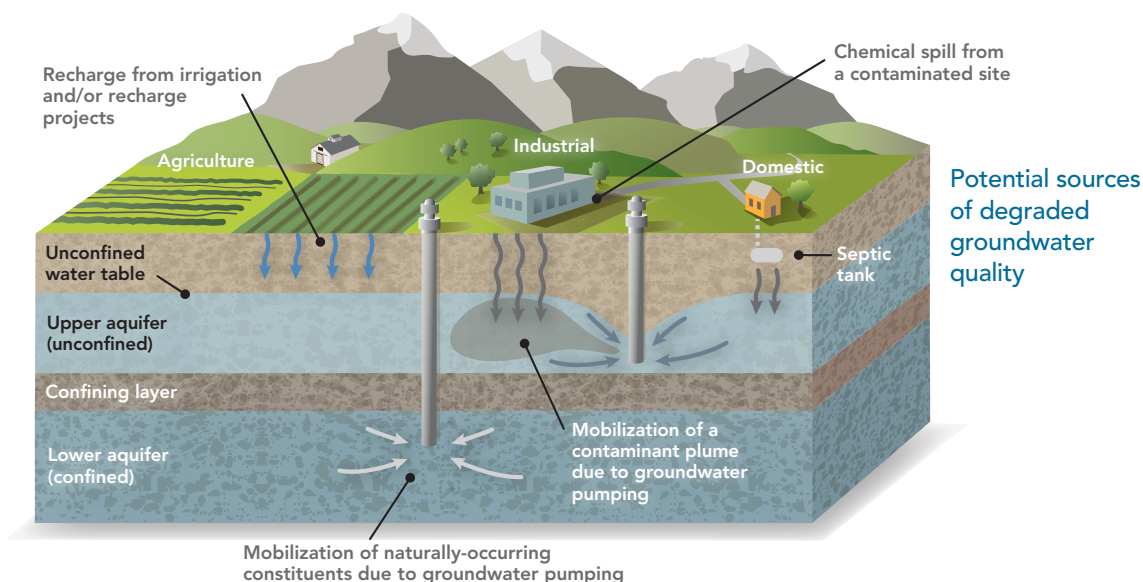
Be involved in your local GSA

SGMA encourages local landowners to work together to develop effective GSPs, and encourages neighboring basins to find common, acceptable solutions. Basins that fail to take corrective action over time may have plans written and implemented by the State Water Resources Control Board.

Degraded Water Quality

The importance of protecting groundwater quality.

Managing groundwater quality is critical to ensure that all beneficial users have access to safe and reliable groundwater supply that meets current and future demands. SGMA requires that Groundwater Sustainability Plans (GSPs) set forth actions to avoid or mitigate degradation of groundwater quality as a result of projects or management actions implemented as part of the GSP.



How can groundwater quality be degraded?

Groundwater quality can be impacted by naturally-occurring constituents that can be present in rocks and sediments in an aquifer like arsenic, iron, and manganese. Groundwater quality can also be impacted by industrial and urban activities, including leaking storage tanks and chemical spills. In addition, agricultural practices and domestic septic systems can increase concentrations of nitrate, salts, and other constituents in groundwater.

Will degradation of groundwater quality affect me and my community?

The rock and sediments that make up the aquifer play a large part in determining whether and how pollutants can migrate through the aquifer system and potentially impact wells. Groundwater contamination issues are often localized and may only affect some wells in a basin; once groundwater quality is degraded at a well, costly expenditures may be required, including wellhead water treatment, mixing pumped water with other non-degraded sources of water, or drilling a new well. The GSP will address whether such impacts are significant, unreasonable, and/or occurring throughout the basin.

How can groundwater pumping and recharge affect groundwater quality?

Why does groundwater quality matter?

What is the role of my GSA in protecting groundwater quality?

What is the GSA's role in protecting water quality?

As the main steward of the groundwater basin, the Groundwater Sustainability Agency (GSA) is required to monitor groundwater quality throughout the basin and may act as a proactive "facilitator" to involve existing regulatory agencies and move forward on processes that protect groundwater quality. SGMA requires that projects or management actions implemented as part of the GSP avoid or mitigate degradation of groundwater quality. Importantly, SGMA does not supersede existing regulations set forth by other regulatory agencies, like the State and Regional Control Boards.

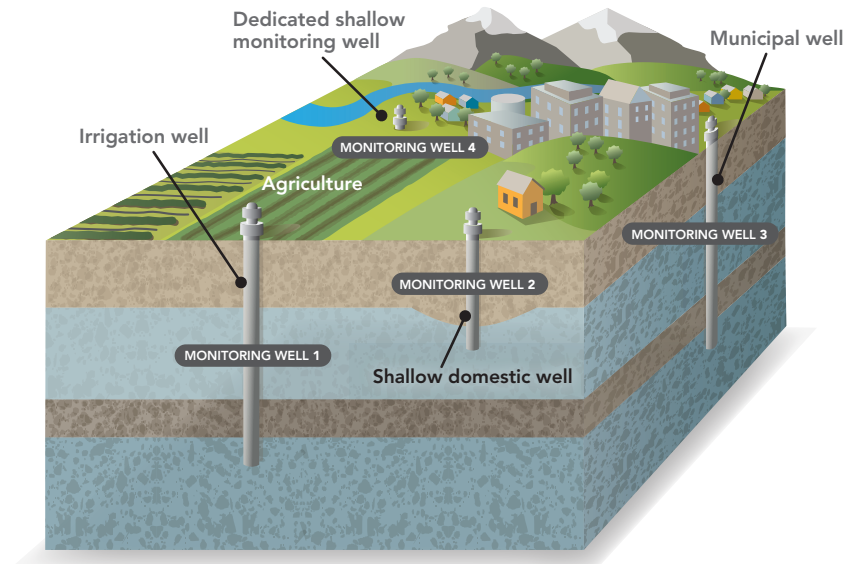
How will the GSA address water quality?

It is important for each GSA to gather historical water quality data to identify constituents of concern. The GSP may establish a monitoring network to assess changes in concentrations of specific constituents of concern over time. The GSP may also identify water quality threshold values for specific constituents to trigger actions to avoid undesirable water quality results.

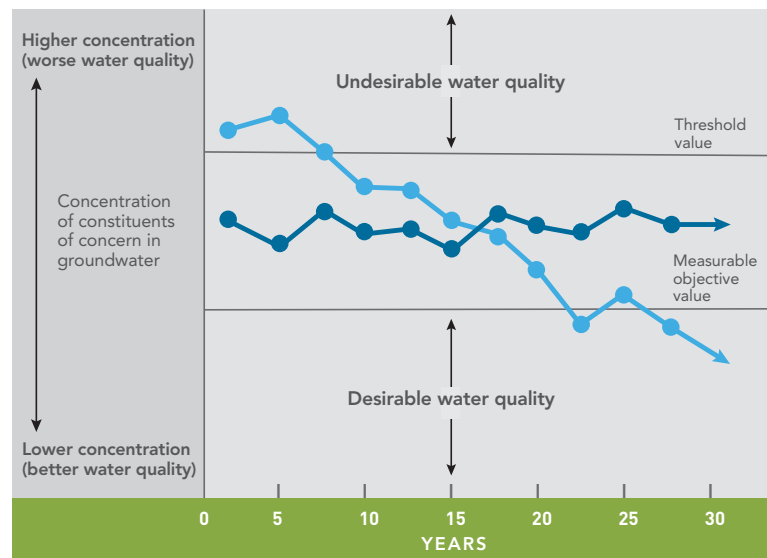
What might I be asked to do?

- Provide water quality data to my GSA
- Allow or participate in water quality monitoring endorsed by my GSA
- Contribute to my GSA to fund annual monitoring and reporting of water quality data.

HYPOTHETICAL GROUNDWATER MONITORING NETWORK



HYPOTHETICAL GROUNDWATER QUALITY TRENDS



The GSP should focus on achieving either of these two water quality trends.

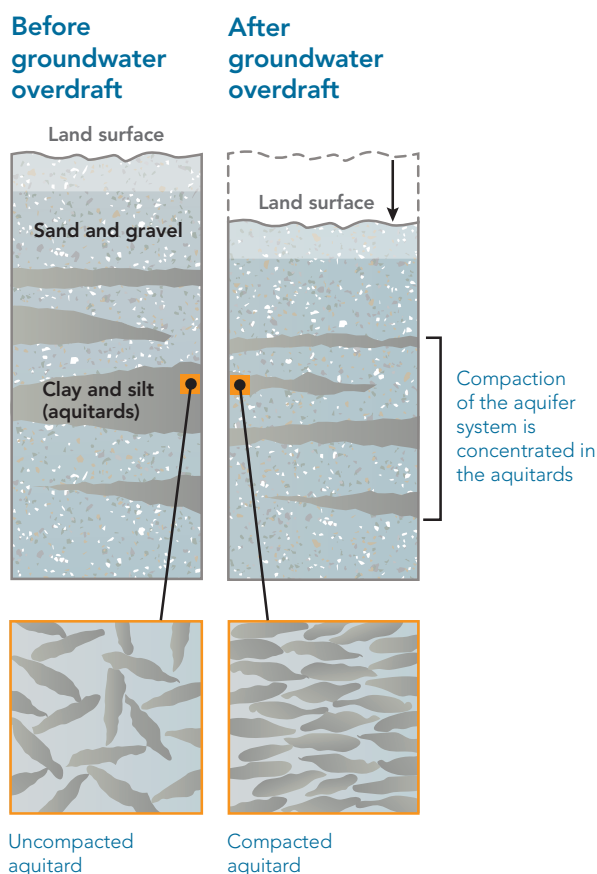
Be involved in your local GSA

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Land Subsidence

Land subsidence damages infrastructure and reduces groundwater storage.

Land subsidence is a decline in land surface elevation which may occur due to various factors, including groundwater pumping. In areas with specific underlying geologic conditions, subsidence can damage important infrastructure and cause the permanent loss of groundwater storage capacity. SGMA requires that Groundwater Sustainability Plans (GSPs) set forth actions to limit significant and unreasonable land subsidence in basins where it has occurred due to groundwater pumping.



Subsurface geologic conditions determine vulnerability to subsidence.

Subsidence is not prevalent in all groundwater basins or uniform in all areas of an affected basin. Most groundwater basins in California are comprised of sand and gravel aquifers (water-bearing layers that allow groundwater flow) and fine-textured silt and clay aquitards (layers that retard groundwater flow).

Land subsidence can occur when groundwater pumping reduces the pore-water pressure in aquitard layers with high proportions of clay minerals, which causes the individual clay grains to re-orient and collapse, resulting in deformation that may permanently reduce its groundwater storage capacity. This "compaction" deep underground causes the land surface to subside, sometimes rapidly during a severe drought, or progressively over years and decades. Often, aquitards do not uniformly compact, damaging infrastructure which depends on a stable foundation.

Why does land subsidence matter?

What is the role of my GSA in preventing land subsidence?

How does land subsidence occur?

Will land subsidence affect me and my community?

Land subsidence can cause permanent deformation (i.e., sinking) of the ground surface that can seriously damage infrastructure, including water conveyance systems, roads, bridges, building foundations, wells, and levees. Damage to infrastructure can require costly repairs. For example, subsidence has significantly reduced the flow capacity of water conveyance infrastructure in some parts of California (requiring pumps in locations where flow has been disrupted), increased delivery and maintenance costs, and decreased delivery reliability.

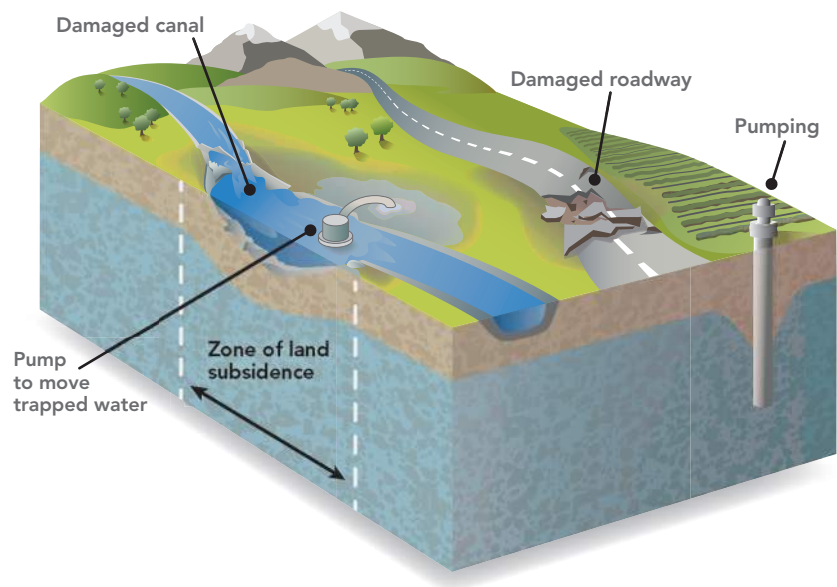
How can we monitor land subsidence to demonstrate the success of our Groundwater Sustainability Plan?

The GSP will describe a monitoring effort using remote sensing and/or G.P.S. technology to assess subsidence of the land surface in susceptible basins. The GSP will establish a monitoring program to assess the success of planned actions to stabilize land subsidence. Those actions may include efforts to stabilize groundwater levels via either pumping reduction, managed aquifer recharge, and other approaches.

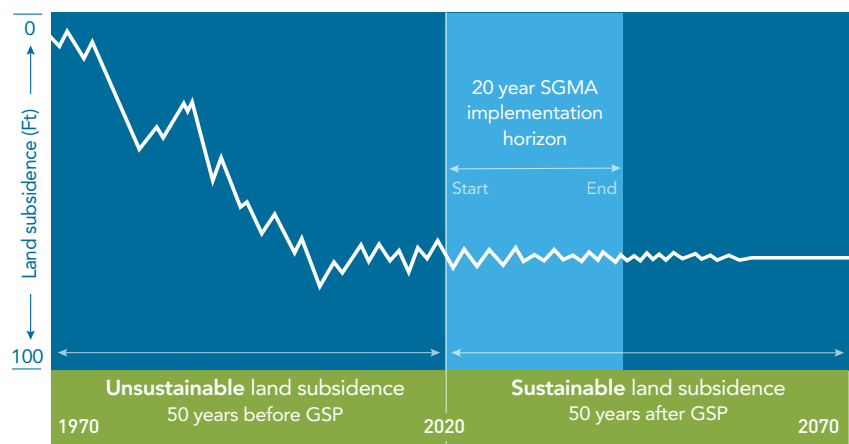
What might I be asked to do?

- Coordinate with my neighbors and my Groundwater Sustainability Agency (GSA) in developing a GSP that stabilizes land subsidence
- Adjust or reduce groundwater pumping in areas susceptible to land subsidence
- Participate in funding projects to reduce subsidence or repair and rehabilitate damaged infrastructure
- Allow monitoring endorsed by my GSA

IMPACT AFTER SUBSIDENCE



TRANSITION TO SUSTAINABLE LAND SUBSIDENCE



Historical land subsidence is unsustainable and shows a downward negative trend over time. SGMA compliance requires that over the 20 year implementation period, land subsidence reaches sustainable levels as determined by your GSA.

Be involved in your local GSA

SGMA encourages local landowners to work together to develop effective GSPs, and encourages neighboring basins to find common, acceptable solutions. Basins that fail to take corrective action over time may have plans written and implemented by the State Water Resources Control Board.

Surface Water Depletions

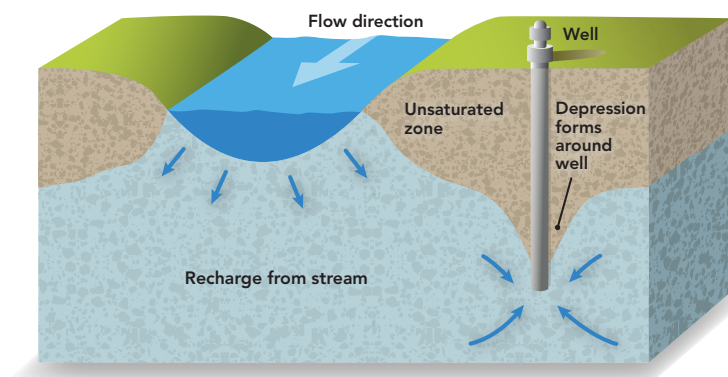
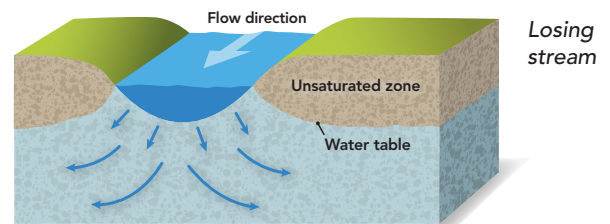
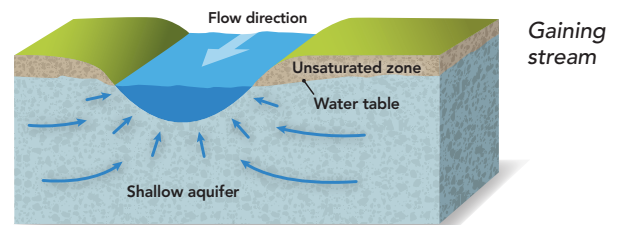
Groundwater and surface water interactions.

Natural variability is common in streamflow and wetland areas in California. Groundwater may play an important role in surface water ecosystems such as streams, springs, seeps and wetlands. In those cases, groundwater pumping can exacerbate stream depletion and impact wetland ecosystems. In turn, surface water depletion can unreasonably impact fish and other beneficial aquatic uses. Groundwater Sustainability Plans (GSPs) must establish threshold values and set forth actions to avoid this undesirable result.

Flowing surface waters are defined as either gaining or losing streams.

A **gaining stream** (or reach of a stream) is one in which the water level in the stream is lower than the level of the surrounding groundwater table, and groundwater moves from the ground into the channel.

A **losing stream** (or reach) is one in which stream water levels are above the groundwater table, and water moves from the channel into the aquifer.



How can groundwater pumping affect surface water levels and flowing streams?

Groundwater pumping, in combination with natural variations and/or reduced recharge, may lower the water table sufficiently to reduce the amount of groundwater that is contributed to a stream. In extreme cases, pumping may disconnect a surface water body from the underlying water table, changing the flow pattern so that a portion of the river actually flows into the aquifer below and may disappear at the ground surface.

Why does surface water depletion matter?

How does groundwater pumping affect surface water?

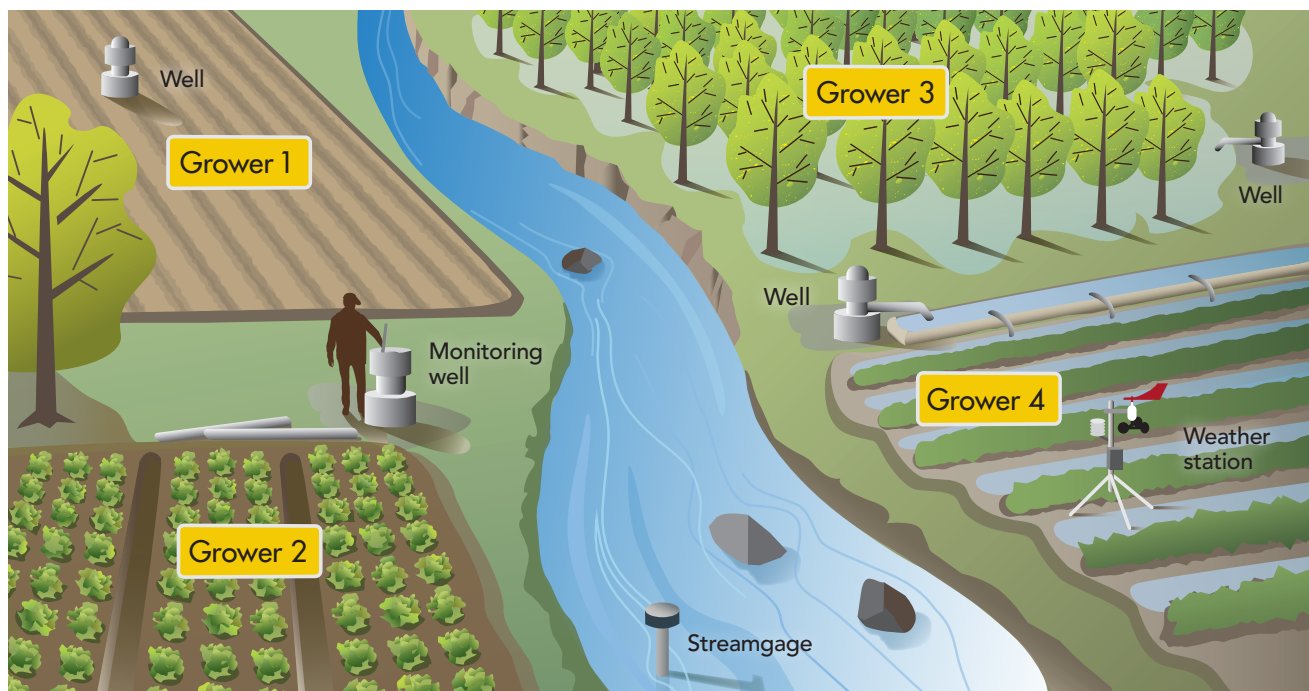
How might this impact future groundwater pumping?

Will surface water depletions affect me and my community?

How can we monitor groundwater and surface water interactions to demonstrate the success of our plan?

The distance of a well from the river and geologic characteristics at the well location will determine the timing and rate of the depletion in the river, if any. Well operations near streams tend to have a greater impact than pumping

distant from streams; modified operations of these wells may be required to minimize the effect on the stream. The success of such modifications can be measured using groundwater levels and streamflows monitored continuously at key locations. Additionally, measurements of precipitation, evapotranspiration, and soil moisture, in combination with modeling results, can help guide the development of the overall GSP.



What might I be asked to do?

- Make use of available data (such as evapotranspiration, soil moisture, streamflows) to inform and optimize irrigation practices
- Coordinate with my neighbors regarding the timing and rate of pumping
- Reduce pumping during specific seasons or under certain stream conditions
- Participate in groundwater recharge programs or projects
- Explore off-stream storage options
- Allow or participate in monitoring endorsed by my GSA

Be involved in your local GSA

SGMA encourages local landowners to work together to develop effective GSPs, and encourages neighboring basins to find common, acceptable solutions. Basins not managed locally, that fail to take corrective action over time, may have plans written and implemented by the State Water Resources Control Board.

Regional Coordination Between Subbasins

Antelope | Bowman | Butte | Colusa | Corning | Los Molinos | Red Bluff | Sutter | Vina | Wyandotte Creek | Yolo

Sustainable Groundwater Management Act

What is SGMA? California enacted the Sustainable Groundwater Management Act (SGMA) in 2014 to better manage groundwater over the long term. Sustainability is achieved by avoiding significant and unreasonable conditions for the six "sustainability indicators."



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Why is regional coordination important? In the Sacramento Valley, inter-basin coordination is critical as Groundwater Sustainability Agencies (GSA) develop their Groundwater Sustainability Plans (GSP). Since groundwater subbasins in the Northern Sacramento Valley (NSV) are hydrologically interconnected, water management decisions and actions in one subbasin (e.g. groundwater pumping) and processes like climate change could change aquifer conditions and affect flows to other subbasins. Understanding and accounting for these processes is key to achieve sustainability in all subbasins.

Who is involved in ongoing efforts?

Collaborative efforts have begun among representatives from 11 subbasins (Antelope, Bowman, Butte, Colusa, Corning, Los Molinos, Red Bluff, Sutter, Vina, Wyandotte Creek, Yolo), with facilitation support from the Consensus Building Institute. While efforts have focused on the subbasins mentioned, coordination will occur, as warranted, with other neighboring subbasins (Anderson and North Yuba).

What are the coordination priorities?

Groundwater Sustainability Agencies are working together to establish a foundation for open and transparent inter-basin coordination and communication by developing tools to:



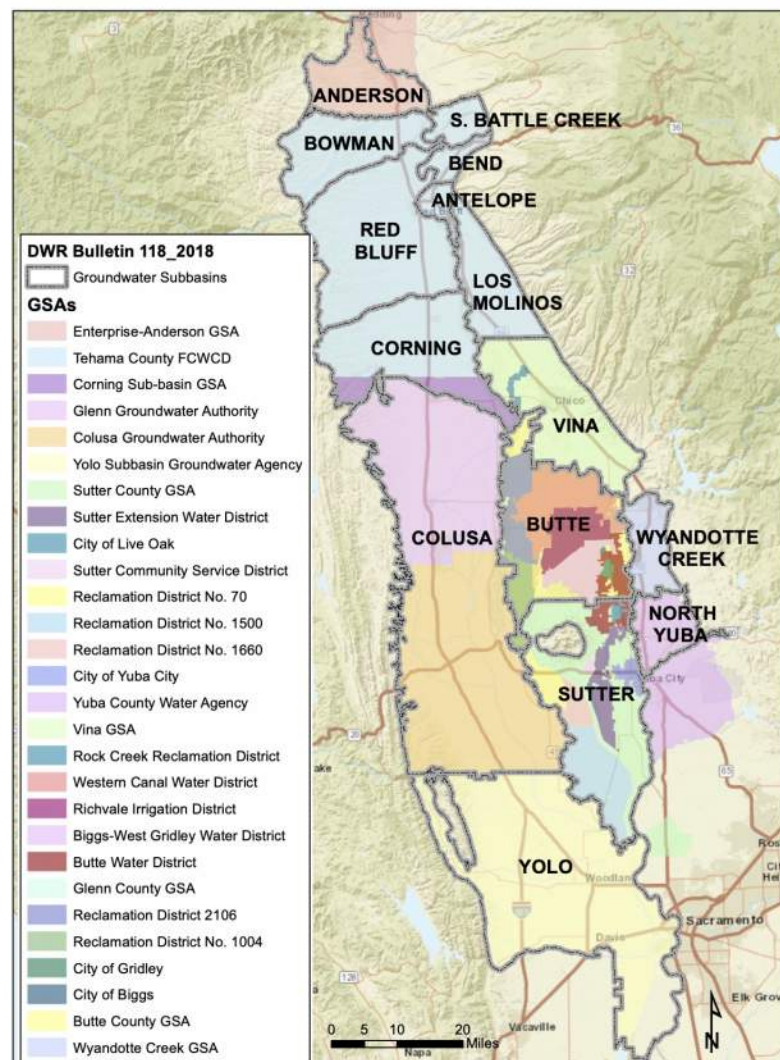
SHARE & COMPILE
INFORMATION IN A
CONSISTENT WAY



OUTLINE A
PROCESS TO
IDENTIFY &
RESOLVE ISSUES



DOCUMENT
COORDINATION
EFFORTS



Learn More & Get Involved



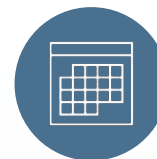
Receive Updates

Sign up for your GSA's interested parties list.



Contact Your GSA

Talk to your GSA representative



Attend Meetings

Attend public workshops, Advisory Board, and GSA Board meetings

Subbasin	GSA(s)	Website
Antelope	Tehama County Flood Control and Water Conservation District (FCWCD)	Website
Bowman	Tehama County FCWCD	Website
Butte	Biggs West Gridley WD, Butte County, Butte WD, City of Biggs, City of Gridley, Colusa Groundwater Authority, Glenn County, RD 1004, RD 2106, Richvale ID, Western Canal WD	Website
Los Molinos	Tehama County FCWCD	Website
Red Bluff	Tehama County FCWCD	Website
Corning	Corning Sub-basin GSA, Tehama County FCWCD	Website
Colusa	Glenn Groundwater Authority; Colusa Groundwater Authority	Websites (Glenn) (Colusa)
Sutter	Butte WD, City of Live Oak, Sutter Community Service District, Sutter County, Sutter Extension Water District, RD 70, RD 1660, RD 1500, City of Yuba City	Website
Vina	Rock Creek Reclamation District, Vina GSA	Websites (Vina) (RCDC)
Wyandotte Creek	Wyandotte Creek GSA	Website
Yolo	Yolo Subbasin Groundwater Agency	Website



Find more information about regional inter-basin coordination at:

ButteCounty.net/waterresourceconservation/Sustainable-Groundwater-Management-Act/Inter-basin-Coordination

The website is undergoing scheduled construction.

Resources

News items, technical and related project reports, FAQs, and documents will be posted here, as they become available.

Sutter Subbasin Resources

Fact Sheets

- [SGMA 101](#) 
- [Seawater Intrusion Ca farm Bureau](#) 
- [Understanding SGMA CA Farm Bureau](#) 
- [Lowering of Groundwater Levels CA Farm Bureau](#) 
- [Groundwater Hydrology CA Farm Bureau](#) 
- [Decrease in Groundwater Storage CA Farm Bureau](#) 
- [Surface Water Depletion CA Farm Bureau](#) 
- [Land Subsidence CA Farm Bureau](#) 
- [Degraded Water Quality CA Farm Bureau](#) 

Regional Coordination

- [NSV Coordination Flyer](#) 

Sutter Subbasin Documents

[GSP Initial Notification](#)

Public Draft

Public Comments on the Hydrogeologic Conceptual Model section of the Basin Setting chapter (Section 5.1) are due August 9 and on the Groundwater Conditions section of the Basin Setting chapter (Section 5.2) on August 27. Please email public comments to info@suttersubbasin.org and include “Sutter Subbasin GSP HCM comments” or “Sutter Subbasin GSP Groundwater Conditions comments” as appropriate in the subject line.

- [Sutter GSP Section 5.1 HCM PUBLIC DRAFT](#) 
- [Sutter GSP Section 5.2 Groundwater Conditions PUBLIC DRAFT](#) 

Prior Drafts Provided for Comment

Coming Soon

California Department of Water Resources - Groundwater: California’s Vital Resources

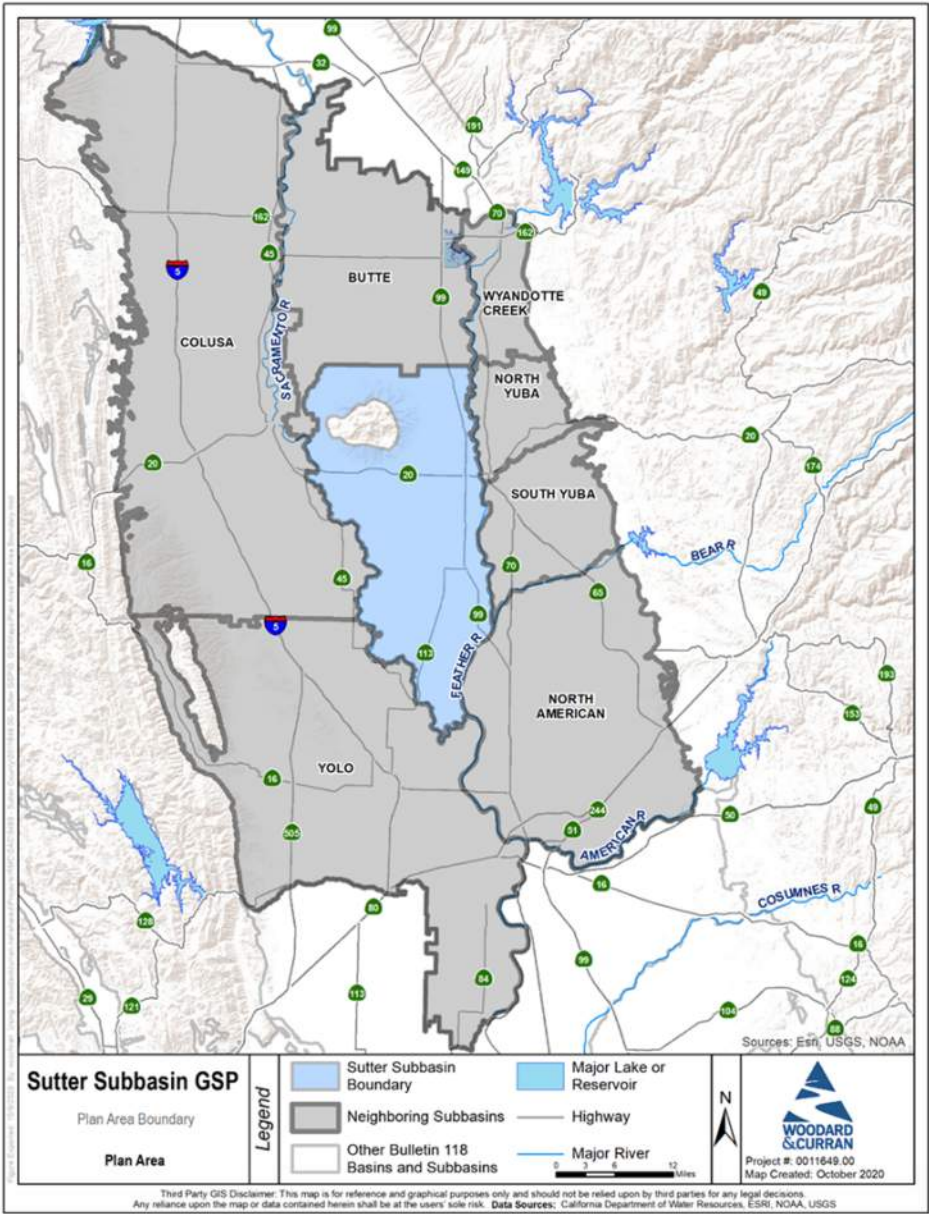
Videos

- [Groundwater: California’s Vital Resource - YouTube](#) 
- [Groundwater: California’s Vital Resource SPANISH VERSION - YouTube](#) 
- [Groundwater: California’s Vital Resource PUNJABI VERSION - YouTube](#) 

General FAQs

[What is the Sutter Subbasin?](#)

The Sutter Groundwater Subbasin is generally described as being in the “central portion of the Sacramento Valley Groundwater Basin” in DWR’s Bulletin 118 (California’s Groundwater). It is bounded on the north by the confluence of Butte Creek and the Sacramento River and Sutter Buttes, on the west by the Sacramento River, on the south by the confluence of the Sacramento River and the Sutter Bypass, and on the east by the Feather River and the eastern boundary with the Sutter-Yuba County line.



[What does “groundwater sustainability” mean?](#)

[What is the water cycle and how does it relate to groundwater supplies?](#)

[How is the Sutter Subbasin managed?](#)

Compiled from California Department of Water Resources (DWR) documentation

What is SGMA ⓘ

[What is the Sustainable Groundwater Management Act \(SGMA\)?](#)

The Sustainable Groundwater Management Act, signed into law in 2014, provides a framework for long-term sustainable groundwater management across California. It requires that local and regional authorities in medium- and high-priority groundwater basins form a locally-controlled and governed Groundwater Sustainability Agency (GSA), which will prepare and implement a Groundwater Sustainability Plan (GSP).

[Is SGMA related to the drought?](#)

[Why was the SGMA established?](#)

[Will SGMA affect existing water and property rights?](#)

[Is the State trying to take over control of groundwater?](#)

Who is the GSA ⓘ

[What is a GSA?](#)

A Groundwater Sustainability Agency (GSA) is one or more local governmental agencies that implement the provisions of SGMA. A local agency is defined as one that has water supply, water management or land management authority. The primary purpose of a GSA under SGMA is to develop and implement a Groundwater Sustainability Plan (GSP) or Alternative Plan to achieve long-term groundwater sustainability.

[Who is the GSA for the Sutter Subbasin?](#)

[What authority will GSAs have?](#)

[Will stakeholders or the public have the opportunity to weigh in on the GSP?](#)

[How are the GSAs working together to prepare and implement the GSP to achieve groundwater sustainability?](#)

[What will be the Governance Structure for the proposed GSA? How will the agencies work together to run it?](#)

[If GSAs are locally controlled, what is the state’s role in this effort?](#)

[How will adjacent GSAs be handled?](#)

[Does the GSA impact surface water?](#)

What is the GSP ⓘ

[What is a Groundwater Sustainability Plan \(GSP\)?](#)

A GSP is the plan of a GSA that provides for sustainably managed groundwater that meets the requirements of SGMA. GSAs in high and medium priority groundwater basins are required to submit a GSP to the California Department of Water Resources. The plan must outline how the GSA will implement, manage and measure specific actions for the health and viability of the basins. DWR will evaluate the GSP and provide the GSA with an assessment of the plan and any necessary recommendations every two years following its establishment.

[When does a GSP have to be established?](#)

[How will the GSP affect local cities and the county?](#)

[How can I get involved in the plan development?](#)

The following links provide additional information about SGMA, Sustainable Groundwater Plans, Groundwater, and Stakeholder Engagement

SGMA and GSP Information

- [California Department of Water Resources — SGMA Groundwater Management](#)
- [University of California, Davis](#)
- [Union of Concerned Scientists](#)
- [SGMA Best Management Practices](#)
- [Sustainable Groundwater Management Act Portal](#)
- [Association of California Water Agencies](#)
- [Water Education Foundation SGMA Handbook](#)
- [Groundwater Resources Association of California](#)
- [California Farm Bureau](#)
- [UC Water | Groundwater](#)

Groundwater Sustainability Plans (GSPs)

- [Union of Concerned Scientists: Guide to California’s Groundwater Sustainability Plans, in English and Spanish](#)

Water and Groundwater

- [USGS, 2010 California Water Use](#)
- [San Francisco Public Utilities Commission, What is Groundwater? !\[\]\(b7e1c8bc060ab2af8bc42ce81bfcf3c4_img.jpg\)](#)
- [USGS, Water Science School, Groundwater Basics](#)

Stakeholder Engagement for SGMA

- [Community Water Center, Union of Concerned Scientists, Clean Water Fund: Stakeholder Guide for Sustainable Groundwater Management Act Implementation !\[\]\(5950fde355bafc747b20583b30242b59_img.jpg\)](#)

Previous Studies

- [Alternative Plan !\[\]\(4695f05050b0d393767d0512587d4e50_img.jpg\)](#)

Common Acronyms

DWR = California Department of Water Resources	MOA = Memorandum of Agreement
GSA = Groundwater Sustainability Agency	SGMA = Sustainable Groundwater Management Act
GSP = Groundwater Sustainability Plan	
JPA = Joint Powers Authority	SWRCB = State Water Resources Control Board



For Immediate Release:
Contact: Leslie Dumas
Email: info@suttersubbasin.org
Phone: 916-999-8778

Local Efforts Underway Related to Sutter Groundwater Subbasin

Draft Groundwater Sustainability Plan Available for Public Review and Comment

Sutter County, CA: The *Sutter Subbasin Groundwater Sustainability Plan Public Draft* will be made available for a Public Comment Period, anticipated October 1 through November 12. The Draft Plan is available for viewing at www.SutterSubbasin.org, and comments can be submitted to info@suttersubbasin.org.

The nine Groundwater Sustainability Agencies (GSAs) of Sutter Groundwater Subbasin have been preparing a Groundwater Sustainability Plan (GSP) in response to the Sustainable Groundwater Management Act (SGMA). The Sutter Subbasin GSP will be complete by the end of 2021 and adopted prior to the regulatory deadline of January 31, 2022.

To provide information and seek input on the Public Draft GSP, the Groundwater Sustainability Agencies are hosting a workshop on October 19th from 4 p.m. – 6 p.m. The workshop will be held virtually due to COVID-19. This public workshop is a great opportunity to get involved, learn about the GSP contents, and provide input on the future of groundwater management in the Sutter Subbasin.

Sutter Subbasin GSP – Public Workshop #5

Tuesday, October 19, 2021 at 4:00 pm – 6:00 pm

GoToMeeting

Please join my meeting from your computer, tablet or smartphone:

<https://global.gotomeeting.com/join/214694605>.

You can also dial in using your phone: +1 (408) 650-3123, Access Code: 214-694-605

The Groundwater Sustainability Agencies have been hosting a series of public workshops to provide updates on local efforts to meet the State's goals under SGMA. This fifth public workshop will give an overview of the elements included in the Public Draft GSP. The public will have the opportunity to ask questions and provide input on the plan.

To sign up for our stakeholder list or learn more, visit our website: www.SutterSubbasin.org

About Sutter Subbasin:

The nine GSAs overlying the Sutter Subbasin are working together as the Sutter Subbasin Groundwater Management Coordination Committee (SSGMCC). The SSGMCC holds regular coordination meetings to discuss GSP technical development and public outreach and engagement activities in order to prepare a GSP for adoption. Stakeholders play an important role in the successful development of the GSP. Stakeholders have opportunities to comment and provide input into the GSP before key milestone decisions. Visit www.SutterSubbasin.org for more information.



Para publicación inmediata:

Contacto: Leslie Dumas

Correo electrónico: info@suttersubbasin.org

Teléfono: 916-999-8778

Esfuerzos locales en marcha asociados a la Subcuenca de agua subterránea de Sutter

El borrador del Plan de Sostenibilidad del Agua Subterránea (Groundwater Sustainability Plan) está disponible para revisión y comentario público

Condado de Sutter, CA: El Borrador público del Plan de Sostenibilidad del agua subterránea de la Subcuenca de Sutter estará disponible durante el periodo de comentario público, que se anticipa será entre el 1º de octubre y el 12 de noviembre. El Borrador del Plan estará disponible para consulta en www.SutterSubbasin.org, y los comentarios se pueden enviar a info@suttersubbasin.org.

Las nueve Agencias de sostenibilidad del agua subterránea (Groundwater Sustainability Agencies, GSA) de la Subcuenca de agua subterránea de Sutter han estado preparando un Plan de sostenibilidad del agua subterránea (Groundwater Sustainability Plan, GSP) en respuesta a la Ley de gestión sostenible del agua subterránea (Sustainable Groundwater Management Act, SGMA). El GSP de la Subcuenca de Sutter se concluirá a fines de 2021, y se aprobará antes del plazo límite regulatorio del 31 de enero de 2022.

Para brindar información y pedir opiniones sobre el Borrador público del GSP, las Agencias de sostenibilidad del agua subterránea (Groundwater Sustainability Agencies) celebrarán un taller el 19 de octubre, de 4 p.m. a 6 p.m. El taller se realizará virtualmente debido a la COVID-19. Este taller público es una excelente oportunidad para involucrarse, aprender sobre los contenidos del GSP y dar su opinión sobre el futuro de la gestión del agua subterránea en la Subcuenca de Sutter.

GSP de la Subcuenca de Sutter – Taller público n.º 5

Martes, 19 de octubre de 2021, de 4:00 pm a 6:00 pm

GoToMeeting

Únase a mi reunión desde su computadora, tableta o teléfono inteligente:

<https://global.gotomeeting.com/join/214694605>.

También puede marcar usando su teléfono: +1 (408) 650-3123, Código de acceso: 214-694-605

Las Agencias de Sostenibilidad del Agua Subterránea han estado celebrando una serie de talleres públicos para ofrecer novedades sobre los esfuerzos locales por cumplir las metas del Estado bajo la ley SGMA. Este quinto taller público dará una visión general de los elementos incluidos en el Borrador público del GSP. El público tendrá la oportunidad de hacer preguntas y dar sus opiniones sobre el plan.

Para inscribirse en nuestra lista de actores interesados o para obtener más información, visite nuestro sitio web: www.SutterSubbasin.org

Acerca de la Subcuenca de Sutter:

Las nueve GSA sobre la Subcuenca de Sutter están trabajando juntas como Comité de coordinación de la gestión del agua subterránea de la Subcuenca de Sutter (Sutter Subbasin Groundwater Management Coordination Committee, SSGMCC). El SSGMCC mantiene reuniones de

coordinación regulares para analizar el desarrollo técnico del GSP y actividades de difusión y participación del público a fin de preparar un GSP para su aprobación. Los actores interesados desempeñan un rol importante en el desarrollo exitoso del GSP. Los actores interesados tienen oportunidades de comentar y hacer aportaciones al GSP antes de que se tomen decisiones sobre hitos clave. Visite www.SutterSubbasin.org para obtener más información.



ਤੱਤਕਾਲੀ ਰਿਲੀਜ਼ ਲਈ:

ਸੰਪਰਕ: ਲੀਸਲੀ ਦੁਮਾਸ

ਈਮੇਲ: info@suttersubbasin.org

ਫੋਨ: 916-999-8778

ਸਟਰ ਗ੍ਰਾਊਂਡਵਾਟਰ ਸਬਬੇਸਿਨ ਨਾਲ ਸਬਿੰਤ ਸਥਾਨਕ ਕੋਸ਼ਿਸ਼ਾਂ ਪ੍ਰਕਿਰਿਆ ਅਧੀਨ ਹਨ
ਜਨਤਕ ਸਮੀਖਿਆ ਅਤੇ ਟਿੱਪਣੀ ਲਈ ਡ੍ਰਾਫਟ ਗ੍ਰਾਊਂਡਵਾਟਰ ਸਸਟੇਨੇਬਲਿਟੀ ਪਲਾਨ ਉਪਲਬਧ ਹੈ

ਸਟਰ ਕਾਉਂਟੀ, ਸੀਏ: ਸਟਰ ਸਬਬੇਸਿਨ ਗ੍ਰਾਊਂਡਵਾਟਰ ਸਸਟੇਨੇਬਲਿਟੀ ਪਲਾਨ ਪਬਲਿਕ ਡ੍ਰਾਫਟ ਨੂੰ ਜਨਤਕ ਟਿੱਪਣੀ ਕਾਲ ਲਈ 1 ਅਕਤੂਬਰ ਤੋਂ 12 ਨਵੰਬਰ ਤੱਕ ਉਪਲਬਧ ਕਰਵਾਏ ਜਾਣ ਦੀ ਉਮੀਦ ਹੈ। ਡ੍ਰਾਫਟ ਪਲਾਨ www.SutterSubbasin.org, 'ਤੇ ਦੇਖਣ ਲਈ ਉਪਲਬਧ ਹੈ, ਅਤੇ ਟਿੱਪਣੀਆਂ info@suttersubbasin.org 'ਤੇ ਸਬਮਿਟ ਕੀਤੀਆਂ ਜਾ ਸਕਦੀਆਂ ਹਨ।

ਸਟਰ ਗ੍ਰਾਊਂਡਵਾਟਰ ਸਬਬੇਸਿਨ ਦੀਆਂ ਨੌਂ ਗ੍ਰਾਊਂਡਵਾਟਰ ਸਸਟੇਨੇਬਲਿਟੀ ਏਜੰਸੀਆਂ (GSAs) ਸਸਟੇਨੇਬਲ ਗ੍ਰਾਊਂਡਵਾਟਰ ਮੈਨੇਜਮੈਂਟ ਐਕਟ (SGMA) ਦੀ ਪ੍ਰਤੀਕਿਰਿਆ ਵਿੱਚ ਗ੍ਰਾਊਂਡਵਾਟਰ ਸਸਟੇਨੇਬਲਿਟੀ ਪਲਾਨ (GSP) ਤਿਆਰ ਕਰ ਰਹੀਆਂ ਹਨ। ਸਟਰ ਸਬਬੇਸਿਨ GSP 2021 ਦੀ ਸਮਾਪਤੀ ਤੱਕ ਪੂਰੀ ਹੋਵੇਗੀ ਅਤੇ 31 ਜਨਵਰੀ, 2022 ਦੀ ਰੈਗੂਲੇਟਰੀ ਸਮਾਂ-ਸੀਮਾ ਤੋਂ ਪਹਿਲਾਂ ਗ੍ਰਹਿਣ ਕੀਤਾ ਜਾਵੇਗਾ।

ਜਾਣਕਾਰੀ ਦੇਣ ਲਈ ਅਤੇ ਪਬਲਿਕ ਡ੍ਰਾਫਟ GSP 'ਤੇ ਇਨਪੁਟ ਦੀ ਮੰਗ ਕਰਨ ਲਈ, ਗ੍ਰਾਊਂਡਵਾਟਰ ਸਸਟੇਨੇਬਲਿਟੀ ਏਜੰਸੀਆਂ 19 ਅਕਤੂਬਰ ਨੂੰ ਸ਼ਾਮ 4 ਵਜੇ - 6 ਵਜੇ ਇੱਕ ਵਰਕਸ਼ਾਪ ਆਯੋਜਿਤ ਕਰਨ ਜਾ ਰਹੀਆਂ ਹਨ। ਕੋਵਿਡ-19 ਕਾਰਨ ਵਰਕਸ਼ਾਪ ਵਰਚੁਅਲ ਹੋਵੇਗੀ। ਇਹ ਪਬਲਿਕ ਵਰਕਸ਼ਾਪ ਸ਼ਾਮਲ ਹੋਣ, ਸਟਰ ਸਬਬੇਸਿਨ GSP ਦੀ ਸਮੱਗਰੀ ਬਾਰੇ ਜਾਣਨ ਅਤੇ ਸਟਰ ਸਬਬੇਸਿਨ ਵਿੱਚ ਗ੍ਰਾਊਂਡਵਾਟਰ ਮੈਨੇਜਮੈਂਟ ਦੇ ਭਵਿੱਖ 'ਤੇ ਇਨਪੁਟ ਦੇਣ ਦਾ ਵਧੀਆ ਮੌਕਾ ਹੈ।

ਸਟਰ ਸਬਬੇਸਿਨ GSP - ਪਬਲਿਕ ਵਰਕਸ਼ਾਪ #5

ਮੰਗਲਵਾਰ, 19 ਅਕਤੂਬਰ, 2021 ਸ਼ਾਮ 4:00 - 6:00 ਵਜੇ

ਮੀਟਿੰਗ 'ਤੇ ਜਾਓ

ਕਿਰਪਾ ਕਰਕੇ ਆਪਣੇ ਕੰਪਿਊਟਰ, ਟੈਬਲੇਟ ਜਾਂ ਸਮਾਰਟਫੋਨ ਤੋਂ ਆਪਣੀ ਮੀਟਿੰਗ ਜੁਆਇਨ ਕਰੋ:

<https://global.gotomeeting.com/join/214694605>.

ਤੁਸੀਂ ਆਪਣੇ ਫੋਨ ਤੋਂ ਵੀ ਡਾਇਲ ਕਰ ਸਕਦੇ ਹੋ: +1 (408) 650-3123, ਅਕਸੈਸ ਕੋਡ: 214-694-605

ਗ੍ਰਾਊਂਡਵਾਟਰ ਸਸਟੇਨੇਬਲਿਟੀ ਏਜੰਸੀਆਂ SGMA ਦੇ ਤਹਿਤ ਰਾਜ ਦੇ ਟੀਚਿਆਂ ਨੂੰ ਪੂਰਾ ਕਰਨ ਲਈ ਸਥਾਨਕ ਜਤਨਾਂ 'ਤੇ ਅਪਡੇਟ ਦੇਣ ਲਈ ਪਬਲਿਕ ਵਰਕਸ਼ਾਪਾਂ ਦੀ ਸਿਰੀਜ਼ ਆਯੋਜਿਤ ਕਰ ਰਹੀਆਂ ਹਨ। ਇਹ ਪੰਜਵੀਂ ਪਬਲਿਕ

ਵਰਕਸ਼ਾਪ ਪਬਲਿਕ ਡ੍ਰਾਫਟ GSP ਵਿੱਚ ਸ਼ਾਮਲ ਤੱਤਾਂ ਦਾ ਸੰਖਿਪਤ ਵਿਵਰਣ ਦੇਵੇਗੀ। ਜਨਤਾ ਕੋਲ ਸਵਾਲ ਪੁੱਛਣ ਅਤੇ ਪਲਾਨ 'ਤੇ ਇਨਪੁਟ ਦੇਣ ਦਾ ਇੱਕ ਮੌਕਾ ਹੋਵੇਗਾ।

ਸਾਡੀ ਹਿੱਸੇਦਾਰ ਸੂਚੀ ਲਈ ਸਾਇਨ ਅਪ ਕਰਨ ਵਾਸਤੇ ਜਾਂ ਜ਼ਿਆਦਾ ਜਾਣਕਾਰੀ ਲਈ, ਸਾਡੀ ਵੈਬਸਾਈਟ:

www.SutterSubbasin.org 'ਤੇ ਜਾਓ।

ਸਟਰ ਸਬਬੇਸਿਨ ਬਾਰੇ:

ਸਟਰ ਸਬਬੇਸਿਨ 'ਤੇ ਨਿਰਭਰ ਨੌਂ GSAs ਮਿਲ ਕੇ ਸਟਰ ਸਬਬੇਸਿਨ ਗ੍ਰਾਊਂਡਵਾਟਰ ਮੈਨੇਜਮੈਂਟ ਕੋਰਡੀਨੇਸ਼ਨ ਕਮੇਟੀ (SSGMCC) ਦੇ ਤੌਰ 'ਤੇ ਕੰਮ ਕਰ ਰਹੇ ਹਨ। SSGMCC GSP ਟੈਕਨੀਕਲ ਵਿਕਾਸ ਦੀ ਚਰਚਾ ਕਰਨ ਲਈ ਨਿਯਮਿਤ ਕੋਰਡੀਨੇਸ਼ਨ ਮੀਟਿੰਗਾਂ ਕਰਦਾ ਹੈ ਤੇ ਜਨਤਕ ਪਹੁੰਚ ਕਰਦਾ ਹੈ ਅਤੇ ਸਵੀਕਾਰ ਕਰਨ ਲਈ GSP ਤਿਆਰ ਕਰਨ ਲਈ ਸ਼ਮੂਲੀਅਤ ਗਤੀਵਿਧੀਆਂ ਕਰਦਾ ਹੈ। ਹਿੱਸੇਦਾਰ GSP ਦੇ ਸਫਲ ਵਿਕਾਸ ਵਿੱਚ ਅਹਿਮ ਭੂਮਿਕਾ ਅਦਾ ਕਰਦੇ ਹਨ। ਹਿੱਸੇਦਾਰਾਂ ਕੋਲ ਕੁਮੈਂਟ ਕਰਨ ਅਤੇ ਮੁੱਖ ਨਿਰਣਿਆਂ ਤੇਨ ਪਹਿਲਾਂ GSP ਵਿੱਚ ਇਨਪੁਟ ਦੇਣ ਦੇ ਮੌਕੇ ਹੁੰਦੇ ਹਨ। ਜ਼ਿਆਦਾ ਜਾਣਕਾਰੀ ਲਈ www.SutterSubbasin.org 'ਤੇ ਜਾਓ।

Contact ABC10

If you wish to contact a specific ABC10 Employee, you may do so by selecting their name on the [ABC10 Bio page](#).

Phone Numbers

Main Number:

Tel: [\(916\) 441-2345](tel:(916)441-2345)

Fax: [\(916\) 321-3384](tel:(916)321-3384)

News Hotline:

Tel: [\(916\) 321-3300](tel:(916)321-3300)

Fax: [\(916\) 447-6107](tel:(916)447-6107)

Text: [\(916\) 321-3310](tel:(916)321-3310)

Weather Reports:

Tel: [\(916\) 321-3204](tel:(916)321-3204)

Business & Administration:

[\(916\) 321-3211](tel:(916)321-3211)

Assignment Desk

Tel: [\(916\) 321-3300](tel:(916)321-3300)

desk@abc10.com

Website Problems

Tel: [\(916\) 321-3416](tel:(916)321-3416)

Sales:

Tel: [\(916\) 321-3219](tel:(916)321-3219)

Fax: [\(916\) 441-3054](tel:(916)441-3054)

Programming:

Tel: [\(916\) 321-3430](tel:(916)321-3430)

Public Relations:

Tel: [\(916\) 321-3434](tel:(916)321-3434)

Fax: [\(916\) 441-3145](tel:(916)441-3145)

Technical Team:

Tel: [\(916\) 321-3386](tel:(916)321-3386)

Fax: [\(916\) 321-3275](tel:(916)321-3275)

News Room:

[\(916\) 321-3300](tel:(916)321-3300)

Address

Street Address:

ABC10

400 Broadway

Sacramento, CA 95818-2098

Mailing Address:

ABC10

400 Broadway

Sacramento, CA 95818-2098

Driving Directions

From Points North:

Take Interstate 5 South to Sacramento. Just past downtown Sacramento, take the Highway 99/Highway 50 exit. Halfway through the transition ramp, exit the freeway on to X Street. At the base of the ramp, turn right and drive one block to ABC10.

From Points South:

Take Interstate 5 north to Sacramento. As you approach the city center, you will see an exit for Business 80/Highway 99/Highway 50. Take the exit. Halfway through the transition ramp, exit the freeway on to Broadway. At the base of the ramp turn right, and drive one block to ABC10.

From Points West:

Take I-80 eastbound. As you enter West Sacramento do not take the exit to Reno. Instead, stay on Business 80 (the Capitol City Freeway). Just after the highway crosses the Sacramento River, you will see an exit for 5th Street. Take the exit, and then turn right at the base of the ramp. Drive one block down 5th, and then turn right on Broadway, and drive half a block to ABC10.

From Points East:

Take Highway 50 or Interstate 80 westbound. If you are traveling on I-80, transition to Business 80 (the Capitol City Freeway). If you are taking US-50, follow it until it becomes Interstate 80. Look for the 10th Street exit. Take that exit, and continue straight at the base of the ramp (you are now on W Street). Continue until the road dead-ends at 3rd Street. Turn left at 3rd, drive two blocks, and you're at ABC10.

E-mail Us!

Press Release: Local Efforts Underway Related to Sutter Groundwater Subbasin

1 message

Sutter Subbasin <info@suttersubbasin.org>

Fri, Oct 1, 2021 at 9:45 AM

To: adnewsroom@appealdemocrat.com

Cc: Guadalupe Rivera <grivera@co.sutter.ca.us>, Leslie Dumas <ldumas@woodardcurran.com>, Natalie Cochran <ncochran@woodardcurran.com>, vdeanda@woodardcurran.com

Hello,

The attached press release is regarding the *Sutter Subbasin Groundwater Sustainability Plan Public Draft*, which will be made available for public review and comment October 1, 2021.

Water is vital to the economy, the environment, and the quality of life in Sutter County. While this precious resource is visible every day in the Sacramento and Feather Rivers, water underground is no less important, providing about half of the region's water supply. Groundwater serves the needs of cities, farms and businesses and provides high quality drinking water to urban and rural residents, all while helping to sustain vital ecosystems.

We invite the public to join us and learn about the condition and future health of our groundwater subbasin. Members of the public can participate in the process to understand what needs to be done to protect the quality and availability of this valuable resource. Learn why maintaining a sustainable groundwater subbasin matters to the economy, environment, and quality of life of our urban and rural communities.

Please feel free to reach out with any further questions.

Thank you,

Guadalupe Rivera on behalf of Sutter Subbasin GSAs
Sutter County Development Services



Press Release_Public Draft Sutter Subbasin GSP_29Sept21.pdf

410K

Press Release: Local Efforts Underway Related to Sutter Groundwater Subbasin

1 message

Sutter Subbasin <info@suttersubbasin.org>

Fri, Oct 1, 2021 at 9:44 AM

To: news@kovr.com

Cc: Guadalupe Rivera <grivera@co.sutter.ca.us>, Leslie Dumas <ldumas@woodardcurran.com>, Natalie Cochran <ncochran@woodardcurran.com>, vdeanda@woodardcurran.com

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Press Release_Public Draft Sutter Subbasin GSP_29Sept21.pdf

410K

Press Release: Local Efforts Underway Related to Sutter Groundwater Subbasin

1 message

Sutter Subbasin <info@suttersubbasin.org>

Fri, Oct 1, 2021 at 9:46 AM

To: News@fox40.com

Cc: Guadalupe Rivera <grivera@co.sutter.ca.us>, Leslie Dumas <ldumas@woodardcurran.com>, Natalie Cochran <ncochran@woodardcurran.com>, vdeanda@woodardcurran.com

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Sutter County Development Services



Press Release_Public Draft Sutter Subbasin GSP_29Sept21.pdf

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Press Release: Local Efforts Underway Related to Sutter Groundwater Subbasin

1 message

Sutter Subbasin <info@suttersubbasin.org>

Fri, Oct 1, 2021 at 9:50 AM

To: publisher@mpg8.com

Cc: Guadalupe Rivera <grivera@co.sutter.ca.us>, Leslie Dumas <ldumas@woodardcurran.com>, Natalie Cochran <ncochran@woodardcurran.com>, vdeanda@woodardcurran.com

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Guadalupe Rivera on behalf of Sutter Subbasin GSAs
Sutter County Development Services



Press Release_Public Draft Sutter Subbasin GSP_29Sept21.pdf

410K



Sutter Subbasin <info@suttersubbasin.org>

Submission Confirmation

1 message

KUBA <mreisz01@gmail.com>

Fri, Oct 1, 2021 at 10:30 AM

To: info@suttersubbasin.org

Name: Natalie Cochran

Email: info@suttersubbasin.org

Who is
this
message
for:: Chris Rey, Operations Manager

Message: The press release included below is regarding the Sutter Subbasin Groundwater Sustainability Plan Public Draft, which will be made available for public review and comment October 1, 2021.

Water is vital to the economy, the environment, and the quality of life in Sutter County. While this precious resource is visible every day in the Sacramento and Feather Rivers, water underground is no less important, providing about half of the region's water supply. Groundwater serves the needs of cities, farms and businesses and provides high quality drinking water to urban and rural residents, all while helping to sustain vital ecosystems.

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Please feel free to reach out with any further questions.

Sutter County, CA: The Sutter Subbasin Groundwater Sustainability Plan Public Draft will be made available for a Public Comment Period, anticipated October 1 through November 12. The Draft Plan is available for viewing at www.SutterSubbasin.org, and comments can be submitted to info@suttersubbasin.org.

The nine Groundwater Sustainability Agencies (GSAs) of Sutter Groundwater Subbasin have been preparing a Groundwater Sustainability Plan (GSP) in response to the Sustainable Groundwater Management Act (SGMA). The Sutter Subbasin GSP will be complete by the end of 2021 and adopted prior to the regulatory deadline of January 31, 2022.

To provide information and seek input on the Public Draft GSP, the Groundwater Sustainability Agencies are hosting a workshop on October 19th from 4 p.m. – 6 p.m. The workshop will be held virtually due to COVID-19. This public workshop is a great

opportunity to get involved, learn about the GSP contents, and provide input on the future of groundwater management in the Sutter Subbasin.

Sutter Subbasin GSP – Public Workshop #5

Tuesday, October 19, 2021 at 4:00 pm – 6:00 pm

GoToMeeting

Please join my meeting from your computer, tablet or smartphone:

<https://global.gotomeeting.com/join/214694605>.

You can also dial in using your phone: +1 (408) 650-3123, Access Code: 214-694-605

The Groundwater Sustainability Agencies have been hosting a series of public workshops to provide updates on local efforts to meet the State's goals under SGMA. This fifth public workshop will give an overview of the elements included in the Public Draft GSP. The public will have the opportunity to ask questions and provide input on the plan.

To sign up for our stakeholder list or learn more, visit our website:

www.SutterSubbasin.org

About Sutter Subbasin:

The nine GSAs overlying the Sutter Subbasin are working together as the Sutter Subbasin Groundwater Management Coordination Committee (SSGMCC). The SSGMCC holds regular coordination meetings to discuss GSP technical development and public outreach and engagement activities in order to prepare a GSP for adoption. Stakeholders play an important role in the successful development of the GSP. Stakeholders have opportunities to comment and provide input into the GSP before key milestone decisions. Visit www.SutterSubbasin.org for more information.

The Appeal

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WEDNESDAY

OCTOBER 6, 2021

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NATION

Ex-Facebook
employee tells
Congress social media
giant endangers
users, democracy

SEE PAGE A6

your
daily
briefing

Groundwater sustainability plan available for public comment

By David Wilson

dwilson@appealdemocrat.com

The Sutter Subbasin Groundwater Sustainability Plan Public Draft has been made available for public comment through Nov. 12.

Nine Groundwater Sustainability Agencies (GSAs) of Sutter Groundwater Subbasin have been preparing a groundwater sustainability plan (GSP) in response to the Sustainable Groundwater Management Act (SGMA). The plan is expected to

Please see, **GSP, A3**

Officials seeking input on proposed Feather River Parkway project

By David Wilson

dwilson@appealdemocrat.com

The Sutter County Resource Conservancy District is working with the National Parks Service to plan a new parkway along the Feather River from the 10th Street Bridge to Shanghai Bend.

In June, the conservancy district received a planning grant from the National Parks Services Rivers, Trails and Conservation Assistance program and conservancy district board member Michael Johnston said the project is "midway through the planning process." For the next two weeks an online survey will be available for residents to provide input about their thoughts on if they want the parkway and if it goes forward what they'd like to see added along the river.

The parkway would provide pedestrian, hiking, and biking trails along the Feather

Please see, **SURVEY, A3**

Fall festival planned to fund church restorations

By Lynzie Lowe

llowe@appealdemocrat.com

To raise money to continue restoring its 166-year-old historic church, St. Joseph Catholic Church will host its

Homeless man arrested for mall fire

Further investigation determined domestic confrontation led to blaze

By David Wilson

dwilson@appealdemocrat.com

The homeless man removed from the former Peach Tree Mall building fire in Linda on Saturday has had charges of arson, attempted murder, burglary, and criminal threats



Wright

added to his arrest for violation of probation after further investigation into the incident. Thomas

Paul Wright, 32, was removed from the vacant building in the 6000 block of Lindhurst Avenue at around 5:30 a.m. Saturday and was booked into Yuba County Jail on a warrant for a violation of probation. After additional investigation, a victim came

forward to report that she had been in a domestic violence confrontation with Wright inside the old mall the morning of the fire. The confrontation escalated to Wright threatening to kill

Please see, **FIRE, A2**



Photo courtesy of Christopher Pedigo

The sixth annual Richard Sinnott Memorial Car Show was held Saturday at the Marysville Flea Market.

Car show celebrates flea market, raceway owner

'He loved cars and had been collecting since he was little'

By Jeff Larson

jl Larson@appealdemocrat.com

Misty Sinnott-Castleberry said the sixth annual Richard Sinnott Memorial Car Show was filled with some of

Richard Sinnott's favorite people on Saturday at the Marysville Flea Market.

The event is held on the first Saturday of October, she said, as a celebration for the long-time flea market and raceway

owner.

Sinnott died at 65 from a rare blood disorder that caused his lungs to shut down, said Sinnott-Castleberry.

In trying to find a way to honor her late father, Sinnott-

Castleberry and her husband, James Castleberry, came up with a car show because that was one of Sinnott's passions in life.

"He loved cars and had been collecting since he was little," Sinnott-Castleberry said. "My

Please see, **SHOW, A3**



Lynzie Lowe/Appeal-Democrat

Riders trekked through the back roads of Sutter and Colusa counties as they participated in the 10th annual 3F Century Bike Ride in 2019.

Colusa Lions Club to host

Sutter County Career Training Center brings opportunities

By Diana Vasquez

dvasquez@appealdemocrat.com

An expanded technical education career center will be brought to the region by Sutter County Superintendent of Schools (SCSOS).

The expansion comes via its newly acquired Cambridge Junior College campus that will now be called the Sutter County Career Training Center. SCSOS said

SHOW / From A1

biggest regret is that we didn't do it when he was alive because he would think this is incredible."

The event is always free to the public and is run by an entirely local staff. It features cars from multiple decades as well as raffle prizes and a full snack bar to help offset costs to host the show.

"The way it is free is the community comes together and donates all the raffle prizes," Sinnott-Castleberry said. "Then basically I put out all the money out of my own pocket to (run) it, then make the money back through the raffle prizes and snack bar."

Sinnott-Castleberry feels that her father

would be proud of what the family is doing in his honor.

"I know my dad would have wanted it for free," Sinnott-Castleberry said. "He was born and raised here (and) always wanted to have a car show."

The flea market, which is currently owned by the Sinnott family trust, has been locally owned since 1992, Sinnott-Castleberry said. She has been an employee at the flea market since she was 12.

The Marysville Raceway, which Sinnott also owned, is currently leased out to a promoter to run the day-to-day operations, Sinnott-Castleberry said.

"He (Richard Sinnott) was a big part of the community, he was a character,"

Sinnott-Castleberry said. "He had a ton of friends, all into cars."

Many were at the car show on Saturday celebrating Sinnott.

Larry Houk, of Olivehurst, is a four-time car show champion and owner of a 1989 GMC pickup. He said the car show gets bigger each year in part because of its namesake.

"It's celebrating a good dude," Houk said.

Houk said he has only missed one of the six car shows.

Chris Giaammona, a neighbor to Sinnott-Castleberry and her husband, also is a frequent visitor to the car show each year.

He and his family love seeing the "cars and the people."

GSP / From A1

be completed by the end of the year and adopted prior to the regulatory deadline of Jan. 31, 2022, according to a press release from the Sutter Subbasin.

The nine agencies include: the Sutter County Groundwater Sustainability Agency, the Butte Water District GSA, the Live Oak GSA, the Sutter Extension Water District GSA, the Sutter Community Services District GSA, the Yuba City GSA, the Reclamation District 70 GSA, the Reclamation District 1660 GSA, and the Reclamation District 1500 GSA.

"The Sutter Subbasin is generally in very good shape with respect to sustainable groundwater," Sutter County public information officer Chuck Smith said in an email. "The biggest concern

is protecting groundwater quality."

SGMA passed in 2014 and was enacted in 2015 with the goal of ensuring the long-term sustainable management of the state's groundwater resources. The act requires agencies throughout California to meet certain requirements, including forming GSAs, developing GSPs and achieving sustainable conditions within 20 years. Those conditions are defined by six basin-specific sustainable management criteria, according to Smith.

The criteria regarding seawater intrusion does not apply to the Sutter Subbasin. The other five criteria are included in the GSP that establishes a representative monitoring network through which data has and will continue to be collected and compared to two sets of numerical criteria called

minimum thresholds (MT) and measurable objectives (MO).

At each monitored location, the MO defines where the Sutter Subbasin wants the groundwater level to be and the MT sets the levels at which significant and unreasonable undesirable impacts could occur.

"The preparation of the GSP is being funded by a combination of state grant funding and funding supplied by the nine GSAs in the subbasin and funding supplied by five other contributing partners," Smith said. "Funding for plan implementation is currently being determined."

After the public comment period, any comments will be logged and changes to the plan will be considered. The GSP will then be finalized and adopted individually by the

nine GSAs. Once adopted, the GSP will be submitted to the California Department of Water Resources (DWR) prior to Jan. 31, 2022. DWR will then post the document for a 75-day public review period.

"DWR will also be required to review and approve the GSP during the two years that follow," Smith said. "Once the GSP has been submitted, the GSAs will begin implementing the plan."

A public workshop on the public draft GSP will be held on Oct. 19 from 4-6 p.m. To join the meeting, visit global.gotomeeting.com/join/214694605. You can also dial in at +1 (408) 650-3123 and use access code 214-694-605.

The draft plan is available to view at www.suttersubbasin.org and comments can be submitted to info@suttersubbasin.org.

FESTIVAL / From A1

rides, games including bingo, a dunk tank, a K-9 demonstration (pending emergencies) and more planned, according to Handy.

Raffles will also be held throughout the day, said Handy, and three grand prize winners will receive \$300, \$200 and \$100.

There will also be plenty to eat during the festivities, with food vendors serving up

polish sausages in honor of Polish pastor Michal Olszewski, barbecue tri-tip, pizza and the Catholic Daughter will be making candy. There will also be a beer garden area for adults.

The Knights of Columbus will hold a flag raising ceremony at 1:30 p.m., said Handy, and Pam Souza will be on hand to sing the national anthem.

Since it is the year of St. Joseph, Handy said the festivities will be dedicated to him.

According to Handy, St. Joseph himself will be attending the festival, joined by the Blessed Mother, baby Jesus and a shepherd.

"It just keeps getting bigger and bigger each year," said Handy. "I am hoping people will come out again this year."

The festival will be held at Notre Dame School, 715 C St., Marysville, on Sunday from 9 a.m. to 5 p.m. Admission and parking are free.

For more information, call 742-6461.

SURVEY / From A1

River and would also restore natural habitat in the area and provide educational displays.

Once the survey is done, the plans for the project will be completed with the addition of the public's input. The next step would be securing grant funding to begin construction work. The current project is similar to a project that was scheduled to be completed in 2006 but did

not happen because of lack of funds. Johnston said in 2006 the project was projected to cost \$50,000. He said construction will cost considerably more than \$50,000 but said there are enough grants available that he is not worried about a lack of funding.

"It's just a dream come true," Johnston said of the project going forward.

He said the project will draw more tourism to Sutter County.

In addition, a parkway is in the works along the river in the Sacramento area, which could connect with the Sutter County parkway once both are completed.

"Go down and look at the river and enjoy," Johnston said. "See what you might want down there."

To access the survey, visit surveymonkey.com/r/riverparkway or scan the QR code with your phone.



Scan for Feather River Parkway survey.

BIKE / From A1

a 100-mile century, a 100K metric century which is 68 miles or a 38-mile ride.

These routes pass through the towns of Meridian and Sutter, ride through the farmlands of the Sutter Bypass, cross the Tisdale Weir, ride along the scenic Sacramento River levee road and all the way around the Sutter Buttes for those attempting the 100-mile ride.

According to McGarth, in addition to the bike ride, organizers have added a cornhole tournament presented by DFT Cornhole, music/DJ and food trucks. Farmers Brewing and Colusa Tan

from Washington state, Idaho, and Southern California - which is kinda like another state," said McGarth. "The past couple of years we have had a group of eight riders come from the Riverside/San Bernardino area."

He hopes registration numbers continue to grow in the coming days.

"The numbers are down, as they are at other events like this," said McGarth.

"The virus and concerns about social distancing are a primary cause of this. We take every precaution we can think of - masks required, individually packaged food items at the aid stations, hand sanitizers, requirement for

"We have had riders from age 10 to 80," said McGarth. "Because this is flat, and probably the flattest century in California, we attract a lot of first-time century riders. When we started, the majority of other rides were trying to outdo one another with how hard their ride was. This was off-putting to recreational riders who wanted a century on their list of accomplishments but couldn't handle all the climbing of the other events."

McGarth said his favorite part of the event is seeing all the riders out there having a good time.

"Seeing them at the end enjoying their accomplishment," said McGarth. "It makes me smile."

The 2021 Flat, Fast and Fun Century Bike Ride will be held Saturday. Those interested in participating can pre-register online at <http://3fcentury.com/index.php>. Registration will also be available at the event's start location, 901 Parkhill St. in Colusa, on Friday from 6-8 p.m. or on Saturday morning at 5:45 a.m.

Registration fees range from \$50-\$70, depending on the route.

The 3F Century Ride

began in May of 2009 as a fundraiser to raise money to purchase a new mat for the Colusa High School wrestling team.

McGarth, principal of Colusa High School at the time, had just started a new wrestling program and initiated the bike ride to pay back a loan he had taken out from the Colusa Redskins Athletic Foundation to cover the costs of the new wrestling mat.

The Lions Club partnered

with McGarth after the third year of the event and have hosted the event each year since with McGarth's help.

Proceeds from the race are used by the Lions Club to continue funding youth activity programs in the Colusa Unified School District and other activities with the community of Colusa.

For more information or to register online, visit www.3fcentury.com/index.php.

CENTER / From A1

programs and students were transitioned to the new Sutter County Career Training Center. Approximately 90 students transitioned from Cambridge to the Sutter County Training Center and are continuing to complete the medical assisting career program.

"It was an easy transition since the college was already nationally accredited," said Tom Reusser, superintendent of SCSOS. "We are expanding career technical education opportunities for students in the community."

Under SCSOS's direction, the Sutter County Career Training Center will provide access to students for Pell Grants, CalGrants, veterans benefits, and other financial assistance programs administered by the U.S. Department of Education once SCSOS receives regulatory approval. The newly formed Sutter County Career Training Center will expand current career technical education programs that SCSOS already offers through the Sutter County One Stop and Sutter County Adult Education programs.

In addition, SCSOS is working on adding a cosmetology program for the spring of 2022.

"Student costs will remain about the same," said Reusser. "It may be much cheaper for students once they apply for and are eligible for financial aid. Tuition may even decrease in the long run because Cambridge Junior College was a for-profit institution, but we're a nonprofit organization. We're not here to make profit, but rather create opportunities for students."

Teachers and staff previously working at Cambridge Junior College had to reapply as new employees of SCSOS. Most did reapply, said Reusser. Teachers that were hired had to also apply for a California teaching credential.

Programs offered through SCSOS that will be expanded under the Sutter County Career Training Center are phlebotomy, LVN, dental assisting, home health aid, CNA and short-term certificate programs like welding, robotics and culinary arts. Reusser estimates Sutter County Career Training Center will serve approximately 400 students.

"This merger creates additional opportunities for students in the region seeking education and training that leads directly to employment," said Reusser.

SCSOS also provides its services to approximately 20,000 public school students through 12 district and nine charter schools. Reusser encouraged community members that may be interested in programs offered at the Sutter County Career Training Center to contact SCSOS directly at 530-674-9199 or www.cambridge.edu.

GSP ANNUAL REPORT: WY23

Introduction

The **California Department of Water Resources (DWR)** has categorized the **Sutter Groundwater Subbasin (Subbasin)** as a medium priority groundwater basin under the Sustainable Groundwater Management Act (**SGMA**). As such, the Subbasin's **Groundwater Sustainability Agencies (GSAs)** were required to submit a **Groundwater Sustainability Plan (GSP)** by January 31, 2022. GSPs are detailed plans to ensure long-term sustainable groundwater management in at-risk basins, measured by the status of six (6) key sustainability indicators. DWR requires **Annual Reports** on the status of GSP implementation to ensure basins are on track to meeting identified sustainability goals. **Water Year 2023 (WY23)** was the Subbasin's second year of GSP implementation and its third annual reporting year. During WY 2023, the Subbasin continued to operate under sustainable conditions.

Sutter Subbasin Sustainability Goal

The Sutter Subbasin will maintain locally-managed groundwater resources for existing and future beneficial uses and users that are economically viable and sustainable by managing groundwater use within the sustainable yield, resulting in the avoidance of undesirable results.

Executive Summary

The Sutter Subbasin experienced a stable and productive Water Year (WY) 2023 (October 2022–September 2023). The Sutter Subbasin maintained stable groundwater levels and experienced an increase in total volume of groundwater in storage. Furthermore, indicators of water quality, land subsidence, and interconnected surface waters remained in sustainable condition. WY23 was the Subbasin's second year of Groundwater Sustainability Plan (GSP) implementation, and the Subbasin operated within the Sustainable Management Criteria (SMC) established in its 2022 GSP.

Groundwater Levels & Storage

The Sutter Subbasin experienced normal seasonal fluctuations in groundwater levels during WY23. Groundwater depths exceeded minimum thresholds at two wells, but no undesirable results were observed. Groundwater levels remain stable overall.

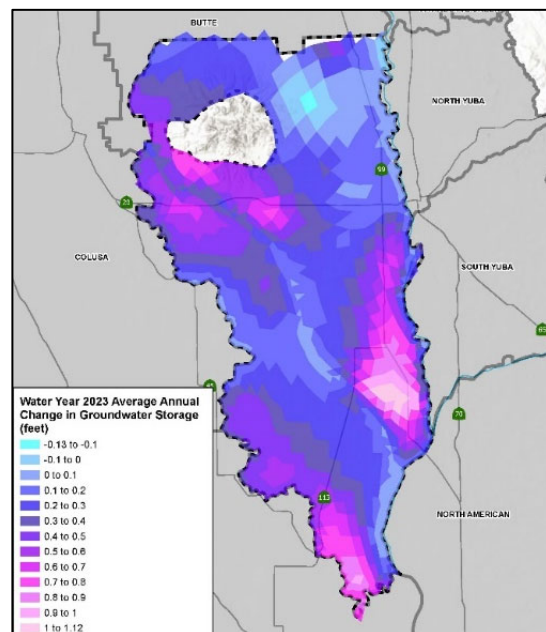
During WY23, groundwater storage increased in the Subbasin by 94,000 AF. To the right is a map of interpolated storage changes. Changes in groundwater storage were positive on average.

SGMA Sustainability Indicator	Status
Groundwater Levels	Stable
Groundwater Storage	Increased
Water Quality	Stable
Land Subsidence	Stable
Interconnected Surface Water	Stable

Note: The Seawater Intrusion Sustainability Indicator is not applicable for the Sutter Subbasin.

Water Use

Total WY23 water use in the Subbasin was 755,600 acre-feet (AF). Groundwater extraction was less than 20% of total water use, and more than 90% of groundwater extracted was for agriculture.



Groundwater Quality

Groundwater quality was monitored at 18 wells within the Sutter Subbasin. These wells were sampled for **total dissolved solids (TDS)** and **nitrate**, both of which are impacted by agricultural runoff. The **minimum thresholds (MTs)** for TDS and nitrate in groundwater are based on drinking water standards of the upper Secondary Maximum Contaminant Level (MCL) of 1,000 milligrams per liter (mg/L) for TDS and Primary MCL of 10 mg/L for nitrate as N. In WY23, all groundwater samples collected were less than the established MTs with the exception of one sample each for TDS and nitrate as N.

The Subbasin defines an undesirable result for degraded water quality as “a causal nexus between groundwater-related activities... and a degradation in groundwater quality that causes a significant and unreasonable reduction in long-term viability of domestic, agricultural, municipal, or environmental uses.” More than 50% of samples were below their minimum thresholds; therefore, the Subbasin did not observe an undesirable result.

Groundwater Pumping

Total groundwater extraction was 124,800 AF during WY23. 91% of groundwater pumped was for agricultural use (113,900 AF). Municipal and domestic groundwater use accounted for an estimated 9,100 AF (7%). A little over 1% of the total volume of groundwater extracted was applied to managed wetlands (1,600 AF), and less than 0.2% was used in local industry (200 AF). Below is a figure displaying average groundwater pumping interpolated across the Sutter Subbasin during WY23.

Up Next

In early 2024, the Sutter Subbasin entered into an agreement with DWR for Proposition 68 grant funding to further GSP implementation. These work efforts will be conducted in 2025 and 2026 and include Annual Reports, instrumenting wells, geophysical surveys, groundwater model updates, and a financing plan.

For more information, visit SutterSubbasin.org

Other Sustainability Indicators

Land Subsidence

Land subsidence was measured using public **Interferometric Synthetic Aperture Imagery (InSAR)**. Minor amounts of vertical displacement were observed in the Subbasin during WY23, ranging from -0.1 to 0.1 feet.

Depletion of Interconnected Surface Water

The Subbasin’s SMC for **interconnected surface waters** are established to maintain sustainable exchanges between groundwater and interconnected surface water courses, including the **Sacramento River, Feather River, and Sutter Bypass**. Groundwater/surface water exchange was measured using groundwater levels as proxy at 16 wells in WY23. Exchanges with interconnected surface waters were stable during WY23. Two wells briefly exceeded their MTs in October 2022 and January 2023, respectively, but no undesirable results were observed.

Ongoing Projects*	Agency
System Modernization: Upgrading local conveyance and SCADA infrastructure to improve system efficiency and reduce spillage.	Butte Water District
Dual-Source Irrigation Systems: Installing irrigation systems capable of using either surface or groundwater.	Butte Water District
Expanding Monitoring Well Network: Installation of additional shallow groundwater monitoring wells.	Multi-Agency/GSA
Groundwater Transfer/Well Permit Approval Processes: Optimizing application processes to ensure no impact to Subbasin sustainability.	Subbasin GSAs
Advanced Treatment and Water Recycling: Feasibility study for recycled water facility for direct and in-lieu recharge	City of Yuba City
Aquifer Storage & Recovery and Second Well: Feasibility of aquifer storage recovery well	City of Yuba City

*Additional ongoing project information can be found in the WY23 Annual Report, available at <http://suttersubbasin.org/assets/pdf/Sutter%20Subbasin%20WY%202023%20Annual%20Report.pdf>

GSP ANNUAL REPORT: WY24

Introduction

The **California Department of Water Resources (DWR)** has categorized the **Sutter Groundwater Subbasin (Subbasin)** as a medium priority groundwater basin under the Sustainable Groundwater Management Act (**SGMA**). As such, the Subbasin's **Groundwater Sustainability Agencies (GSAs)** were required to submit a **Groundwater Sustainability Plan (GSP)** by January 31, 2022. GSPs are detailed plans to ensure long-term sustainable groundwater management in at-risk basins, measured by the status of six (6) key sustainability indicators. DWR requires **Annual Reports** on the status of GSP implementation to ensure basins are on track to meeting identified sustainability goals. **Water Year 2024 (WY 2024)** was the Subbasin's third year of GSP implementation and its fourth annual reporting year. During WY 2024, the Subbasin continued to operate under sustainable conditions.



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SGMA Sustainability Indicator	Status
Groundwater Levels	Stable
Groundwater Storage	Stable
Water Quality	Stable
Land Subsidence	Stable
Interconnected Surface Water	Stable

Note: The Seawater Intrusion Sustainability Indicator is not applicable for the Sutter Subbasin.

Sutter Subbasin Sustainability Goal

The Sutter Subbasin will maintain locally-managed groundwater resources for existing and future beneficial uses and users that are economically viable and sustainable by managing groundwater use within the sustainable yield, resulting in the avoidance of undesirable results.

Executive Summary

The Sutter Subbasin experienced a stable and productive Water Year (WY) 2024 (October 1, 2023-September 30, 2024). The Sutter Subbasin maintained stable groundwater levels and experienced a slight decrease in total volume of groundwater in storage. Furthermore, indicators of groundwater quality, land subsidence, and interconnected surface waters remained in sustainable condition. WY 2024 was the Subbasin's third year of Groundwater Sustainability Plan (GSP) implementation, and the Subbasin operated within the Sustainable Management Criteria (SMC) established in its 2022 GSP.

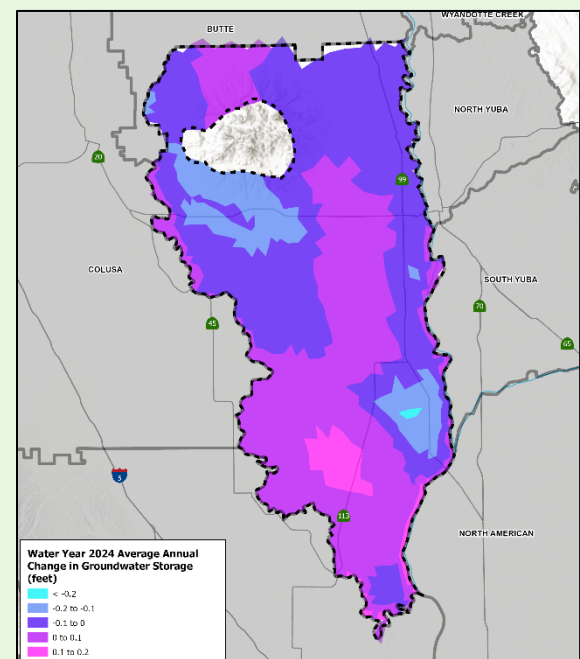
Water Use

Total WY 2024 water use in the Subbasin was 810,400 acre-feet (AF). Groundwater was 15% of total water use, and more than 90% of groundwater extracted was for agriculture.

Groundwater Levels & Storage

The Sutter Subbasin experienced normal seasonal fluctuations in groundwater levels during WY 2024. Groundwater depths exceeded minimum thresholds at one wells, but no undesirable results were observed. Groundwater levels remain stable overall.

During WY 2024, groundwater storage decreased in the Subbasin by 4,000 AF (out of an approximate 49 million AF of groundwater in storage or 0.008%). To the right is a map of interpolated storage changes. Changes in groundwater storage were positive on average.



Groundwater Quality

Groundwater quality was monitored at 18 wells within the Sutter Subbasin. These wells were sampled for **total dissolved solids (TDS)** and **nitrate**, both of which are impacted by agricultural runoff. The **minimum thresholds (MTs)** for TDS and nitrate in groundwater are based on drinking water standards of the upper Secondary Maximum Contaminant Level (MCL) of 1,000 milligrams per liter (mg/L) for TDS and Primary MCL of 10 mg/L for nitrate as N. In WY 2024, all groundwater samples collected were less than the established MTs, except for one TDS sample and two nitrate samples.

The Subbasin defines an undesirable result for degraded groundwater quality as “a causal nexus between groundwater-related activities... and a degradation in groundwater quality that causes a significant and unreasonable reduction in long-term viability of domestic, agricultural, municipal, or environmental uses” where more than 50% of samples are below their minimum thresholds; therefore, the Subbasin did not observe an undesirable result.

Groundwater Pumping

Total groundwater extraction was 126,500 AF during WY 2024. 91% of groundwater pumped was for agricultural use (115,900 AF). Municipal and domestic groundwater use accounted for an estimated 8,900 AF (7%). A little over 1% of the total volume of groundwater extracted was applied to managed wetlands (1,500 AF), and less than 0.2% was used in local industry (200 AF).

Up Next

In early 2024, the Sutter Subbasin entered into an agreement with DWR for Proposition 68 grant funding to further GSP implementation. These work efforts will be conducted in 2025 and 2026 and include Annual Reports, instrumenting wells, geophysical surveys, groundwater model updates, and a financing plan.

Other Sustainability Indicators

Land Subsidence

Land subsidence was measured using public **Interferometric Synthetic Aperture Imagery (InSAR)**. Minor amounts of vertical displacement were observed in the Subbasin during WY24, ranging from -0.1 to 0.1 feet.

Depletion of Interconnected Surface Water

The Subbasin’s SMC for **interconnected surface waters** are established to maintain sustainable exchanges between groundwater and interconnected surface water courses, including the **Sacramento River, Feather River, and Sutter Bypass**. Groundwater/surface water exchange was measured using groundwater levels as proxy at 16 wells in WY 2024. Exchanges with interconnected surface waters were stable during WY 2024. No minimum threshold exceedances were observed in WY 2024. However, downward trends have been observed in 3 wells, which will be monitored to ensure undesirable results do not occur.

Ongoing Projects*	Agency
System Modernization: Upgrading local conveyance and SCADA infrastructure to improve system efficiency and reduce spillage.	Butte Water District
Dual-Source Irrigation Systems: Installing irrigation systems capable of using either surface or groundwater.	Butte Water District
Expanding Monitoring Well Network: Installation of additional shallow groundwater monitoring wells.	Multi-Agency/GSA
Advanced Treatment and Water Recycling: Feasibility study for recycled water facility for direct and in-lieu recharge	City of Yuba City
Aquifer Storage & Recovery and Second Well: Feasibility of aquifer storage recovery well	City of Yuba City



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For more information, visit [SutterSubbasin.org](https://suttersubbasin.org)

*Additional ongoing project information can be found in the WY24 Annual Report, available at <https://sgma.water.ca.gov/portal/gspar/preview/454>

GSP ANNUAL REPORT: WY25

Introduction

The **California Department of Water Resources (DWR)** has categorized the **Sutter Groundwater Subbasin (Subbasin)** as a medium priority groundwater basin under the Sustainable Groundwater Management Act (**SGMA**). As such, the Subbasin's **Groundwater Sustainability Agencies (GSAs)** were required to submit a **Groundwater Sustainability Plan (GSP)** by January 31, 2022. GSPs are detailed plans to ensure long-term sustainable groundwater management in at-risk basins, measured by the status of six (6) key sustainability indicators. DWR requires **Annual Reports** on the status of GSP implementation to ensure basins are on track to meeting identified sustainability goals. **Water Year 2025 (WY 2025)** was the Subbasin's fourth year of GSP implementation and its fifth annual reporting year. During WY 2025, the Subbasin continued to operate under sustainable conditions.



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SGMA Sustainability Indicator	Status
Groundwater Levels	Stable
Groundwater Storage	Stable
Water Quality	Stable
Land Subsidence	Stable
Interconnected Surface Water	Stable

Note: The Seawater Intrusion Sustainability Indicator is not applicable for the Sutter Subbasin.

Sutter Subbasin Sustainability Goal

The Sutter Subbasin will maintain locally-managed groundwater resources for existing and future beneficial uses and users that are economically viable and sustainable by managing groundwater use within the sustainable yield, resulting in the avoidance of undesirable results.

Executive Summary

The Sutter Subbasin experienced a stable and productive Water Year (WY) 2025 (October 1, 2024-September 30, 2025). The Sutter Subbasin maintained stable groundwater levels and experienced a slight increase in total volume of groundwater in storage. Furthermore, indicators of groundwater quality, land subsidence, and interconnected surface waters remained in sustainable condition. WY 2025 was the Subbasin's fourth year of Groundwater Sustainability Plan (GSP) implementation, and the Subbasin operated within the Sustainable Management Criteria (SMC) established in its 2022 GSP.

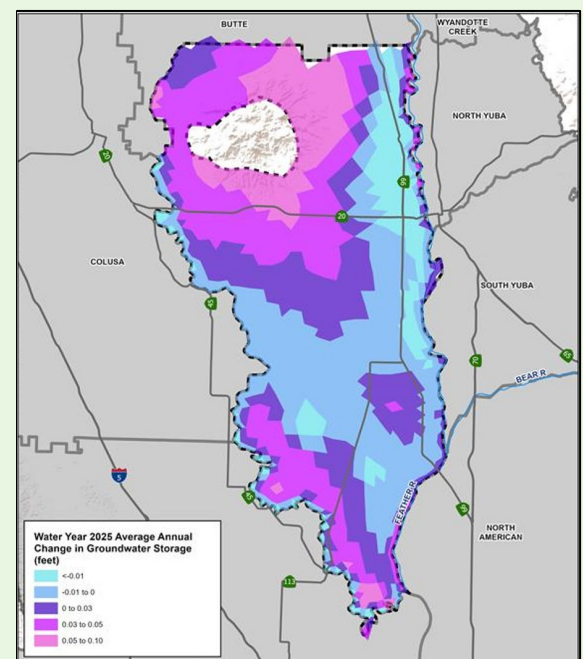
Water Use

Total WY 2025 water use in the Subbasin was 864,000 acre-feet (AF). Groundwater was 14% of total water use, and more than 90% of groundwater extracted was for agriculture.

Groundwater Levels & Storage

The Sutter Subbasin experienced normal seasonal fluctuations in groundwater levels during WY 2025. Groundwater depths did not exceed minimum thresholds at any wells during seasonal high conditions and no undesirable results were observed. Groundwater levels remain stable overall.

During WY 2025, groundwater storage increased in the Subbasin by 5,900 AF (out of an approximate 49 million AF of groundwater in storage or 0.01%). To the right is a map of interpolated storage changes. Changes in groundwater storage were positive on average.



Groundwater Quality

Groundwater quality was monitored at 19 wells within the Sutter Subbasin. These wells were sampled for **total dissolved solids (TDS)** and **nitrate**, both of which are impacted by agricultural runoff. The **minimum thresholds (MTs)** for TDS and nitrate in groundwater are based on drinking water standards of the upper Secondary Maximum Contaminant Level (MCL) of 1,000 milligrams per liter (mg/L) for TDS and Primary MCL of 10 mg/L for nitrate as N. In WY 2025, all groundwater samples except one were less than the established MT for TDS. All groundwater samples collected were under the established MT for nitrate.

The Subbasin defines an undesirable result for degraded groundwater quality as “a causal nexus between groundwater-related activities... and a degradation in groundwater quality that causes a significant and unreasonable reduction in long-term viability of domestic, agricultural, municipal, or environmental uses” where more than 50% of samples are below their minimum thresholds; therefore, the Subbasin did not observe an undesirable result.

Groundwater Pumping

Total groundwater extraction was 119,400 AF during WY 2025. 91% of groundwater pumped was for agricultural use (108,600 AF). Municipal and domestic groundwater use accounted for an estimated 8,800 AF (7%). A little over 1% of the total volume of groundwater extracted was applied to managed wetlands (1,800 AF), and less than 0.2% was used in local industry (200 AF).

Up Next

In early 2024, the Sutter Subbasin entered into an agreement with DWR for Proposition 68 grant funding to further GSP implementation. These work efforts will be conducted in 2025 and 2026 and include Annual Reports, instrumenting wells, geophysical surveys, groundwater model updates, and a financing plan.

Other Sustainability Indicators

Land Subsidence

Land subsidence was measured using public **Interferometric Synthetic Aperture Imagery (InSAR)**. Minor amounts of vertical displacement were observed in the Subbasin during WY25, ranging from -0.1 to 0.1 feet.

Depletion of Interconnected Surface Water

The Subbasin’s SMC for **interconnected surface waters** are established to maintain sustainable exchanges between groundwater and interconnected surface water courses, including the **Sacramento River, Feather River, and Sutter Bypass**. Groundwater/surface water exchange was measured using groundwater levels as proxy at 16 wells in WY 2025. Exchanges with interconnected surface waters were stable during WY 2025. No minimum threshold exceedance occurred in WY 2025, therefore no undesirable results were observed.

Ongoing Projects*	Agency
System Modernization: Upgrading local conveyance and SCADA infrastructure to improve system efficiency and reduce spillage.	Butte Water District
Dual-Source Irrigation Systems: Installing irrigation systems capable of using either surface or groundwater.	Butte Water District
Monitoring Well Refinements: Perform well siting analysis to fill data gaps.	Multi-Agency/GSA
AEM Survey of Sutter Buttes: Re-evaluation of raw AEM data from DWR and additional geophysical surveys	Multi-Agency/GSA
Aquifer Storage & Recovery and Second Well: Feasibility of aquifer storage recovery well	City of Yuba City



For more information, visit [SutterSubbasin.org](https://suttersubbasin.org)

*Additional ongoing project information can be found in the WY25 Annual Report, available at <https://sgma.water.ca.gov/portal/gspar/preview/528>

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