Groundwater Sustainability Commission

for the San Luis Obispo Valley Groundwater Basin

NOTICE OF MEETING

NOTICE IS HEREBY GIVEN that the Groundwater Sustainability Commission will hold a **Regular Meeting** at **3:30 P.M.** on **Wednesday, August 18, 2021.** Based on the threat of COVID-19 as reflected in the Proclamations of Emergency issued by both the Governor of the State of California and the San Luis Obispo County Emergency Services Director, as well as the Governor's Executive Order N-29-20 issued on March 17, 2020 relating to the convening of public meetings in response to the COVID-19 pandemic, this meeting will be conducted as a phone-in/web-based meeting only. There will be no physical meeting location for this GSC Meeting. Members of the public can participate via phone or by logging into the web-based meeting.

TO JOIN THE MEETING FROM YOUR COMPUTER, TABLET OR SMARTPHONE, GO TO:
https://us06web.zoom.us/j/98766415135?pwd=N0JNRnlsM2dvNXJseUUzaW9qZTgxUT09
Passcode: 648017
(This link will help connect both your browser and telephone to the call)

YOU CAN ALSO DIAL IN USING YOUR PHONE:
Dial +1 669 900 6833
Webinar ID: 987 6641 5135
Passcode: 648017

All persons desiring to speak during any Public Comment can submit a comment by:

- Email at dtzou@co.slo.ca.us by 5:00 PM on the day prior to the Commission meeting
- Teleconference meeting at link or phone number above
- Mail by 5:00 PM on the day prior to the Commission meeting to:
  County of San Luis Obispo Department of Public Works
  Attn: Dick Tzou
  County Government Center, Room 206
  San Luis Obispo, CA 93408
- Additional information on how to submit Public Comment is provided on page 3 of this Agenda

NOTE: The Groundwater Sustainability Commission reserves the right to limit each speaker to three (3) minutes per subject or topic. In compliance with the Americans with Disabilities Act and Executive Order N-29-20, all possible accommodations will be made for individuals with disabilities, so they may participate in the meeting. Persons who require accommodation for any audio, visual or other disability in order to participate in the meeting of the GSC are encouraged to request such accommodation 48 hours in advance of the meeting from Joey Steil at (805) 781-5252.

GROUNDWATER SUSTAINABILITY COMMISSION AGENDA

Dawn Ortiz-Legg, Member, County of San Luis Obispo	**Bruce Gibson**, Alternate, County of San Luis Obispo
Bob Schiebelhut, Chair, EVGMWC	**George Donati**, Alternate, EVGMWC
Dennis Fernandez, Member, ERMWC/VRMWC	**James Lokey**, Alternate, ERMWC/VRMWC
Mark Zimmer, Vice Chair, GSWC	**Toby Moore**, Alternate, GSWC
Andy Pease, Member, City of San Luis Obispo	**Aaron Floyd**, Alternate, City of San Luis Obispo

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1. **Call to Order** (Chair) **3:30**
2. **Roll Call** (City Staff: Mychal Boerman)
3. **Pledge of Allegiance** (Chair)

4. **Public Comment – Items not on Agenda** (Chair)

5. **Approval of Meeting Minutes** (Chair) **3:35 – 3:40 (5 mins)**
   a) June 21, 2021

6. **GSP Update – New Monitoring Well Installation** (County staff: Dick Tzou) **3:40 – 3:55 (15 mins)**
   a) Receive an update on the installation of monitoring well (SLV-23).

7. **Public Draft of the Groundwater Sustainability Plan Review and Comments** (WSC Consultant Team: Michael Cruikshank and Dave O'Rourke) **3:55- 4:40 (45 mins)**
   Recommendation
   a) Consider response from comments and recommending the Public Draft of the Groundwater Sustainability Plan to be received and filed by the GSAs and released for public comment.

8. **Scope of Work for the SLO Basin 2022 Annual Report and Request for Proposals (RFP)** (County staff: Dick Tzou and City staff: Mychal Boerman) **4:40 - 4:55 (15 mins)**
   Recommendation
   a) Receive a draft scope of work for the preparation of the SLO Basin 2022 Annual Report.
   b) Designate a member of the Commission to participate in the consultant selection process for the Annual Report RFP.

9. **Future Items** (Chair) **4:55 - 5:00 (5 mins)**
   a) GSC Meeting– October 6, 2021

10. **Next Regular Meeting: October 6, 2021**

11. **Adjourn** (Chair)

Groundwater Sustainability Commission

for the San Luis Obispo Valley Groundwater Basin

NOTICE OF MEETING

CONFERENCE CALL/WEBINAR ONLY

Wednesday, August 18, 2021 at 3:30 p.m.

Important Notice Regarding COVID-19 Based on guidance from the California Department of Public Health and the California Governor's Officer, in order to minimize the spread of the COVID-19 virus, please note the following:

1. The meeting will only be held telephonically and via internet via the number and website link information provided on the agenda. After each item is presented, Commission Members will have the opportunity to ask questions. Participants on the phone will then be provided an opportunity to speak for 3 minutes as public comment prior to Commission deliberations and/or actions or moving on to the next item. If a participant wants to provide public comment on an item, they should select the "Raise Hand" icon on the Zoom Online Meeting platform or press *9 if on the phone. The meeting host will then unmute the participant when it is their turn to speak and allow them to provide public comment.

2. The Commission's agenda and staff reports are available at the following website: https://www.slowaterbasin.com

3. If you choose not to participate in the meeting and wish to make a written comment on any matter within the Commission's subject matter jurisdiction, regardless of whether it is on the agenda for the Commission's consideration or action, please submit your comment via email or U.S. Mail by 5:00 p.m. on the day prior to the Commission meeting. Please submit your comment to Dick Tzou at dtzou@co.slo.ca.us. Your comment will be placed into the administrative record of the meeting.

   Mailing Address:
   County of San Luis Obispo Department of Public Works
   Attn: Dick Tzou
   County Government Center, Room 206
   San Luis Obispo, CA 93408

4. If you choose not to participate in the meeting and wish to submit verbal comment, please call (805) 781-5252 and ask for Dick Tzou. If leaving a message, state and spell your name, mention the agenda item number you are calling about and leave your comment. The verbal comments must be received by no later than 9:00 a.m. on the morning of the noticed meeting and will be limited to 3 minutes. Every effort will be made to include your comment into the record, but some comments may not be included due to time limitations.

NOTE: The Groundwater Sustainability Commission reserves the right to limit each speaker to three (3) minutes per subject or topic. In compliance with the Americans with Disabilities Act and Executive Order N-29-20, all possible accommodations will be made for individuals with disabilities, so they may participate in the meeting. Persons who require accommodation for any audio, visual or other disability in order to participate in the meeting of the GSC are encouraged to request such accommodation 48 hours in advance of the meeting from Joey Steil at (805) 781-5252.

Groundwater Sustainability Commission
Regular Meeting Minutes (DRAFT)
June 21, 2021

The following members were present:

Bob Schiebelhut, Chair, EVGMWC
Mark Zimmer, Vice Chair, GSWC
Dennis Fernandez, Member, ERMWC/VRMWC
Dawn Ortiz-Legg, Member, County of San Luis Obispo
Andy Pease, Member, City of San Luis Obispo

<table>
<tr><td>1. Call to Order

2. Roll Call

3. Pledge of Allegiance</td><td>Chair Schiebelhut: calls the meeting to order at 3:00 PM.

City Staff, Mychal Boerman: calls roll.

Chair Schiebelhut: leads the Pledge of Allegiance.</td></tr>
<tr><td>4. Public Comment – Items not on Agenda</td><td>Chair Schiebelhut: opens the floor for public comment.

None</td></tr>
<tr><td>5. Approval of Meeting Minutes:
• May 20, 2021</td><td>Chair Schiebelhut: opens discussion for Agenda Item 5 - Approval of Meeting Minutes for the May 20, 2021, Groundwater Sustainability Commission meeting and asks for comments from the Commission; there are none.

Motion By: Member Pease
Second By: Member Fernandez
Motion: The Commission moves to approve the May 20, 2021, meeting minutes.

<table>
<tr><th>Members</th><th>Ayes</th><th>Noes</th><th>Abstain</th><th>Recuse</th></tr>
<tr><td>Bob Schiebelhut (Chair)</td><td>X</td><td></td><td></td><td></td></tr>
<tr><td>Toby Moore (Vice Chair)</td><td>X</td><td></td><td></td><td></td></tr>
<tr><td>Andy Pease (Member)</td><td>X</td><td></td><td></td><td></td></tr>
<tr><td>Dennis Fernandez (Member)</td><td>X</td><td></td><td></td><td></td></tr>
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</td></tr>
<tr><td>6. Response to Comments on GSP Chapter 8 – Sustainable Management Criteria</td><td>County Staff, Dick Tzou and GSP Consultant Team, Dave O’Rourke present on response to comments on received on GSP Chapter 8 – Sustainable Management Criteria:

Discussion:
• Received a comment from National Marine Fisheries Services (NMFS). Attached to agenda packet.
• Dave O’Rourke reviewed NMFS questions/comments and planned responses.
• The Stillwater Technical Memorandum will be released for review at this meeting and will summarize the hydrologic information relative to Groundwater Dependent Ecosystems based on mapping data provided by DWR.</td></tr>
</table>

- The Technical Memorandum was previously referenced in Chapter 7 – Monitoring Network and will be an appendix to the GSP. There will be a 30 day comment review period and it will be released in the compiled GSP public draft where and an additional public comment period will be opened.
- As shown in Chapter 7, proposing up to 5 new stream gauges and monitoring wells.

Chair Schiebelhut opens the floor for public comment, there are none.

7. Draft GSP Chapter 9 and 10: Projects and Management Actions and Implementation Plan and Draft Technical Memorandum on Groundwater Dependent Ecosystem (GDE) for Review and Comment

GSP Consultant Team, Michael Cruickshank and Dan Heimel present on the following topics:

Chapter 9 - Projects and Management Actions Chapter Organization

- Management Actions
- Demand Management Plan
- Adaptive Management
- SWP: 4 state water projects highlighted in map
- Other Projects highlighted
- Projects are described in detail in the chapter
- Model Results from combined projects shared
- Metering of de minimis wells

Chapter 10 – Implementation Chapter Organization

- Implementation Outline
- Implementation Schedule
- Implementation Costs 2022 - 2027 – developing a fee study will be one of the first implementation steps to determine cost sharing.
- Next Steps

County Staff, Dick Tzou: proposes to reschedule the August 11, 2021, meeting to August 18, 2021.

Motion By: Chair Schiebelhut
Second By: Member Ortiz-Legg
Motion: The Commission moves to reschedule the August 11, 2021, GSC meeting to August 18, 2021.

Members	Ayes	Noes	Abstain	Recuse
Bob Schiebelhut (Chair)	X			
Mark Zimmer (Vice Chair)	X			
Dawn Ortiz-Legg (Member)	X			
Andy Pease (Member)	X			
Dennis Fernandez (Member)	X			

Recommendation: GSAs to Receive and File Chapter 9 - Projects and Management Actions and Chapter 10 - Implementation Plan and GDE Technical Memorandum.

Chair Schiebelhut opens the floor for public comment:

Keith Watkins: speaks.

Member Pease: comments that it would be appropriate to understand utilization of recycled water in the winter and agrees that clarifications can be made.

Discussion:

- Fee study – Costs to be distributed proportionally to beneficiaries (including administrative costs and studies). Fee study should determine cost study, not outlined in chapter. Fee study will cover not only projects, but whole administrative process as well.
- Turf grass will be addressed as part of the non de minimis users and in demand management plan. Clarifying language will be added to define turf grass as a non-crop prior to release of draft chapters.
- Determination on prescribed water use would come as part of a management action taken in the first year or so as part of the metering program, so that there is a reliance on metered data vs. estimated data.
- Limitations on the use of the City's recycled water as it pertains to crops or irrigation; permit may have to be modified with the Regional Board and studies would have to take place for agronomic applications. Possible for use with direct application but not directly to a recharge basin.
- Text will be added to table 9.2 to explain weighting factors at top of spreadsheet.
- Righetti Dam is not listed as a project due to water rights issues. Several things in their permit would need to be updated. Mentioned in Chapter 5 that if more water were to be released, it would be beneficial to the basin, but not considered a project.

Motion By: Member Pease
Second By: Chair Schieblehut
Motion: The Commission moves that Draft Chapters 9 – Projects and Management Actions and Chapter 10 – Implementation Plan and GDE Technical Memorandum be received and filed by the GSAs and released for public comment.

Members	Ayes	Noes	Abstain	Recuse
Bob Schiebelhut (Chair)	X			
Mark Zimmer (Vice Chair)	X			

	Dawn Ortiz-Legg (Member)	X			
	Andy Pease (Member)	X			
	Dennis Fernandez (Member)	X			
8. Future Items	GSC Meeting Rescheduled to August 18, 2021 Admin Draft of the complete GSP				
9. Next Meeting	August 18, 2021, at 3:30 p.m. via Zoom				
10. Adjourn	The Commission adjourns the meeting at 4:07 p.m.				

DRAFTED BY: City and County Staff

GROUNDWATER SUSTAINABILITY COMMISSION
for the San Luis Obispo Valley Groundwater Basin
August 18, 2021

Agenda Item 6 – GSP Update – New Monitoring Well Installation
(Presentation Item)

Recommendation

a) Receive an update on the installation of a monitoring well (SLV-23).

Prepared by

Dick Tzou, County of San Luis Obispo

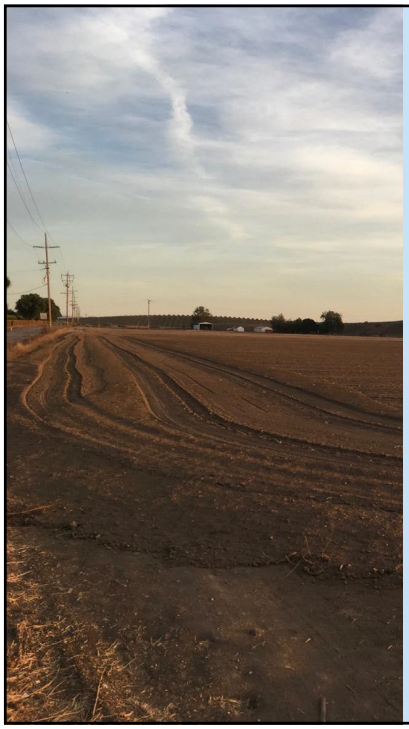
Discussion

As part of DWR's Prop 1 Grant Agreement, at least 1 new monitoring well is to be designed, installed, and included in the SLO Basin. In Chapter 7 – Monitoring Network of the Draft GSP, a set of 6 additional new monitoring wells are proposed to be installed in the future as part of the SLO Basin GSP monitoring network. The Consultant Team and County staff have selected monitoring well, SLV-23, which is one of the 6 additional monitoring wells proposed in the Draft GSP, as the first monitoring well to be designed and installed by the County for the GSP monitoring network. It is to be located at the intersection of Foothill Boulevard and O'Connor Way on County Right-of-Way (see Figure 1 in the attached Monitoring Well Specifications). This is a good location to fill in the data gaps since there is not a lot of groundwater data available in this part of the basin where the basin is thin. It is a 2-inch diameter monitoring well with a depth of approximately 50 feet.

This well went out to bid to four selected contractors on July 19, 2021. However, only one returned the bid with a quote (ABC Liovin Drilling). Currently, County staff is negotiating with the contractor on a contract to do the drilling on this monitoring well, SLV-23. Once the scope of work and costs are finalized, the well will be submitted to the Board of Supervisor to be added to the County Asset List before the construction can begin, which is anticipated to be in the month of November 2021.

Attachments:

1. Presentation
2. Monitoring Well Specifications



Agenda Item 6:
GSP Update – New Monitoring Well Installation

Dick Tzou

1

GSP Development Update

Design and Installation of New Monitoring Well (SLV-23)

- **Location (O'Connor&Foothill)**
- **2" well and approx. 50' deep**
- **Request for Quotation**
- **Contract negotiations**
- **To be completed by November 2021.**

2

Technical Specification
for
Monitoring Well Construction

SLO GSP Site A (SLV-23)
Foothill Boulevard
San Luis Obispo

Prepared for:

County of San Luis Obispo

Cleath-Harris Geologists, Inc.
75 Zaca Lane, Suite 110
San Luis Obispo, CA 93401

(805) 543-1413

July 2021

Table of Contents

1 GENERAL CONDITIONS

1.1 Introduction

This technical specification applies to the construction and development of a groundwater monitoring well for the County of San Luis Obispo (County). The purpose of this specification is to document the level of effort expected from the drilling contractor. This specification does not, through omission, excuse the contractor from complying with any laws, rules and regulations, or standards governing the work being performed.

The monitoring well will fill a data gap identified in Chapter 7 of the Public Draft San Luis Obispo Groundwater Basin Sustainability Plan (GSP) with respect to groundwater elevation contours and storage. The data gap is referenced in the GSP as WL-A (water level at Site A) and the corresponding monitoring well will be referred to as San Luis Valley #23 (SLV-23) for this project.

1.2 Project Location

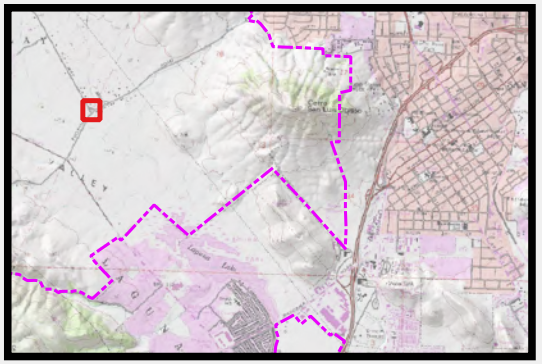
The proposed project well site for SLV-23 is located in County right-of-way at the intersection of O'Connor Way and Foothill Boulevard in San Luis Obispo California. The location for the new monitoring well is shown in Figure 1.

1.3 Scope of Work

The work includes furnishing all labor, materials, transportation, tools, supplies, equipment, and appurtenances necessary for the complete and satisfactory construction, and development, of the well specified herein. The monitoring well shall be constructed in compliance with applicable local codes and regulations and in accordance with the following documents: *State of California Water Well Standards, Bulletin No. 74-81,* dated December 1981, and *Bulletin No. 74-90* dated June 1991.

The general work related to well drilling and construction shall include but not be limited to the following:

- Obtain all required permits including a water well drilling permit and encroachment permit from the County of San Luis Obispo.
- Notify Underground Services Alert and obtain valid ticket.
- Attend pre-construction meeting



Explanation

Work Area

Proposed Monitoring Well

0 50 100 150 ft

N

Figure 1
Site Map
SLO GSP SLV-23

Technical Specification

County of San Luis Obispo

Cleath-Harris Geologists

- Provide traffic control signage as needed in accordance with encroachment permit.
- Move equipment, materials, supplies, and other accessories onto and from the well site.
- For bidding purposes, drill a 50-foot borehole to 8-inches in diameter and install 48 feet of 2-inch PVC water well casing (28 feet of blank and 20 feet of screen). Bedrock is anticipated at close to 40 feet, and well design will be adjusted in the event drilling cannot proceed to the planned depth.
- Provide core samples of the formation at a minimum every 5-feet.
- Install casing centralizers at the top and bottom of the screened intervals.
- Blank: 2-inch diameter, Sch 40 PVC well casing from wellhead to 28 feet depth.
- Screen: 2-inch diameter, Sch 40 PVC water well casing with high density 0.020-inch slots from 28 to 48 feet depth.
- Following casing installation, install a filter pack consisting of 8 x 20 sand (CEMEX Lapis #3 or approved equal).
- Place sanitary seal in annular space to an anticipated depth of 20 feet.
- Surge and bail 10 gallons of development water from the well (or surge and bail for 30 minutes, whichever is reached first) before cementing annual seal.
- Set 8-inch traffic rated well box in cement pad at ground surface. Provide locking well plug.
- Remove cuttings pile (less than a cubic yard) and development water (up to 10 gallons) for off-site disposal.
- Clean up/restore site.

1.4 Contractor Qualifications

The bidder shall hold a valid Class C-57 California Contractor's License and at least 5 years of experience in water well drilling and construction. Should it be determined by the County that the bidder does not have sufficient experience in terms of drilling and well construction to successfully perform the work on this project, the bid shall be rejected.

1.5 Pre-Bid Site Walk

The County will **not** conduct a Pre-Bid Site Walk for the project. Prospective bidders must visit the project sites to become acquainted with the site.

1.6 Permits, Laws, and Standards

The contractor shall comply with all federal, state, or local laws, ordinances, rules and regulations, and standards relating to the performance of work, including the California Water Well Standards (Dept. of Water Resources Bulletins 74-81 and 74-90). The contractor is responsible for obtaining a well construction permit from the County of San Luis Obispo Health Agency Environmental Health Services Division prior to drilling. At the conclusion of the project, the contractor shall file a California Department of Water Resources Well Completion Report in coordination with the Geologist.

An encroachment permit from the County will be required for the well site. The Contractor will obtain the encroachment permit and provide any signage and temporary traffic control required by encroachment permit.

1.7 Project Schedule

The monitoring well shall be substantially completed within 30 days from the Notice to Proceed. The selected Contractor shall provide a work schedule prior to the pre-construction meeting.

1.8 Underground and Buried Utilities

The contractor shall notify Underground Service Alert North (USA North 811) at least two (2) working days prior to pre-construction meeting. No excavation shall commence unless the Contractor has obtained a valid USA ticket number. The contractor shall communicate with the County with regards to any buried utilities that may be near the drilling site. No excavation or drilling shall begin unless the County and utility owners have confirmed that any underground utilities will not be in the way of operations.

1.9 Pre-Construction Meeting

The Contractor shall coordinate and schedule a pre-construction meeting with the approval of the County at least five (5) working days prior to the proposed start of construction with the Geologist and the County. The purpose of the pre-construction meeting is to discuss the project scope of

work and schedule, including on-site equipment layout, ingress and egress, and any issues of concern regarding the project.

1.10 Site Conditions

The drilling work area is a rectangular area of flat ground approximately 100 feet long and 30 feet wide in a larger triangular area in County right-of-way outside of San Luis Obispo. Any concerns regarding the site or access shall be identified by the Contractor during the initial site inspection. The Contractor is responsible for ensuring that site access is satisfactory prior to mobilizing equipment on-site.

1.11 Method of Drilling

The proposed well shall be drilled by the hollow-stem auger drilling method or sonic method (no drilling mud). It is anticipated that weathered bedrock may be encountered, which may limit the depth of drilling using these methods. It is the responsibility of the Contractor to ensure that the drilling method and equipment used is capable of drilling and setting casing to the specified depths in unconsolidated sediments. Drilling into weathered bedrock (Franciscan Assemblage shale and sandstone) may proceed until the target depth is reached or refusal, as determined by the driller.

1.12 Project Site Maintenance and Protection

Throughout the construction period, the Contractor shall keep the work site clean and shall contain all trash and debris. At completion of the work, the Contractor shall remove all waste materials, trash and debris from and around the well site, along with all tools, construction equipment, tanks, machinery, temporary structures, and surplus materials. The Contractor shall restore to their original grade all temporary work areas.

Throughout all phases of work on this project, the Contractor shall maintain job site and wellhead security to preclude accidental or intentional damage and/or contamination of the new well, and surrounding soil. Site security shall be at contractor's discretion and expense.

The work area shall be clearly marked to prevent unauthorized entry and the test hole shall be covered to prevent access when contractor is not present on site. Whenever the well site is unattended, the borehole or installed well casing shall be covered to prevent entry by animals, humans, or equipment/tools. The Contractor shall properly dispose of trash.

1.13 Disposal of Drill Cuttings and Development Water

All drill cuttings and development water must be contained and removed from the site and disposed of properly at the contractor's expense. Estimated volume of cuttings is two-thirds of a cubic yard. Development water volume will not exceed 10 gallons.

1.14 Submittals

All records shall be available to the County at all times on the job site. Copies of all records shall be submitted to the County or the Geologist. The records to be submitted during the course of work on the project shall include the following for each well:

1) Approved well permit application
2) Approved encroachment permit
3) Valid US Alert ticket number
4) Materials specifications documentation for casing and filter pack
5) State of California Department of Water Resources Well Completion Report

2 SPECIAL PROVISIONS

2.1 Mobilization and Demobilization

Contractor shall attend a Pre-Construction Meeting to be held on site with representatives from the County and the Geologist.

Mobilization and demobilization shall include the transportation of labor, materials, tools, equipment, appurtenances and incidentals, to and from the project site; obtaining permits, traffic control measures per encroachment permit requirements, drill cuttings disposal, and site maintenance and protection.

During demobilization, the site will be cleaned of all trash and extra materials. Any temporary depressions or berms shall be returned to natural grade.

2.2 Test Hole Drilling

A pilot bore shall be drilled to the total depth listed in the Scope of Work. During test hole drilling, the contractor shall keep the following minimum records:

- A descriptive log of the formation materials with depths at which each change in materials occurs.
- Collect representative formation samples consisting of driven cores in labeled containers/bags at regular 5-foot intervals.

2.3 Casing Placement

The blank well casing shall be 2-inch diameter Sch. 40 PVC water well casing. The well screen shall be 2-inch diameter Sch. 40 PVC water well casing with 0.020-inch high-density slots (0.25-inch spacing between slots). Preliminary design is shown in Figure 2.

Well casing installation shall begin as soon as possible after the borehole is completed. A material specification for the casing supplied to the project, including blank and screen sections, shall be submitted to the Geologist prior to installation. All casing delivered to the site shall be new. The well casing shall be suspended from the top and allowed to hang freely in the borehole at all times during well construction.

2.4 Filter Pack Placement

The Contractor shall provide and install 8x20 sand filter pack in the annular space of the well adjacent to the screened and blank well casing, as specified under Section 1.3 and shown in Figure 2 unless otherwise specified in writing by the Geologist. The filter pack material shall be CEMEX Lapis #3 or an 8x20 product provided by an acceptable supplier such as Premier Silica (P. W. Gillibrand) or Cal Silica (Western States Wholesale).

The sand used for packing shall be hard, water-worn, and washed clean of silt, fine sand, dirt, and foreign matter. Crushed gravel will not be accepted. The sand shall be well rounded, graded and subject to the approval of the Geologist. A material specification (representative sieve analysis) from the supplier shall be submitted prior to placement. The filter pack, as specified, shall be installed in the annular space between the borehole and the well casing.

2.5 Well Development

Well development will consist of surging and bailing approximately 10 gallons of water out of the well or surging and bailing for 30 minutes, whichever is reached first, before sanitary seal placement.

2.6 Sanitary Seal

A sanitary seal consisting of a cement-based grout in the annular space from the top of the filter pack up to the ground surface shall be placed as specified under Section 1.3 unless otherwise specified in writing by the Geologist.

The annular grout seal shall be a neat cement, sand-cement, or bentonite-cement grout (slurry). Cement used for the seal shall consist of Portland cement conforming to ASTM C150, Type II.

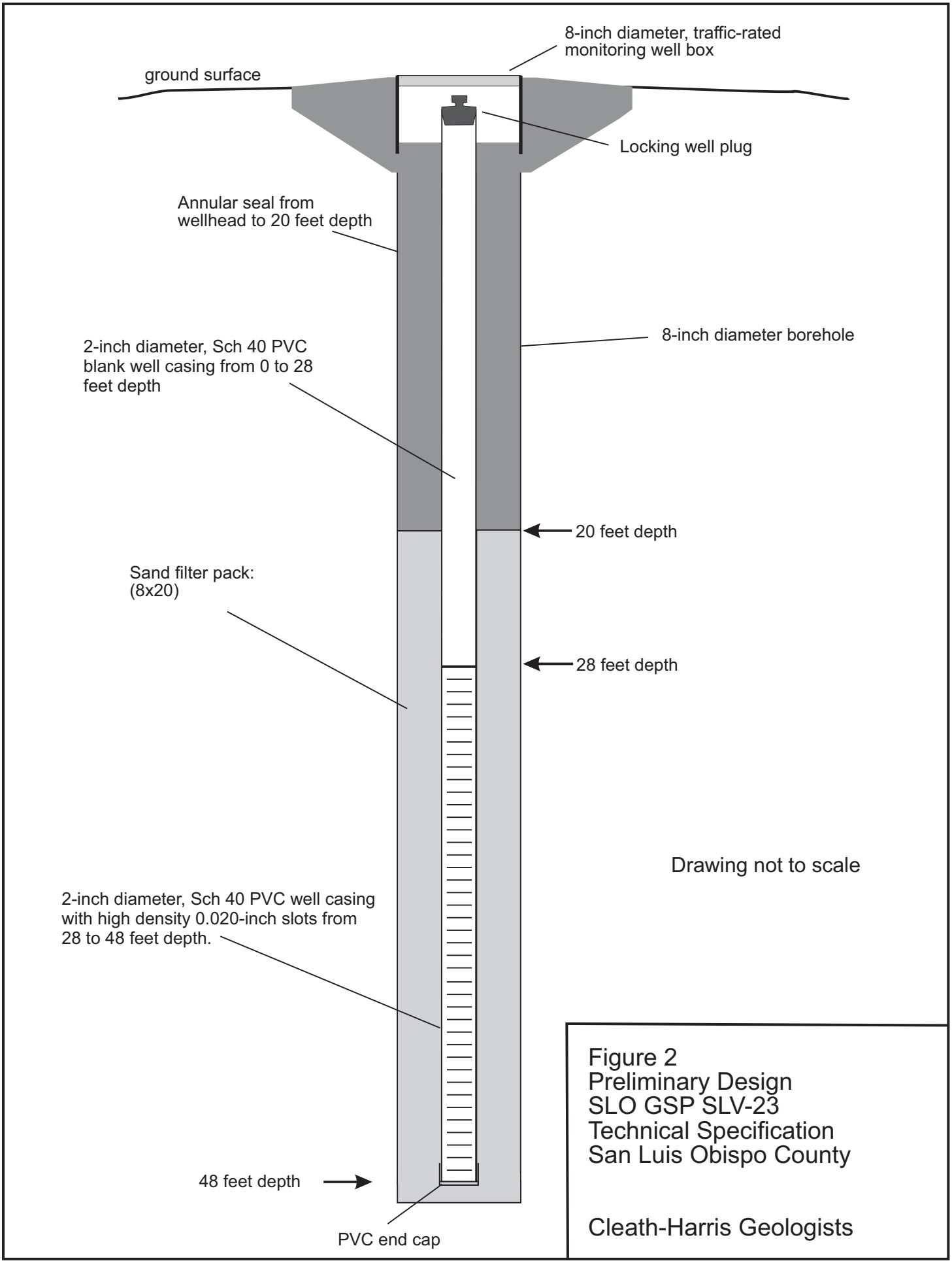


Figure 2
Preliminary Design
SLO GSP SLV-23
Technical Specification
San Luis Obispo County

Cleath-Harris Geologists

2.7 Well Box

The wellhead completion will consist of an 8-inch diameter traffic-rated, water-tight well box in the center of a minimum 24-inch diameter by 4-inch thick concrete pad. The pad surface shall have a gentle slope to drain water away from the well box. The lid of the well box should be labeled "Monitoring Well".

2.8 Final Inspection

The Geologist and the County will inspect the well site and surrounding area prior to releasing the Contractor from the job. All trash, extra materials, drill cuttings and development water generated by the contractor must be off the site, and any temporary depressions or berms returned to natural grade.

2.9 Abandonment

If the borehole is not suitable for a monitoring well and needs to be abandoned, the open borehole shall be filled with inert, inorganic material (crushed rock, gravel, or sand) to 25 feet below grade, followed by sand-cement grout between 25 and 5 feet below grade in accordance with State and local standards. The upper 5 feet of the borehole shall be backfilled with native material.

GROUNDWATER SUSTAINABILITY COMMISSION
for the San Luis Obispo Valley Groundwater Basin
June 21, 2021

Agenda Item 7 – Public Draft of the Groundwater Sustainability Plan Review and Comments (Action Item)

Recommendation

a) Consider response from comments and recommending Public Draft of the Groundwater Sustainability Plan (GSP) to be received and filed by the Groundwater Sustainability Agencies (GSAs) and released for public comment.

Prepared by

Michael Cruikshank, WSC
Dave O'Rourke, GSI

Discussion

Part of discussions of this item is to open the floor for the GSC members and public to discuss any pertinent public comments received for draft Chapter 9 – Projects and Management Actions and Chapter 10 – Implementation Plan and/or any previous chapters and their associated initial responses to them. The comment period for draft GSP Chapters 9 and 10 closed on July 22, 2021. All comments received and their associated initial written responses are published online and may be viewed at: https://www.slowaterbasin.com/review-documents. Public or GSA comments received during each draft GSP chapter/section's comment period are considered and appropriate responses are included in a compiled complete Public Draft GSP document presented in this Agenda Packet. Pending approval by the GSC, the public comment period for the Draft GSP will be from August 19 through September 19, 2021.

The Public Draft of the GSP includes an Executive Summary, Chapters 1 through 10, which have been through the public comment process throughout the development of the GSP, and the Appendices to the GSP. The Public Draft and associated Appendices can be downloaded from the Groundwater Communication Portal (GSP) using the following link: https://portal.slowaterbasin.com/event/42

Below is list of the Chapters and Appendices along with dates that they were released for public comment or drafted as part of the GSP:

GSP Chapters:

- Executive Summary **– August 2021**
- Chapter 1 – Introduction to the SLO Basin GSP – September 2019
- Chapter 2 – Agency Information – September 2019
- Chapter 3 – Description of Plan Area – December 2019
- Chapter 4 – Basin Setting – December 2019
- Chapter 5 – Groundwater Conditions – March 2020
- Chapter 6 – Water Budget – July 2020
- Chapter 7 – Monitoring Networks – December 2020
- Chapter 8 – Sustainable Management Criteria – May 2021
- Chapter 9 – Projects and Management Actions – June 2021
- Chapter 10 – Implementation Plan – June 2021
-

GSP Appendices:

- Appendix A: DWR Elements of the Plan Guide **– August 2021**
- Appendix B: City of San Luis Obispo Resolution to From GSA – September 2019

- Appendix C: County of San Luis Obispo Resolution to From GSA – September 2019
- Appendix D: Memorandum of Agreement- Preparation of GSP – September 2019
- Appendix E: Notice and Communication – August 2019, October 2020
- Appendix F: GDE TM– June 2021
- Appendix G: Surface Water/Groundwater Modeling Documentation – May 2019, November 2019, February 2020, June 2021
- Appendix H: Data Management: September 2020, December 2020
- Appendix I: Response to Public Comments: March 2021 and **August 2021**

In coordination with GSA Staff the following items were modified/added to the Public Draft:

- Additional technical analysis and text related to the Depletion of Interconnected Surface Water sustainability indicator (Chapter 5 Groundwater Conditions, Section 5.7 and Chapter 8 Sustainable Management Criteria (SMC), Section 8.10). The SMC at Representative Monitoring Site (RMS) SLV-12 was updated and will be discussed in the presentation.
- A projected water budget was developed using the Integrated Model. (Chapter 6-Water Budget, Section 6.6)
- Updated the Undesirable Results statement for the Degraded Water Quality Sustainability Indicator. (Chapter 8- Sustainable Management Criteria, Section 8.8)
- The City of San Luis Obispo Potable Water to Golden State Water Company was removed by GSA Staff based on direction from the City of San Luis Obispo Council.

The Public Draft of the GSP will be uploaded to SLOWaterBasin.com for review and public comment after the GSC has recommended that each GSA receives and files the Public Draft. The WSC Team will present an overview of Public Draft and next steps in the process.

Attachments:

1. Presentation
2. Response to comments draft Chapters 8-10

Agenda Item 7: Public Draft of the Groundwater Sustainability Plan & Response to Comments

Michael Cruikshank
Dave O'Rourke

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Public Draft of the SLO Basin GSP

- Executive Summary **– August 2021**
- Chapter 1 – Introduction to the SLO Basin GSP – September 2019
- Chapter 2 – Agency Information – September 2019
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Public Draft of the SLO Basin GSP

- Appendix A: DWR Elements of the Plan Guide **– August 2021**
- Appendix B: City of San Luis Obispo Resolution to From GSA – September 2019
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- Appendix H: Data Management: September 2020, December 2020
- Appendix I: Response to Public Comments: March 2021 and August 2021

5

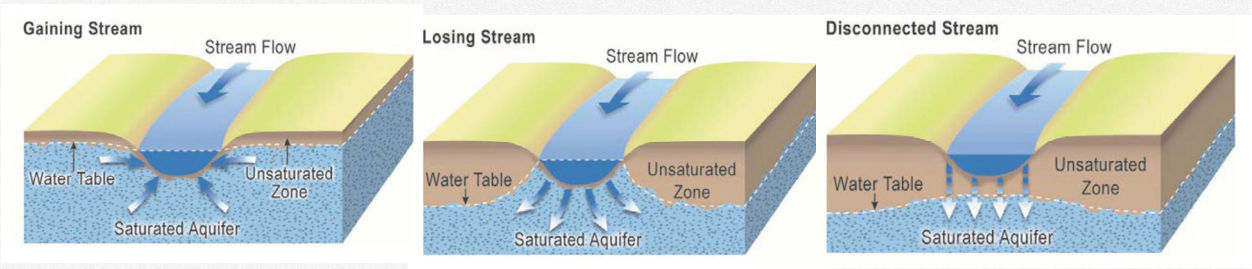
Response to Comments CH 9 and 10 and GDE TM

- Most of the comments were from NMFS and CCSE
- Review and augment discussion of Interconnected Surface Water (ISW)
- Three ISW RMS wells
- Review hydrograph analysis of wells near SLO Creek and W. Corral de Piedras Creek
- Update conceptual modeling analysis
- Review MTs/MOs

6

Types of ISW

- Gaining, Losing, and Disconnected Streams
- San Luis Obispo Creek is thought to be a gaining stream through the Basin (most of the time)
- Corral de Piedras Creeks are thought to vary from losing to disconnected, seasonally.

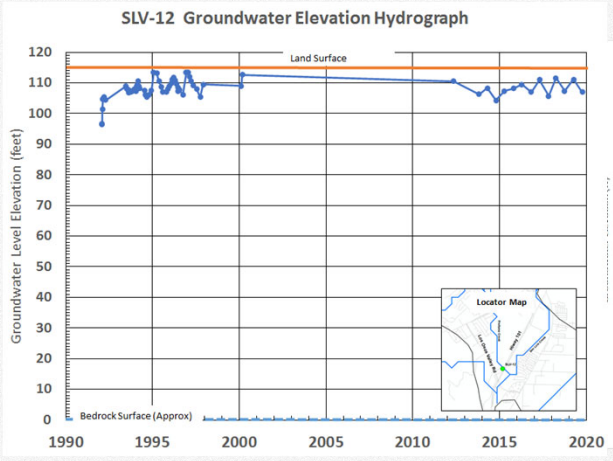


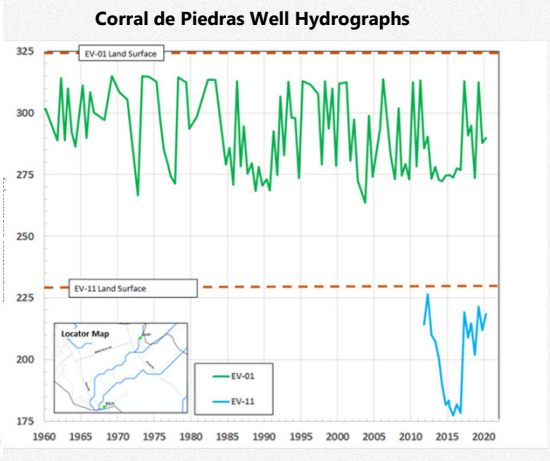
SLO Creek **Winter** **Summer**

Corral de Piedras Ck

7

Hydrographs of ISW RMSs



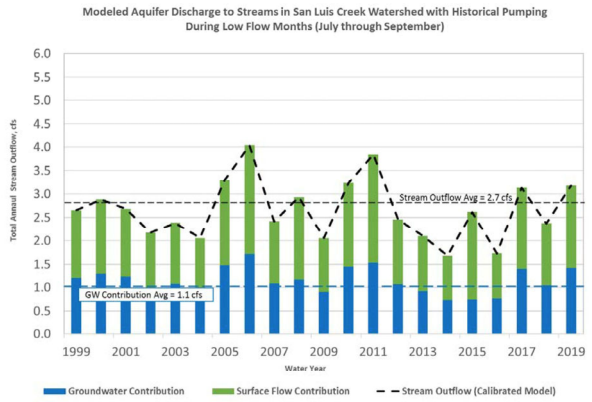


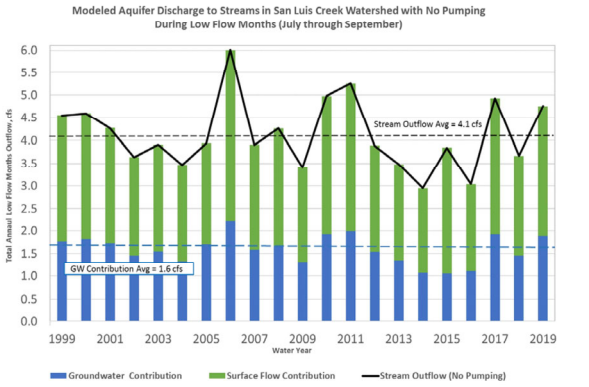
No Historical Declines in Period of Record

8

Conceptual Modeling Scenario for ISW

- Assess impacts of pumping on streamflow
- Patterned after Santa Cruz Mid-County GSP
- Concept: Remove all pumping from model, check SW/GW interaction
- Removed ~2,200 AFY average from SLO Valley.
- Resulted in 0.5 cfs additional GW contribution to streamflow (all SLO watershed) in summer months, about 1.4 cfs total flow.





9

NMFS and Creekland Comments

- Comment: Using GW elevations as proxy for ISW depletion has not been justified with a correlation between GW elevations and surface flows.
- Response: Beefed up discussion of Darcy's Law, direction of flow, relative elevations of GW and SW flow, etc., to more clearly demonstrate the correlation. If GW elevations don't decline below recent conditions, ISW depletion will not increase.
- Comment: Suggest defining MTs in terms of instream measurements (minimum flow, pool depth) needed by steelhead.
- Response: Not feasible. Instream flows depend on many things other than groundwater (rainfall, temp, ET, influent flow). The objective of the GSP is to manage groundwater conditions such that no significant increase in depletion of ISW is caused.
- Comment: Undesirable results based on 2 consecutive fall measurements not adequate. Stream conditions are very transient.
- Response: 2 consecutive fall measurements similar to other SMC's URs, to avoid mandating immediate response to temporary conditions. We acknowledge that GW/SW interaction is dynamic, and these RMSs could be prioritized for installation of transducers.
- Comment: Defining MTs based on lowest observed water levels will not protect from significant and unreasonable impacts to GDEs.
- Response: MTs are not intended to be the normal operating condition for any of the RMSs, but a lower limit not to be exceeded. Operating conditions are between MTs and MOs.

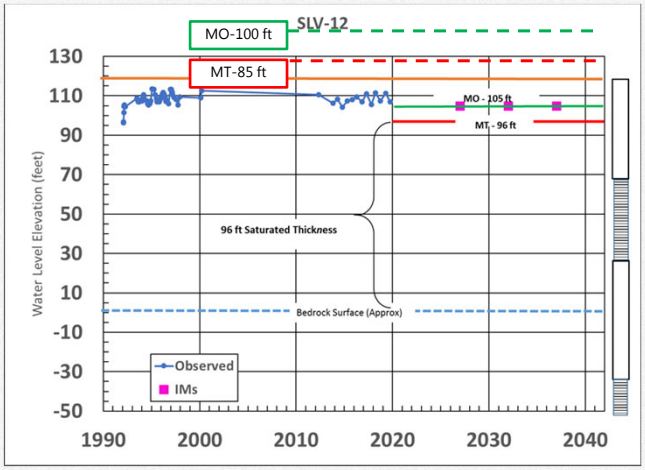
Full comment letters and consultant responses are in Appendix I of Public Draft of GSP.

10

Revised Sustainable Management Criteria

- Updated the SMC at RMS SLV-12
  - MO from 100 ft to 105 ft
  - MT from 85 ft to 96 ft
- Updated WQ Undesirable Result Statement from "any year" to "5-year GSP Update"

The Basin will be considered to have Undesirable Results if, for any 5-year GSP Update period, an increase in groundwater quality minimum threshold exceedances is observed at 20 percent or more of the RMSs in the Basin, as a result of groundwater management implemented as part of the GSP.



11

Effects of Climate Change on Groundwater Conditions in the Basin

1. Predictive Baseline model scenario run with 2019 pumping volumes held constant into future, and climate time series from water years 1995-2019 repeated for the predictive period WY 2020-2044.
2. Predictive Climate Change model scenario run with same pumping assumptions, and with DWR climate change factors applied to the climate time series (rainfall and evapotranspiration).
3. Compare model output from Scenarios 1 and 2.
4. Baseline scenario had average annual rainfall of 20.28 inches in Basin. Climate change scenario had average annual rainfall of 20.74 inches in Basin. Climate change results in increase of rainfall.
5. Checked 2042 groundwater levels under both scenarios at the 10 RMS wells in the Basin. Climate Change Scenario resulted in average water levels ~3 feet higher than the Baseline Scenario.

Conclusion: Climate change will not have a significant negative effect on GW management in the Basin over the 20-year SGMA implementation horizon.

12

Chapter 9 Projects and Management Actions

- City of San Luis Obispo Potable Water to Golden State Water Company
  - Project was removed from the Public Draft per feedback from City of SLO City Council at 7/20 Study Session. Request to remove was based on the project being in direct conflict with City Policy related to potable water sales outside of City limits.

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NEXT STEPS

August 18th GSC Meeting
- Respond to Chapter 9 and 10 Comments
- Release Public Draft of the GSP for review (30-day review period)

October 6th GSC Meeting
- Response to Comments on Public Draft
- GSC to recommend the Final Draft of the GSP to be adopted by the GSAs
- Next Steps

December 7th GSAs Board Meetings
- The City and County will hold a Board Meeting to adopt the GSP

14

RECOMMENDATION

GSAs to Receive and File
Public Draft of the GSP (August 24, 2021)
Release for public comment

Public Comment period will be open tomorrow upon GSC approval and closes 09/19/21
30—days.

Go to **SLOWaterBasin.com** click on "Review Documents"

PUBLIC MEETINGS.

GSC Public Meeting
10/6/21 • 3:30pm-5:00pm

Learn more or register at **SLOWaterBasin.com**, click on "Calendar"

15

SLO Valley Basin Groundwater Sustainability (GSP) Public Comments

Last Updated: 8/11/21

ID	Name	Comment Subject	Comment	Date/Time	Response
69	Mark Capelli, Anthony Spina. NMFS	DRAFT Chapter 8 See letter dated June 3, 2021 appended to the Response to Comments.	Page 29: The draft Chapter 8 indicates the basin will be considered to have experienced undesirable results if any of the monitoring wells exceed the minimum threshold for two consecutive fall measurements. The standard of failing two consecutive fall measurements is not explained, and thus appears arbitrarily. Steelhead migration, spawning and rearing (beneficial uses of surface water as set by the Regional Water Quality Control Board1) are biological processes that can be impacted by a single streamflow depletion event. SGMA regulations require a minimum threshold be used to define an undesirable result, in this case streamflow depletion resulting in significant and unreasonable impact to beneficial uses of surface water. For a beneficial use such as steelhead rearing, a depletion of adequate streamflow can result in steelhead mortality, and is therefore irreversible. We therefore recommend that the standard for determining undesirable results be expressed in terms of minimum pool depth and/or surface flow during the summer and fall base flow periods.	6/3/21	The standard of two consecutive fall measurements was adopted to avoid triggering any far-reaching management actions such as pumping reductions on the basis of a single dry season. As has been discussed, groundwater systems react very slowly to changed conditions, and it was judged appropriate by the GSC and GSA members to utilize two consecutive measurements to avoid triggering any actions based on temporary conditions. Additionally, in the future more wells in the network will be equipped with transducers to gather continuous monitoring data. It may be appropriate to prioritize monitoring wells designated for depletion of ISW for transducers. At that point, the definition of the MT may need to be revised, as continuous data will be available. This text will be updated for clarification in Chapter 8. The GSP is intended to be a groundwater monitoring plan. Because there are numerous factors that affect instream flow conditions (rainfall, temperature, ET, etc.), it is not within the ability of this GSP to

ID	Name	Comment Subject	Comment	Date/Time	Response
					mandate instream flow conditions such as pool depth as an MT. The objective of the plan with respect to interconnected surface water is to manage groundwater such that there is no significant or unreasonable increase in depletion of ISW. As such, MTs are defined to disallow water levels from declining lower than recently historically observed conditions. Stillwater Sciences has prepared a TM on GDEs in the Basin that will be included as an appendix to the GSP.
70	Mark Capelli, NMFS	DRAFT Chapter 8 See letter dated June 3, 2021 appended to the Response to Comments.	Page 29: Groundwater elevations may be necessary as a proxy for streamflow depletion due to a lack of data gathered to this point. However, there appears to be no attempt at correlating groundwater elevation thresholds with impacts to beneficial uses of surface water. In fact, many of the groundwater elevation minimum thresholds are set at the lowest (or below the lowest) groundwater elevations ever recorded within the basin. These thresholds are likely associated with severe groundwater over-pumping during dry periods, when groundwater depletion was greatest, and surface water discharge the lowest. Managing streamflow depletion conditions comparable with the severest drought conditions is not protective of surface water beneficial uses that support ESA-listed steelhead, and likely would result in adversely affecting steelhead and its identified critical habitat (see enclosed steelhead critical habitat and intrinsic potential maps for San Luis Obispo Creek and Pismo Creek). If the GSAs uses groundwater levels as a proxy for streamflow depletion, it should explain how the chosen minimum thresholds and measurable objectives adequately avoid adversely impacting surface water beneficial uses that support steelhead survival throughout the SLO Basin. If that effort proves problematic due to a lack of data at the present time, the GSAs should follow guidance by the California Department of Fish and Wildlife that recommends a conservative approach to groundwater	6/3/21	The primary rationale for the selection of the MTs is protection of domestic water wells. Initially MTs were proposed that would be no lower than the observed low point in 2015, under the rationale that the stakeholders had managed to obtain household supplies and proceed with their operations under those extreme conditions, and so could do it again. See text on evaluating reduced water levels compared to domestic well depths. Ultimately the GSC members agreed that an additional 10 feet below observed low GW elevations would help protect agricultural businesses in the Edna Valley. For now, in the lack of data collection outlined in Chapter

ID	Name	Comment Subject	Comment	Date/Time	Response
			dependent ecosystem protection in those situations (CDFW 2019).		7 (Monitoring Network) and Stillwater Sciences TM on GDEs, three existing wells located adjacent to streams are selected to monitor, and the MTs are set so that groundwater elevations will go no lower than observed seasonal low water levels, and by extension, surface water/groundwater interaction will not be negatively impacted in these areas. The MTs associated with the observed severe droughts is proposed as the MT, which should not be exceeded (I.e., water levels lower) under normal operating conditions. The MTs are not proposed to be the normal operating conditions of the aquifer.
71	Mark Capelli, NMFS	DRAFT Chapter 8 See letter dated June 3, 2021 appended to the Response to Comments.	Page 29, Section 8.9.2: The draft includes the following statement: *To avoid management conditions that allow for lower groundwater elevations than those historically observed, MTs [Minimum Thresholds]for these wells were set at the historic low water levels indicated on the hydrographs, which occur with regularity during every extended dry period evident in the record (Figures 8-9, 8-10).* As noted above, managing to perpetuate historically low groundwater elevations is not appropriate as a management threshold, since it does not adequately define the undesirable result of streamflow depletion on aquatic biological resources such as federally threatened South-Central Coast steelhead. Based upon fundamental hydrogeologic principles where the depletion rate is proportional to the difference between the water table and surface water, the amount of streamflow depletion associated with the proposed minimum	6/3/21	It is not the intent that the MTs are to "perpetuate historically low groundwater conditions." It is the intent that the basin should be managed such that water levels do not go lower than the MTs. And for the MTs associated with GW/SW interaction, these MTs have been commonly observed in the historical period of record of water levels, and so are assumed to be appropriate to local conditions. Projects and supplemental water sources in Edna Valley are intended to improve streamflow conditions.

ID	Name	Comment Subject	Comment	Date/Time	Response
			thresholds would be the greatest on record (Sophocleous 2002, Bruner et al. 2011, Barlow and Leake 2012). This level of streamflow depletion would likely impact surface water beneficial uses to the extent that threatened steelhead would experience "harm" under the ESA as well as result in adverse impacts to Groundwater Dependent Ecosystems (GDE) supporting a variety of native aquatic species.		
72	Mark Capelli, NMFS	DRAFT Chapter 8 See letter dated June 3, 2021 appended to the Response to Comments.	Page 30: Following the discussion on the relation between flow conditions in San Luis Obispo Creek and the underlying aquifer, the draft Chapter 8 asserts, "in both cases the amount of flux between the surface water and the groundwater system is small compared to the volume of water flowing down the creek." The point of this statement is unclear but seems to suggest that groundwater levels are not significantly influenced by the volume (including duration) of stream flow. However, this implication is contradicted by the statement, "In wetter years, when flows in the San Luis Obispo Creek are high there is [sic] greater amounts of discharge from the creek to the groundwater system." In general, higher and longer the duration flows in SLO Creek will increase the area of wetted stream bottom (i.e., the area of infiltration) as well as the duration of the infiltration of surface flows to the underlying groundwater basin. Furthermore, the assertion that stable groundwater levels at a specific well "suggest that the mechanisms of surface water/groundwater interaction have not been negatively impacted since the early 1990's" does not address the question of whether these stable conditions have had and are resulting in streamflow depletion impacts as defined under SGMA. Currently stable groundwater levels are not an indicator of sustainable groundwater conditions, or, more specifically, avoidance of significant and unreasonable effects on streamflow. The revised draft Chapter 8 should address this issue and clearly indicate how existing stable groundwater conditions are protective of GDE, such as rearing habitat for juvenile steelhead.		The text in this chapter has been revised to address these issues in greater detail, including discussion of Darcy's law and flow direction between stream and aquifer, more detailed hydrograph analysis of SLO Creek and Corral de Piedras Creeks, and a conceptual modeling evaluation of surface water/groundwater interaction. It is important to recognize that many factors contribute to instream flow conditions that are beyond the ability of a groundwater management plan to control (rainfall, temperature, etc.). The objective with respect to interconnected surface water (ISW) is to avoid groundwater conditions that result in significant or unreasonable increase in ISW depletion.

ID	Name	Comment Subject	Comment	Date/Time	Response
73	Mark Capelli, NMFS	DRAFT Chapter 8 See letter dated June 3, 2021 appended to the Response to Comments.	Page 31: The draft Chapter 8 states that, "by defining minimum thresholds in terms of groundwater elevations….the GSA will….manage potential changes in depletion of interconnected surface (sic [flows?])." The draft Chapter 8, however, has not established the required correlation between groundwater elevations and surface flows that would justify groundwater levels as a proxy for streamflow depletion, and has not quantified what level of streamflow depletion represents significant and unreasonable impacts to GDE, including but not limited to rearing habitat for juvenile steelhead. The draft Chapter 8 should identify the data needed to analyze the relationship of groundwater levels, streamflow depletion rates, and impacts to GDE, specifically spawning, rearing and migration of ESA-listed steelhead.		There is no technology or field method to directly measure depletions in surface water flow attributable to groundwater development. Estimates must be made using interpretation, modeling, and other methods of analysis. A discussion of Darcy's Law and direction of flow between the stream and aquifer has been added to the text of this section, as well as additional well hydrograph analysis, and a conceptual modeling exercise..However, it is a commonly accepted hydrologic principle that correlates groundwater elevations higher than the stream elevation and aquifer discharge to the stream. Survey data must be collected on stream channels and groundwater elevations to confirm this relationship. Proposed improvements to the monitoring network discussed in Chapter 7 and the Stillwater TM will improve the understanding of this dynamic.
74	Mark Capelli, NMFS	DRAFT Chapter 8 See letter dated June 3, 2021 appended to the Response to Comments.	Page 31: The draft Chapter 8 establishes minimum thresholds for streamflow depletions as "the lowest water levels observed in the period of record" for the chosen monitoring wells. As noted earlier, according to SGMA regulations a minimum threshold is used to define an undesirable result, in this case streamflow depletion resulting in significant and unreasonable impact to GDE, including, but not limited to rearing juvenile steelhead. The use of a streamflow depletion thresholds associated with the lowest recorded groundwater levels are inappropriate because they will not avoid significant and unreasonable impacts to GDE. The thresholds are inappropriate for		If groundwater elevations have not been observed to decline below historical levels in the vicinity of a stream, as is the case along SLO Creek, this is an indicator that anthropogenic activities have not impacted stream conditions in this area in the period of record. The objective of the GSP with respect to ISW is to

ID	Name	Comment Subject	Comment	Date/Time	Response
			avoiding impacts to ESA-listed steelhead resulting from streamflow depletion. To be consistent with the requirements of SGMA, the GSAs must develop thresholds that are likely to avoid adversely impacting steelhead, as well as other GDE.		avoid groundwater conditions that will significantly or unreasonably increase depletion of ISW. Hydrograph analysis of wells along corral de Piedras Creeks indicate that this creek is seasonally disconnected from the aquifer; additional monitoring data can confirm or deny this assumption. Additional stream corridor characterization and monitoring is recommended in Chapter 7, Monitoring Networks, and in the Stillwater TM on GDEs that will be included as an appendix to the GSP. . .
75	Mark Capelli, NMFS	DRAFT Chapter 8 See letter dated June 3, 2021 appended to the Response to Comments.	Page 32: The draft Chapter 8 includes no information or analysis that supports the assertion that "maintaining groundwater levels close to historically observed ranges will continue to support groundwater dependent ecosystems." As noted above, there is an assumption embedded within the assertion that current groundwater levels support groundwater dependent ecosystems; this has not been supported by any data or analysis because such information is not presented in the draft document. Managing groundwater levels at historical lows is likely to adversely affect ESA-listed steelhead, and designated critical habitat for this species. To be consistent with the requirements of SGMA, the GSAs must develop minimum thresholds that are likely to avoid adversely impacting steelhead, as well as other GDE.		The statement "maintaining groundwater levels close to historically observed ranges will continue to support groundwater dependent ecosystems." is intended to apply to SLO Creek, where there have been no trends of declining GW levels. If WLs have not declined, and fish populations have existed during the period of record, it is argued that by extension, if GW levels continue at levels approximately equal to those observed in the past 30 years, then groundwater management will not have allowed conditions that lead to significant or unreasonable deletion of interconnected surface water.. Conditions in Corral de Piedras Creek will be better characterized after the

ID	Name	Comment Subject	Comment	Date/Time	Response
					implementation of the proposed monitoring plan discussed in Chapter 7 and in the Stillwater TM on GDEs.
76	Keith Watkins	General Comments	Chapter 9: Projects & Management ActionsEdna Valley Growers are willing to take the excess water that now flows to the ocean with no quantity guarantees from the City of San Luis Obispo. Edna Valley Growers are focused on beneficially utilizing excess water which is currently being wasted to the ocean for crop irrigation. The Growers can utilize San Luis Obispo's recycled water in the winter months when City demand is at its lowest. Water can be applied to dormant vineyards to build the soil moisture profile for the spring and summer. Deep rooted grape vines can utilize the water through the spring and summer lowering well water demand through out the valley. Citrus also can be irrigated in the winter months to offset later irrigation demand in drier periods. While we acknowledge that the available amount of water may decrease over time as the City develops additional internal programs, we recommend that grower deliveries not be characterized as a short term program, but a project that will continue to utilize excess water supplies whenever they may be available.The City acknowledges that it has excess capacity in the winter months and can not utilize all the recycled water it produces. Edna Valley Growers are willing to pay the cost to connect to the City recycled water system with no obligation by the City to deliver a guaranteed amount. Edna Valley growers want to partner with the City to maintain the City's greenbelt for the benefit of all in the area.Connecting to the City's current 8" waterline system will provide acceptable capacity to the Edna Valley with no need for infrastructure improvements. Again, we will take what the system can provide. If water need to be boosted from the delivery point, Edna Valley Growers will install a booster pump and cover the costs of operation. Edna Valley Growers are willing to pay for the water supply which now flows to the ocean, including some level of profit to the City above the cost of pumping and electricity are covered. Based on some of our initial pricing concepts, up to $200,000 could be recouped annually by	6/30/2021 2:05:00 PM	Your comments are noted. It is our understanding that negotiations with the City continue regarding this project, which could potentially help augment the overdraft in Edna Valley.

ID	Name	Comment Subject	Comment	Date/Time	Response
			the City to provide lower costs to city customers.Edna Valley Growers want to work collaboratively with the City of San Luis Obispo to provide supplemental water to the City's Greenbelt. The current assumed water deficiency threatens not only the agricultural production and residential use in the Edna Valley but also the viability of the City's Greenbelt., as well as the City's economy which benefits from ag tourism, tasting rooms and event centers in the Edna Valley. I believe these comments should be incorporated into Chapter 9, Projects & Management Actions to show the potential more clearly for utilizing recycled water to offset agricultural demand and reduce assumed basin over-draft.		
77	Dan Dooley	Draft_SLO_GSP_Chapters_9_10.pdf - 9.5 Management Actions	See attached letter file dated 7/21/2021 submitted on behalf of Edna Ranch East.	7/21/2021 12:34:00 PM	Thank you for your comments, they are duly noted and kept for the record

ID	Name	Comment Subject	Comment	Date/Time	Response
78	Tim Walters	Draft_SLO_GSP_Chapters_9_10.pdf	I understand the objective of managing the basin in a manner that sustains the existing water use patterns, however the objectives and goals ignore potential for agricultural, residential or commercial expansion in the future. In my opinion, it is naive to expect that the basin development whether ag or otherwise will remain static over time. the sustainable goals should recognize and include goals for sustaining existing conditions and forecast future growth within the basin.	6/24/2021 8:39:00 AM	Residential or commercial expansion in the City will be supplied from the City's water supply portfolio, which currently includes surface water from various sources, but does not include groundwater. However, as there have been no declines in groundwater levels in the San Luis Valley subarea, and the water budget for that subarea indicates a surplus, there is likely available groundwater for expansion in that subarea. It is documented in Chapter 6, and confirmed from hydrograph analysis, that the Edna Valley is in overdraft. If expansion of agricultural pumping is pursued in Edna Valley, the goal of sustainability in the Basin will be difficult to achieve.
79	Timothy Delany, Central Coast Salmon Enhancement, dba Creeklands Conservation	Final Draft TechMemo_GDE_Assessment_SLO.pdf See letter dated June 22, 2021 appended to the Response to Comments.	Note: Please refer to attachment for proper line and page numbers, as well as formatting.	7/22/2021 5:15:00 PM	A letter from Creeklands was attached. Specific comments are addressed below.

ID	Name	Comment Subject	Comment	Date/Time	Response
80	Timothy Delany, Central Coast Salmon Enhancement, dba Creeklands Conservation	SLO Valley GDE Technical Memo, Chapter 7, Chapter 8 See letter dated June 22, 2021 appended to the Response to Comments.	Comment 1: "...we interpret the SLO Valley GDE Technical Memo to be a supporting document for the achievement of these steps. We respectfully request that the information and recommendations provided within the SLO Valley GDE Technical Memo be consistently incorporated into the Draft GSP Chapters to a greater degree than currently exists."	7/22/2021 5:15:00 PM	The recommendations for improved monitoring locations of the surface water network were directly incorporated into recommendations presented in Chapter 7, Monitoring Network. Text regarding SMCs in Chapter 8 for Depletion of ISW RMSs also references the eventual construction of new gages and development of rating curves for existing gages.
81	Timothy Delany, Central Coast Salmon Enhancement, dba Creeklands Conservation	Chapter 7 (Monitoring Network) See letter dated June 22, 2021 appended to the Response to Comments.	Comment 2: "Groundwater levels and GDEs should have different representative monitoring site (RMS) selection criteria. Whereas groundwater RMSs require a longer historical record to establish the definition for undesirable results, GDE undesirable results are straight-forward and actionable without 1 10 prior years of data for whatever given SMC and MT that is defined. For example, if a relationship between groundwater pumping at Well "A" can be correlated with critical habitat impairment using a nearby stream gage at Site "X", There is no need for Site X to have multiple years of data to establish a trend." "...The RMSs do not appear to anticipate the 10 eventual inclusion of the stream gage network in future revisions of the GSP."	7/22/2021 5:15:00 PM	The establishment of a quantifiable relationship between pumping and critical habitat impairment that you suggest is not straight-forward. Streamflow is dependent on multiple other factors not manageable in this GSP (rainfall, temp, ET, etc.). The goal of this groundwater management plan is to avoid groundwater conditions that can lead to significant or unreasonable deletion of interconnected surface water. To that end, groundwater levels are recommended as a proxy measurement, and conditions that unreasonably lower water levels in the vicinity of the ISW RMSs are intended to be avoided. Text in Chapters 7, 8, and 10 recognizes the data gap in the present surface water monitoring network and

ID	Name	Comment Subject	Comment	Date/Time	Response
					discusses the necessity to obtain better surface water flow data to assess surface water/groundwater interaction in the future.
82	Timothy Delany, Central Coast Salmon Enhancement, dba Creeklands Conservation	Chapter 8 (Sustainable Management Criteria) See letter dated June 22, 2021 appended to the Response to Comments.	Comment 3: "We find no explanation earlier in Chapter 8, nor in Chapter 7, for why the flux between the aquifer and the interconnected stream must be measured to create a minimum threshold that is protective of GDEs... A rate of flow depletion can be correlated with changes in stage..."		Creeklands emphasizes the terms "rate or volume of surface water depletions" from SGMA regs but does not acknowledge the significance of the text immediately following, "...caused by groundwater use...". It is beyond the ability of this groundwater management plan to control all variables that affect surface water depletions. Therefore, the management criteria proposed are that groundwater elevations around the ISW RMSs are not reduced such that depletion of ISW is significantly or unreasonably increased. If water levels near San Luis Creek are maintained near current levels, Darcy's Law implies that the direction of flow will not be reversed from recent conditions. (Additional survey data of creek channel elevations and groundwater elevations is recommended.)

ID	Name	Comment Subject	Comment	Date/Time	Response
83	Timothy Delany, Central Coast Salmon Enhancement, dba Creeklands Conservation	Chapter 8 (Sustainable Management Criteria) See letter dated June 22, 2021 appended to the Response to Comments.	Comment 4: “This section does not adequately address how groundwater level measurements at the RMSs will be indicative of undesirable results to depletions of interconnected surface water. In other words, there is no language that qualifies well level measurements at the selected RMSs as useful indicators for harm that could be done to GDEs that rely on interconnected surface water or groundwater.		Additional text has been added to discuss the significance of Darcy’s Law, and the relative elevations of groundwater and stream flow with respect to the direction of flow between groundwater in the aquifer and surface water in the stream. In the case of San Luis Creek, it is stated that because water levels in the ISW RMS have not declined in the past 30 years, that this represents recent conditions. Therefore, if water levels are not significantly or unreasonably lowered below these elevations, no significant or unreasonable change in depletion of ISW will occur. In Edna Valley, additional text was added presenting hydrograph analysis that indicates that West Corral de Piedras are seasonally disconnected from the surrounding aquifer, and that this has been the case going back to the 1950s as is seen in the hydrograph for EV-01; therefore the character of the relationship between GW and ISW has not been significantly or unreasonably changed due to groundwater management practices in recent years.

ID	Name	Comment Subject	Comment	Date/Time	Response
84	Timothy Delany, Central Coast Salmon Enhancement, dba Creeklands Conservation	Chapter 8 (Sustainable Management Criteria) See letter dated June 22, 2021 appended to the Response to Comments.	Comment 5: "Groundwater levels intermittently measured at the proposed wells (SLV-12, EV-01, EV-11) will not necessarily alert groundwater managers to imminent risks to instream habitat that is reliant on interconnected streamflow..."		It is acknowledged that conditions of groundwater/surface water interaction vary in time more quickly and frequently than groundwater levels distant from streams or creeks, and that twice-annual measurements may not capture important characteristics of this interaction. It is expected that pressure transducers will be installed in additional selected network monitoring wells to collect continuous monitoring data during the coming 5-year implementation period. It is recommended that ISW RMSs may be prioritized for installation of transducers over other wells more distant from the creeks.
85	Timothy Delany, Central Coast Salmon Enhancement, dba Creeklands Conservation	General Comments, Chapters 7 and 8 See letter dated June 22, 2021 appended to the Response to Comments.	"Although the importance of monitoring the gaining and losing reaches of streams within the groundwater basin is highlighted in Chapter 7, and referenced in Chapter 8, neither of these chapters give concrete or consequential future steps toward integrating the monitoring of these features with SMCs or MTs. Furthermore, none of the SMCs or MTs properly address GDEs that may be directly reliant on groundwater. The SLO Valley GDE Technical Memo highlights riparian and oak woodland GDEs in Table 2 of that document and suggests that groundwater levels could be used to determine sustainability indicators for them. More work will need to be done to find the appropriate thresholds for GDEs that are directly reliant on groundwater levels, but the current draft only discusses GDEs in the context of interconnected surface water and does not lay the foundation for GDEs that do not rely directly on surface water depletion."		Specific future steps to monitor stream conditions will be incorporated into scopes of work for implementation of data collection and annual reporting required under SGMA. The entities to perform this work have not yet been identified, and the scopes of work have not yet been specified. It is stated in the implementation plan *Chapter 10) that these actions will be pursued. One of the stated objectives of this GSP with respect is to avoid groundwater conditions that significantly or unreasonably alter

ID	Name	Comment Subject	Comment	Date/Time	Response
					groundwater conditions due to pumping that will significantly or unreasonably increase deletion of ISW. This objective should address conditions for all GDEs.
86	Timothy Delany, Central Coast Salmon Enhancement, dba Creeklands Conservation	General Comments, Chapters 7 and 8 See letter dated June 22, 2021 appended to the Response to Comments.	"The authors of the SLO Valley GDE Technical Memo note (on page 5, paragraph 2) that several monitoring wells are screened at unknown depths... Creek Lands has not evaluated the veracity of this particular statement but, if it is true, the potential use of these wells for establishing an indicator of interconnected surface water SMCs or other GDE indicators is cast in doubt until the exact screening depths are determined."		Specific knowledge of some well construction details is an acknowledged data gap. However, given that the HCM indicates that the geologic formations in the Basin function as a single hydrogeologic unit, with no laterally continuous confining layers existing between formations, this data gap is not considered a reason to preclude any wells from the monitoring network.,
87	Timothy Delany, Central Coast Salmon Enhancement, dba Creeklands Conservation	General Comments, Chapters 7 and 8 See letter dated June 22, 2021 appended to the Response to Comments.	"Although they may not be able to establish numerical MTs for particular interconnected surface water undesirable results or GDE impacts, what is preventing the GSP from incorporating tentative or placeholder MTs? It would be much more promising to have an interconnected surface water MT that stated how the monitoring network would be used to monitor GDE impacts, without necessarily committing to a numerical value. ○ For example: "Discharge changes between the Andrews Street Gage and the Marsh Street 43 Gage will be used to establish a minimum threshold when better data becomes available" ○ or "Minimum surface water elevations dependent on interconnected 1 groundwater in Stenner Creek will be established when a correlation between near-stream groundwater elevations and the stream gage monitoring network are established."		It is beyond the scope or ability of this GSP to define instream flow conditions as potential objective criteria for SMCs. This is a groundwater management plan, and the objective with respect to ISW is to avoid changes in groundwater conditions that results in significant or unreasonable increases to depletion of interconnected surface water.

ID	Name	Comment Subject	Comment	Date/Time	Response
			○ These examples do not hold groundwater managers accountable to any thresholds that are not supported by good science, but create the necessary impetus for future research to address data gaps that are directly applicable to creating MTs that meet SGMA requirements for the proper consideration of GDEs. More specificity at this stage of the GSP development will benefit everyone in the future."		
87	Timothy Delany, Central Coast Salmon Enhancement, dba Creeklands Conservation	General Comments, Chapters 7 and 8 See letter dated June 22, 2021 appended to the Response to Comments.	As it stands, the current Draft GSP does not create a catalyst for future research or GSP revisions that achieve the proper level of protection for GDEs. The current drafts only list the types of data and analyses that may be sought in the future, without enough actionable language that will hold the GSC accountable for implementing effective research in pursuit of a monitoring network that protects GDEs.		SGMA requirements mandate the completion of annual reports for the Basin throughout the SGMA planning horizon (through 2042). These annual reports will document the implementation of many of the recommendations put forth in the implementation plan. The specific scopes of work or contractors to perform this work are not yet developed or selected.

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
West Coast Region
501 West Ocean Boulevard, Suite 4200
Long Beach, California 90802-4213

June 3, 2021

John Diodati
Interim Director, Public Works Department
County of San Luis Obispo
976 Osos St #207
San Luis Obispo, California 93408

Re: NOAA's National Marine Fisheries Service comments on the May 6, 2021, draft Groundwater Sustainability Plan for the San Luis Obispo Valley Groundwater Basin

Dear Mr. Diodati:

Enclosed with this letter are NOAA's National Marine Fisheries Service's (NMFS) comments on "Chapter 8: Groundwater Conditions" of the draft Groundwater Sustainability Plan (GSP) for the San Luis Obispo (SLO) Valley Groundwater Basin.

The GSP is intended to meet the requirements of the California Sustainability Groundwater Management Act (SGMA). The SMGA includes specific requirements to identify and consider impacts to Groundwater Dependent Ecosystems (GDE) that have significant and unreasonable adverse impacts on all recognized beneficial uses of groundwater and related surface waters (Water Section 10720), including fish and wildlife and botanical resources.

As explained more fully in the enclosed comments, the draft Chapter 8 does not adequately address the recognized instream beneficial uses of the SLO Valley Basin, which underlies San Luis Obispo Creek and Pismo Creek, or other GDE, potentially affected by the management of groundwater within the SLO Valley Basin. In particular, the draft Chapter 8 does not adequately analyze or identify Sustainable Management Criteria that have the potential to affect the federally threatened South-Central California Coast steelhead (*Oncorhynchus mykiss*). This information is necessary because management of the SLO Valley Basin has consequences for the amount and extent of surface flows in San Luis Obispo Creek and Pismo Creek, both of which support populations of threatened steelhead.

Our enclosed comments include recommendations for revisions that are intended to assist the County of San Luis Obispo develop a final GSP that meets the requirements of the SGMA. To this end, NMFS recommends that the revised draft Chapter 8 be re-circulated to give interested parties an opportunity to review and comment before it is finalized.

NMFS appreciates the opportunity to provide the enclosed comments on the draft Chapter 8. If you have a question regarding this letter or enclosure, please contact Mr. Mark H. Capelli in our Santa Barbara Office (805) 963-6478 or mark.capelli@noaa.gov, or Mr. Andres Ticlavilca in our Santa Rosa Office (707-575-6054) andres.ticlavilca@noaa.gov.

Sincerely,

Anthony P. Spina
Chief, Southern California Branch
California Coastal Office

cc:

Natalie Stork, Chief, DWR, Groundwater Management Program
James Nachbaur, SWRCB
Annette Tenneboe, Region 4, CDFW
Julie Vance, Regional Manager, Region 4, CDFW
Steve Slack, CDFW
Kristal Davis-Fadtke, Water Branch, CDFW
Dennis Michniuk, District Fisheries Biologist, Region 4, CDFW
Annee Ferranti, Environmental Program Manager Resource Conservation, CDFW
Suzanne De Leon, Region 4, CDFW
Don Baldwin, Region 4, CDFW
Christopher Diel, Ventura Field Office, USFWS
Ronnie Glick, CDP&R
Fred Otte, City of San Luis Obispo

Enclosure

NOAA's National Marine Fisheries Service's Comments on the draft Groundwater Sustainability Plan (Chapter 8: Sustainable Management Criteria) for the San Luis Obispo Valley Groundwater Basin (May 6, 2021)

June 3, 2021

Background

NOAA's National Marine Fisheries Service (NMFS) is responsible for protecting and conserving anadromous fish species listed under the U.S. Endangered Species Act (ESA), including the federally threatened South-Central California Coast (SCCC) Distinct Population Segment (DPS) of Steelhead (*Oncorhynchus mykiss*), which utilize San Luis Obispo Creek and Pismo Creek. NMFS listed SCCC, including the populations in the San Luis Obispo Creek and Pismo Creek watersheds (which overlies a portion of the SLO Valley Basin), as "threatened" in 1997 (62 FR 43937), and reaffirmed the threatened status of the species in 2006 (71 FR 5248).

On March 12, 2020, the California Department of Water Resources (DWR) designated the SLO Valley Basin a "Medium" priority for groundwater management, requiring the development of a final Groundwater Sustainability Plan (GSP) by January 31, 2022, pursuant to the 2014 SGMA. Several watercourses that overlie portions of the SLO Valley Basin, including San Luis Obispo Creek and the headwaters of Pismo Creek, support federally threatened steelhead.

The available information establishes that surface water and groundwater are hydraulically linked in the SLO Valley Basin, and this linkage is critically important in creating seasonal habitat for threatened SCCC steelhead. Where the groundwater aquifer supplements streamflow, the influx of cold, clean water is essential for maintaining suitable water temperature and surface flow (Brunke and Gosmer 1997). Pumping from these aquifer-stream complexes can adversely affect freshwater rearing areas for juvenile steelhead by lowering groundwater levels and interrupting the hyporheic flow between the aquifer and the stream, particularly during summer and fall months when streamflow is already low. Thus, groundwater extraction in the SLO Valley Basin has the potential to adversely affect threatened SCCC steelhead through a reduction in the amount and extent of freshwater rearing sites for this species.

NMFS has previously commented on Chapter 5: Groundwater Conditions of the SLO Valley Basin GSP and provided background information on steelhead life history habitat requirements, and the role of both Pismo Creek and San Luis Obispo Creek in NMFS' South-Central Steelhead Recovery Plan (2013). See NMFS' May 29, 2020 letter to John Diodati, Interim Director, Public Works Department County of San Luis Obispo County).

Specific Comments

Page 29: The draft Chapter 8 indicates the basin will be considered to have experienced undesirable results if any of the monitoring wells exceed the minimum threshold for two consecutive fall measurements. The standard of failing two consecutive fall measurements is not explained, and thus appears arbitrarily. Steelhead migration, spawning and rearing (beneficial uses of surface water as set by the Regional Water Quality Control Board[1]) are biological processes that can be impacted by a single streamflow depletion event. SGMA regulations require a minimum threshold be used to define an undesirable result, in this case streamflow depletion resulting in significant and unreasonable impact to beneficial uses of surface water. For a beneficial use such as steelhead rearing, a depletion of adequate streamflow can result in steelhead mortality, and is therefore irreversible. We therefore recommend that the standard for determining undesirable results be expressed in terms of minimum pool depth and/or surface flow during the summer and fall base flow periods.

Page 29: Groundwater elevations may be necessary as a proxy for streamflow depletion due to a lack of data gathered to this point. However, there appears to be no attempt at correlating groundwater elevation thresholds with impacts to beneficial uses of surface water. In fact, many of the groundwater elevation minimum thresholds are set at the lowest (or below the lowest) groundwater elevations ever recorded within the basin. These thresholds are likely associated with severe groundwater over-pumping during dry periods, when groundwater depletion was greatest, and surface water discharge the lowest. Managing streamflow depletion conditions comparable with the severest drought conditions is not protective of surface water beneficial uses that support ESA-listed steelhead, and likely would result in adversely affecting steelhead and its identified critical habitat (see enclosed steelhead critical habitat and intrinsic potential maps for San Luis Obispo Creek and Pismo Creek). If the GSAs uses groundwater levels as a proxy for streamflow depletion, it should explain how the chosen minimum thresholds and measurable objectives adequately avoid adversely impacting surface water beneficial uses that support steelhead survival throughout the SLO Basin. If that effort proves problematic due to a lack of data at the present time, the GSAs should follow guidance by the California Department of Fish and Wildlife that recommends a conservative approach to groundwater dependent ecosystem protection in those situations (CDFW 2019).

Page 29, Section 8.9.2: The draft includes the following statement:

> *To avoid management conditions that allow for lower groundwater elevations than those historically observed, MTs* [Minimum Thresholds]f*or these wells were set at the historic low water levels indicated on the hydrographs, which occur with regularity during every extended dry period evident in the record (Figures 8-9, 8-10).*

As noted above, managing to perpetuate historically low groundwater elevations is not appropriate as a management threshold, since it does not adequately define the undesirable result of streamflow depletion on aquatic biological resources such as federally threatened South-Central Coast steelhead. Based upon fundamental hydrogeologic principles where the depletion

rate is proportional to the difference between the water table and surface water, the amount of streamflow depletion associated with the proposed minimum thresholds would be the greatest on record (Sophocleous 2002, Bruner *et al*. 2011, Barlow and Leake 2012). This level of streamflow depletion would likely impact surface water beneficial uses to the extent that threatened steelhead would experience "harm" under the ESA as well as result in adverse impacts to Groundwater Dependent Ecosystems (GDE) supporting a variety of native aquatic species.

Page 30: Following the discussion on the relation between flow conditions in San Luis Obispo Creek and the underlying aquifer, the draft Chapter 8 asserts, "in both cases the amount of flux between the surface water and the groundwater system is small compared to the volume of water flowing down the creek." The point of this statement is unclear but seems to suggest that groundwater levels are not significantly influenced by the volume (including duration) of stream flow. However, this implication is contradicted by the statement, "In wetter years, when flows in the San Luis Obispo Creek are high there is [sic] greater amounts of discharge from the creek to the groundwater system." In general, higher and longer the duration flows in SLO Creek will increase the area of wetted stream bottom (i.e., the area of infiltration) as well as the duration of the infiltration of surface flows to the underlying groundwater basin. Furthermore, the assertion that stable groundwater levels at a specific well "suggest that the mechanisms of surface water/groundwater interaction have not been negatively impacted since the early 1990's" does not address the question of whether these stable conditions have had and are resulting in streamflow depletion impacts as defined under SGMA. Currently stable groundwater levels are not an indicator of sustainable groundwater conditions, or, more specifically, avoidance of significant and unreasonable effects on streamflow. The revised draft Chapter 8 should address this issue and clearly indicate how existing stable groundwater conditions are protective of GDE, such as rearing habitat for juvenile steelhead.

Page 31: The draft Chapter 8 states that, "by defining minimum thresholds in terms of groundwater elevations….the GSA will….manage potential changes in depletion of interconnected surface (sic [flows?])." The draft Chapter 8, however, has not established the required correlation between groundwater elevations and surface flows that would justify groundwater levels as a proxy for streamflow depletion, and has not quantified what level of streamflow depletion represents significant and unreasonable impacts to GDE, including but not limited to rearing habitat for juvenile steelhead. The draft Chapter 8 should identify the data needed to analyze the relationship of groundwater levels, streamflow depletion rates, and impacts to GDE, specifically spawning, rearing and migration of ESA-listed steelhead.

Page 31: The draft Chapter 8 establishes minimum thresholds for streamflow depletions as "the lowest water levels observed in the period of record" for the chosen monitoring wells. As noted earlier, according to SGMA regulations a minimum threshold is used to define an undesirable result, in this case streamflow depletion resulting in significant and unreasonable impact to GDE, including, but not limited to rearing juvenile steelhead. The use of a streamflow depletion thresholds associated with the lowest recorded groundwater levels are inappropriate because they will not avoid significant and unreasonable impacts to GDE. The thresholds are inappropriate for avoiding impacts to ESA-listed steelhead resulting from streamflow depletion. To be consistent with the requirements of SGMA, the GSAs must develop thresholds that are likely to avoid adversely impacting steelhead, as well as other GDE.

Page 32: The draft Chapter 8 includes no information or analysis that supports the assertion that "maintaining groundwater levels close to historically observed ranges will continue to support groundwater dependent ecosystems." As noted above, there is an assumption embedded within the assertion that current groundwater levels support groundwater dependent ecosystems; this has not been supported by any data or analysis because such information is not presented in the draft document. Managing groundwater levels at historical lows is likely to adversely affect ESA-listed steelhead, and designated critical habitat for this species. To be consistent with the requirements of SGMA, the GSAs must develop minimum thresholds that are likely to avoid adversely impacting steelhead, as well as other GDE.

Finally, it is unclear if the reference in the draft Chapter 8 to the Water Budget is to Chapter 5 and/or Chapter 6. If the draft Chapter 8 is referring to Table 6-20 (Current Water Budget – Basin Total), the comparison between the annual groundwater/ surface water interaction with an annual outflow volume of the watershed does not provide an indication of aquatic habitat conditions during low flow periods. We would note that intermittent stream reaches can provide seasonally important rearing habitat for juvenile steelhead. Reaches that temporarily lose surface flow through the natural seasonal reduction in groundwater levels can be re-occupied by fish rearing in other parts of the stream system as groundwater levels rebound and surface flows are reinitiated in the temporarily desiccated reaches (Boughton *et al.* 2009). However, artificially reduced groundwater levels can accelerate the temporary cessation of surface flows, and then delay the re-initiation of surface flows, thus reducing the amount and quality of rearing habitat with the stream system and adversely affect GDE.

References

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Barlow, P.M., and Leake, S.A. 2012. Streamflow depletion by wells—Understanding and managing the effects of groundwater pumping on streamflow: U.S. Geological Survey Circular 1376. Available at: http://pubs.usgs.gov/circ/1376/).

Boughton, D. H., H. Fish, J. Pope, and G. Holt. 2009. Spatial patterning of habitat for *Oncorhynchus mykiss* in a system of intermittent and perennial stream. *Ecology of Freshwater Fishes* 18: 92-105.

Brunner, P., Cook, P., and C. Simmons. 2011. Disconnected surface water and groundwater: from theory to practice. *Ground Water* 49(4): 460-467.

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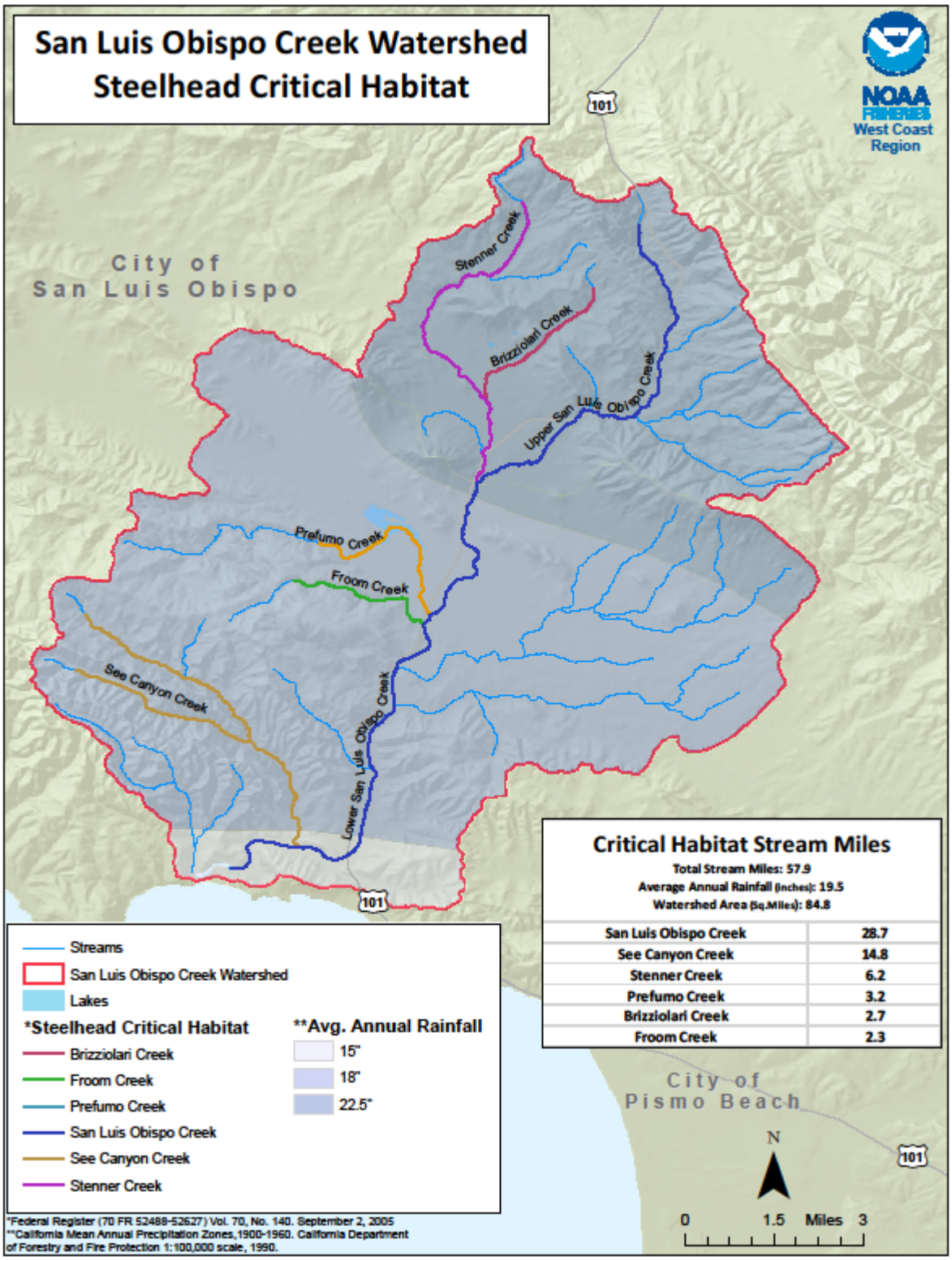
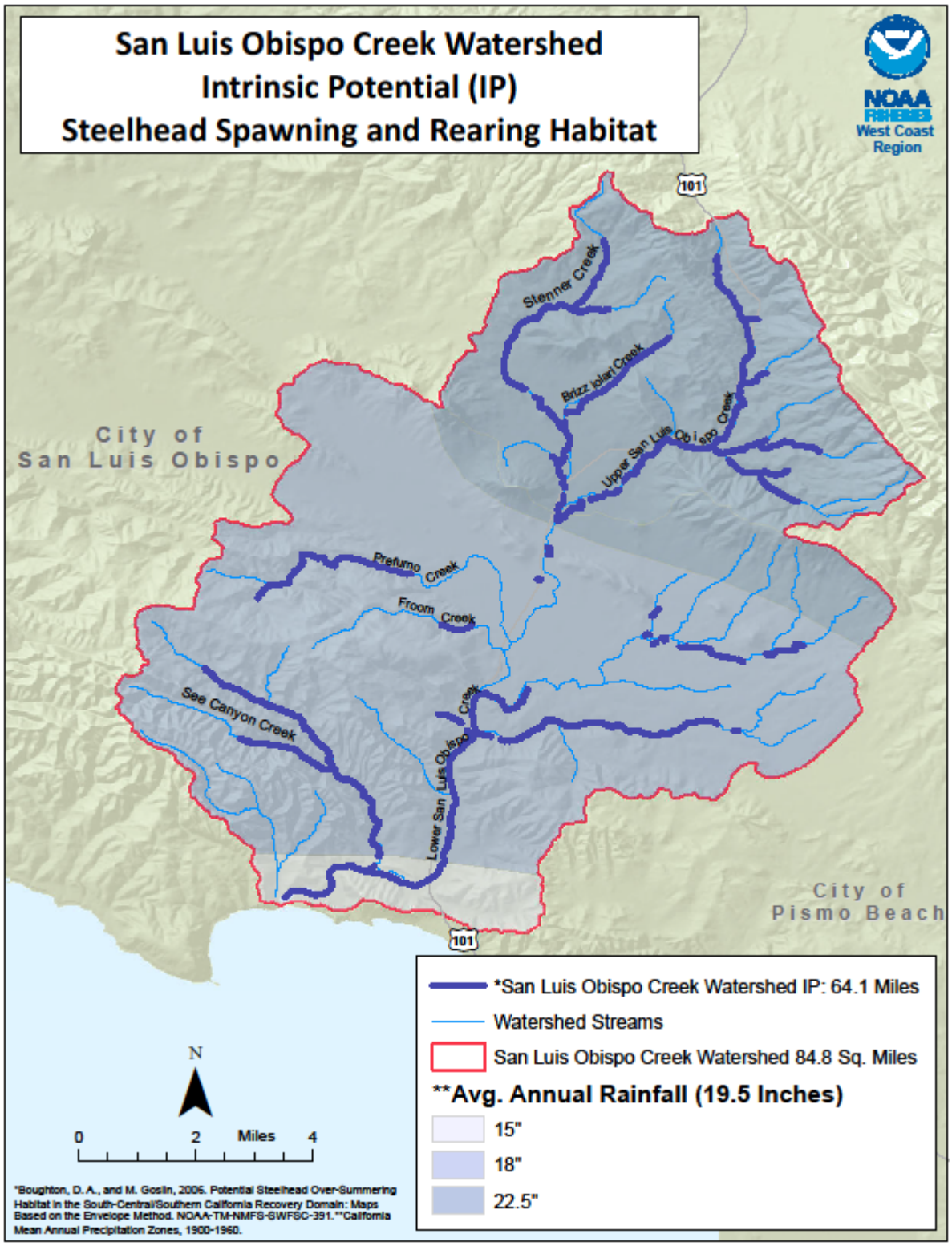
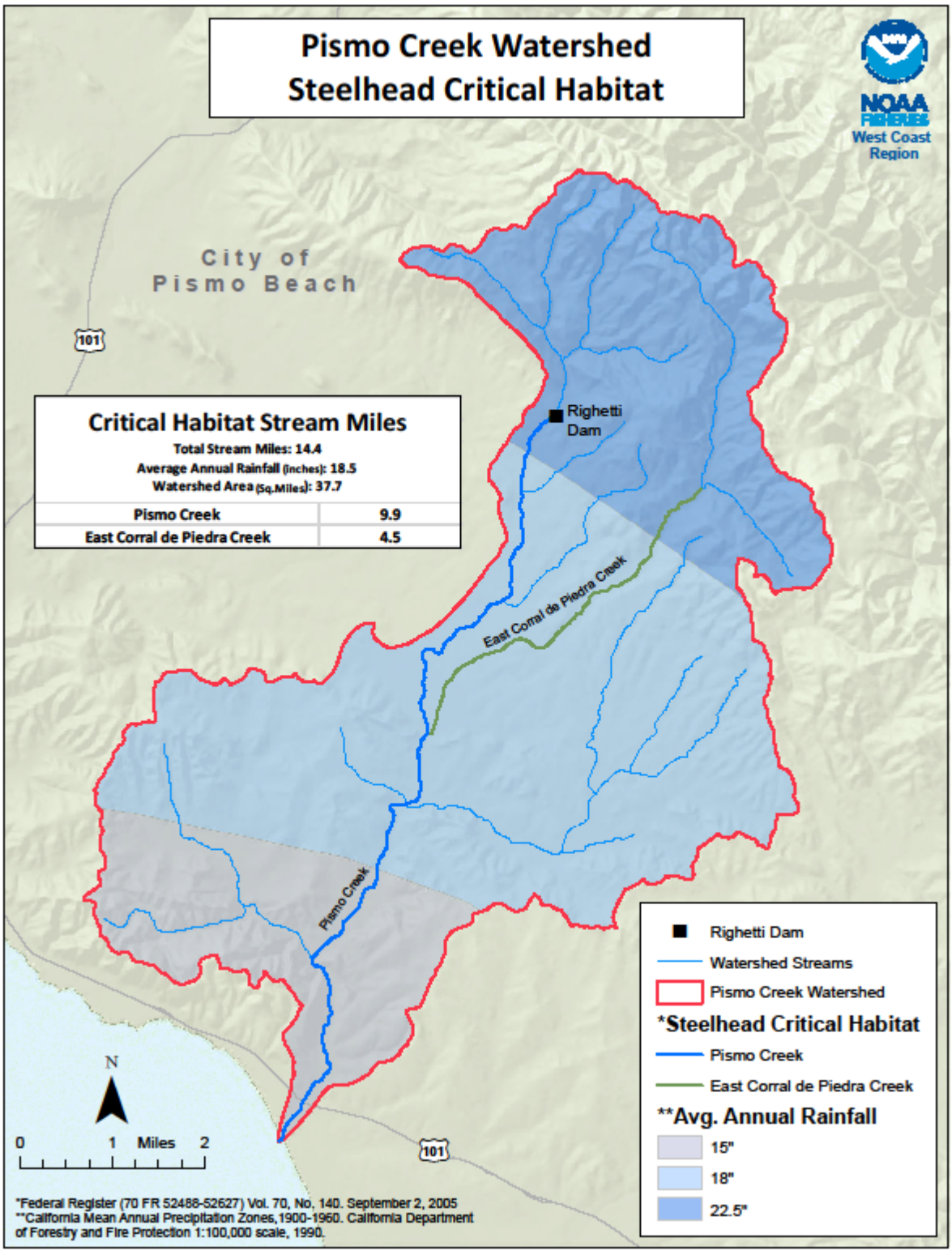
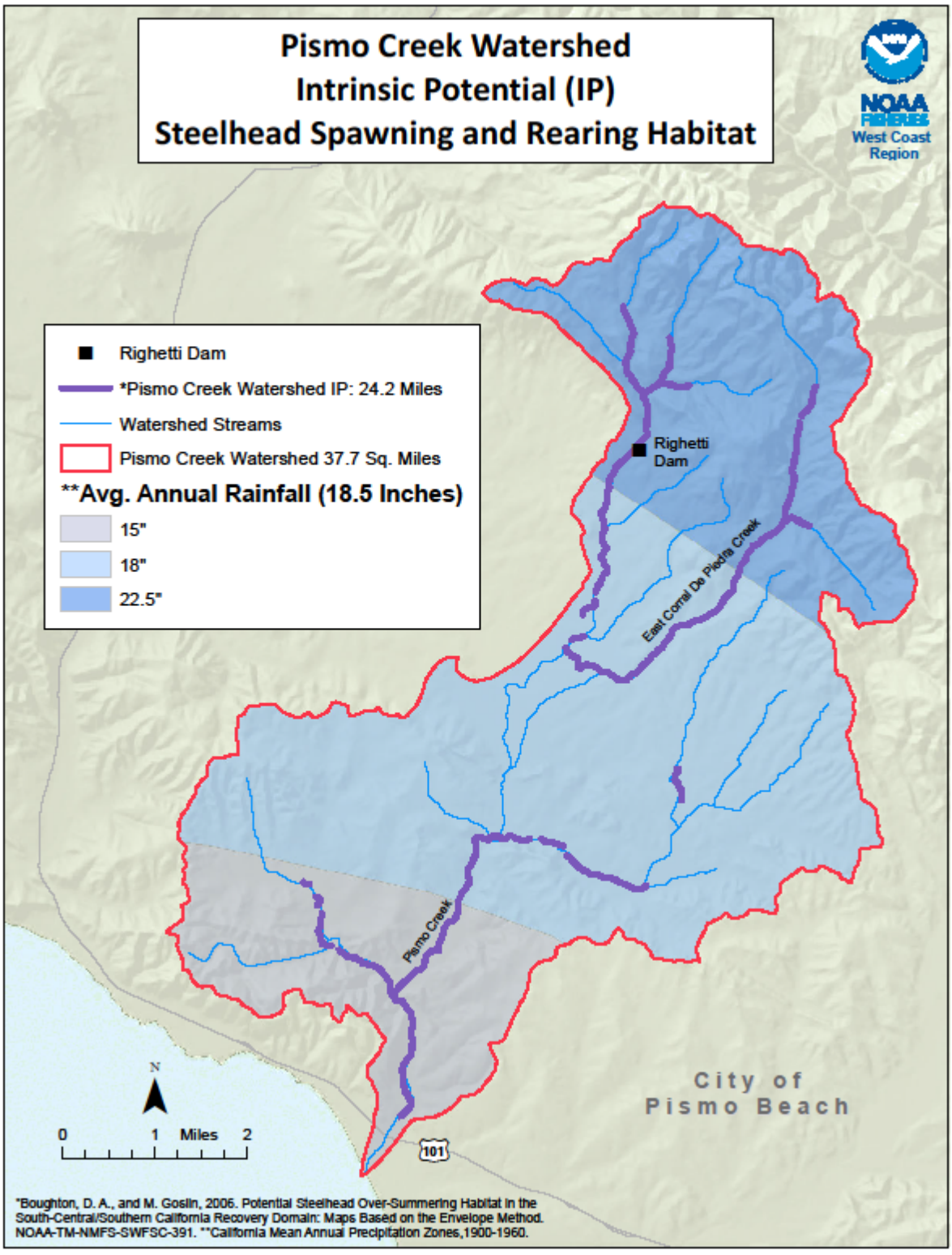
Sophocleous, M. 2002. Interactions between Groundwater and Surface Science. *Hydrogeology Journal* 10.1 (2002): 52-67.


San Luis Obispo Creek Watershed
Steelhead Critical Habitat
NOAA FISHERIES
West Coast Region
City of San Luis Obispo
Stenner Creek
Brizziolari Creek
Upper San Luis Obispo Creek
Prefumo Creek
Froom Creek
See Canyon Creek
Lower San Luis Obispo Creek
101
Critical Habitat Stream Miles
Total Stream Miles: 57.9
Average Annual Rainfall (inches): 19.5
Watershed Area (Sq.Miles): 84.8
San Luis Obispo Creek 28.7
See Canyon Creek 14.8
Stenner Creek 6.2
Prefumo Creek 3.2
Brizziolari Creek 2.7
Froom Creek 2.3
Streams
San Luis Obispo Creek Watershed
Lakes
*Steelhead Critical Habitat
Brizziolari Creek
Froom Creek
Prefumo Creek
San Luis Obispo Creek
See Canyon Creek
Stenner Creek
**Avg. Annual Rainfall
15"
18"
22.5"
City of Pismo Beach
N
0 1.5 Miles 3
*Federal Register (70 FR 52488-52627) Vol. 70, No. 140. September 2, 2005
**California Mean Annual Precipitation Zones,1900-1960. California Department of Forestry and Fire Protection 1:100,000 scale, 1990.


San Luis Obispo Creek Watershed
Intrinsic Potential (IP)
Steelhead Spawning and Rearing Habitat
NOAA
Fisheries
West Coast
Region
101
Stenner Creek
Brizzolari Creek
Upper San Luis Obispo Creek
City of
San Luis Obispo
Prefumo Creek
Froom Creek
See Canyon Creek
Lower San Luis Obispo Creek
City of
Pismo Beach
101
*San Luis Obispo Creek Watershed IP: 64.1 Miles
Watershed Streams
San Luis Obispo Creek Watershed 84.8 Sq. Miles
**Avg. Annual Rainfall (19.5 Inches)
15"
18"
22.5"
N
0
2
Miles
4
*Boughton, D. A., and M. Goslin, 2006. Potential Steelhead Over-Summering Habitat in the South-Central/Southern California Recovery Domain: Maps Based on the Envelope Method. NOAA-TM-NMFS-SWFSC-391. **California Mean Annual Precipitation Zones, 1900-1960.


Pismo Creek Watershed
Steelhead Critical Habitat
NOAA FISHERIES
West Coast Region
City of Pismo Beach
101
Critical Habitat Stream Miles
Total Stream Miles: 14.4
Average Annual Rainfall (Inches): 18.5
Watershed Area (Sq.Miles): 37.7
Pismo Creek 9.9
East Corral de Piedra Creek 4.5
Righetti Dam
East Corral de Piedra Creek
Pismo Creek
N
0 1 Miles 2
101
*Federal Register (70 FR 52488-52627) Vol. 70, No. 140. September 2, 2005
**California Mean Annual Precipitation Zones,1900-1960. California Department of Forestry and Fire Protection 1:100,000 scale, 1990.
Righetti Dam
Watershed Streams
Pismo Creek Watershed
*Steelhead Critical Habitat
Pismo Creek
East Corral de Piedra Creek
**Avg. Annual Rainfall
15"
18"
22.5"


Pismo Creek Watershed
Intrinsic Potential (IP)
Steelhead Spawning and Rearing Habitat
NOAA FISHERIES
West Coast Region
Righetti Dam
*Pismo Creek Watershed IP: 24.2 Miles
Watershed Streams
Pismo Creek Watershed 37.7 Sq. Miles
**Avg. Annual Rainfall (18.5 Inches)
15"
18"
22.5"
Righetti Dam
East Corral De Piedra Creek
Pismo Creek
City of Pismo Beach
101
N
0
1
Miles
2
*Boughton, D. A., and M. Goslin, 2006. Potential Steelhead Over-Summering Habitat in the South-Central/Southern California Recovery Domain: Maps Based on the Envelope Method. NOAA-TM-NMFS-SWFSC-391. **California Mean Annual Precipitation Zones,1900-1960.

NewCurrent
WATER AND LAND

July 21, 2021

San Luis Valley Groundwater Sustainability Agency

Re: Comments to Chapter 9 and 10

Dear GSA:

These comments are submitted by New Current Water and Land, LLC (NCWL) on behalf of Edna Ranch East and the Edna Ranch East Mutual Water Company (collectively "Edna Ranch East").

NCWL is an experienced water consulting company composed of 4 principals with a combined experience in California water matters of over 140 years. Some of the principals were engaged on behalf of the Association of California Water Agencies and the Governor's Office in negotiating the language of the Sustainable Groundwater Management Act (SGMA).

These comments cover three critical issues. First, they address the question of de minimis use. Second, they address the baseline period and the conservation of groundwater that has occurred since. Finally, they address the question of sustainable yield and how the Groundwater Sustainability Agency (GSA) intends to allocate management actions among various groundwater uses within the basin.

Edna Ranch East is located in the Edna Valley portion of the San Luis Obispo subbasin. It is comprised of a number of homesites with stock in a mutual water company for the purpose of providing domestic water to the homesites. In other words, each homeowner owns an interest in the mutual water company for the purpose of providing water to their home. No homesite extracts more than 2 acre feet of water per year through the mutual water company. California Water Code section 10721(e) defines a De minimis extractor as a person who extracts, for domestic purposes, two acre-feet or less per year. California Water Code section 10725.8 authorizes GSAs to require measuring methodologies of groundwater extractions for the purpose of achieving groundwater sustainability. Section 10725.8(e) states that the provisions of the section do not apply to de minimis extractors. Thus, Edna Ranch East asserts that SGMA does not apply to the homeowners at Edna Ranch East.

California Water Code section 10720.5(a) states that extractions after January 1, 2015 cannot be used as evidence of any claim of prescription. The effect of this section is to establish a base line of rights on January 1, 2015. In the case of Edna Ranch East, several actions have been taken since that date, which have had the effect of reducing homeowner water use. Such actions have included installation of an automated water metering system, tripling of excessive water use penalties, providing water audits to homeowners to reduce water use, installation of an enhanced water leak detection system, and direct engagement of the Board of Directors of the mutual water company with homeowners with high usage (on a weekly basis). Edna Ranch East asserts that the GSA should credit it with the efficiencies achieved through these and other measures undertaken by the mutual water company.

As noted above, Edna Ranch East believes homeowner extractions are de minimis and that it has undertaken several actions that have reduced average homeowner use. Further, we can find no determination that existing uses exceed the sustainable yield. If they do not, further management actions should not be necessary. Legally, the mutual is extracting water for use by homeowners on land overlying the subbasin. Their rights should be based upon the extraction of water as compared to sustainable yield. If the mutual water company extraction for homeowners is not determined to be as an overlying right holder, then they have prescribed against overlying right holders and could have a senior right.

Edna Ranch East is submitting these comments for the record. It fully intends to stay actively engaged in the process and support reasonable and equitable solutions to achieve a sustainably managed groundwater basin. In doing so, it requests the GSA recognize the nature of its rights, actions it has taken to more efficiently manage water.

Sincerely

Daniel M. Dooley

Daniel M. Dooley

DMD:dt

NewCurrent
WATER AND LAND, LLC

CREEK LANDS
Conservation

Central Coast Salmon
Enhancement, Inc. dba Creek
Lands Conservation

7-22-2021

To whom it may concern:

Thank you for accepting my comments regarding the document titled "Groundwater-Dependent Ecosystems in the San Luis Obispo Valley Groundwater Basin Technical Memorandum" (SLO Valley GDE Technical Memo), as well as chapters from the Draft San Luis Obispo Valley Basin Groundwater Sustainability Plan. Creek Lands Conservation (CLC) works collaboratively with non-profits and local agencies to protect and enhance groundwater dependent ecosystems (GDEs) in SLO County on behalf of all freshwater aquatic species including but not limited to federally threatened steelhead trout (*Onchorychus mykiss*). GDEs are those ecosystems that rely on groundwater to supply surface water. When groundwater is in an overdraft condition, these systems suffer. Overdraft can result in the loss of plants and animals in a basin, or in the worst case, extinction. Groundwater dependent ecosystems in the San Luis Obispo Valley Basin include San Luis Obispo Creek and all its tributaries, Pismo Creek and all its tributaries, Laguna Lake, and various seeps, springs, and wetlands associated with these systems.

The Sustainable Groundwater Management Act (SGMA) contains numerous provisions to consider and address the environment in groundwater sustainability plans and actions. SGMA requires that all beneficial uses and users be considered in the development and implementation of Groundwater Sustainability Plans. GDE's are one type of beneficial user of groundwater. CLC hopes to continue to work with other non-profits, local, and state agencies to ensure that GDE's are clearly identified and mapped, to improve our understanding of surface-groundwater interactions, to identify potential adverse impacts on GDE's, and to help set appropriate minimum thresholds and measurable objectives for GDE's under SGMA.

The comments on the SLO Valley GDE Technical Memo and applicable Draft GSP Chapters herein are provided with the understanding that the SLO Valley GDE Technical Memo provides the most recent and most detailed study of GDEs within the groundwater basin as they relate to the SGMA process. With that understanding, CLC is commenting not only on the recently released SLO Valley GDE Technical Memo but also on Draft GSP Chapters 7 and 8, Monitoring Networks and Sustainable Management Criteria, respectively. Because the SLO Valley GDE Technical Memo was referenced in Chapter 7 prior to its release, and because sustainable management criteria (SMC) described in Chapter 8 rely on the monitoring network described in Chapter 7, CLC finds that the content of the GDE Memo is fundamentally tied to language within Chapter's 7 and 8. Thus, to provide meaningful comments on the GDE memo, CLC also provides comments on these draft chapters within this comment period.

General Comments

1. Using the best available science and expert review that includes water agencies, state agencies, academics, technical consultants, and NGO's, a framework on how to address GDE's under SGMA has been developed. This framework is titled "Groundwater Dependent Ecosystems under the Sustainable Groundwater Management Act (TNC 2018)". The framework is based on the structure provided by the Department of Water Resources (DWR) and proposes seven steps as follows:

1. Identify Groundwater Dependent Ecosystems (GDEs)
2. Determine Potential Effects on GDEs
3. Determine the Sustainability Goal
4. Set Minimum Thresholds
5. Establish Measurable Objectives and 5-year Interim Milestones
6. Incorporate GDEs into the Monitoring Network
7. Identify Projects and Management Actions

In the context of this framework, we interpret the SLO Valley GDE Technical Memo to be a supporting document for the achievement of these steps. We respectfully request that the information and recommendations provided within the SLO Valley GDE Technical Memo be consistently incorporated into the Draft GSP Chapters to a greater degree than currently exists. To our knowledge, there are no other publicly available studies on GDEs in the San Luis Obispo Valley Groundwater Basin that identify sustainable GDE indicators, nor any studies other than the technical memo that describe a monitoring network specifically suited to tracking GDE indicators and indicator target values. Therefore, we find that the SLO Valley GDE Technical Memo is a part of the best available science that the GSC has at its disposal for creating a GSP that describes both a monitoring network and SMC that sufficiently protects GDEs under SGMA.

Specific Comments on Chapter 7

2. Chapter 7, Page 3, Paragraph 2 and bulleted list, under heading 7.1.2 Representative Monitoring Sites

> *"Representative monitoring sites are the locations at which sustainability indicators are monitored, and for which quantitative values for minimum thresholds, measurable objectives, and interim milestones are defined. The criteria that were used to determine which wells to utilize are as follows:*
>
> - *A minimum 10-year period of record of historical measurements spanning wet and dry periods.*
> - *Available well information (well depth, screened interval).*
> - *Access considerations.*
> - *Proximity and frequency of nearby pumping wells.*
> - *Spatial distribution relative to the applicable sustainability indicators.*
> - *Groundwater use.*
> - *Impacts on beneficial uses and Basin users."*

Groundwater levels and GDEs should have different representative monitoring site (RMS) selection criteria. Whereas groundwater RMSs require a longer historical record to establish the definition for

undesirable results, GDE undesirable results are straight-forward and actionable without 10 prior years of data for whatever given SMC and MT that is defined. For example, if a relationship between groundwater pumping at Well "A" can be correlated with critical habitat impairment using a nearby stream gage at Site "X", There is no need for Site X to have multiple years of data to establish a trend. Rather, undesirable effects correlated with Site X can be sufficiently defined using a relatively short data record. To expand on this example: we can know the stage at which Site X goes dry (an undesirable result) and, to the extent that this can be correlated to groundwater extraction, the stage or discharge data at Site X can be used immediately to set MTs for the interconnected surface flows.

Another limitation of the Draft GSP can be highlighted here. The RMSs do not appear to anticipate the eventual inclusion of the stream gage network in future revisions of the GSP. Although the exact criteria for determining undesirable results for interconnected surface water and GDEs has yet to be determined through scientific analysis, the Draft GSP should already be considering which surface water monitoring network components will become RMSs. If separate RMS selection criteria for interconnected surface water indicators are not developed now, groundwater managers will be delayed in properly protecting GDEs because the GSP will not provide a framework for the future studies that are referenced in chapters 7 and 8.

Specific Comments on Chapter 8

3. Chapter 8, Page 28, Paragraph 3 under heading 8.9 DEPLETION OF INTERCONNECTED SURFACE WATER SUSTAINABILITY INDICATOR § 354.28(C)(6)

> *"Direct measurement of flux between an aquifer and an interconnected stream is not feasible using currently available data."*

We find no explanation earlier in Chapter 8, nor in Chapter 7, for why the flux between the aquifer and the interconnected stream must be measured to create a minimum threshold that is protective of GDEs. Language cited under section 8.9.2 Minimum Thresholds (page 29) restates the following SGMA regulation language:

> *"…'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.'"* (emphasis added)

The next paragraph then continues:

> *"Current data are insufficient to determine the **rate or volume** of surface water [depletions] in the creeks. Therefore, groundwater elevations in the RMSs intended to monitor surface water/groundwater interaction (SLV-12, EV-01, EV-11) are used as a proxy for the Depletion of Interconnected Surface Water Sustainability Indicator."* (emphasis added)

The rate or volume of surface water depletions do not need to be synonymous with the flux measurement presently described in Chapter 8. A rate of flow depletion can be correlated with changes in stage and does not necessarily require a rating curve to draw a correlation between groundwater and surface water fluctuations. We do agree that the eventual development of rating curves for all existing and proposed stream gages is a wise step in creating the monitoring network, however.

Although the precise fluxes of groundwater in a given interconnected reach of these creeks have not yet been determined, the existing stream stage monitoring network, combined with existing low flow

measurements (e.g. Stillwater Sciences 2014, Creek Lands Conservation 2019) and/or additional manual flow measurements in the dry season that could be collected in a few days of work effort would provide a basic, minimum supplement to the groundwater level indicator that is currently proposed.

4. Chapter 8, Page 28, Paragraph 1 under heading 8.9.1 Undesirable Results § 354.26(a)-(d)

> *"The undesirable result for Depletions of Interconnected Surface Water is a result that causes significant and unreasonable adverse effects on beneficial uses of interconnected surface water within the Basin over the planning and implementation horizon of this GSP. As discussed in Section 8.9, measurement of the fluxes between the aquifer and Basin creeks is not feasible with currently available data. Therefore, water level measurements at the RMSs designated for the Depletion of Interconnected Surface Water Sustainability Indicator will be used as the basis MTs and Undesirable Results until better data becomes available under future monitoring activities."*

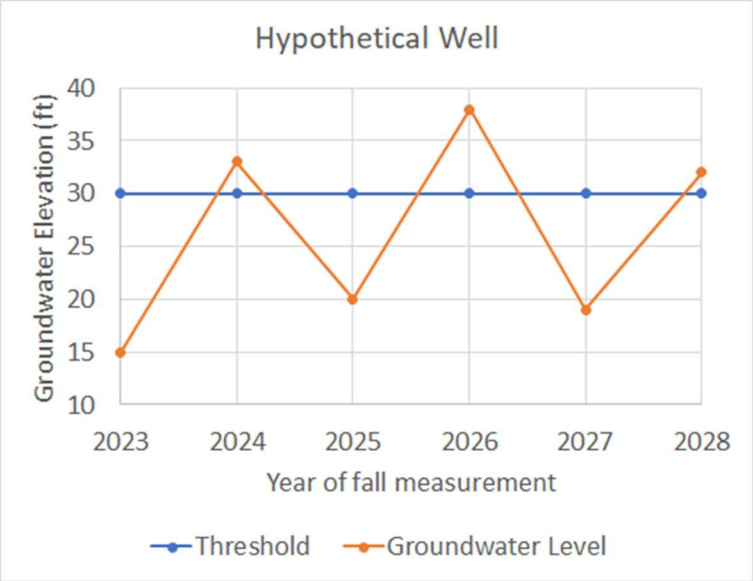
This section does not adequately address how groundwater level measurements at the RMSs will be indicative of undesirable results to depletions of interconnected surface water. In other words, there is no language that qualifies well level measurements at the selected RMSs as useful indicators for harm that could be done to GDEs that rely on interconnected surface water or groundwater.

5. Chapter 8, Page 29, Paragraph 2 under heading 8.9.1 Undesirable Results § 354.26(a)-(d)

> *"The Basin will be considered to have undesirable results if any of the representative wells monitoring groundwater/surface water interaction display exceedances of the minimum threshold values for two consecutive Fall measurements."*

Groundwater levels intermittently measured at the proposed wells (SLV-12, EV-01, EV-11) will not necessarily alert groundwater managers to imminent risks to instream habitat that is reliant on interconnected streamflow. As stated in the quoted section above, at least two sequential years of exceedances will be required to generate an undesirable result. However, this does not properly address the life cycle constraints of organisms that make up our local GDEs.

For example, if the selected representative wells exceeded the minimum threshold value in the fall of year 1, leading to the stranding of some steelhead trout or desiccation of some California red-legged frog (CRLF) eggs, but then was not exceeding this threshold in the fall of year 2, the MT would indicate no problems with the groundwater extraction regime. Furthermore, we could see some hypothetical cycle such as this:



Where the indicator well oscillates around the minimum threshold value, but never triggers the two consecutive fall measurements rule for the MT. If the years where fall measurements fell below the minimum threshold value caused greater GDE species mortality, this MT would never correct for that. This is, of course, a hypothetical situation, but nonetheless shows a potential blind spot that could be mitigated with simple surface water monitoring that is less rigorous than the measurement of groundwater flux into the interconnected stream.

To expand on why this MT type is a weak indicator for the protection of GDEs, please consider this excerpt from Stanford's Water in the West document titled "Guide to Compliance with California's Sustainable Groundwater Management Act" by Alleta Belin:

> **1. Federal and/or State Endangered Species Act (ESA) surface flow or other surface water-dependent requirements are currently not being met at least partially due to groundwater diversions**
>
> - If it is determined that groundwater diversions are causing or contributing to unauthorized "take"[46] of listed species, that is an explicit violation of the ESA that needs to be addressed;
> - Even where there is no direct violation of the ESA, the following situations are problematic because of the high likelihood of unlawful take of the species:
>   - Where a federal Biological Opinion specifies minimum instream flows that are currently not being met;[47] or
>   - Where critical habitat[48] has been designated for a listed species[49] and features in the critical habitat considered essential for survival of the species are currently being destroyed or adversely modified; or
>   - Where groundwater diversions are causing or contributing to low instream flows that are likely to jeopardize the continued existence of listed species. This should be assumed to be a problem even where violations may be rare, or very sporadic.[50]
>
> 50 Even a single day of river-drying or mortally high water temperatures can kill a large number of fish, thereby causing longterm harm to the survivability of the species.

Source: Belin 2018, excerpt from page 9.

It is our opinion that the current SMCs will create a risk that groundwater managers will inadvertently cause or contribute to take of listed species or adversely affect critical habitat. As noted in footnote #50

from the excerpt above, even a single day of drying or mortally high water temperatures in our creeks can harm the long term survivability of listed species. The current MT for undesirable results defined in Section 8.9.1 relies solely on a metric that is only monitored once each year and is only actionable after a minimum of two years. The MT in this draft of Chapter 8 will not provide the appropriate temporal resolution for protecting listed species.

Although future revisions of the GSP might include better indicators that use a higher temporal resolution, the protection of endangered and threatened species cannot be subordinated to the timelines that govern those future revisions. Those administrative timelines are even slower to respond to the immediate needs of GDEs than the currently proposed MT. This should be especially salient when there is an opportunity in the current process to avoid that.

General Comments on Chapter 7 and Chapter 8

- Although the importance of monitoring the gaining and losing reaches of streams within the groundwater basin is highlighted in Chapter 7, and referenced in Chapter 8, neither of these chapters give concrete or consequential future steps toward integrating the monitoring of these features with SMCs or MTs.

  Furthermore, none of the SMCs or MTs properly address GDEs that may be directly reliant on groundwater. The SLO Valley GDE Technical Memo highlights riparian and oak woodland GDEs in Table 2 of that document and suggests that groundwater levels could be used to determine sustainability indicators for them. More work will need to be done to find the appropriate thresholds for GDEs that are directly reliant on groundwater levels, but the current draft only discusses GDEs in the context of interconnected surface water and does not lay the foundation for GDEs that do not rely directly on surface water depletion.

- The authors of the SLO Valley GDE Technical Memo note (on page 5, paragraph 2) that several monitoring wells are screened at unknown depths.

  "...however, the screening depth is known only for 6 of the 17 wells. Wells where the screened depth is unknown may be measuring groundwater levels for deeper aquifers that are unconnected to the shallow groundwater system and thus ***groundwater deeper than 30 ft for a given well may not reflect the absence of shallow groundwater, but instead reflects the absence of data.****"* (emphasis added)

  Creek Lands has not evaluated the veracity of this particular statement but, if it is true, the potential use of these wells for establishing an indicator of interconnected surface water SMCs or other GDE indicators is cast in doubt until the exact screening depths are determined.

- Although they may not be able to establish numerical MTs for particular interconnected surface water undesirable results or GDE impacts, what is preventing the GSP from incorporating tentative or placeholder MTs? It would be much more promising to have an interconnected surface water MT that stated how the monitoring network would be used to monitor GDE impacts, without necessarily committing to a numerical value.

    - For example: "Discharge changes between the Andrews Street Gage and the Marsh Street Gage will be used to establish a minimum threshold when better data becomes available"

- or “Minimum surface water elevations dependent on interconnected groundwater in Stenner Creek will be established when a correlation between near-stream groundwater elevations and the stream gage monitoring network are established.”

- These examples do not hold groundwater managers accountable to any thresholds that are not supported by good science, but create the necessary impetus for future research to address data gaps that are directly applicable to creating MTs that meet SGMA requirements for the proper consideration of GDEs. More specificity at this stage of the GSP development will benefit everyone in the future.

- As it stands, the current Draft GSP does not create a catalyst for future research or GSP revisions that achieve the proper level of protection for GDEs. The current drafts only list the types of data and analyses that may be sought in the future, without enough actionable language that will hold the GSC accountable for implementing effective research in pursuit of a monitoring network that protects GDEs.

Creek Lands Conservation appreciates the opportunity to comment on this document and participate in the SGMA process. We also value the public process and the willingness of the other participants to consider our comments. We hope that these comments will inspire more conversation about how our groundwater resources support critical habitat within the SLO Valley Groundwater Basin. Responses or questions about these comments are welcome, and you may reach out to us using the contact information below.

Sincerely,

Timothy Delany
Hydrologist
tim@creeklands.org
Office: (805) 473-8221

Cited Works

Belin, Alleta. 2018. Guide to Compliance with California's Sustainable Groundwater Management Act. Stanford: Water in the West. Stanford, CA.

Creek Lands Conservation (CLC). 2019. Upper San Luis Obispo Creek Instream Flow Monitoring Report (2016-2018). Report to WCB Streamflow Enhancement Program (Grant #2016041)

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Stillwater Sciences. 2014. San Luis Obispo County regional instream flow assessment. Prepared by Stillwater Sciences, Morro Bay, California for Coastal San Luis Resource Conservation District, Morro Bay, California.

GROUNDWATER SUSTAINABILITY COMMISSION
for the San Luis Obispo Valley Groundwater Basin
August 18, 2021

Agenda Item 6 – Scope of Work for the SLO Basin 2022 Annual Report and Request for Proposals (RFP) (Action Item)

Recommendation

a. Receive a draft scope of work for preparation of the SLO Basin 2022 Annual Report.
b. Designate a member of the Commission to participate in the consultant selection process for the Annual Report RFP.

Prepared by

Dick Tzou, County of San Luis Obispo
Mychal Boerman, City of San Luis Obispo

Discussion

The Sustainable Groundwater Management Act (SGMA) GSP Emergency Regulations requires that GSAs submit an annual report to the California Department of Water Resources (DWR) by April 1 of each year following the adoption of the Groundwater Sustainability Plan (GSP). The GSP for the SLO Basin is required to be adopted by the GSAs by January 31, 2022. Therefore, the first SLO Basin Annual Report will be due to DWR by April 1, 2022.

Scope of Work for Preparation of an Annual Report

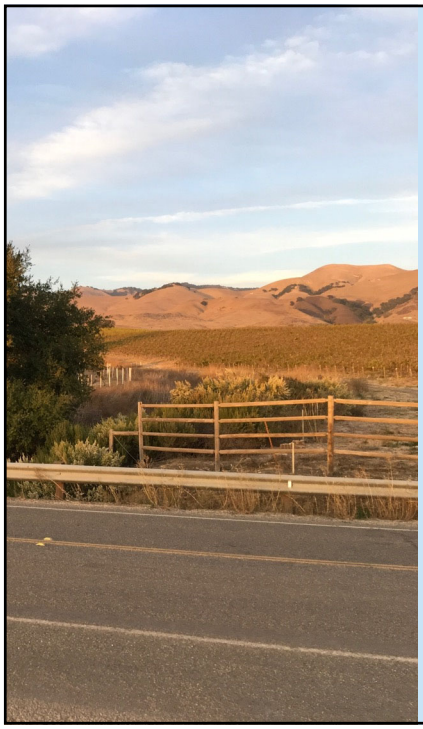
GSA staff have developed a draft scope of work (see attachment) to initiate a request for proposals (RFP) for the preparation of the SLO Basin 2022 Annual Report. The draft scope of work is subject to change based on further staff review and GSC comments. Even though annual reporting is not part of the GSP development process, the County will continue to act as the contracting agent to retain consultant services per MOA Sections 7.1 and 1, respectively, in order to move forward in the management of SLO Basin until a new governance structure is established. Per MOA Sections 7.2, staff recommends that the Commission designate a member of the Commission who is neither a City nor County representative to be part of a selection committee with County and City staff in the consultant selection process. The selection committee shall review and approve the RFP prior to its release and then participate in the evaluation of the proposals received including interviews if necessary for final consultant selection. A schedule of the RFP solicitation process for the first annual report preparation is shown in the attached presentation.

Funding

GSA staff anticipate the costs for development of the first annual report not to exceed $100,000 as estimated in Chapter 10 – Implementation Plan of the GSP. It is agreed upon that the City and the County will continue to fund the costs of this first annual report preparation in accordance with the 70% (County) and 30% (City) split per MOA Section 6(C).

Attachments:

1. Presentation
2. Draft Scope of Work for the SLO Basin Annual Report



Scope of Work for GSP Annual Report

Mychal Boerman
Dick Tzou

1

Components of a GSP Annual Report (CCR §356.2)

- General information and background
- Description and graphical representation of:
  - Groundwater elevations contours
  - Monitoring well hydrographs
- Groundwater extractions
- Surface water supply
- Total water use
- Change in groundwater storage
- Other miscellaneous data records

2

GSP Annual Report Estimated Timeline

3

Draft Scope of Work for SLO Basin GSP 2022 Annual Report

Background

Section 356.2 of the Sustainable Groundwater Management Act (SGMA) Emergency Regulations outlines the requirements of the Groundwater Sustainability Plan (GSP) Annual Report, which must be submitted to DWR by April 1 of each year following the adoption of the GSP. The subject GSP will be completed and submitted to the DWR by January 31, 2022.

The groundwater level and aquifer storage data that is reported in the GSP is current through 2019. It is important to note that the regulations require that the components of the report be based on the preceding water year, which covers the period of October 1 to September 30. Because this will be the first GSP Annual Report for the SLO Basin, the 2022 Annual Report will report on data from October 1, 2019 through September 30, 2021. The annual report must meet SGMA GSP regulatory requirements, including but not limited to SGMA GSP Article 5 - Plan Content and Article 7- Annual Reports and Periodic Evaluations related to plan implementation, as well as the reporting standards as discussed in the SGMA GSP regulations, Article 3 -Technical and Reporting Standards.

Required Components of Annual Report

The annual report must include the following components (numbering system follows the format and convention of the regulations):

(a). General information, including an executive summary, a location map of the basin, introduction, background, basin setting, methodology of data collection with QA/QC, data results, data analysis/interpretation with a discussion on how this data shows progress towards a sustainable groundwater basin and meets the measurable objectives and minimum thresholds for each undesirable results as discussed in the GSP, and a supporting conclusion with recommendations.

(b). A detailed description and graphical representation of:

1. Groundwater elevation data from monitoring wells in the Plan network analyzed and displayed as follows:
   - A. Groundwater elevation contour maps for each principal aquifer (the principal aquifers in the SLO Basin are the Alluvial Aquifer, Paso Robles Formation Aquifer, and Pismo Formation Aquifer). The maps must illustrate the seasonal high and seasonal low groundwater conditions. NOTE: Although the report is intended to cover the water year from October 1 through September 30, the fall water level readings by the County are typically performed in October of each year, so the SLO Basin 2022 Annual Report should include water level data from October 1, 2019 through October 30, 2021. For subsequent years, similarly, the months from October 1 through October 30 of the following year should be used.
   - B. Hydrographs of groundwater elevations. It is assumed that this task would update the existing hydrographs presented in the GSP with data through October 30, 2021.
2. Groundwater extraction for the preceding water year, including use by water sector, method of measurement, accuracy of measurements, and a map showing the general location and volume of extractions.

3. Surface water supply used or available for use, for groundwater recharge or in-lieu use, based on quantitative data that describes the annual volume and sources for the preceding water year.
4. Total water use, by water sector, water source type, method of measurement, and accuracy of measurements.
5. Change in groundwater in storage, including:
   A. Change in groundwater in storage maps for each principal aquifer.
   B. A graph showing water year type, groundwater use, annual change in storage, and cumulative change in storage. NOTE: change in groundwater in storage for the basin is based on historical data to the greatest extent available, including from January 1, 2015, to the current reporting year.
6. The report appendices shall include the following data, but not limited to, the Groundwater Monitoring Program Well Information, Field Logs; Field Methods; Hydrographs, Precipitation and Streamflow Data; Groundwater Storage Calculation Example and Specific Yield Estimates; and data used to prepare for the groundwater storage and water budget (i.e., Agricultural Water Use Estimate, Land Use, Water Use Areas, and etc.).
7. The Consultant will prepare a Groundwater Storage Sensitivity Analysis which will provide potential sources of error, data gaps and other issues which should be considered when assessing the information contained in the Annual Report. The Groundwater Storage Sensitivity Analysis shall be included in the Annual Report and provided as an appendix.

(c). A discussion describing the progress towards a sustainable groundwater basin by implementing the GSP, including achieving interim milestones, and implementation of projects or management actions.

(d). Perform general project management and coordination activities including progress reports; cost, budget, and schedule tracking; and status updates.

(e). The Consultant shall be responsible for submitting the FINAL Annual Report to the DWR in accordance with the agency's requirements. It is anticipated that this work item will require that the Consultant upload the FINAL Annual Report to the DWR SGMA Portal, including but not limited to, providing additional documentation and input, as required to complete the DWR SGMA Portal upload process.

Deliverables and Meetings

1. Attend up to five (5) GSA staff meetings (not public), including one (1) kick-off meeting to be held a week after the contract is signed. Consultant to prepare all Annual Report meeting materials and provide meeting minutes on the Annual Report.
2. Submit an Administrative Draft Annual Report for review and approval by the GSA staff members overlying the SLO Basin. Address comments received on the Administrative Draft Annual Report.
3. Prepare Draft Report with GSA's Project Manager's written approval. Submit the Draft Annual Report for review by the Groundwater Sustainability Commission (GSC) and public. Consultant to document and address all comments received on the Draft Annual Report to be published, including all comments received from the GSAs webpages, emails, meetings, and workshops during this process.
4. Facilitate, lead, and present at a public workshop on the Draft Annual Report and prepare meeting materials and presentation. Consultant to document and address all comments

received. Consultant will coordinate meeting details with GSA staff. Meeting noticing will be performed by GSA(s) staff.

5. Facilitate and lead a public GSC meeting and present on the Draft Annual Report. Prepare meeting materials and presentation. Consultant to document and address all comments received. Meeting noticing will be performed by GSA(s) staff.
6. Prepare the Final Report with GSA's Project Manager's written approval. Final Report to include Consultant's professional stamp and signature and signature blocks for each GSA signature/date.

Optional Task

During DWR's Annual Report review process, upon written approval from the GSA's Project Manager, the Consultant shall prepare additional material for the Annual Report to address DWR's questions. This includes one (1) round of revisions and attending up to two (2) GSA staff meetings. If required, this optional work shall be paid for in accordance with the Consultant's schedule of fees, which shall be included in the Proposal.

Schedule

To meet SGMA requirements and submit the Annual Report to the Department of Water Resources (DWR) by March 31, 2022. Please provide a schedule of the proposed Annual Report to be submitted to the DWR by March 31, 2022 and incorporate necessary lead time for review, comments, and revisions, and approval by the GSC and GSAs for submittal to DWR.