

LOS OSOS GROUNDWATER BASIN, BASIN MANAGEMENT COMMITTEE

NOTICE OF MEETING

NOTICE IS HEREBY GIVEN that the Los Osos Groundwater Basin, Basin Management Committee Board of Directors will hold a **Special Board Meeting** at **1:30 P.M.** on **Wednesday, December 6, 2023** at the **Los Osos Community Services District Boardroom**, located at 2122 9th Street, Suite 106, Los Osos, CA 93402 Members of the public may participate in this meeting in person or via teleconference and/or electronically.

For quick access, go to <https://us04web.zoom.us/j/778762508>

(This link will help connect both your browser and telephone to the call)

If not using a computer, dial 1 (669) 900-6833 or 1 (346) 248-779 and enter **778 762 508**

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

- Email at danheimel@ConfluenceES.com by 5:00 PM on the day prior to the Committee meeting.
- Teleconference by phone at 1 (669) 900-6833 and enter **778 762 508**
- Teleconference by phone at 1 (346) 248-7799 and enter **778 762 508**
- Teleconference meeting at <https://us04web.zoom.us/j/778762508>
- Mail by 5:00 PM on the day prior to the Committee meeting to:
Attn: Dan HeimeI (Basin Management Committee)
2122 9th St.
Suite 110
Los Osos, CA 93402

Directors: Agenda items are numbered for identification purposes only and may not necessarily be considered in numerical order.

NOTE: The Basin Management Committee reserves the right to limit each speaker to three (3) minutes per subject or topic. In compliance with the Americans with Disabilities Act, 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 BMC are encouraged to request such accommodation 48 hours in advance of the meeting from Dan HeimeI at danheimel@ConfluenceES.com.

BASIN MANAGEMENT COMMITTEE BOARD OF DIRECTORS AGENDA

1. **CALL TO ORDER**
2. **ROLL CALL**
3. **PLEDGE OF ALLEGIANCE**
4. **BOARD MEMBER COMMENTS**

Board members may make brief comments, provide project status updates, or communicate with other directors, staff, or the public regarding non-agenda topics.

5. SPECIAL PRESENTATION

None.

6. CONSENT AGENDA

The following routine items listed below are scheduled for consideration as a group. Each item is recommended for approval unless noted and may be approved in their entirety by one motion. Any member of the public who wishes to comment on any Consent Agenda item may do so at this time. Consent items generally require no discussion. However, any Director may request that any item be withdrawn from the Consent Agenda and moved to the "Action Items" portion of the Agenda to permit discussion or to change the recommended course of action. The Board may approve the remainder of the Consent Agenda on one motion.

- a. 2023 Budget Update and Invoice Register**
- b. Approval of Minutes from October 18, 2023 BMC Meeting**

7. PUBLIC COMMENTS ON ITEMS NOT APPEARING ON THE AGENDA

The Basin Management Committee will consider public comments on items not appearing on the agenda and within the subject matter jurisdiction of the Basin Management Committee. The Basin Management Committee cannot enter into a detailed discussion or take any action on any items presented during public comments at this time. Such items may only be referred to the Executive Director or other staff for administrative action or scheduled on a subsequent agenda for discussion. Persons wishing to speak on specific agenda items should do so at the time specified for those items. The presiding Chair shall limit public comments to three minutes.

8. EXECUTIVE DIRECTOR'S REPORT

9. ACTION ITEMS

- a. Sustainable Yield Estimate for 2024**

Recommendation: Receive information on the Sustainable Yield calculations and approve the proposed Sustainable Yield estimate of 2,380 AFY for Calendar Year 2024; or provide alternate direction to staff.

- b. Los Osos Creek Stream Gage Rating Curve**

Recommendation: Receive the Draft Los Osos Creek Rating Curve Development and Stage Data Processing Technical Memorandum.

- c. Proposed Accounting and Related Procedure Modifications to BMC Rules and Regulations and BMC Bank Account Authorizing Resolution**

Recommendation: Approve proposed modifications to the BMC Rules and Regulations to incorporate updated accounting and authorization procedures and a resolution authorizing the Executive Director to open a bank account on behalf of the BMC; or provide alternate direction to staff.

- d. Calendar Year 2024 Budget**

Recommendation: Approve the proposed Calendar Year 2024 BMC Budget and the Calendar Year 2024 BMC Support Services Proposals; or provide alternate direction to staff.

e. Public Review Draft Title 19 (Retrofit-to-Build) and Title 8 (Retrofit-Upon-Sale) Amendments

Recommendation: Receive a presentation from County of San Luis Obispo Planning & Building Department on the Public Review Draft Title 19 (Retrofit-to-Build) and Title 8 (Retrofit-Upon-Sale) Amendments and provide direction to staff.

10. ADJOURNMENT

TO: Los Osos Basin Management Committee

FROM: Daniel Heibel, Executive Director

DATE: December 6, 2023

SUBJECT: Item 6 – Approval of Budget Update/Invoice Register and Meeting Minutes

Recommendations

Staff recommends that the BMC review and consider approval of Budget/Invoice Register and Meeting Minutes or provide alternate direction to Staff.

Discussion

BMC Staff has prepared a summary of costs incurred as compared to the adopted budget and a running invoice register and Meeting Minutes from previous BMC Meetings (see Attachments).

Attachment 2: Invoice Register for Los Osos BMC for Calendar Year 2023

Vendor	Invoice No.	Amount	Month of Service	Description	Budget Item	Date Executive Director Approved	Date BMC Chairperson Approved	Date BMC Approved
CHG	20221205	\$2,342.00	Dec-22	Annual Report Preparations	6	Jan-23		
CHG	20230104	\$11,508.60	Jan-23	Annual Report Preparations	6	Feb-23		
CHG	20230105	\$1,005.00	Jan-23	Technical Support: AEM Survey	4			Feb-23
ConfluenceES	1073	\$5,197.50	Jan-23	BMC Executive Director Services	1		Feb-23	
AGP	6252	\$200.00	Feb-23	Meeting expenses: Audio and video services	3	Mar-23		
CHG	20230206	\$12,688.00	Feb-23	Annual Report Preparations	6	Mar-23		
CHG	20230207	\$6,511.00	Feb-23	Los Osos Creek Flow Measurements	9	Mar-23		
ConfluenceES	1083	\$6,525.00	Feb-23	BMC Executive Director Services	1		Mar-23	
CHG	20230307	\$22,153.50	Mar-23	Annual Report Preparations	6	Apr-23		
CHG	20230308	\$8,001.50	Mar-23	Los Osos Creek Flow Measurements	9	Apr-23		
CHG	20230309	\$2,422.00	Mar-23	Technical Support: Skyline Monitoring Well	4			May-23
CHG	20230310	\$2,437.50	Mar-23	Groundwater Monitoring	5	Apr-23		
ConfluenceES	1085	\$6,525.00	Mar-23	BMC Executive Director Services	1		Apr-23	
CHG	20230405	\$7,027.50	Apr-23	Annual Report Preparations	6	May-23		
CHG	20230406	\$1,120.00	Apr-23	Technical Support: Skyline Monitoring Well	4			May-23
CHG	20230407	\$500.00	Apr-23	Los Osos Creek Flow Measurements	9	May-23		
CHG	20230408	\$20,348.80	Apr-23	Groundwater Monitoring	5	May-23		
ConfluenceES	1095	\$7,606.25	Apr-23	BMC Executive Director Services	1		May-23	
CHG	20230504	\$320.00	May-23	Technical Support: Skyline Monitoring Well	4			Jun-23
CHG	20230505	\$1,937.50	May-23	Los Osos Creek Flow Measurements	9	Jun-23		
CHG	20230506	\$3,421.20	May-23	Groundwater Monitoring	5	Jun-23		
ConfluenceES	1100	\$7,670.00	May-23	BMC Executive Director Services	1		Jun-23	
CHG	20230605	\$259.50	Jun-23	Annual Report Preparations	6	Jul-23		
CHG	20230606	\$480.00	Jun-23	Technical Support: Water Offset Study	4			Aug-23
ConfluenceES	1108	\$6,386.25	Jun-23	BMC Executive Director Services	1		Jul-23	
CHG	20230620	\$6,450.00	Jun-23	New "Skyline" Monitoring Well	8	Aug-23		
CHG	20230723	\$1,288.00	Jul-23	New "Skyline" Monitoring Well	8	Aug-23		
AGP	9236	\$1,000.00	Aug-23	Meeting expenses: Audio and video services	3	Sep-23		
ConfluenceES	1111	\$1,825.00	Jul-23	BMC Executive Director Services	1		Aug-23	
CHG	20230838	\$2,788.50	Jun-23	Annual Report Preparations	6	Sep-23		
ConfluenceES	1118	\$6,755.00	Aug-23	BMC Executive Director Services	1		Sep-23	
RWG	244283	\$140.00	Aug-23	BMC Legal Counsel	2	Oct-23		
CHG	20230908	\$6,246.00	Sep-23	Los Osos Creek Flow Measurements	9			
CHG	20230909	\$3,480.00	Sep-23	Groundwater Monitoring	5	Oct-23		
RWG	244677	\$175.00	Sep-23	BMC Legal Counsel	2	Oct-23		

ConfluenceES	1126	\$3,391.25	Sep-23	BMC Executive Director Services	1		Oct-23	
CHG	20231005	\$15,537.46	Oct-23	Groundwater Monitoring	5	Nov-23		
	2023 Total	\$193,669.81						To be approved

BASIN MANAGEMENT COMMITTEE BOARD OF DIRECTORS

Agenda Item 6b: Minutes of the Meeting of October 18, 2023

The following is a summary of the actions taken at the Basin Management Committee Board of Directors Meeting.
The official record for the meeting is the recording that can be found at:

<https://slo-span.org/static/meetings-LOBMC.php>

Agenda Item	Discussion or Action
1. Call to Order	Chair Zimmer called the meeting to order at approximately 1:30 PM (0:00:00).
2. Roll Call	Daniel Heimel, Executive Director, called roll to begin the meeting. Director Gibson, Director Cesena, Director Reineke, Chair Zimmer were present.
3. Pledge of Allegiance	(0:01:00)
4. Board Member Comments	<p><u>Board Discussion</u> (0:01:00) Director Gibson - Anastasi Subdivision Map (0:01:00)</p> <p><u>Public Comment</u> (0:05:00) Terry Simons (0:05:00) Lindi Owen (0:07:00) Debra Howe (0:09:00) Becky McFarland (0:10:00) Patrick McGibney (0:10:30)</p> <p><u>Board Discussion</u> (0:12:00)</p>
5. Special Presentation Presentation on Anastasi Subdivision Map by San Luis Obispo Public Works Counsel Staff	<p>David Grim from SLO County Public Works (0:13:50) Jon Ansolabehere from SLO County Public Works (0:28:50)</p> <p><u>Board Discussion with Presenters</u> (0:34:00) Director Gibson – Tentative map is approved rather than the project (0:34:00) Jon Ansolabehere from SLO County Public Works (0:40:00)</p> <p><u>Board Discussion</u> (0:54:30) Director Reineke Director Cesena Director Gibson Dan Heimel Jon Ansolabehere</p> <p><u>Public Comment</u> (1:09:50) Terry Simons (1:09:50) Linde Owen (1:12:40) Debora Howe (1:14:30) Trish Bartel (1:16:30) Andrea Luker (1:19:00) Lee Andrea Caulfield (written) (1:21:30) Douglass Converse (written) (1:22:00) Patrick McGibney (1:22:30) Becky McFarland (1:24:22)</p>

	<p>Chris (1:27:30) Emily Miggins (1:28:50)</p> <p><u>Board Discussion</u> (1:32:30)</p>
<p>6. Consent Agenda</p> <p>6a. 2023 Budget Update and Invoice Register</p> <p>6b. Approval of Minutes from August 16th, 2023 BMC Meeting</p> <p>6c. Approval of Minutes from August 29th, 2023 Special BMC Meeting</p>	<p><u>Board Discussion</u> (1:50:20) No comment</p> <p><u>Public Comment</u> Linde Owen (1:51:00)</p> <p><u>Board Action on Consent Agenda</u> (1:51:30) Motioned. Seconded. Approved.</p> <p>Ayes: All. Nays: None. Abstain: None.</p>
<p>7. Public Comments on Items Not Appearing on the Agenda</p>	<p><u>Public Comment</u> (1:52:00) Linde Owen (1:52:00) Terry Simons (1:53:30) Barry Branin (1:54:30) Partrick McGibney (1:56:00) Becky McFarland (1:57:40) Jeff Edwards (2:01:00) Emily Miggins (1:03:50)</p> <p><u>Board Discussion</u> (2:06:20)</p>
<p>8. Executive Director's Report</p>	<p><u>Board Discussion</u> (2:13:20)</p> <p><u>Public Comment</u> (2:14:00) Becky McFarland (2:14:00)</p> <p><u>Board Discussion</u> (2:17:00)</p>
<p>9. Action Items</p>	

<p>9a. Sustainable Yield Estimate for 2024</p> <p>9b. Los Osos Creek Stream Gage Rating Curve</p> <p>9c. Calendar Year 2024 Budget</p> <p>9d. BMC Bank Account Authorizing Resolution</p>	<p>9a. Sustainable Yield Estimate for 2024 (2:21:00) Item deferred to next meeting</p> <p>9b. Los Osos Creek Stream Gage Rating Curve (2:21:00) Item deferred to next meeting</p> <p>9c. Calendar Year 2024 Budget (2:22:00) <u>Board Discussion</u> (2:22:00)</p> <p><u>Public Comment</u> Linde Owen (2:33:30) Becky McFarland (2:34:00)</p> <p><u>Board Discussion</u> (2:36:00)</p> <p><u>Board Action</u> (2:47:50) Board action deferred to next meeting</p> <p>9d. BMC Bank Account Authorizing Resolution (2:48:10)</p> <p><u>Board Discussion</u> (2:48:10)</p> <p><u>Public Comment</u> (2:52:00) No comment</p> <p><u>Board Action</u> (2:52:00) Board action deferred to next meeting</p> <p><u>Board Discussion</u> (2:53:00)</p>
<p>10. Adjournment</p>	<p>Meeting adjourned at approximately 4:23pm (2:53:00) The next regularly scheduled meeting for Wednesday, November 15th, 2023.</p>

TO: Los Osos Basin Management Committee

FROM: Dan Heibel, Executive Director

DATE: December 6, 2023

SUBJECT: Item 8 – Executive Director’s Report

Recommendations

Staff recommends that the Basin Management Committee (BMC) receive and file the report and provide staff with any direction for future discussions. Sections of the Executive Director’s Report that have been updated or significantly changed from the previous meeting’s version are underlined and sections of the report that have not had any recent or anticipated updates have been removed.

Discussion

This report was prepared to summarize administrative matters not covered in other agenda items and to provide a general update on staff activities.

Presentations

No recent or planned presentations

Funding and Financing Programs to Support Basin Plan Implementation

WRFP Grant: On February 11th, 2022 the Los Osos Community Services District (Los Osos CSD) submitted an application for a WRFP grant to develop a transient model and analyze recycled water and supplemental water projects to improve the sustainability of the Los Osos Basin (WRFP Study). Los Osos CSD was notified of the award of the grant in January 2023 and all the required documents were signed and fully executed. On May 17th, 2023 the BMC approved Cleath-Harris Geologist (CHG) to complete the WRFP Study and the WRFP Study is underway.

BMC Staff will continue to monitor potential additional grant funding opportunities and bring information on these opportunities to the BMC for consideration as they become available.

Status of BMC Initiatives

DWR AEM Survey: On December 2022, BMC Staff were notified that the Los Osos Basin would be included in the Department of Water Resources (DWR) upcoming Statewide Airborne Electromagnetic (AEM) Survey in Spring 2023. To assist DWR in preparing flight lines for the AEM Survey, BMC Staff provided DWR with lithologic information for the Los Osos Basin and prepared an Area of Interest Map. The data collected during the AEM survey will improve DWR and the BMC’s understanding of Los Osos Basin hydrogeology and seawater intrusion. The AEM Survey for the San Luis Obispo and Santa Barbara

County basins was initiated on April 26th, 2023, however, due to weather conditions and the need to support emergency flood response efforts elsewhere in the State, DWR was not able to complete the survey of the Los Osos Basin. DWR recently indicated that the AEM Survey for San Luis Obispo and Santa Barbara County is tentatively scheduled for November 18 - 20, 2023 and AEM survey helicopters were sighted flying over the Los Osos Basin around those time frames. Additional information on DWR's Statewide AEM Survey Project can be found here:

<https://water.ca.gov/Programs/Groundwater-Management/Data-and-Tools/AEM>

Sustainable Yield: At its October 27th, 2021 Meeting, the BMC unanimously approved an updated Sustainable Yield estimate of 2,380 Acre-Feet per Year (AFY) for Calendar Year 2022 and at its October 19th, 2023 Meeting, the BMC unanimously approved retaining the current Sustainable Yield estimate of 2,380 AFY for CY 2023 for the following reasons: 1) No new infrastructure, not already considered in the 2022 Sustainable Yield Estimate, has been constructed; 2) estimates for the development of the Broderson Mound and long-term average rainfall were updated and incorporated into the CY 2022 Sustainable Yield Estimate and are not anticipated to change significantly on a year-over-year basis; 3) no significant hydrogeologic investigations have been conducted that would warrant an update to the steady-state groundwater model utilized to develop the Sustainable Yield Estimate. See Agenda Item 9a of this agenda packet for recommendations for the Sustainable Yield Estimate for Calendar year 2024.

Los Osos Basin Well Database: Cleath-Harris Geologists (CHG) completed the development of the Los Osos Basin Well Database and it is currently being reviewed by the BMC Purveyors.

Basin Monitoring Program Improvement: BMC Staff are working on permitting and construction of a new monitoring well at the eastern end of Skyline Drive in 2023. At its June 21st, 2023 Meeting the BMC approved CHG to provide hydrogeologic consultant services for the Well Design and Construction Management for the Skyline Monitoring Well. On July 27th, 2023 the Los Osos CSD released the bid package for the Skyline Monitoring Well and bids were due August 24th, 2023. At its August 29th, 2023 Special Meeting, the BMC authorize the use of \$21,660 of Contingency and Technical Support/Adaptive Management Funding to cover the additional costs for the Skyline Monitoring Well and to provide a 10% Construction Contingency. Construction of the Skyline Monitoring Well is anticipated to start in late November/early December 2023.

Basin Metric Evaluation: Analysis of potential modifications to the Basin Metric's is currently on hold. Proposed modifications to the metrics were provided to BMC Party Staff for review. However, BMC Party Staff requested that potential improvements to the existing BMC Monitoring Program (i.e. modifications to an existing wells or a new monitoring well) be evaluated prior to modifying the Basin Metrics. BMC Staff are currently working on construction of a new monitoring well at the eastern end of Skyline Drive. This new well could be incorporated into the updated Basin Metrics. Once the new monitoring well is completed, recommendations on potential modifications to the Basin Metrics will be brought to the BMC for their consideration.

Transient Groundwater Model: See update under WRFP Grant above.

Lower Aquifer Nitrate Investigation: On October 19th, 2022 the BMC authorized Calendar Year (CY) 2022 funding to perform additional Nitrate Source Investigation to better understand the source of Nitrate impacting lower aquifer production wells. However, due to the inability to obtain well owner permission to sample the desired wells, much of that work was not completed in 2022. Subsequently, the Regional Water Quality Control Board (RWQCB) staff reviewed the investigation information and findings available to date and provided a presentation to the BMC at its March 15th, 2023 Meeting. BMC Party Staff is working with RWQCB Staff to identify potential additional investigations to help better inform the sources of the nitrate in the LA8 Well and additional information will be provided to the BMC, once available.

Program C Adaptive Management: At its April 20th, 2022 Meeting, the BMC approved CHG to evaluate the re-inclusion of the 3rd Well into Program C. CHG completed the evaluation of the anticipated increase to the Sustainable Yield that the 2nd and 3rd Program C Wells could provide utilizing the new criteria for calculating the Sustainable Yield approved by the BMC at their October 27th, 2021 Meeting. The results of this evaluation were presented to the BMC at its March 15th, 2023 Meeting and at its August 18th, 2023 Meeting the BMC approved the removal of the deferral of the 3rd Well from Program C.

Status of Basin Plan Implementation and Funding Plans

The BMC has requested an integrated funding plan for project implementation and BMC monitoring and administration. At its October 27th, 2021 Meeting, the BMC approved a proposal from SCI Consulting Group to provide an updated funding options analysis and assessment evaluation. SCI prepared a draft Technical Memorandum (TM), that includes evaluation of funding alternatives and findings from the funding model. The draft TM was shared with the BMC at the July 27th, 2022 Meeting and the BMC requested that Staff return with additional information on the BMC's options for moving forward. BMC Staff worked with SCI to develop a Work Plan and Budget to assist the BMC in understanding the key decision points, timelines and costs for establishing a more formal organization and funding structure. A roadmap for how the BMC could implement a special tax was provided at the October 19th, 2022 BMC Meeting and the BMC provided direction for the Executive Director to work with BMC Party Staff to further discuss different options for a JPA with or without a special tax, strategies to educate the community about the proposed tax and its benefits and bring additional information back the BMC at a future meeting. BMC Staff are evaluating different organization and funding strategies to achieve the desired objectives and will bring back additional information/recommendations to the BMC when complete.

Land Use Planning Process Update

Guide to Planning Information for Development in Los Osos:

This website is intended to provide relevant planning information and an outline of what type of development is currently allowed within Los Osos:

<https://www.slocounty.ca.gov/Departments/Planning-Building/Grid-Items/Community-Engagement/Communities-Villages/Los-Osos.aspx>.

Topics covered include but are not limited to:

- Types of permit applications currently being accepted for processing
- Status of the building moratorium and waitlist for undeveloped parcels in the sewer service area (still in place)
- Status of the Communitywide Habitat Conservation Plan

Los Osos Retrofit-to-Build Program (Title 19 Water Offset Requirement) Update:

On October 17th, 2023 the County Board of Supervisors requested that the Planning & Building Department bring for hearing a draft of ordinance amendments to Title 19, where the Los Osos Retrofit to Build program (also known as the 2:1 offset program) is codified. The amendments to Title 19 require an according update to the Title 8 Retrofit Upon Sale program requirements. The Department will recommend amendments to the offset program based on the findings of the program audit, completed by Maddaus Water Management, Inc. in June 2023. The published audit document can be found at: [Los Osos Water Offset Study - County of San Luis Obispo \(ca.gov\)](#)

The Public Review Draft of ordinance amendments can be accessed here: [Los-Osos-Water-Offset-Update-Title-19-and-Title-8-.pdf \(ca.gov\)](#)

Public comments are due December 31st, 2023 and can be submitted via email (to Claire at cmomberger@co.slo.ca.us) or by mail, addressed to the Department of Planning & Building, San Luis Obispo County Government Center, 976 Osos Street, San Luis Obispo, CA 93408.

The ordinance amendments are tentatively scheduled for public hearing before the County Board of Supervisors on February 27th, 2024.

Los Osos Community Plan:

The Los Osos Community Plan (LOCP) is being reviewed by the California Coastal Commission (Commission) and a hearing date has not yet been scheduled by the Commission. In the meantime, the County is meeting with BMC and BMC Party Staff to discuss potential policy changes considering ongoing basin monitoring and Basin Plan program implementation efforts. The Los Osos Community Plan ("LOCP") update and Final Environmental Impact Report ("FEIR") considered by the Board on December 15, 2020 are available at: <https://www.slocounty.ca.gov/LosOsosPlan-1.aspx>.

LOCP Background

The Board authorized preparation of this update on December 11, 2012. A series of community outreach meetings to unveil the Community Plan were conducted in the Spring of 2015. The plan was prepared to be consistent and coordinated with the draft groundwater basin management plan and the draft Habitat Conservation Plan ("HCP"). The draft Environmental Impact Report was released on September 12, 2019; comments were due December 11, 2019. A Community Meeting on the Draft Environmental Impact Report for the LOCP, HCP, and associated Environmental Documents was held on

October 28, 2019. The Final Environmental Impact Report and Public Hearing Draft were released on June 8, 2020. The Planning Commission held hearings on July 9, 2020, August 13, 2020, and October 8, 2020. At the October 8, 2020 hearing, the Planning Commission recommended approval of the Plan to the Board of Supervisors (BOS).

Los Osos Habitat Conservation Plan (HCP):

On August 2nd, 2023 the Planning & Building Department submitted the Los Osos Communitywide Habitat Conservation Plan (LOHCP) to the U.S. Fish and Wildlife Service (USFWS) for approval. The USFWS will review the LOHCP and determine whether to issue an Incidental Take Permit for impacts to Morro Shoulderband Snail, Morro Bay Kangaroo Rat, Morro Manzanita, and Indian Knob Mountainbalm species to the County. The USFWS has 60 days to respond to the submitted plan. In the coming months, the Department will be going to the Board of Supervisors to ask for a General Fund loan to begin implementing the LOHCP through land acquisition and habitat restoration projects. This will allow the Department to accrue LOHCP credits and that can be issued as "certificates of inclusion" to mitigate against infrastructure and development project habitat impacts.

Los Osos Water Recycling Facility Project Update

The following table summarizes flows from the LOWRF based on the available data.

LOWRF Wastewater and Recycled Water Flows (Acre Feet)

Year	Month	Influent	Broderson	Bayridge	Sea Pines	Ag Users	Effluent
2023	Jan	46.78	50.82	1.45	0.03	0.00	55.24
2023	Feb	41.07	41.90	1.10	1.26	0.00	42.92
2023	Mar	62.28	52.37	1.19	0.02	0.00	53.58
2023	Apr	55.94	42.44	1.16	2.35	0.14	46.09
2023	May	55.07	40.84	1.23	0.21	0.34	42.62
2023	Jun	50.97	21.81	1.23	18.31	0.38	41.74
2023	Jul	53.67	40.14	1.32	4.11	0.46	47.05
2023	Aug	58.03	28.85	1.39	10.58	0.72	41.55
2023	Sept	56.67	24.48	0.92	6.23	0.75	32.49
2023	Oct						
2023	Nov						
2023	Dec						
Total		261.14	228.37	6.13	3.87	0.48	240.45

LOWRF Project Updates:

- The County is preparing recycled water connection plans for the four school sites in Los Osos and the Los Osos Community Park. The County has 100% plans for Los Osos Middle School, 100% plans for Los Osos Community Park, and 90% plans for Baywood Elementary. The County

will submit the final plans to the State for review and approval. Contracts between the County, the water purveyors and the San Luis Coastal Unified School District are required prior to going out to bid for construction. Historically, the priority site for the Basin has been Los Osos Middle School and the connection will be dependent on contract negotiations and available funding. The County has received some funding through the ARPA grant program.

- The Broderson Flow Meter Project was awarded by the Board of Supervisors and the notice to proceed is expected to be given in October. The project includes a flow meter and two isolation gate valves for maintenance. The current method for calculating the volume of water at Broderson Leach Field is a calculation based on other meters in the recycled water distribution system. The flow meter will improve the accuracy of water discharged here and will be connected to the LOWRF's SCADA system through the existing local control panel. The project is funded by ARPA grant money.
- The County has completed the Recycled Water Distribution Model that evaluates existing and future uses within the recycled water system. The model identified setpoints for the future effluent pump station VFDs at the LOWRF that will result in energy savings.
- The County worked with a consultant to prepare design plans for installing VFDs on the LOWRF's effluent pumps. The project is expected to go out to bid in October. This will allow the pumps to ramp up and down based on the need in the recycled water distribution system and the plant return water supply. Currently the pumps only have the capability to run at one speed and that leads to increased wear and tear on the motor and impellers. The VFDs will be set to specific pressure setpoints that will be determined using the recycled water distribution model. The expected outcome from installing the VFDs is decreased energy consumption and recirculated water within the system.
- The County is working with PG&E and AESC on an energy audit that reviews existing energy use and operations to identify potential energy savings. The final Energy Action Plan identified two projects that could reduce energy usage at the site. A Project Feasibility Study is underway to evaluate the selected project. Implementation of the chosen project will be in Winter 2023.

Enforcement: A list of properties that were not connected were transferred to County Code Enforcement and Notice of Violations were issued last year in Feb. 2019. That list was about 70 properties. As of 5/12/2021, the sewer service area has a 99.4% connection status with a total of 36 properties not yet connected. Of those, one is not required to connect because there is no structure (demolished), 18 have expired building permits, and the rest have an open Code Enforcement case.

The County has assigned staff in code enforcement to Los Osos. Expired permits did not receive a Code Enforcement case because those properties have their own noticing process through the Building Department which, if not corrected, could result in a Notice of Violation.

Sustainable Groundwater Management Act (SGMA)

SGMA Overview: SGMA took effect on January 1, 2015.¹ SGMA provides new authorities to local agencies with water supply, water management or land use responsibilities and requires various actions be taken in order to achieve sustainable groundwater management in high and medium priority groundwater basins. Los Osos Valley Groundwater Basin (Los Osos Basin) was subject to SGMA based on the 2014 Basin Prioritization by the California Department of Water Resources (DWR) that listed the Los Osos Basin as high priority and in critical conditions of overdraft.²

Basin Prioritization: On December 18, 2019, DWR released the SGMA 2019 Basin Prioritizations. Basins or subbasins reassess to low or very low priority basins or subbasins are not subject to SGMA regulations. A summary of DWR's Final SGMA Prioritizations for the Los Osos Area Subbasin and Warden Creek Subbasin are listed below:

- Los Osos Area Subbasin is listed as **very low** priority for SGMA³ and in critical conditions of overdraft⁴
- SGMA does not apply to the portions of Los Osos Basin that are adjudicated provided that certain requirements are met (Water Code §10720.8).
- Warden Creek Subbasin is listed as **very low** priority for SGMA³

For more information on DWR's basin boundary modification and prioritization process, please visit: <https://water.ca.gov/Programs/Groundwater-Management/Basin-Prioritization>

Additional Attachments:

1. Updated Status of Basin Plan Programs

¹ On September 16, 2014, Governor Jerry Brown signed into law a three-bill legislative package, composed of [AB 1739 \(Dickinson\)](#), [SB 1168 \(Pavley\)](#), and [SB 1319 \(Pavley\)](#), collectively known as SGMA

² SGMA mandates that all groundwater basins identified by DWR as high- or medium-priority by January 31, 2015, must have groundwater sustainability agencies established by June 30, 2017. The act also requires that all high- and medium-priority basins classified as being subject to critical conditions of overdraft in Bulletin 118, as of January 1, 2017, be covered by groundwater sustainability plans, or their equivalent, by January 31, 2020. Groundwater sustainability plans, or their equivalent, must be established for all other high- and medium-priority basins by January 31, 2022.

³ As noted by DWR, the priority for the subbasin has been set to very low (0 total priority points) as a result of conditions being met under sub-component C of the Draft SGMA 2019 Basin Prioritizations.

⁴ Critical conditions of overdraft have been identified in 21 groundwater basins as described in Bulletin 118 (Water Code Section 12924). Bulletin 118 (updates 2003) defines a groundwater basin subject to condition of critical overdraft as: "A basin is subject to critical conditions of overdraft when continuation of present water management practices would probably result in significant adverse overdraft-related environmental, social, or economic impacts."

Update on Status of Basin Plan Infrastructure Projects

Program Name	Project Name	Parties Involved	BMC Budgeted Amount	Funding Status	Anticipated Planning/Pre-Construction Cost	Anticipated Capital Cost	Status/Notes
Program A – Shift groundwater production from Lower Aquifer to Upper Aquifer	Water Systems Interconnection	LOCSO/ GSWC	NA	NA	NA	NA	Completed
	Upper Aquifer Well (8 th Street)	LOCSO	NA	Fully Funded	NA	\$307,000	Completed
	South Bay Well	LOCSO	NA	NA	NA	NA	Completed
	Nitrate Removal	LOCSO	NA	NA	NA	NA	Completed
	Palisades Well Modifications	LOCSO	NA	NA	NA	NA	Completed
Program B - Shift groundwater production from Lower Aquifer to Upper Aquifer	Blending Project (Skyline Well)	GSWC	NA	NA	NA	NA	Completed
	Water Meters	S&T	NA	NA	NA	NA	Completed
	LOCSO Wells (Upper Aquifer)	LOCSO		Not Funded	TBD	BMP: \$2.7 mil	Project not initiated
	GSWC Wells (Upper Aquifer)	GSWC		Not Funded	TBD	BMP: \$3.2 mil	Project not initiated
	Community Nitrate Removal Facility	LOCSO/GSWC/S&T	TBD	Partial, GSWC portion funded	TBD	GSWC: \$1.23 mil	GSWC's Program A Blending Project might be capable of expanding to be the first phase of the Program B Community Nitrate Removal Facility.
Program C - Shift production within the Lower Aquifer from the Western Area to the Central Area of the Basin	Expansion Well No. 1 (Los Olivos)	GSWC	NA	NA	NA	NA	Completed
	Expansion Well No. 2 (Lower Aquifer)	LOCSO		LOCSO	TBD	BMP: \$2.5 mil	The well construction is complete and the water transmission main construction activities are currently underway. Completion of all phases of the project is estimated to occur in June 2024.
	Expansion Well 3 (Lower Aquifer) and LOVR Water Main Upgrade	GSWC/LOCSO		Cooperative Funding	TBD	BMP: \$1.6 mil	
	LOVR Water Main Upgrade	GSWC		May be deferred	TBD	BMP: \$1.53 mil	Project may not be required, depending on the pumping capacity of the drilled Program C wells. It may be deferred to Program D.
	S&T/GSWC Interconnection	S&T/ GSWC		Pending	TBD	BMP: \$30,000	Currently on hold pending further evaluation of the project.
Program D - Shift production within the Lower Aquifer from the Western Area to the Eastern Area of the Basin							Currently being considered for deferment through Adaptive Management. BMC to review on an annual or semi-annual basis.
	Program M – Groundwater Monitoring Plan	All Parties	NA	NA	NA	NA	Completed

Program Name	Project Name	Parties Involved	BMC Budgeted Amount	Funding Status	Anticipated Planning/Pre-Construction Cost	Anticipated Capital Cost	Status/Notes
Program U - Urban Water Reinvestment Program	Creek Discharge Program	All Parties				TBD	These activities are currently on hold.
	8 th and El Moro Urban Storm Water Recovery Project	All Parties				TBD	These activities are currently on hold.

TO: Los Osos Basin Management Committee

FROM: Dan Heimerl, Executive Director

DATE: December 6, 2023

SUBJECT: Item 9a – Calendar Year 2024 Sustainable Yield Estimate

Recommendations

Receive information on the Sustainable Yield calculations and approve the proposed Sustainable Yield estimate of 2,380 AFY for Calendar Year 2024; or provide alternate direction to staff.

Discussion

Background

In the Stipulated Judgement (SJ) and the Basin Plan, the BMC Parties agreed on a framework and methodology for estimating and updating the Sustainable Yield for the Los Osos Basin (Basin), referred to as Sustainable Yield_x, where “X” represents the Sustainable Yield estimate for that year. The SJ and Basin Plan require the BMC to annually evaluate, confirm and set the Sustainable Yield_x based on the best available data and evidence.

On October 27th, 2021 the BMC established an updated Sustainable Yield Estimate of 2,380 AFY for the Los Osos Basin. This estimate was based on updated criteria for calculating the Sustainable Yield Estimate, which is outlined below:

1. **Seawater Intrusion Threshold** - Utilizing the Adaptive Method for limiting the extent of seawater intrusion does not allow seawater to intrude farther inland during the calculation of the Sustainable Yield for the Basin. This approach establishes that further degradation of the Basin is an undesirable affect and basin pumping should be managed to, at a minimum, not further degrade the basin and with the goal (Basin Yield Metric 80 pumping target) of reversing seawater intrusion and pushing the seawater intrusion front back toward the Bay.
2. **Broderson Mound** - Sustainable Yield calculations should be performed based on the actual estimates of the development of the Broderson Mound. Based on the best available information that we have, it is estimated that the Broderson Mound is approximately 50% developed and incorporating this assumption into the Sustainable Yield calculation helps identify the amount of pumping that can be sustainably achieved under current conditions.
3. **Available Infrastructure** – The calculation of Sustainable Yield Estimate should account for currently available infrastructure and infrastructure that is anticipated to be available for the majority of the upcoming year.
4. **Precipitation** – BMC Staff reviewed the rainfall assumptions in the Sustainable Yield calculation and recommends utilizing 17.3 inches per year as the long-term average rainfall for the basin.

This recommendation is based on an evaluation of two different datasets using the latest available rainfall data for the basin. Additional information on the rainfall evaluation is provided in Item 8b of the 9/29/2021 BMC Agenda Packet.

Additional information on the methodology and assumptions utilized to calculate the 2,380 AFY Sustainable Yield Estimate can be found in Agenda Item 9a of the October 27th, 2021 BMC Meeting Agenda Packet (attached).

Calendar Year 2024 Sustainable Yield Estimate

Prior to the beginning of Calendar Year 2024, the BMC is tasked with establishing a Sustainable Yield estimate for 2024. For Calendar Year 2024 BMC Staff is recommending that the BMC retain the current Sustainable Yield estimate of 2,380 AFY for CY 2024 for the following reasons: 1) No new infrastructure, not already considered in the 2,380 AFY Sustainable Yield Estimate, has been constructed; 2) estimates for the development of the Broderson Mound and long-term average rainfall were updated and incorporated into the 2,380 AFY Sustainable Yield Estimate and are not anticipated to change significantly on a year-over-year basis; 3) no significant hydrogeologic investigations have been conducted that would warrant an update to the steady-state groundwater model utilized to develop the Sustainable Yield Estimate.

Attachment

Agenda Item 9a – October 27th, 2021 BMC Meeting

TO: Los Osos Basin Management Committee

FROM: Dan Heimel, Executive Director

DATE: October 27, 2021

SUBJECT: Item 8a – Sustainable Yield_x Methodology Review and Recommendations

Recommendations

BMC Staff recommends that the BMC: 1) receive information on the updated Sustainable Yield_x calculations and approve the proposed Sustainable Yield estimate of 2,380 AFY for Calendar Year 2022 based on the findings provided below; or 2) provide alternate direction to staff.

BMC Staff proposes establishing the Sustainable Yield estimate for Calendar Year 2022 (Sustainable Yield₂₀₂₂) as 2,380 AFY, based on the following justification:

1. Seawater Intrusion Threshold - Utilizing the Adaptive Method for limiting the extent of seawater intrusion does not allow seawater to intrude farther inland during the calculation of the Sustainable Yield for the Basin. This approach establishes that further degradation of the Basin is an undesirable affect and basin pumping should be managed to, at a minimum, not further degrade the basin and with the goal (Basin Yield Metric 80 pumping target) of reversing seawater intrusion and pushing the seawater intrusion front back toward the Bay.
2. Broderson Mound - Sustainable Yield calculations for 2022 should be performed using the assumption that the Broderson Mound is only 50% developed. Based on the best available information that we have, it is estimated that the Broderson Mound is approximately 50% developed and incorporating this assumption into the Sustainable Yield calculation helps identify the amount of pumping that can be sustainably achieved under anticipated conditions in 2022.
3. Available Infrastructure – The calculation of Sustainable Yield₂₀₂₂ accounts for currently available infrastructure and infrastructure that is anticipated to be available for the majority of 2022.
4. Precipitation – BMC Staff reviewed the rainfall assumptions in the Sustainable Yield calculation and recommends utilizing 17.3 inches per year as the long-term average rainfall for the basin. This recommendation is based on an evaluation of two different datasets using the latest available rainfall data for the basin. Additional information on the rainfall evaluation is provided in Item 8b of the 9/29/2021 BMC Agenda Packet.

Discussion

Background

In the Stipulated Judgement (SJ) and the Basin Plan, the BMC Parties agreed on a framework and methodology for estimating and updating the Sustainable Yield for the Los Osos Basin (Basin), referred

to as Sustainable Yield_x, where “X” represents the Sustainable Yield estimate for that year. The SJ and Basin Plan require the BMC to annually evaluate, confirm and set the Sustainable Yield_x based on the best available data and evidence. At the July 21, 2021 BMC Meeting, the BMC directed staff to review the Sustainable Yield estimate and to bring back recommendations for how to calculate the Sustainable Yield_x. At the September 29th BMC Meeting, the BMC directed staff to calculate Sustainable Yield₂₀₂₂ estimates using the Historic Method threshold for seawater intrusion—which allows seawater to intrude farther inland before stabilizing—and proposed Adaptive Method threshold for seawater intrusion—which limits seawater intrusion in the Sustainable Yield calculations to current extents—and provide them to the BMC for consideration. Additional information on the seawater intrusion threshold criteria and other key assumptions in the Sustainable Yield calculations are provided in Item 8b of the 9/29/2021 BMC Agenda Packet.

Based on the direction provide by the BMC, BMC Staff developed updated Sustainable Yield calculations, which are described below. During the development of the updated Sustainable Yield calculations, BMC Staff identified a methodology that allows for a more accurate representation of the development of the Broderson Mound, a critical component of the Basin Plan strategy for stopping and pushing back seawater intrusion in the basin. To help illustrate the impact that the Broderson Mound has on the Sustainable Yield estimate, multiple scenarios were run that represent a Broderson Mound that is 50% (current estimated level of development), 75% and 100% developed. The table below provides a summary of the Sustainable Yield scenarios and the Sustainable Yield estimates and Basin Yield Metric values associated with each scenario.

Table 1. Sustainable Yield Scenario Summary

Scenario	Seawater Intrusion Front ¹	Rainfall ²	Broderson Mound	Available Infrastructure ³	Sustainable Yield (AFY)	Basin Yield Metric ⁴
1	Historic Method	17.3 inches per year	100% Developed	2022 Infrastructure	2,650	0.76
2	Adaptive Method	17.3 inches per year	100% Developed	2022 Infrastructure	2,510	0.80
3	Adaptive Method	17.3 inches per year	75% Developed	2022 Infrastructure	2,450	0.82
4	Adaptive Method	17.3 inches per year	50% Developed	2022 Infrastructure	2,380	0.84

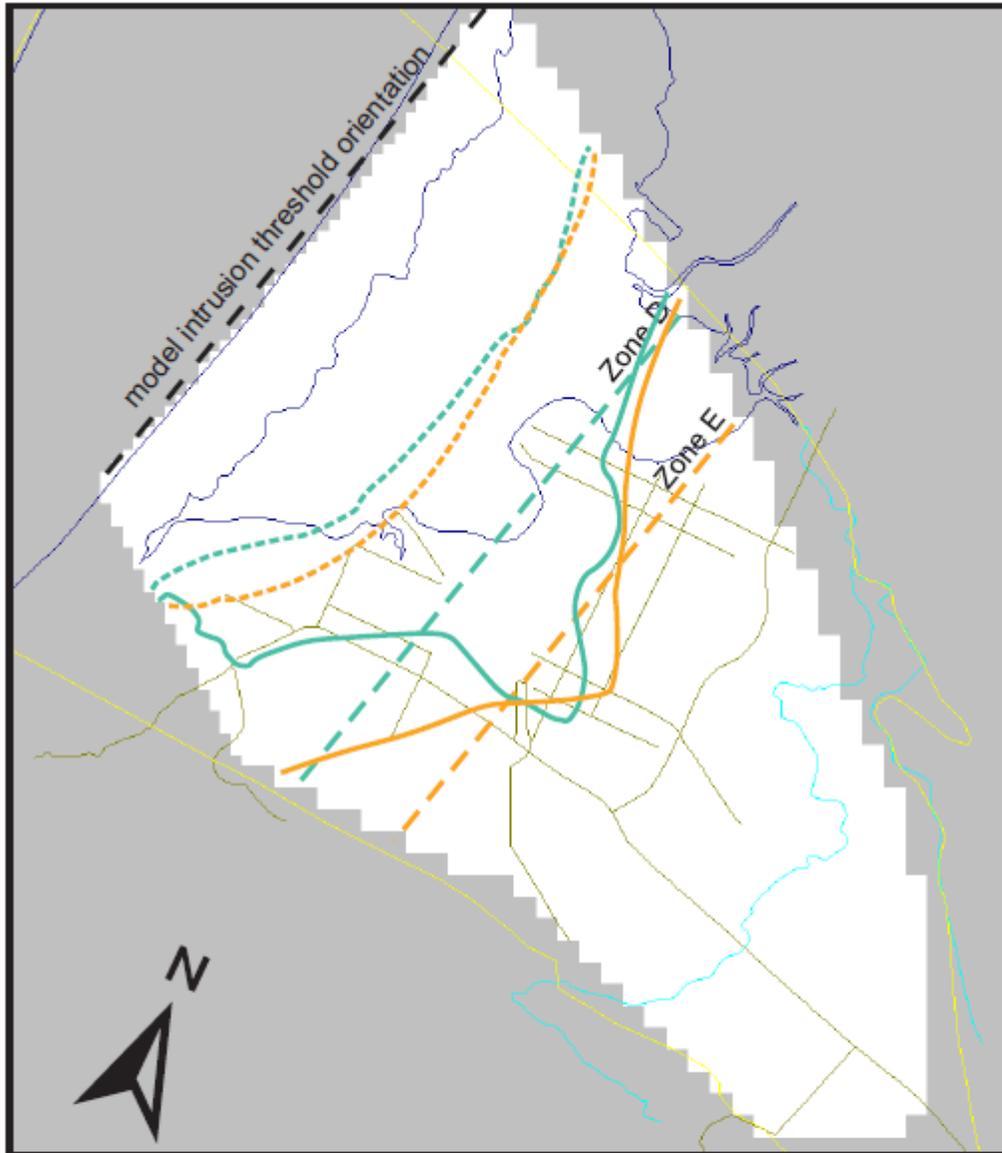
¹Historic Method allows seawater to intrude farther inland before stabilizing. Adaptive Method restricts the intrusion of seawater in the basin to current extents for purposes of calculating the Sustainable Yield

²Rainfall assumption based an updated evaluation of rainfall for the Los Osos Basin, additional information is provided in Item 8b of the 9/29/2021 BMC Agenda Packet.

³Available infrastructure represents the infrastructure anticipated to be available in Calendar Year 2022 (e.g. the Los Osos Community Services District’s 8th Street Upper Well is assumed to be available in 2022 as it is anticipated to be online in Q1 2022).

⁴Basin Yield Metric calculated using basin production estimate of 2,010 AFY (2020 Annual Monitoring Report)

Additionally provided are figures that illustrate the modeled location of the seawater intrusion front under the various scenarios. Figure 1 illustrates the estimated location of the seawater intrusion front, using the Historic Method threshold for seawater intrusion (i.e. allowing seawater to intrude farther inland than current extents) for Zones D and E, as well as the anticipated location of the seawater intrusion front if pumping within the Basin was limited to 80% of the Sustainable Yield estimate (i.e. BYM 80). It should be noted that when pumping is limited to 80% of the Sustainable Yield the model predicts the seawater intrusion front will be pushed back toward the Bay.



Scale 1" = 4000 feet

- Zone D 250 mg/L isochlor
- Intrusion Front Threshold
 - BYM100 (2,650 AFY)
 - ... BYM80 (2,120 AFY)
- Zone E 250 mg/L isochlor
- Intrusion Front Threshold
 - BYM100 (2,650 AFY)
 - ... BYM80 (2,120 AFY)

Figure 1

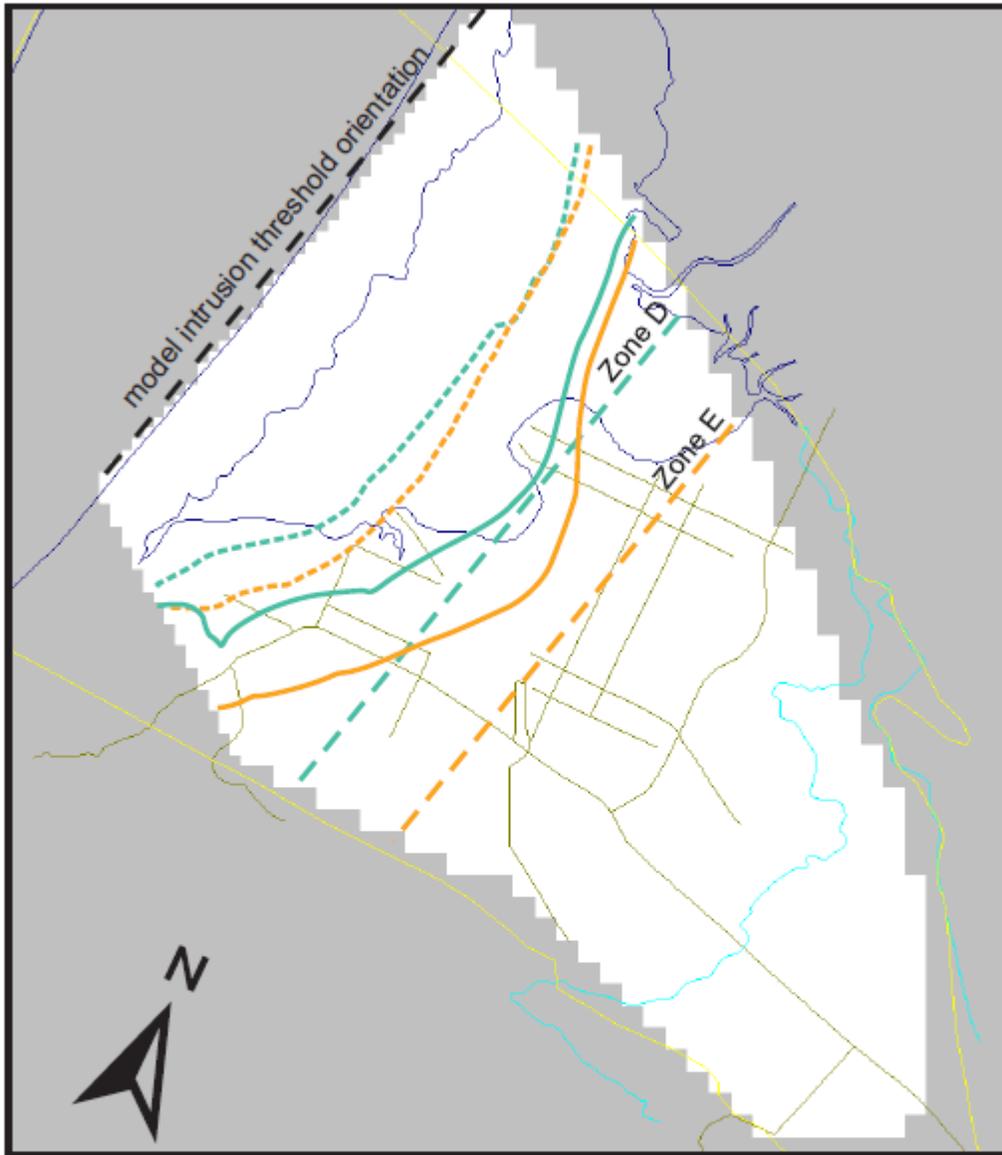
Seawater Intrusion
2022 Sustainable Yield
Historical Method
Broderson 100%

Cleath-Harris Geologists

Figure 1. Historic Method Sustainable Yield Calculation (100% Broderson Mound development)

Figure 2 illustrates the estimated location of the seawater intrusion front, using the Adaptive Method threshold for seawater intrusion (i.e. limiting intrusion to current extents) for Zones D and E, as well as

the anticipate location of the seawater intrusion front if pumping within the Basin was limited to 80% of the Sustainable Yield estimate (i.e. BYM 80).



Scale 1" = 4000 feet

- Zone D 250 mg/L isochlor
- Intrusion Front Threshold
 - BYM100 (2,380 AFY)
 - ... BYM80 (1,904 AFY)
- Zone E 250 mg/L isochlor
- Intrusion Front Threshold
 - BYM100 (2,380 AFY)
 - ... BYM80 (1,904 AFY)

Figure 2

Seawater Intrusion
2022 Sustainable Yield
Adaptive Method
Broderson 50%

Cleath-Harris Geologists

Figure 2. Adaptive Method Sustainable Yield Calculation (50% Broderson Mound development)

Based on review of these results and extensive discussion with BMC Party Staff, BMC Staff recommends that the BMC establish the Sustainable Yield for the year 2022 (Sustainable Yield₂₀₂₂) as 2,380 AFY (Scenario 4), based on the following reasons:

1. Seawater Intrusion Threshold - Utilizing the Adaptive Method for limiting the extent of seawater intrusion does not allow seawater to intrude further inland during the calculation of the Sustainable Yield for the Basin. This approach establishes that further degradation of the Basin is an undesirable affect and basin pumping should be managed to at a minimum not further degrade the basin and with the goal (Basin Yield Metric 80 pumping target) of reversing seawater intrusion and pushing the seawater intrusion front back toward the Bay.
2. Broderson Mound - Sustainable Yield calculations for 2022 should be performed using the assumption that the Broderson Mound is only 50% developed. Based on the best available information that we have, it is estimated that the Broderson Mound is approximately 50% developed and incorporating this assumption into the Sustainable Yield calculation helps identify the amount of pumping that can be sustainably achieved under anticipated conditions in 2022.
3. Available Infrastructure – The calculation of Sustainable Yield₂₀₂₂ accounts for currently available infrastructure and infrastructure that is anticipated to be available for the majority of 2022.
4. Precipitation – BMC Staff reviewed the rainfall assumptions in the Sustainable Yield calculation and recommends utilizing 17.3 inches per year as the long-term average rainfall for the basin. This recommendation is based on an evaluation of two different datasets using the latest available rainfall data for the basin. Additional information on the rainfall evaluation is provided in Item 8b of the 9/29/2021 BMC Agenda Packet.

Proposed Sustainable Yield Update Process

To meet the requirements of the SJ to determine the Sustainable Yield_x on an annual basis the following process is proposed for updating the Sustainable Yield.

1. Beginning in July of a given year, BMC Staff will evaluate the Sustainable Yield_x for the upcoming year based on changes in Basin Plan infrastructure, groundwater inflow or outflow parameters, the understanding of hydrogeologic or geologic features in the basin or other factors.
2. BMC Staff will then provide a recommendation to the BMC on Sustainable Yield_x for the upcoming year and the reasoning for that recommendation.
 - a. If the recommendation is to modify the Sustainable Yield_x, then recommendations for which parameters to modify from the previous Sustainable Yield_x will be provided.
 - i. If the BMC approves the recommended modifications to the Sustainable Yield_x, BMC Staff will perform the updated Sustainable Yield_x calculations and bring the results back to the BMC for consideration and approval.
 - ii. If the updated Sustainable Yield_x results are unanimously approved by the BMC then the updated Sustainable Yield_x will be documented in the Annual Report for that Year and used for calculation of the Basin Yield Metric, Basin Development Metric and Purveyor Pool for the upcoming year.

- b. If the recommendation is to not modify the Sustainable Yield_x and the BMC agrees, then the Sustainable Yield_x will remain the same as the previously approved Sustainable Yield_x by the BMC.
- c. If the BMC cannot come to unanimous agreement of whether or not to modify the Sustainable Yield_x then the Sustainable Yield_x will remain the same as the previously approved Sustainable Yield_x and the BMC will provide direction to Staff on how to proceed.

An example timeline for the envisioned process of updating the Sustainable Yield_x and incorporating it into the BMC monitoring, management and Annual Monitoring Report processes is outlined below:

1. July 2021 BMC Staff begins evaluation of Sustainable Yield₂₀₂₂
2. BMC Staff presents recommendations for Sustainable Yield₂₀₂₂
3. Before January 2022 BMC approves Sustainable Yield₂₀₂₂
4. Sustainable Yield₂₀₂₂ used to establish Purveyor Pool for 2022
5. Sustainable Yield₂₀₂₂ incorporated into Basin Yield and Basin Development Metric calculations for 2022 Annual Monitoring Report (AMR)
6. Sustainable Yield₂₀₂₂ described in 2021 AMR

It is additionally recommended that, if the BMC agrees upon a Sustainable Yield₂₀₂₂ estimate, that a Sustainable Yield₂₀₂₁ estimate be calculated utilizing the same methodology and key assumptions for use in the 2021 AMR Basin Yield Metric and Basin Development Metric calculations.

TO: Los Osos Basin Management Committee

FROM: Dan Heimerl, Executive Director

DATE: December 6, 2023

SUBJECT: Item 9b – Los Osos Creek Stream Gage Rating Curve

Recommendations

Receive the Draft Los Osos Creek Rating Curve Development and Stage Data Processing Technical Memorandum.

Discussion

In its Calendar Year 2023 Budget, the BMC approved development of an updated rating curve for the Los Osos Creek Stream Gage to better quantify the amount of water flowing in Los Osos Creek. A rating curve, also known as a stage-discharge relation, is a correlation between the stage of a stream at a gage location and the associated flow in the channel. Previously, there was limited flow and corresponding stage data available to develop estimates of flow in the creek. However, with the above average rainfall received in 2023, Cleath-Harris Geologists (CHG) was able to collect numerous flow measurements over a range of flow rates and develop an updated rating curve for Los Osos Creek. The methodology for data collection and resulting Rating Curve and historic stage data processing for Los Osos Creek is described in the attached Draft Los Osos Creek Rating Curve Development and Stage Data Processing Technical Memorandum. The updated Rating Curve will be an essential tool for allowing the BMC to better understand how much water is flowing in Los Osos Creek and estimate the amount of recharge that it is providing the Los Osos Groundwater Basin. Additionally, the Rating Curve will be utilized to develop the Los Osos Creek streamflow inputs for the Transient Groundwater Model, currently under development.

Attachments

Draft Los Osos Creek Rating Curve Development and Stage Data Processing Technical Memorandum



Technical Memorandum

Date: October 3, 2023

From: Spencer Harris, HG 633

To: Dan Heimel, P.E.

SUBJECT: Los Osos Creek Rating Curve Development and Stage Data Processing

Cleath-Harris Geologists (CHG) has completed the development of a rating curve for the Los Osos Creek stream gage at Los Osos Valley Road (Station 751; Figure 1). The purpose of the rating curve is to allow historical stage data (in feet), which is typically available at 15-minute intervals, to be converted into daily flow (in cubic feet per second). The daily flow data can then be compiled into seasonal or annual flow volumes (in acre-feet) for use in calibrating a transient groundwater flow model and for basin water balance applications. This memorandum presents the results of rating curve development and of the stage data processing.

Background

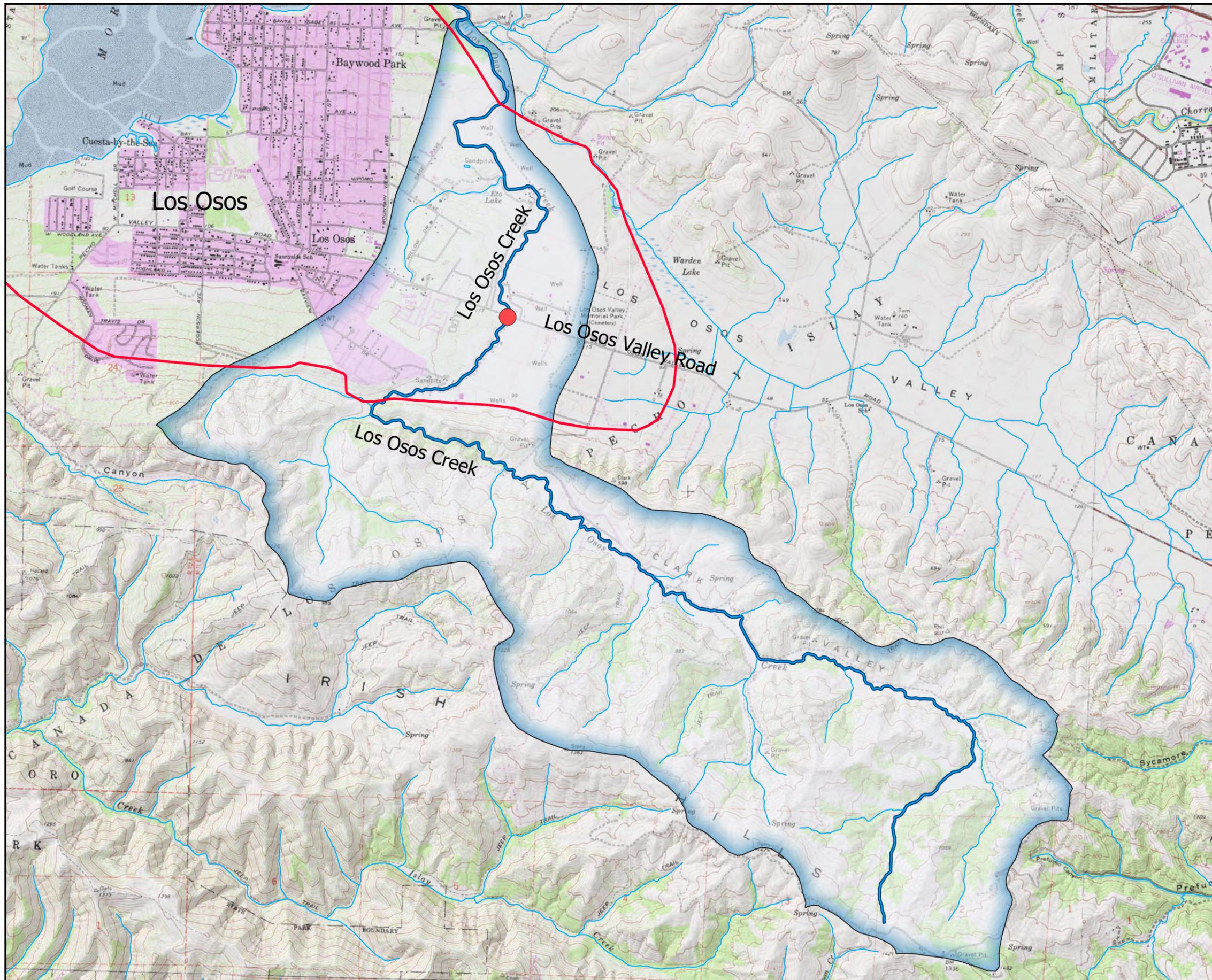
A rating curve, also known as a stage-discharge relation, is a correlation between the stage of a stream at a gage location and the associated flow in the channel. Depending on the nature of the channel and physical controls on flow at the gage site, a rating curve may be approximated by a mathematical equation that covers the full range of flow, or it may involve curve segments, each with its own equation. In addition, a rating curve may be relatively permanent if the channel and other physical controls on flow are stable, or it may be subject to shift and require periodic updates.

A rating curve for a stream gage is developed by concurrently measuring flow and stage at the gage location over the expected range of stages for the gage. Stream stage (and flow) typically peaks during, or following, a storm event, depending on factors such as the intensity and distribution of rainfall over the watershed, the antecedent soil moisture content, and the location of the stage measurements.

Methodology

The most practical method for measuring streamflow in natural channels is the velocity-area method, which has the following computation¹:

¹ Turnipseed, D.P. and Sauer, V.B., 2010. Discharge Measurements at Gaging Stations, USGS Techniques and Methods 3-A8.



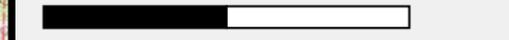
Explanation

- County Gage Station 751
- Los Osos Creek
- Streams and Creeks
- Los Osos Basin Boundary
- Los Osos Creek Watershed Boundary

Figure 1
Los Osos Creek Watershed and
Stream Gage Location
Rating Curve TM
Los Osos BMC

Cleath-Harris Geologists

0 3,000 6,000 ft



Basemap: USGS Topographic Maps



$$Q = \sum_{i=1}^n (a_i v_i) \quad (1)$$

where:

Q = total discharge (reported in cubic feet per second).

a_i = cross-sectional area of flow for the i th segment of the n segments into which the cross section is divided (square feet), and

v_i = the corresponding mean velocity of flow normal to the i th segment (feet per second).

The conceptual model for the velocity area-method is shown below. A stream is divided into segments, each with an individual area and velocity, which are then multiplied and summed using the above equation.

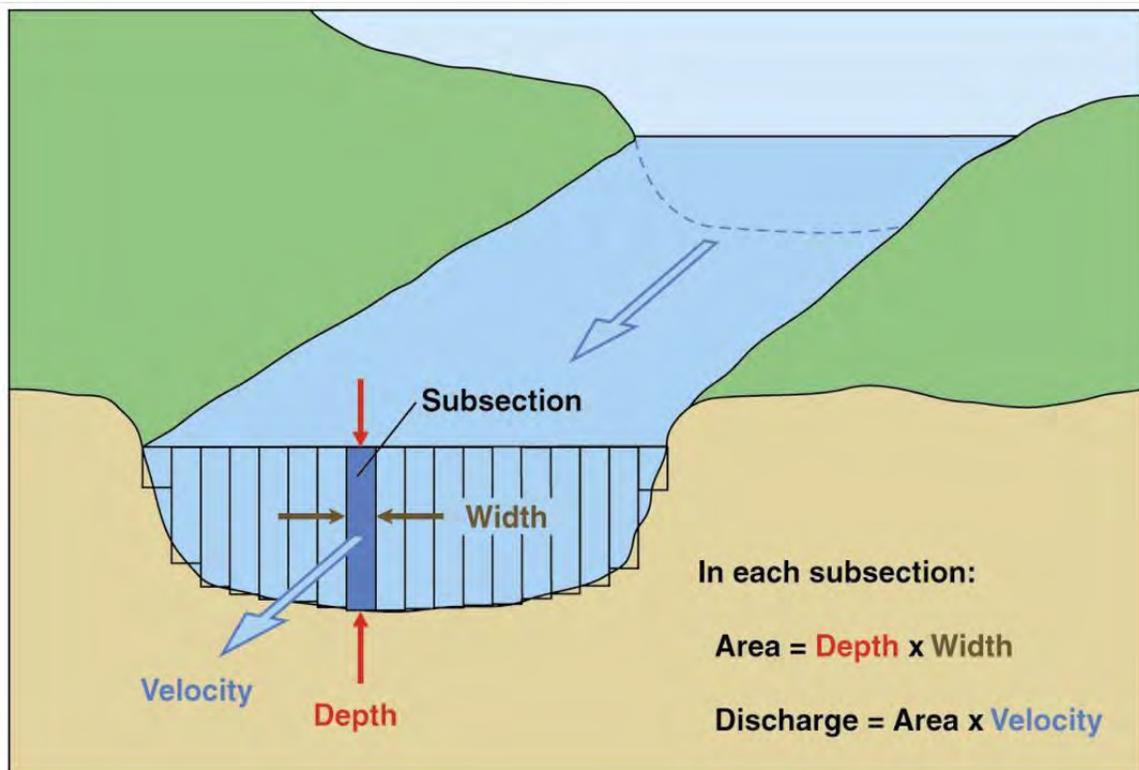


Diagram of Channel cross-section with segments for discharge computation (USGS)

In natural channels, stream gages are used to record stage (feet), which is the height of water in the stream above an arbitrary point, usually at or below the stream bed. The stage is then converted to streamflow through the use of a rating curve, or stage-discharge relation. A rating curve incorporates information collected that is specific to each site, including the cross-sectional area of the channel and the average velocity for a given flow stage. These rating curves are developed using depth profiles and average flow velocity measurements during storm-runoff events. Rating



curves may need to be revised periodically as they can shift due to changes in channel geometry. Measuring average flow velocity across a channel at different stream stages is the most challenging part of developing a rating curve.

Equipment

Flow measurements were obtained by CHG staff equipped with an OTT MF-PRO solid-state electromagnetic flow meter and automatic depth sensor. The equipment measures both water depth and velocity and includes a data logger that computes total discharge based on USGS methods and stores the measurements electronically. Stage measurements were obtained from the County on-line ALERT system, which posts stream stage measurements collected at 15-minute intervals from an in-stream bubbler and recorder system at the gage site (Station 751).

Data Collection

Stream discharge measurements were performed by CHG staff on January 6, February 24, March 10, and May 8, 2023. Discharge measurements were taken along a transect situated upstream of the bridge or from the bridge deck during high flows. The procedure involved dividing the stream into segments and measuring flow at two depths per segment in accordance with the flow meter manufacturer guidelines², which are based on USGS standards. Stage data was obtained from the ALERT system, as previously mentioned.

In addition to the recent flow and stage data, discharge measurements and corresponding stage data documented by the County of San Luis Obispo between 1976 and 2001 were compiled, along with data from flow surveys conducted by CHG at the gage site in 2009 and 2010.

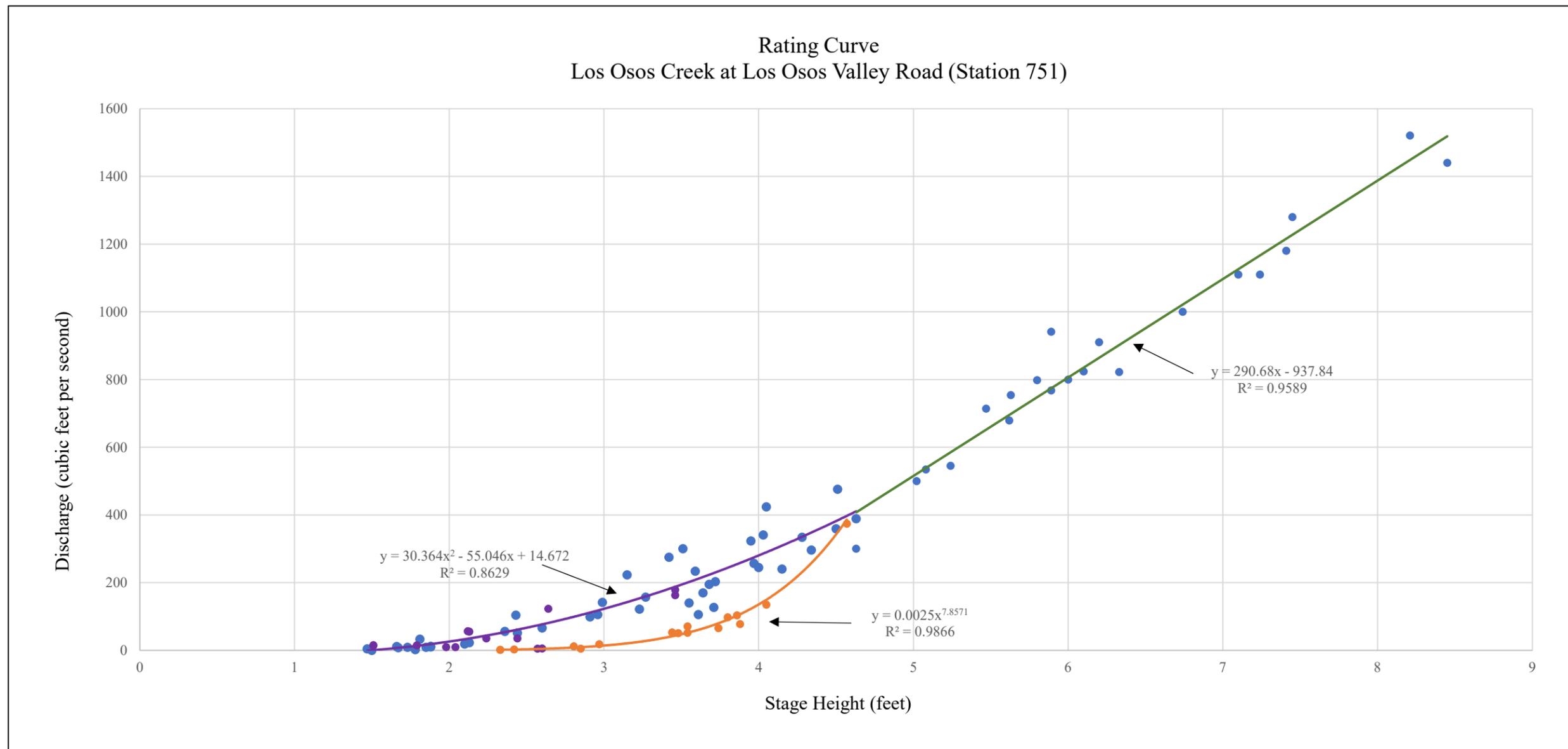
Rating Curve Equations

The Los Osos Creek rating curve is shown in Figure 2, and characterizes both historical and current stage-discharge relation. Equations for three separate curves were derived for the rating curve, two curves based on historical data and one curve for current data.

Historical Data (1976-2010)

To achieve an optimal correlation between historical data points, the rating curve was modeled using two regression equations. One equation (2) takes the form of a polynomial regression, encompassing stage values ranging from 1.35 feet (estimated historical channel bottom reference) to 4.7 feet stage height.

² OTT HydroMet. 2020. MF Pro Operating Instructions, Edition 8, DOC026.53.80211, July 2020.



- 1976-2001 Discharge Data
- 2009-2010 Discharge Data
- 2023 Discharge Data
- Rating Curve (years 1976-2020) up to 4.7' stage
- Rating Curve (all years) above 4.7' stage
- Rating Curve (years 2021-2023) up to 4.7' stage

Figure 2
Rating Curve
Los Osos Creek (Station 751)
Rating Curve TM
Los Osos BMC

Cleath-Harris Geologists



$$y = 30.364x^2 - 55.046x + 14.672 \quad (2)$$

Where:

x = stage height (feet)

y = stream flow (cubic feet per second)

The other equation (3) is represented by a linear regression that applies to stage readings above 4.7 feet.

$$y = 290.68x - 937.84 \quad (3)$$

Current Data (2023)

Data collected during the 2023 water year indicates a shift from the historical rating curve for flows below 200 cubic feet per second, merging with the historical curve as flows approach 400 cubic feet per second. Flows measured in 2023 can be fit into an exponential regression model characterized by equation (4) below, which replaces equation (2) for stage values ranging from 1.9 feet (current channel bottom reference) to 4.7 feet stage height.

$$y = 0.0025x^{7.8571} \quad (4)$$

Stage Data Processing (2008-2023)

The historical stream flow data for Los Osos Creek is available from 1976 through 2002³ and does not require processing. Beginning in the 2007-08 water year, and continuing through 2023, only the stage data collected by San Luis Obispo County is available⁴. This stage data was processed by applying the above rating curve equations to generate flow records.

Equation (3) was applied to stage data above 4.7 feet for all years. For stage data up to 4.7 feet, CHG determined through empirical testing that Equation (2) should apply to stage data from 2008 through 2020, with Equation (4) applying to data beginning in water year 2021. The application of equation (4) to stage data beginning in water year 2021 also coincided with stream channel work performed by the County. Results of stage data processing are summarized in Table 1 and Table 2. Available flow records for years with stage data processed by CHG are included as an appendix.

3 San Luis Obispo County Public Work Department, 2005. Water years 2001-02 and 2002-03 Hydrologic Report, Final Report dated May 16, 2005.

4 Public Works San Luis Obispo, 2023. Stream Stage data for Station 751, <https://wr.slocountywater.org/>



**Table 1. Estimated Annual Stream Flow
Los Osos Creek at Los Osos Valley Road (Station 751)**

<u>Water Year</u>	<u>Stream Flow (acre-feet)</u>		<u>Water Year</u>	<u>Stream Flow (acre-feet)</u>	
1976	110	1	2000	2,540	
1977	0		2001	2,470	
1978	8,810		2002	0	
1979	1,240		2003		13
1980	3,890	2	2004		14
1981	1,630		2005		15
1982	2,390	3	2006		16
1983		4	2007		17
1984	2,110		2008	235	18
1985	1,920		2009	0	19
1986	11,850	5	2010	2,013	20
1987		6	2011	5,824	21
1988		7	2012	85	
1989		8	2013	49	
1990		9	2014	0	
1991		10	2015	0	22
1992		11	2016	29	23
1993		12	2017	7,786	24
1994	497		2018	288	
1995	19,270		2019	1,146	
1996	1,740		2020	128	25
1997	3,020		2021	2,881	26
1998	7,340		2022	2,250	27
1999	505		2023	15,426	28,29

¹ gage put into operation in February

² missing data for one day in February

³ missing data for various days in February, March and April

⁴ only visual observations were available for this year

⁵ missing data for the end of February and beginning of March

⁶⁻¹⁷ no data available for these years

¹⁸⁻²⁸ missing data for various days (reference tables attached)

²⁹ stage adjusted +0.8 March 10-29 per field observation and County notes



**Table 2. Stream Flow Summary
Los Osos Creek at Los Osos Valley Road (Station 751)**

<u>From Estimated Annual Stream Flow Records (Table 1)</u>		
Average Flow:	3,128	AFY
Median Flow:	1,740	AFY
Minimum Flow (multiple years):	0	AFY
Maximum Flow (1995):	19,270	AFY

The annual flows in Table 1 between 1976 and 2002 are from the 2005 County Hydrologic Study. The flows reported beginning in 2008 are from stage data processed using the rating curve equations. Stream flow summary information in Table 2 is for the entire period of record (1976-2023).

Rainfall Data Correlation

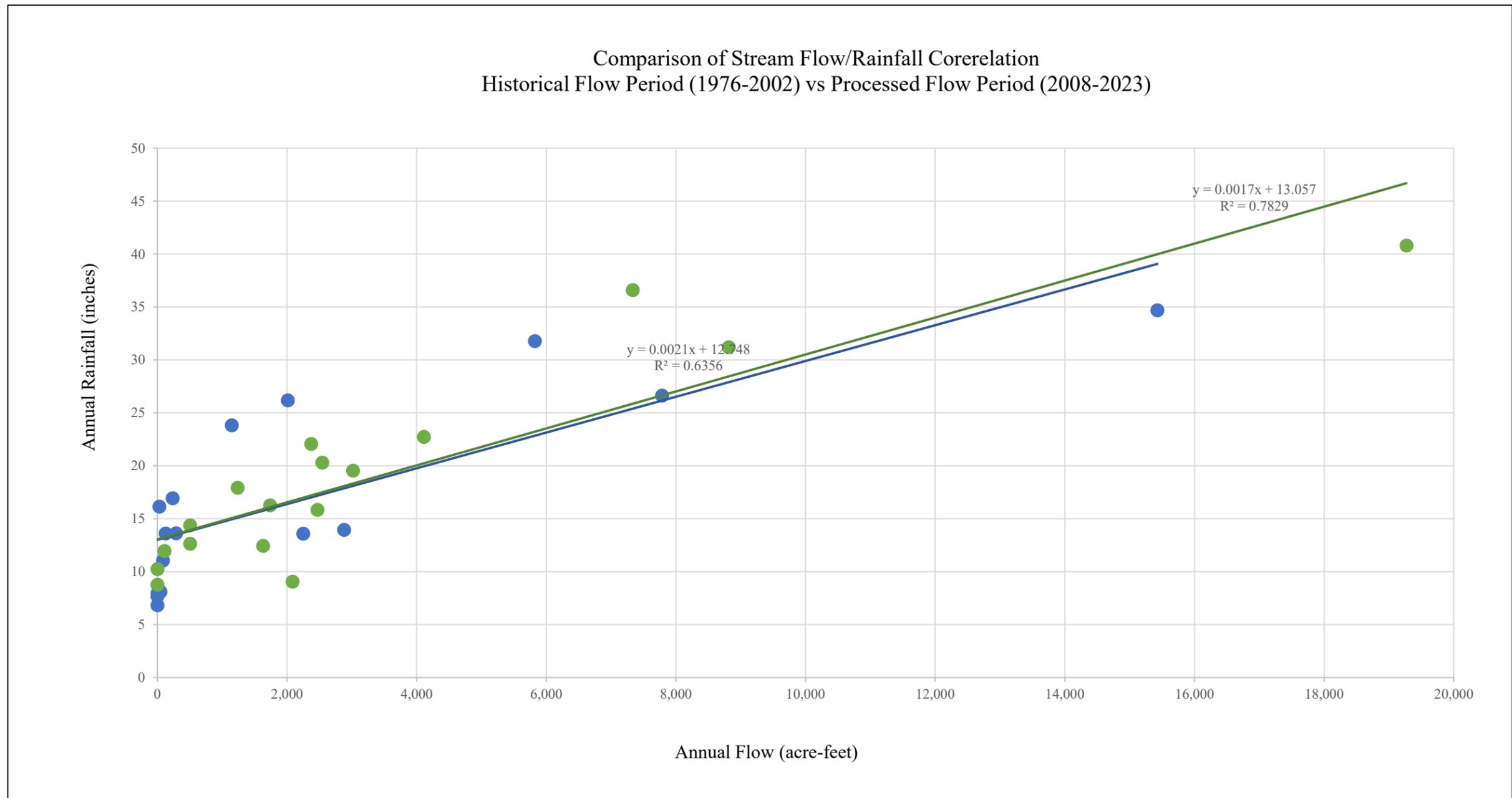
As a general check on the validity of the rating curve equations and processed stage data, correlations between rainfall and stream flow were compared for two periods, the historical flow data period (1976-2002) and the processed flow data period (2008-2023). Results of the comparison are shown in Figure 3.

The slope and location of the linear regression correlations between rainfall and stream flow are very similar between the historical flow period and the processed flow period. This would be expected for flow data collected at the same location within the same watershed. The individual scatter between years is normal, as monthly rainfall distributions vary, but the long-term correlation over a period of years depends primarily on the soils, ground cover, and slopes of the upper watershed, which wouldn't have changed significantly. Therefore, the close match between the trendlines supports the validity of the rating curve equations, as applied to the stage data between 2008 and 2023.

Data scatter relative to the rating curve equations is observed in Figure 2, which is typical for stage-discharge plots. The flow estimates obtained with rating curves are less accurate for individual days, and become more accurate when compiled into seasonal totals.

Rating Curve Updates

Rating curve Equation (3) for high flows is likely to remain valid as long as the stage reference elevation is not changed and the bridge over Los Osos Creek is not altered. Rating equation (4) for low flows, however, can change significantly with changes to the creek bed. A periodical check (every 2-3 years) to update the low flow rating curve is recommended.



- Processed Flow Period (2008-2023)
- Historical Flow Period (1976-2002)

Figure 3
Stream Flow/Rainfall Correlation
Los Osos Creek (Station 751)
Rating Curve TM
Los Osos BMC

Cleath-Harris Geologists

DRAFT



APPENDIX

DRAFT

COUNTY OF SAN LUIS OBISPO STAGE DATA PROCESSED BY CHG

LOS OSOS CREEK IN LOS OSOS, STATION # 751

DRAINAGE AREA 7.6 SQ MI

ESTIMATED DISCHARGE IN CUBIC FEET PER SECOND, WATER YEAR OCT 2008 TO SEPT 2009

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	0	0	0	0	M	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	M	0	0	0	0	0	0	0
8	0	0	0	0	M	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	M	0	0	0	0	0	0
29	0	0	0	0	-----	M	0	0	0	0	0	0
30	0	0	0	0	-----	0	0	0	0	0	0	0
31	0	-----	0	0	-----	0	-----	0	-----	0	0	-----
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0
MEAN	0	0	0	0	0	0	0	0	0	0	0	0
MAX	0	0	0	0	0	0	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	0	0	0	0	0	0

WATER YEAR: 2009

TOTAL* =

0 CFS
0 AC-FT

MEAN =

0.00 CFS

MAX =

0 CFS

MIN =

0 CFS

*INCOMPLETE DATASET, MISSING DATA

DRAFT

COUNTY OF SAN LUIS OBISPO STAGE DATA PROCESSED BY CHG

LOS OSOS CREEK IN LOS OSOS, STATION # 751

DRAINAGE AREA 7.6 SQ MI

ESTIMATED DISCHARGE IN CUBIC FEET PER SECOND, WATER YEAR OCT 2009 TO SEPT 2010

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	0	0	0	0	3	56	M	M	M	M	0	0
2	0	0	0	0	3	417	M	M	M	M	0	0
3	0	0	0	0	3	M	M	M	M	M	0	0
4	0	0	0	0	3	M	M	M	M	M	0	0
5	0	0	0	0	9	M	M	M	M	M	0	0
6	0	0	0	0	3	M	M	M	M	M	0	0
7	0	0	0	0	0	M	M	M	M	M	0	0
8	0	0	0	0	0	M	M	M	M	M	0	0
9	0	0	0	0	1	M	M	M	M	M	0	0
10	0	0	0	0	1	M	M	M	M	M	0	0
11	0	0	0	0	0	M	M	M	M	M	0	0
12	0	0	0	0	0	M	M	M	M	M	0	0
13	0	0	1	0	0	M	M	M	M	M	0	0
14	14	0	0	0	0	M	M	M	M	M	0	0
15	0	0	0	0	0	M	M	M	M	M	0	0
16	0	0	0	0	0	M	M	M	M	M	0	0
17	0	0	0	0	0	M	M	M	M	M	0	0
18	0	0	0	0	0	M	M	M	M	M	0	0
19	0	0	0	15	0	M	M	M	M	M	0	0
20	0	0	0	191	5	M	M	M	M	M	0	0
21	0	0	0	196	7	M	M	M	M	M	0	0
22	0	0	0	5	7	M	M	M	M	0	0	0
23	0	0	0	1	6	M	M	M	M	0	0	0
24	0	0	0	1	4	M	M	M	M	0	0	0
25	0	0	0	1	3	M	M	M	M	0	0	0
26	0	0	0	2	5	M	M	M	M	0	0	0
27	0	0	0	16	12	M	M	M	M	0	0	0
28	0	0	0	9	3	M	M	M	M	0	0	0
29	0	0	0	4	-----	M	M	M	M	0	0	0
30	0	0	0	4	-----	M	M	M	M	0	0	0
31	0	-----	0	3	-----	M	-----	M	-----	0	0	-----
TOTAL	14	0	1	449	78	473	0	0	0	0	0	0
MEAN	0	0	0	14	3	236	0	0	0	0	0	0
MAX	14	0	1	196	12	417	0	0	0	0	0	0
MIN	0	0	0	0	0	56	0	0	0	0	0	0
AC-FT	28	0	2	891	154	938	0	0	0	0	0	0

WATER YEAR: 2010

TOTAL* =

1,015 CFS
2,013 AC-FT

MEAN =

4.53 CFS

MAX =

417 CFS

MIN =

0 CFS

*INCOMPLETE DATASET, MISSING DATA

DRAFT

COUNTY OF SAN LUIS OBISPO STAGE DATA PROCESSED BY CHG

LOS OSOS CREEK IN LOS OSOS, STATION # 751

DRAINAGE AREA 7.6 SQ MI

ESTIMATED DISCHARGE IN CUBIC FEET PER SECOND, WATER YEAR OCT 2013 TO SEPT 2014

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	-----	0	0	0	0	0	0	0
30	0	0	0	0	-----	0	0	0	0	0	0	0
31	0	-----	0	0	-----	0	-----	0	-----	0	0	-----
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0
MEAN	0	0	0	0	0	0	0	0	0	0	0	0
MAX	0	0	0	0	0	0	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	0	0	0	0	0	0

WATER YEAR: 2014

TOTAL = 0 CFS MEAN = 0.00 CFS MAX = 0 CFS
0 AC-FT MIN = 0 CFS

DRAFT

COUNTY OF SAN LUIS OBISPO STAGE DATA PROCESSED BY CHG

LOS OSOS CREEK IN LOS OSOS, STATION # 751

DRAINAGE AREA 7.6 SQ MI

ESTIMATED DISCHARGE IN CUBIC FEET PER SECOND, WATER YEAR OCT 2016 TO SEPT 2017

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	0	0	0	0	42	7	3	2	0	0	0	0
2	0	0	0	0	44	6	3	1	0	0	0	0
3	0	0	0	0	71	6	3	1	0	0	0	0
4	0	0	0	1	52	6	2	1	0	0	0	0
5	0	0	0	27	59	6	2	1	0	0	0	0
6	0	0	0	5	151	5	2	1	0	0	0	0
7	0	0	0	0	161	5	3	1	0	0	0	0
8	0	0	0	17	150	5	4	1	0	0	0	0
9	0	0	0	95	113	4	3	1	0	0	0	0
10	0	0	0	55	123	4	3	1	0	0	0	0
11	0	0	0	80	92	4	2	1	0	0	0	0
12	0	0	0	85	70	4	2	1	0	0	0	0
13	0	0	0	41	56	4	2	1	0	0	0	0
14	0	0	0	32	60	4	2	1	0	0	0	0
15	0	0	0	27	56	4	2	0	0	0	0	0
16	0	0	0	25	56	3	2	0	0	0	0	0
17	0	0	0	23	124	3	2	0	0	0	0	0
18	0	0	0	22	97	3	2	0	0	0	0	0
19	0	0	0	58	90	3	2	0	0	0	0	0
20	0	0	0	108	117	3	2	0	0	0	0	0
21	0	0	0	82	130	4	2	M	0	0	0	0
22	0	0	0	132	79	4	2	0	0	0	0	0
23	0	0	0	96	55	3	2	M	0	0	0	0
24	0	0	0	78	49	3	2	0	0	0	0	0
25	0	0	0	58	45	3	2	0	0	0	0	0
26	0	0	0	52	58	3	2	0	0	0	0	0
27	0	0	0	61	53	3	2	0	0	0	0	0
28	0	0	0	48	19	3	2	0	0	0	0	0
29	0	0	0	47	-----	3	2	0	0	0	0	0
30	0	0	0	48	-----	3	2	0	0	0	0	0
31	0	-----	0	45	-----	3	-----	0	-----	0	0	-----
TOTAL	0	0	0	1,446	2,271	123	68	18	0	0	0	0
MEAN	0	0	0	47	81	4	2	1	0	0	0	0
MAX	0	0	0	132	161	7	4	2	0	0	0	0
MIN	0	0	0	0	19	3	2	0	0	0	0	0
AC-FT	0	0	0	2,868	4,505	244	134	35	0	0	0	0

WATER YEAR: 2017

TOTAL* = 3,926 CFS
7,786 AC-FT

MEAN = 11 CFS

MAX = 161 CFS
MIN = 0 CFS

*INCOMPLETE DATASET, MISSING DATA

DRAFT

COUNTY OF SAN LUIS OBISPO STAGE DATA PROCESSED BY CHG
 LOS OSOS CREEK IN LOS OSOS, STATION # 751
 DRAINAGE AREA 7.6 SQ MI
 ESTIMATED DISCHARGE IN CUBIC FEET PER SECOND, WATER YEAR OCT 2017 TO SEPT 2018

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	130	0	0	0	0	0	0
23	0	0	0	0	0	8	0	0	0	0	0	0
24	0	0	0	0	0	3	0	0	0	0	0	0
25	0	0	0	0	0	1	0	0	0	0	0	0
26	0	0	0	0	0	1	0	0	0	0	0	0
27	0	0	0	0	0	1	0	0	0	0	0	0
28	0	0	0	0	0	1	0	0	0	0	0	0
29	0	0	0	0	-----	1	0	0	0	0	0	0
30	0	0	0	0	-----	0	0	0	0	0	0	0
31	0	-----	0	0	-----	0	-----	0	-----	0	0	-----
TOTAL	0	0	0	0	0	145	0	0	0	0	0	0
MEAN	0	0	0	0	0	5	0	0	0	0	0	0
MAX	0	0	0	0	0	130	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	288	0	0	0	0	0	0

WATER YEAR: 2018

TOTAL = 145 CFS MEAN = 0.40 CFS MAX = 130 CFS
 288 AC-FT MIN = 0 CFS

DRAFT

COUNTY OF SAN LUIS OBISPO STAGE DATA PROCESSED BY CHG

LOS OSOS CREEK IN LOS OSOS, STATION # 751

DRAINAGE AREA 7.6 SQ MI

ESTIMATED DISCHARGE IN CUBIC FEET PER SECOND, WATER YEAR OCT 2018 TO SEPT 2019

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	0	0	0	0	2	3	1	1	0	0	0	0
2		0	0	0	12	27	1	1	0	0	0	0
3	0	0	0	0	30	14	1	1	0	0	0	0
4	0	0	0	0	19	8	1	1	0	0	0	0
5	0	0	0	0	14	10	1	1	0	0	0	0
6	0	0	0	0	8	37	1	1	0	0	0	0
7	0	0	0	0	6	12	1	1	0	0	0	0
8	0	0	0	0	7	8	1	1	0	0	0	0
9	0	0	0	0	15	6	1	1	0	0	0	0
10	0	0	0	0	15	6	1	1	0	0	0	0
11	0	0	0	0	9	5	1	1	0	0	0	0
12	0	0	0	1	8	4	1	1	0	0	0	0
13	0	0	0	0	10	4	1	1	0	0	0	0
14	0	0	0	0	26	3	1	1	0	0	0	0
15	0	0	0	0	14	3	1	1	0	0	0	0
16	0	0	0	4	12	3	1	1	0	0	0	0
17	0	0	0	44	12	3	1	1	0	0	0	0
18	0	0	0	4	8	2	1	1	0	0	0	0
19	0	0	0	3	7	2	1	1	0	0	0	0
20	0	0	0	3	6	4	1	1	0	0	0	0
21	0	0	0	2	5	3	1	1	0	0	0	0
22	0	0	0	2	5	2	1	1	0	0	0	0
23	0	0	0	2	4	2	1	1	0	0	0	0
24	0	0	0	2	4	2	1	1	0	0	0	0
25	0	0	0	1	4	2	1	1	0	0	0	0
26	0	0	0	0	3	2	1	1	0	0	0	0
27	0	0	0	0	4	2	1	1	0	0	0	0
28	0	0	0	0	4	2	1	1	0	0	0	0
29	0	0	0	0	-----	2	1	1	0	0	0	0
30	0	0	0	0	-----	1	1	1	0	0	0	0
31	0	-----	0	0	-----	1	-----	1	-----	0	0	-----
TOTAL	0	0	0	68	272	185	30	19	3	0	0	0
MEAN	0	0	0	2	10	6	1	1	0	0	0	0
MAX	0	0	0	44	30	37	1	1	0	0	0	0
MIN	0	0	0	0	2	1	1	1	0	0	0	0
AC-FT	0	0	0	135	539	367	60	38	6	0	0	0

WATER YEAR: 2019

TOTAL = 578 CFS MEAN = 1.59 CFS MAX = 44 CFS
 1,146 AC-FT MIN = 0 CFS

TO: Los Osos Basin Management Committee

FROM: Dan Heimerl, Executive Director

DATE: December 6, 2023

SUBJECT: Item 9c – Proposed Accounting and Related Procedure Modifications to BMC Rules and Regulations and BMC Bank Account Authorizing Resolution

Recommendation

Approve proposed modifications to the BMC Rules and Regulations to incorporate updated accounting and authorization procedures and a resolution authorizing the Executive Director to open a bank account on behalf of the BMC; or provide alternate direction to staff.

Discussion

To improve the BMC's accounting system and allow the BMC to more efficiently carry out its authority and responsibilities under the Stipulated Judgment, it is proposed that the BMC modify its accounting and invoice processing policies and procedures by updating its Rules and Regulations document and approve a resolution authorizing the Executive Director to open a bank account on behalf of the BMC.

Proposed BMC Accounting and Authorization Policies and Procedures

The BMC's current system for receiving funding and paying for services is outlined below.

1. BMC adopts a budget for the upcoming Calendar Year
2. BMC Executive Director (Executive Director) and Brown Stein Hyatt Farber Shreck (BHFS) are invoiced for work completed in that Calendar Year
3. Executive Director approves the invoices if they are for authorized work included in the approved Budget. Invoices for work not included in the approved BMC Budget or costs in excess of the approved budget amount for the task require approval by the BMC and would be included in the Invoice Register for the next BMC Meeting.
4. BHFS invoices the BMC Parties for the approved invoices
5. BHFS pays consultants/contractors for services provided once it receives payment from each of the BMC Parties

This process for receiving funding and paying for BMC support services is very labor intensive, with all BMC costs required to be compiled and invoiced to each of the BMC parties on a monthly basis. Additionally, due to the structure of this process, it takes an extended amount of time for the BMC to pay for services and there is no ability for the BMC to roll unused funds over from year-to-year.

To reduce the amount of time and effort that it takes to process and pay invoices, and to add the flexibility to roll unused funds over from year-to-year, BMC Staff and BMC Party Staff are proposing to

modify the Los Osos BMC Rules and Regulations document to incorporate a new accounting system and related policies and procedures. A summary of the proposed modifications is provided below and the specific language for the proposed modifications can be found in the highlighted sections of Article 14 of the Draft 12/6/23 BMC Rules and Regulations document (Attachment 1).

Proposed BMC Accounting and Invoice Review Policies and Procedure Changes

- Creation of a BMC Bank Account(s)
- Creation of a BMC Accountant role
- Updated BMC Party invoicing procedures
- Updated invoice review and approval procedures
- Updated Executive Director support services authorizations

BMC Bank Account Resolution

To facilitate the new proposed accounting system, the BMC would need to open a bank account. The attached resolution provides the necessary authority for the Executive Director to open and maintain a bank account or accounts for BMC Funds at JPMorgan Chase & Co. (Chase Bank). The resolution additionally identifies the authorized users for the bank account(s). The BMC Accountant, if approved in the Calendar Year 2024 Budget, will provide the BMC with monthly reports on the bank account(s) balances and a detailed accounting of BMC expenditures, including: actual expenditures for the month (by account line); the year-to-date expenditures; the budget; the year-to-date compared to the budget; and the amount and percent budget remaining.

Attachments

1. Draft 12/6/23 BMC Rules and Regulations document
2. Draft Los Osos Basin Management Committee Bank Account Resolution

LOS OSOS GROUNDWATER BASIN MANAGEMENT COMMITTEE

RULES AND REGULATION

GENERAL PROVISIONS

- 1.1 Title.** This document shall be known and may be referred to as the “Basin Management Committee Rules and Regulations” adopted pursuant to the Stipulated Judgment. These Rules and Regulations shall be deemed effective consistent with Section 5.5 of the Stipulated Judgment.
- 1.2 Definitions.** As used in the Basin Management Committee Rules and Regulations, these terms shall have the following meanings.
- 1.2.1 Action.** “Action” shall have the same meaning given to it in Section 1.4.1 of the Stipulated Judgment.
- 1.2.2 Basin.** “Basin” shall have the same meaning given to it in Section 1.4.2 of the Stipulated Judgment.
- 1.2.3 Basin Management Committee.** “Basin Management Committee” shall have the same meaning given to it in Section 1.4.3 of the Stipulated Judgment.
- 1.2.4 Basin Plan.** “Basin Plan” shall mean the Basin Plan for the Los Osos Groundwater Basin, which is attached to and incorporated in to the Stipulated Judgment.
- 1.2.5 Court.** “Court” shall mean the San Luis Obispo Superior Court.
- 1.2.6 Member.** “Member” shall mean the members of the Basin Management Committee, which are the Los Osos Community Services District, the Golden State Water Company, the County of San Luis Obispo, and the S & T Mutual Water Company.
- 1.2.7 Model.** “Model” shall have the same meaning given to it in Section 2.1 of the Stipulated Judgment and Section 5.6 of the Basin Plan.
- 1.2.8 Pools.** “Pools” shall have the same meaning given to it in Section 4.1 of the Stipulated Judgment.
- 1.2.9 Purveyor.** “Purveyor” shall have the same meaning given to it in Section 1.2 of the Stipulated Judgment and shall include the Los Osos Community Services District, Golden State Water Company, and S & T Mutual Water Company.
- 1.2.10 Rules and Regulations.** “Rules and Regulations” shall mean this document.
- 1.2.11 Stipulated Judgment.** “Stipulated Judgment” shall mean the stipulated judgment entered in to between the Los Osos Community Services

District, the Golden State Mutual Water Company, the S & T Mutual Water Company, and the County of San Luis Obispo and adopted by the San Luis Obispo County Superior Court on October 14, 2015.

1.2.12 Sustainable Yield_x. “Sustainable Yield_x” shall have the same meaning given to it in Section 2.5 of the Stipulated Judgment.

1.3 Consistency with the Stipulated Judgment. These Rules and Regulations shall be construed consistent with the Stipulated Judgment and the Basin Plan. In the event of a conflict between these Rules and Regulations and the Stipulated Judgment or the Basin Plan, the Stipulated Judgment and/or the Basin Plan shall prevail.

1.4 Amendment of Rules. These Rules and Regulations may be amended upon the unanimous approval of all Members. Unless otherwise specified, any amendments to these Rules and Regulations shall be effective upon a unanimous vote.

1.5 Principal Office. The Basin Management Committee shall establish its principal office upon an affirmative vote at the at the first Basin Management Committee meeting, and may thereafter change it by the affirmative vote of the Basin Management Committee.

1.6 Interventions. The Basin Management Committee shall receive and make recommendations regarding stipulations for intervention received by non-Member parties and shall timely file such stipulations with the Court. The Basin Management Committee may execute a stipulation for intervention on behalf of the other Members, but such stipulation shall not preclude a Member from opposing the intervention at the time of the Court hearing.

ARTICLE 2 POWERS

The Basin Management Committee shall be responsible for its day-to-day operations and shall have general authority to carry out the powers enumerated in the Section 5.6 of the Stipulated Judgment.

ARTICLE 3 COMPOSITION OF BASIN MANAGEMENT COMMITTEE

3.1 Directors. The Basin Management Committee shall consist of a total of four (4) Directors. Each of the Members shall appoint one Director, which shall act as that Member’s designated Director. Each Director shall be appointed prior to the initial meeting of the Basin Management Committee

3.2 Alternate Directors. Each Member shall also appoint one (1) Alternate Director to act in the Director’s absence or inability. Each Alternate Director shall be appointed prior to the initial meeting of the Basin Management Committee.

- 3.3 **Removal.** A Director or Alternate Director may be removed during his or her term or reappointed for multiple terms at the pleasure of the Member that appointed him or her. No individual Director may be removed in any other manner, including by the affirmative vote of the other Directors.
- 3.4 **Vacancies.** A vacancy shall occur when a Director resigns, or is removed by his or her appointing Member. Upon the vacancy of a Director, the Alternate Director shall serve as Director until a new Director is appointed. Each appointing Member shall submit any changes in Director or Alternate Director positions to the Basin Management Committee in writing and signed by an authorized representative of the appointing Member as soon as possible, but no later than the commencement of the subsequent meeting of the Basin Management Committee.

ARTICLE 4 OFFICERS

- 4.1 **Officers.** The Basin Management Committee shall select a Chair and Vice-Chair from among the acting Directors. The Basin Management Committee shall also select a Secretary and a Treasurer, which do not need to be selected from among current Directors. The Basin Management Committee may select additional officers as it may deem necessary pursuant to the procedures in Section 4.2. The Vice-Chair shall act in the absence of the Chair.
- 4.2 **Appointment of Officers.** The officers shall be appointed annually by, and serve at the pleasure of, the Basin Management Committee. Officers shall be elected at the first Basin Management Committee meeting, and thereafter at the first Basin Management Committee meeting following December 1 of each year. An Officer may serve for multiple consecutive terms. Any Officer may resign at any time upon written notice to the Basin Management Committee. The Secretary or Treasurer may be removed and replaced by an affirmative decision of the Basin Management Committee.
- 4.3 **General Authority of Officers.**
- 4.3.1 **Chair.** The Chair shall perform the duties customary of said office. When directed by an authorizing vote of the Basin Management Committee, the Chair may sign contracts on its behalf and shall perform such other duties as may be imposed by the Basin Management Committee.
- 4.3.2 **Vice-Chair.** The Vice Chair, in the absence of the Chair, shall perform the duties of the Chair and shall perform all duties customary of such office.
- 4.3.3 **Secretary.** The Secretary, who need not be a Director and who shall be selected by the Basin Management Committee, shall perform all duties customary of such office.

4.3.4 Treasurer. The Treasurer, who need not be a Director and who shall be selected by the Basin Management Committee, shall perform all duties customary of such office. The Treasurer shall be the depository, shall have custody of all of accounts, funds and money of the Basin Management Committee from whatever source, and shall assure strict accountability of all funds and reporting of all receipts and disbursements of the Basin Management Committee. The Treasurer shall make arrangements with a certified public accountant or firm of certified public accountants for an annual independent audit of accounts and records of the Basin Management Committee.

ARTICLE 5 EXECUTIVE DIRECTOR

- 5.1 Executive Director.** The Basin Management Committee may elect or appoint an Executive Director of the Basin Management Committee. If an Executive Director is not elected or appointed, the Chair shall act as the Basin Management Committee's Executive Director.
- 5.2 Duties.** The Executive Director shall be the chief executive officer of the Basin Management Committee and shall act as the representative of the Basin Management Committee to carry out its duties and obligations.

ARTICLE 6 STAFF AND CONSULTANTS

Subject to the prior approval of the Basin Management Committee, the Executive Director may employ, on behalf of the Basin Management Committee such full- or part-time administrative, engineering, geologic, accounting, legal, or other specialized personnel or consultants as he or she deems appropriate.

ARTICLE 7 VOTING

- 7.1 General.** A Director, or an Alternate Director when acting in the absence of his or her Director, may vote on all matters of Basin Management Committee business unless such Director or Alternate Director determines himself disqualified because of a conflict of interest pursuant to California law or the local conflict of interest code adopted by the Basin Management Committee.
- 7.2 Director Votes.** Voting by and on all matters of the Basin Management Committee shall be weighted as follows. Except as otherwise expressly provided herein, each Director's vote shall be weighted with the Directors representing the Los Osos Community Services District and Golden State Water Company each holding thirty-eight percent (38%), the Director representing the County of San Luis Obispo holding twenty percent (20%) and the Director representing S & T Mutual Water Company holding four percent (4%).
- 7.3 Quorum.** A quorum of any meeting of the Basin Management Committee shall consist of appointed representatives of a majority of the Members. In the absence

of a quorum, any meeting of the Basin Management Committee may be adjourned by a vote of a majority of appointed representatives present, but no other business may be transacted. An appointed representative shall be deemed present if the representative appears at the meeting in person or telephonically, provided the telephone appearance is consistent with the requirements of the Ralph M. Brown Act.

- 7.4 Affirmative Decisions.** Unless otherwise specified in these Rules, all affirmative decisions of the Basin Management Committee shall require the affirmative vote of appointed representatives with a collective voting weight of more than fifty percent, as provided in Section 7.2; provided, that if a Director is disqualified from voting on a matter before the Basin Management Committee because of a conflict of interest as described in Section 7.1 above, the Alternate Director shall be entitled to vote on the matter, but if the Alternate Director is disqualified from voting on the matter because of such a conflict of interest, that Director and Alternate Director shall be excluded from the calculation of the total number of Directors that constitutes fifty percent of the voting weight.
- 7.5 Basin Management Committee Approval Requirements.** In the following instances, the Basin Management Committee may act only with the unanimous approval of the Directors:
- 7.5.1** Authorizing or implementing any material change to the Basin Plan;
 - 7.5.2** Authorizing or approving any material change to any Member's use of water extracted, developed or available for use within the Basin in a manner materially inconsistent with the Basin Plan or the Stipulated Judgment;
 - 7.5.3** Adoption and/or any change in the rules and regulations of the Basin Management Committee;
 - 7.5.4** Adoption of any regulations or restrictions on the Purveyors' delivery of water and its consumption within the Basin as provided in section 5.7 of the Stipulated Judgment;;
 - 7.5.5** Adoption of any supplemental fees, taxes or assessments necessary to address shortfalls or unanticipated expenses for which reserves are unavailable;
 - 7.5.6** Revising the weighted voting as provided in Section 7.2, including but not limited to the insolvency, addition or withdrawal of a Member of the Basin Management Committee;
 - 7.5.7** Approving, revising or ratifying the Basin Management Committee Budget.
 - 7.5.8** Adoption of funding targets for operational and maintenance reserves;

- 7.5.9 Entering into any contract or agreement which delegates the duties of the Basin Management Committee to any third party; and
- 7.5.10 Establishing and implementing a mechanism(s) to fund the operation of the Basin Management Committee and the actions provided in this Stipulated Judgment and the Basin Plan.

ARTICLE 8 MEETINGS

- 8.1 **Conduct.** Unless otherwise specified, all meetings of the Basin Management Committee, including special meetings, shall be noticed, held, and conducted in accordance with the Ralph M. Brown Act, California Government Code sections 54950 et seq. The Basin Management Committee may use teleconferencing in connection with any meeting in conformance with and to the extent authorized by applicable law.
- 8.2 **Regular and Special Meetings.** All meetings, whether regular or special, shall be open to the public unless they are properly designated as a confidential session pursuant to Section 8.3. Whenever a public hearing shall be required therein, written notice of such public hearing containing the time, date and place of public hearing, together with the matter to be heard thereat, shall be given to all parties and each such person who has requested, in writing, notice of such meeting, at least ten (10) days prior to said public hearing. At such public hearing, evidence shall be taken with regard to only the matters noticed, unless a sufficient urgency shall exist to the contrary, and full findings and decisions shall be issued and made available for public inspection.
- 8.3 **Confidential Sessions.** The Basin Management Committee may hold confidential sessions as otherwise authorized under the Ralph M. Brown Act, California Government Code sections 54950 et seq. A Confidential Session may be requested by any Director. Minutes shall not be taken for confidential sessions of the Basin Management Committee, but a confidential memorandum shall be prepared to describe attendance and Director votes on matters.
- 8.4 **Notice Requirements.** Notices shall be given in writing to all parties and each such person who has requested notice in writing, and shall specify the time, date and place of the meeting and the business to be transacted at the meeting, as required by the Ralph M. Brown Act, California Government Code sections 54950 et seq. Notice may be provided by United States mail, facsimile or electronic mail delivery. Copies of all agendas, notices, reports, rules and regulations and other relevant, public Basin Management Committee items shall be published on a website sponsored by the Basin Management Committee. The Basin Management Committee will maintain a current list of the names of active parties and their addresses for the purpose of providing service, and will maintain a current list of the names and addresses of all Members.

8.5 Rules of Order and Basin Management Committee Agenda.

8.5.1 Adoption Rules of Order. The Basin Management Committee may establish rules of order as it deems necessary. Such rules shall be crafted to expedite the transaction of business in an orderly fashion and shall be procedural only. Any failure to strictly observe such rules shall not affect the jurisdiction or invalidate any action taken at a meeting that is otherwise held in conformity with the law.

8.5.2 Authority to Place an Item on the Agenda. Any Director may place an item on an agenda. The Executive Director may also place items on an agenda at his discretion. Directors will have an opportunity to delete or change the order of agenda items at the beginning of each meeting.

8.5.2.1 Timing for Placement of an Item on the Agenda. No item shall be placed on an agenda unless staff has had sufficient time to prepare the item for Basin Management Committee consideration.

8.6 Rules of Decorum.

8.6.1 Rules for Staff.

8.6.1.1 Decorum. Staff shall not engage in dialogue with members of the public during public meetings, or respond directly to questions from members of the public. All staff responses shall be directed to the Basin Management Committee.

8.6.1.2 Gaining the Floor. Staff, after being recognized by the Chair, shall hold the floor until completion of their remarks or until recognition is withdrawn by the Chair.

8.6.1.3 Role of the Executive Director. The Executive Director's duties during Basin Management Committee meetings includes keeping a record of concerns raised by the Directors regarding staff matters and directions for future staff action.

8.6.2 Rules for the Public.

8.6.2.1 Members of the Public. Members of the audience shall not engage in disorderly or boisterous conduct, which has the effect of disturbing, disrupting, impeding or otherwise interfering with the orderly conduct of Basin Management Committee meetings.

8.6.2.2 Persons Addressing the Basin Management Committee.

- 8.6.2.2.1 No person shall address the Basin Management Committee without first being recognized by the Chair.
- 8.6.2.2.2 Persons addressing the Basin Management Committee shall be given three (3) minutes to speak. The Chair may extend or decrease this time limit at his or her discretion.
- 8.6.2.2.3 The aggregate time for public comment on each agenda item allowing public comment shall be limited to thirty (30) minutes per item unless extended or decreased by a majority vote of the Basin Management Committee.
- 8.6.2.2.4 Persons addressing the Basin Management Committee shall confine the subject matter of their remarks to the particular matter before the Basin Management Committee.
- 8.6.2.2.5 Each person addressing the Basin Management Committee shall do so in an orderly manner and shall not engage in any disorderly conduct which disrupts, disturbs, or otherwise impedes the orderly conduct of the Basin Management Committee meeting. Any person who so disrupts the meeting may, at the discretion of the Chair or a majority of the Directors, be subject to ejection from that meeting as provided by law.
- 8.6.2.2.6 Persons addressing the Basin Management Committee shall address the Basin Management Committee as a whole and shall not engage in a dialogue with individual Directors, staff or members of the audience. No questions shall be asked of a Director or a member of staff without first obtaining permission of the Chair. The Chair shall determine whether, or in what manner, an answer will be provided. Any person violating this rule while addressing the Basin Management Committee shall be called to order by the Chair.

8.6.2.3 Written Communications. Persons who anticipate oral presentations exceeding three (3) minutes are encouraged to submit comments in writing, in advance, care of the Secretary, for prior distribution to the Basin Management Committee and other interested parties. Such written comments will be

distributed to Directors and considered as the Basin Management Committee in its judgment may deem appropriate.

- 8.6.3 Waiver.** Any of the foregoing rules may be waived by majority vote of the Directors present when it is deemed that there is good cause to do so based upon the particular facts and circumstances involved.

ARTICLE 9 SUBCOMMITTEES

The Basin Management Committee may, by resolution, establish one or more subcommittees for such purposes as the Basin Management Committee may designate. Any such subcommittee shall have such scope of authority as the Basin Management Committee may designate in the subcommittee enabling resolution.

ARTICLE 10 RECORDS

- 10.1 Maintenance of List of Parties to Judgment.** The Basin Management Committee shall maintain a list of all parties to the Stipulated Judgment, including those parties who intervene. The list shall also include the Pool (as defined in the Stipulated Judgment) to which each party belongs.
- 10.2 Basin Management Committee Meeting Minutes.** The minutes of Basin Management Committee meetings shall be open to inspection and maintained at the principal office. Copies of minutes may be obtained upon payment of the duplication costs thereof. Copies of other records may be obtained on the payment of the duplication costs thereof.
- 10.3 Publication of Records on Website.** Basin Management Committee Staff shall publish public records and other matters that it deems to be of interest to its Members, the general public or the Court on its website in a manner consistent with the practices described in Water Code sections 5206 and 10730.8.

ARTICLE 11 REPORTING, MODELING, AND MONITORING

- 11.1 Annual Report.** The Basin Management Committee shall prepare and make available an annual report, which shall be filed on or before one hundred and eighty (180) days after December 31 of each year and shall contain details as to aggregate water production to the extent the information is available, water quality, monitoring data, and a certified audit of all assessments and expenditures pursuant to the Basin Management Committee and a review of Basin Management Committee activities. The report shall generally include an update on the status of the Members' efforts to implement the Basin Plan. The report shall include an appendix which contains a specific "State of the Basin" report including an update on the status of individual Basin Plan related activities. The

report shall also include a compilation of the current Basin Management Committee Rules and Regulation, including all amendments made within the previous twelve (12) month period. All annual reports shall be filed with the Court and made available to the public.

- 11.2 Studies.** In accordance with the Stipulated Judgment, the Basin Management Committee may undertake relevant studies of hydrologic conditions, both quantitative and qualitative, and operating aspects of implementation of the Basin Plan.
- 11.3 Modeling.** The Basin Management Committee shall maintain the Model and conduct a peer review of it at least once every ten (10) years. Based on results from the peer review, or as otherwise deemed appropriate by the Basin Management Committee, the Basin Management Committee shall make improvements to the Model for the improved management of the Basin. The results of any peer review and all changes to the model shall be included in the annual report for the applicable year.
- 11.4 Monitoring.** The Basin Management Committee shall carry out the monitoring activities described in Chapter 7 of the Basin Plan in accordance with the provisions of the Stipulated Judgment. Monitoring procedures not described in Chapter 7 of the Basin Plan shall be implemented through development of appropriate Basin Management Committee policies and procedures as necessary. Findings and a summary of activities as well as any supplemental policies and procedures adopted by resolution or minute action shall be reported to the Court in the Basin Management Committee's Annual Report.
- 11.5 Groundwater Production Monitoring.** Each of the Purveyors shall install meters and/or measuring devices on all groundwater extraction facilities and shall provide the Basin Management Committee with a groundwater production log by January 31 of each year for the period of January 1 through December 31 of the prior year. This information shall be included in the Basin Management Committee's annual report. All meters/measuring devices shall be subject to regular inspection and testing as the Basin Management Committee may, from time to time, deem necessary. Nothing in this provision shall be construed to require or to permit the Basin Management Committee to require the County Board of Supervisors to adopt an ordinance requiring the reporting of groundwater production.

ARTICLE 12 BASIN PLAN

- 12.1 Periodic Review of Basin Plan.** The Basin Management Committee shall evaluate the Basin Plan on a periodic basis as deemed necessary. The review shall, at a minimum, evaluate the items described in Section 3.1 of the Stipulated Judgment, which include whether the Basin Plan is being implemented as agreed upon in the Stipulated Judgment, whether the Basin Plan actions are having the

predicted impact to halt seawater intrusion, and whether the Members should implement additional actions in the Basin Plan or new actions that were not originally included in the Basin Plan. Evaluation of additional items shall be implemented through development and adoption of appropriate Basin Management Committee policies and procedures. Findings and a summary of the review, as well as any resulting amendments to the Basin Plan, shall be included the first annual report following completion of the review.

ARTICLE 13 DETERMINATION OF SUSTAINABLE YIELD

- 13.1 Annual Determination of Sustainable Yield.** Starting in 2020, the Basin Management Committee shall annually evaluate and establish the Sustainable Yield_x for the upcoming year at its first meeting following December 1 of each Year. Any change to the Sustainable Yield_x shall require unanimous consent of the Members. The Sustainable Yield_x shall be established using the process set forth in Section 4 of the Stipulated Judgement. The Sustainable Yield_x shall be reported in the annual report for the applicable year.
- 13.2 Allocation of Sustainable Yield_x Among Pools.** Upon amending the Sustainable Yield_x, the Basin Management Committee shall re-allocate the Sustainable Yield_x among the various Pools as set forth in Section 4.2 of the Stipulated Judgment. Any change to the current allocation requires a unanimous vote of the Basin Management Committee and shall be reported in the annual report for the applicable year.

ARTICLE 14 BUDGET

- 14.1 Annual Budget.** Annually, the Basin Management Committee shall develop a budget for its activities and responsibilities and determine any cost sharing agreement for funding the budget. The annual budget shall be developed at the first Basin Management Committee meeting, and thereafter at the first Basin Management Committee meeting following December 1 of each year.
- 14.2 Basin Management Committee Bank Account and Accountant.** The Basin Management Committee may authorize the Executive Director to open and maintain a bank account or accounts for management of Basin Management Committee funds. Additionally, the Basin Management Committee may designate an Accounting Firm (Basin Management Committee Accountant) to track and manage funding in the Basin Management Committee Account(s). The Basin Management Committee Accountant shall maintain the records of deposits and expenditures from such accounts and present such records, including the information required by Section 14.3.3, below to the Executive Director on a monthly basis. The Executive Director shall present such records to the Board as requested and not less than quarterly. Basin Management Committee funds shall

be placed in a Federal Deposit Insurance Corporation (FDIC) insured bank account. If the Basin Management Committee Account(s) accrue any interest, that interest shall be retained in the Basin Management Committee Account(s) to be used as provided for in the annual budget.

14.3 Payment of Basin Management Expenses.

14.3.1 The Executive Director shall invoice the Members on the first week of each Calendar Year for their agreed upon contribution to the approved Basin Management Committee Budget (Member Contribution Invoice). Members shall have 45 days to process and pay the Member Contribution Invoice provided that no Member shall have any obligation to make payment unless and until their governing board agrees to their contribution.

14.3.2 The Member Contribution Invoice payments shall be deposited in the Basin Management Committee Bank Account, managed by the Basin Management Committee Accountant and used to pay Basin Management Committee approved expenses for the remainder of the Calendar Year.

14.3.3 With the assistance of the Basin Management Committee Accountant, the Executive Director shall provide the Basin Management Committee with monthly reports documenting every expenditure (by account line), the year-to-date expenditures, the budget, the year-to-date compared to the budget, and the amount and percent budget remaining.

14.3.4 At the end of the Calendar Year, the Basin Management Committee will review the remaining balance and make decisions regarding retaining any unspent funding for future years or reimbursing it back to the Members.

14.4 Invoice Review and Approval Procedures

14.4.1 All invoices the Basin Management Committee receives shall be reviewed and approved by the Executive Director prior to payment.

14.4.2 Invoices for services and costs included in the approved Basin Management Committee Budget for the Calendar Year, and within the authorized budget amount, shall be reviewed and, if approved by the Executive Director, sent to the Basin Management Committee Accountant for processing and payment.

14.4.3 Invoices for services or costs not included in the approved Basin Management Committee Budget, or costs in excess of the approved budget amount for the task, require approval by the Basin Management Committee prior to being paid, and shall be included in the Invoice Register for the next Basin Management Committee Meeting for Basin Management Committee consideration.

14.4.4 Invoices for Executive Director services shall be reviewed, and if approved by the Basin Management Committee Chair, sent to the Basin Management Committee Accountant for processing and payment.

14.5 Authorized Signatories. Any two of the following individuals are authorized to serve as signatories for the BMC Bank Account (s): Basin Management Committee Executive Director, Basin Management Committee Accountant(s) and the Basin Management Committee Chair. Checks drawn from the Basin Management Committee Account(s) shall not be payable unless they include two signatures from among the authorized signatories. Checks for authorized Basin Management Committee expenses included in the Basin Management Committee approved budget for the Calendar Year and within the authorized budget amount shall require a wet signature from the Basin Management Committee Executive Director and wet or dry signature from the Basin Management Committee Accountant. Checks for costs not included in the approved Basin Management Committee Budget, for costs in excess of the approved budget amount for the task, or for Executive Director services, shall require a wet signature from the Basin Management Committee Chair and a wet or dry signature from the Basin Management Committee Accountant.

14.6 Executive Director Support Services Authorization. The Executive Director shall have the authority to direct the Basin Management Committee Hydrogeologist and/or Legal Counsel to perform tasks in support of the Basin Management Committee up to an annual limit of \$5,000 for each from the Technical and Legal Support Services budget before requiring additional Basin Management Committee approval.

ARTICLE 15 DISPUTE RESOLUTION

Disputes among Members shall be dealt with according to the process set forth in Section 6.4 of the Stipulated Judgment.

RESOLUTION NO. 2023-01

A RESOLUTION OF THE DIRECTORS OF THE LOS OSOS BASIN MANAGEMENT COMMITTEE (“BMC”), AUTHORIZING THE EXECUTIVE DIRECTOR TO OPEN ONE OR MORE BANK ACCOUNTS FOR THE DEPOSIT OF BMC FUNDS AND TO MAKE PAYMENTS FOR BMC ACTIVITIES, AND DESIGNATING AUTHORIZED SIGNERS FOR THE BMC’S BANK ACCOUNTS

WHEREAS, the Los Osos Basin Management Committee was established by the Stipulated Judgment in litigation titled *Los Osos Community Services District v. Golden State Water Company, et al.*, San Luis Obispo County Superior Court Case No. CV 040126, approved by the court on October 14, 2015 (“Stipulation”). A copy of the Stipulation is attached hereto as Exhibit A, and incorporated herein by this reference; and

WHEREAS, the BMC was established to administer, enforce, and implement the provisions of the Stipulation, and has the general authority to carry out the operations and powers enumerated in the Stipulation; and

WHEREAS, pursuant to Sections 5.6.1, 5.6.5, and 5.6.14 of the Stipulation, the BMC has the power to take all acts as are necessary and appropriate to arrange for the funding of the implementation of the Stipulation and the activities of the BMC, and to hold and own all funds of the BMC, among other authority; and

WHEREAS, it is necessary and appropriate that the BMC open and maintain a bank account or accounts for the BMC to efficiently carry out its authority and responsibilities under the Stipulation.

NOW, THEREFORE, BE IT RESOLVED, by the Directors of the BMC as follows:

1. The Executive Director is hereby authorized to open and maintain a bank account or accounts for BMC funds at JPMorgan Chase & Co. (Chase Bank), and to complete and submit such additional applications and supporting documentation as is reasonably required to do so.
2. The Executive Director or BMC Accountant shall maintain the records of deposits and expenditures from such accounts and present such records to the Board as requested and not less than quarterly.
3. The following individuals are hereby duly authorized to serve as signatories on the bank account with Chase Bank:

- Daniel Heimel – BMC Executive Director
- Adrienne Geidel – BMC Accountant
- Robert Stilts – BMC Accountant
- Mark Zimmer – BMC Chair

4. Checks drawn on the BMC's bank accounts shall not be payable unless they include two signatures of individuals designated in Section 3 of this Resolution or a duly-adopted subsequent Resolution of the Directors. At least one signature shall be a wet signature of the LOBMC Executive Director or Chair as designated above. The second signature, which need not be a wet signature, may be provided by any BMC Accountant signatory authorized in this Resolution or a duly-adopted subsequent Resolution.

PASSED, APPROVED, AND ADOPTED, this 6th day of December, 2023, by the following vote to wit;

AYES: ()
NOES: ()
ABSENT: ()
ABSTAIN: ()

_____, Chair Zimmer

ATTEST:

Daniel Heimel, Executive Director

TO: Los Osos Basin Management Committee

FROM: Dan Heimerl, Executive Director

DATE: December 6, 2023

SUBJECT: Item 9d – Calendar Year 2024 Budget

Recommendation

Approve the proposed Calendar Year 2024 BMC Budget and the Calendar Year 2024 BMC Support Services Proposals; or provide alternate direction to staff.

Discussion

As outlined in the Basin Management Committee (BMC) Rules and Regulations, the BMC is directed to adopt an annual budget for each Calendar Year (CY).

To assist the BMC in adopting a budget for CY 2024, BMC Staff, in coordination with BMC Party Staff, prepared the Proposed Budget for CY 2024, included as Attachment 1. For CY 2024 there are two additional Baseline Services for the BMC's consideration, which are described in the table below:

Additional Baseline Service	Anticipated Cost	Description
BMC Accounting Services	\$6,300	To provide the BMC with an enhanced ability to manage its funding and roll funding over year to year, it is recommended that the BMC consider authorizing the Executive Director to open a bank account (Agenda Item 9c) and approve the Contract from Robert Stilts CPA for CY 2024 BMC Accounting Services (attached). Additional details regarding the proposed accounting procedures for the BMC Bank Account are included in Agenda Item 9c of this Agenda Packet.
BMC Website Hosting	\$1,690	To provide additional flexibility for managing and distributing BMC information and BMC Meeting notifications, it is proposed that the BMC take over hosting the BMC Website from the County of San Luis Obispo. Included as an attachment to this Staff Report is a proposal from Streamline to develop and host a dedicated BMC website. Streamline specializes in hosting website for governmental organizations and will ensure that the BMC's website is in compliance with current and future regulations for governmental organization websites. Streamline's proposal for providing Website services to the BMC for 2024 includes a \$250 set-up and \$1,440 annual hosting fee.

In addition to the Baseline Services (Budget Items 1-8), there are additional items described in the following table for consideration by the BMC for inclusion in the CY 2024 BMC Budget.

Potential CY 2024 BMC Budget Item	Anticipated Costs	Description
WRFP Study Peer Review - Year 1.5	\$15,000	Hydrogeologic Peer Review support services for the Water Recycling Funding Program (WRFP) Planning Grant Study to develop a transient groundwater model and utilize model to evaluate recycled water and other sustainable yield improvement projects (WRFP Study). Total Project cost is anticipated to be \$400,000. To fund the project, the BMC/Los Osos CSD obtained a \$200,000 WRFP grant, the County of San Luis Obispo contributed \$150,000 and the BMC is contributing \$50,000 in match funds through the Los Osos Basin Well Database, Los Osos Creek Stream Gage Rating Curve and WRFP Study/Transient Model Peer Review.
Groundwater Monitoring Program Improvements	\$70,000	Construction of a new monitoring well or monitoring well improvements. The National Estuary Program budgeted \$50k in Fiscal Year 2024 (10/1/23 - 9/30/2024) to provide funding support to the BMC to improve its monitoring program. BMC Staff will review the available budget and make a recommendation to the BMC regarding which groundwater monitoring improvement project(s) to complete in CY 2024. The specific groundwater monitoring program improvement(s) to be completed utilizing this funding source will require BMC approval.

The proposed budget would provide funding for the BMC Baseline Services, including the new accounting and website services, allow for improvements to the BMC Monitoring Program and provide match funding for the WRFP Study grant.

Historic BMC approved budgets are provided in the table below for reference.

Historic BMC Budget Summary

Calendar Year	Budget	Budget w/ Contingency	Notes
2016	\$286,000	\$314,600	\$120k for Funding measure including initial feasibility report, final report and Prop 218 process
2017	\$264,000	\$290,400	\$100k for Funding measure including Prop 218 process
2018	\$268,000	\$294,800	\$115k for Cuesta by Sea (Lupine) Monitoring Well
2019	\$319,700	\$335,685	\$115k for Cuesta by Sea (Lupine) Monitoring Well
2020	\$175,500	\$193,050	Baseline Budget Only
2021	\$285,500	\$314,050	Updated Sustainable Yield Estimate, Basin Metric Review, Funding & Organization Study, Implementation Initiative Evaluation
2022	\$280,500	\$308,550	BMC Legal Counsel, Transient Model Peer Review, Lower Aquifer Monitoring Improvements, LO Creek Stream Gage Rating Curve
2023	\$336,500	\$353,325	BMC Legal Counsel, Transient Model Peer Review, Skyline Monitoring Well, LO Creek Stream Gage Rating Curve

BMC Support Services Proposals

Proposals for providing BMC Support Services for CY 2024 are provided as Attachments 2 – 6. It is recommended that the BMC, if it approves the Proposed CY 2024 BMC Budget or a corresponding portion of the budget, additionally approve the proposals for the CY 2024 BMC Consultant services. Approval of these proposals will allow consultants to initiate work on or before January 1, 2024.

Attachments

1. Proposed Calendar Year 2024 BMC Budget
2. Confluence Engineering Solutions CY 2024 Executive Director Proposal
3. Cleath-Harris Geologist CY 2024 Groundwater Monitoring Proposal
4. Cleath-Harris Geologist CY 2023 Annual Monitoring Report Proposal
5. Robert Stilts CPA CY 2024 BMC Accounting Services Proposal
6. Streamline BMC Website Hosting CY 2024 Proposal

Attachment 1

Proposed CY 2024 BMC Budget			
Item	Description	Cost	Comments
1	BMC Administration and Facilitation	\$75,000	Executive Director administration and facilitation, includes website management.
2	BMC Website Hosting	\$1,690	Website set-up, hosting and maintenance.
3	BMC Accounting Services	\$6,300	Accounting and bookkeeping services.
4	BMC Legal Counsel	\$20,000	Legal Counsel support services.
5	Meeting expenses: Audio and video services	\$2,000	Meeting recording hosting for BMC Meetings.
6	Technical Support Services	\$15,000	Technical Support Services budget.
7	2024 Groundwater Monitoring	\$64,000	Semi-Annual Seawater Intrusion Monitoring Program, including transducer installation in new Skyline Monitoring Well and geophysical surveys of LA4, LA14, and LA40.
8	2023 Annual Report	\$68,000	Annual Monitoring Report preparation.
9	WRFP Study Peer Review - Year 1	\$15,000	Hydrogeologic Peer Review support services for the Water Recycling Funding Program (WRFP) Planning Grant Study to develop a transient groundwater model and utilize model to evaluate recycled water and other sustainable yield improvement projects (WRFP Study). Total Project cost is anticipated to be \$400,000. To fund the project, the BMC/Los Osos CSD obtained a \$200,000 WRFP grant, the County of San Luis Obispo contributed \$150,000 and the BMC is contributing \$50,000 in match funds through the Los Osos Basin Well Database, Los Osos Creek Stream Gage Rating Curve and WRFP Study/Transient Model Peer Review.
10	Groundwater Monitoring Program Improvements	\$70,000	Construction of a new monitoring well or monitoring well improvements. The National Estuary Program budgeted \$50k in Fiscal Year 2024 (10/1/23 - 9/30/2024) to provide funding support to the BMC to improve its monitoring program. BMC Staff will review the available budget and make a recommendation to the BMC regarding which groundwater monitoring improvement project(s) to complete in CY 2024. The specific groundwater monitoring program improvement(s) to be completed utilizing this funding source will require BMC approval.
	Subtotal	\$336,990	
	5% Contingency	\$16,850	
	Total	\$353,840	
	LOCSD (38%)	\$134,459	
	GSWC (38%)	\$134,459	
	County of San Luis Obispo (20%)	\$70,768	
	S&T Mutual (4%)	\$14,154	



Confluence Engineering Solutions, Inc.

PO Box 7098

Los Osos, CA 93412

10/15/2023

To: Basin Management Committee

Subject: Proposal for Calendar Year 2024 Executive Director Professional Services

Confluence Engineering Solutions, Inc. (ConfluenceES) is pleased to provide the following proposal for providing Executive Director professional services for the Los Osos Basin Management Committee (BMC) for Calendar Year 2024.

Scope of Work

Task 1 BMC Administration

1.1 BMC Administration

- Perform BMC administrative tasks necessary for facilitate BMC activities, including but not limited to:
 - Coordinate with BMC Board Members, Stipulating Parties, and the public
 - Update and maintain the BMC Website so that documents and agenda packages are published to the BMC website in a timely and accurate manner.
- Prepare and provide monthly invoices and progress reports describing activities of the Executive Director.

1.2 Financial Oversight

- Oversee financial operation of the BMC, including recommending an annual budget and processing invoices.
- Coordinate with the BMC Accountant to manage the BMC Bank Account and review and approval of BMC invoices.

1.3 BMC Party Staff Meetings

- Conduct monthly BMC Party Staff Meetings with representatives of each of the parties to facilitate BMC activities.

1.4 BMC Representation

- Represent the BMC as directed to other entities, including DWR, RWQCB, and other agencies, as needed.

Task 2 BMC MEETINGS

2.1 Meeting Coordination

- In consultation with the BMC Chair, coordinate up to 10 public BMC meetings.
- Coordinate with Audio/Video Consultant to ensure that the BMC meeting venue and audio/visual services properly performed.

2.2 Agenda Preparation

- In consultation with the BMC Chair, prepared agenda packets for up to 10 public BMC meetings.

2.3 Meeting Attendance

- Function as staff (including clerk) during BMC public meetings, including providing appropriate technical input on questions from both Directors and the public.
- Oversee the BMC's compliance with the Brown Act, with input from legal counsel provided by BMC Legal Counsel.

2.4 Meeting Minutes

- Prepare action minutes for all public meetings.

Task 3 PROGRAM MANAGEMENT

3.1 Annual Report Management

- Provide program management for the BMC on the Annual Report, including management of scope, schedule and budget, collection and incorporation of BMC and other comments, and publishing of approved work products.
- Participate in coordination meetings with the Annual Report consultant to provide work direction, receive project updates, and review consultant interim work products and deliverables.
- File required information to DWR's website by the April 1st deadline.

3.2 BMC Project Management

- Provide program management for the BMC on other projects, including management of scope, schedule and budget, collection and incorporation of BMC and other comments, and publishing of approved work products.
- Participate in coordination meetings with BMC consultants to provide work direction, receive project updates, and review consultant interim work products and deliverables.

Fee Estimate

ConfluenceES proposes to provide the Executive Director services described above for Calendar Year 2024 on a time and materials basis with a not-to-exceed fee of \$75,000 at the rates outline in the table below.

Classification	Billing Rate (\$/hour)
Principal Engineer	\$200
Project Engineer	\$175
Associate Engineer	\$150
Assistant Engineer	\$135
Engineering Assistant	\$125

Sincerely,



Daniel Heimel, PE, MS

President/Principal Engineer

ConfluenceES

Cleath-Harris Geologists, Inc.
75 Zaca Lane, Suite 110
San Luis Obispo, CA 93401
(805) 543-1413



October 10, 2023

Los Osos Basin Management Committee
c/o Mr. Daniel Heimel, P.E.
Confluence Engineering Solutions, Inc.
P.O. Box 7098
Los Osos, CA 93412

SUBJECT: Proposal for Los Osos Basin Plan 2024 Groundwater Monitoring.

Dear Mr. Heimel:

Cleath-Harris Geologists (CHG) proposes to perform hydrogeologic services related to groundwater monitoring for the Los Osos Basin Plan (LOBP). This proposal describes existing monitoring data collection and presents a scope of work, schedule, and estimated costs for monitoring.

BACKGROUND

The groundwater monitoring program in Chapter 7 of the LOBP included 73 monitoring well locations within the basin. Twenty locations have been added to the network (summary tables attached), with two more Lower Aquifer locations projected to be added in 2024 (Skyline monitoring wells).

There are two existing, ongoing monitoring programs that historically overlapped with the LOBP monitoring program: the San Luis Obispo County Water Level Monitoring Program and the Los Osos Water Recycling Facility (LOWRF) Groundwater Monitoring Program. Beginning in winter 2016, the LOWRF monitoring schedule was shifted from spring and fall monitoring to summer and winter monitoring. As a result, data from the LOWRF monitoring program no longer coincides with the monitoring schedule adopted in the LOBP. A total of 22 network wells, including all five nitrate metric wells, were switched to the summer and winter monitoring schedule.

CHG plans to continue measuring water levels in April and October at those LOBP network wells that were shifted to summer and winter monitoring under the LOWRF monitoring program. Water quality testing, however, will not be duplicated in the schedule, and data from the LOWRF program in June and December 2024 will be used for reporting purposes.



SCOPE OF WORK

CHG will perform the following tasks for the LOBP Groundwater Monitoring Program:

- Conduct/coordinate semi-annual water level monitoring in April and October 2024 at up to 62 well locations.
- Download and process pressure transducer data from up to 16 well locations (includes installing two new transducers in Skyline monitoring wells following construction).
- Conduct/coordinate groundwater sampling in April 2024 from up to 18 wells for general minerals analyses.
- Conduct/coordinate groundwater sampling in October 2024 from up to 23 wells for general mineral analyses.
- Conduct groundwater sampling in October 2024 for up to two wells for CEC analyses.
- Conduct geophysical surveys (natural gamma and induction) at LA4, LA14, and LA41.

Deliverables:

Tables with results of Lower Aquifer seawater intrusion monitoring will be provided upon completion of the April and October 2024 monitoring events. Data interpretation and reporting is not included in this scope of work, but will be performed during 2024 Annual Report preparations.

SCHEDULE

The scope of work will be completed per the Basin Plan monitoring schedule (April and October monitoring).

FEES AND CONDITIONS

CHG proposes to perform the above scope of work on an hourly rate plus expenses basis in accordance with the hourly rates schedule and attached terms of fees and conditions. Laboratory analytical services, pump equipment, two new transducers, geophysical surveys, and CEC sample shipping are estimated at \$17,000. The cost for hydrogeologic services related to water level monitoring, groundwater sampling, transducer downloading, and coordinating with private well owners is estimated to be \$47,000. The total estimated cost for the 2023 groundwater monitoring scope of work is estimated to be **\$64,000**.



SCHEDULE OF HOURLY RATES

Principal Hydrogeologist	\$195
Senior Hydrogeologist	\$180
Project Geologist	\$165
Environmental Scientist	\$165
Staff Geologist II	\$145
Staff Geologist I	\$130

EXPENSES

Mileage \$0.70/mile
Other expenses at cost plus 10 percent handling

AGREEMENT

If the above work scope and fees and conditions are acceptable, this proposal will serve as the basis for agreement.

Respectfully submitted,

CLEATH-HARRIS GEOLOGISTS, INC.

Spencer J. Harris, President

attachment



TERMS OF FEES AND CONDITIONS

1. Invoices will be submitted monthly. The invoice is due and payable upon receipt.
2. In order to defray carrying charges resulting from delayed payments, simple interest at the rate of ten percent (10%) per annum (but not to exceed the maximum rate allowed by law) will be added to the unpaid balance of each invoice. The interest period shall commence 30 days after date of original invoice and shall terminate upon date of payment. Payments will be first credited to interest and then to principle. No interest charge would be added during the initial 30 day period following date of invoice.
3. The fee for services will be based on current hourly rates for specific classifications and expenses. Hourly rates and expenses included in the attached schedule are reevaluated on January 1 and July 1 of each year.
4. Documents including tracings, maps, and other original documents as instruments of service are and shall remain properties of the consultant except where by law or precedent these documents become public property.
5. If any portion of the work is terminated by the client, then the provisions of this Schedule of Fees and Conditions in regard to compensation and payment shall apply insofar as possible to that portion of the work not terminated or abandoned. If said termination occurs prior to completion of any phase of the project, the fee for services performed during such phase shall be based on the consultant's reasonable estimate of the portion of such phase completed prior to said termination, plus a reasonable amount to reimburse consultant for termination costs.
6. If either party becomes involved in litigation arising out of this contract or the performance thereof, the court in such litigation shall award reasonable costs and expenses, including attorney's fees, to the party justly entitled thereto.
7. All of the terms, conditions and provisions hereof shall inure to the benefit of and be binding upon the parties hereto and their respective successors and assigns, provided, however, that no assignment of the contract shall be made without written consent of the parties to the agreement.

**Los Osos Basin Plan
Monitoring Well Network 2024
FIRST WATER**

Program Well ID	Well Owner	Basin Plan Monitoring Code	County Water Level Program	LOWRF Groundwater Monitoring Program ¹	2024 Basin Plan Monitoring Program ²
FW1	PRIVATE	L			(no access)
FW2	LOCSD	L, G		L, G	L
FW3	LOCSD	L		L	L
FW4	LOCSD	L		L	L
FW5	LOCSD	L		L	L, CEC
FW6	LOCSD	TL, G, CEC		G	TL, CEC
FW7	LOCSD	L			L
FW8	LOCSD	L		L	L
FW9	LOCSD	L		L	L
FW10	LOCSD	TL, G		G	TL
FW11	LOCSD	L		L	L
FW12	LOCSD	L		L	L
FW13	LOCSD	L		L	L
FW14	PRIVATE	L		L	L
FW15	LOCSD	L, G		L,G	L
FW16	LOCSD	L		L	L
FW17	LOCSD	L, G		L,G	L
FW18	SLCUSD	L			L
FW19	LOCSD	L		L	L
FW20	LOCSD	L, G		L, G	L
FW21	LOCSD	L		L	L
FW22	PRIVATE	L, G		L, G	L
FW23	PRIVATE	L		L	L
FW24	PRIVATE	L	L		
FW25	PRIVATE	L	L		
FW26	PRIVATE	L			L
FW27	PRIVATE	TL			TL
FW28	PRIVATE	L, G	L		G
FW29	PRIVATE	(added in 2015)	L		
FW30	PRIVATE	(added in 2015)		L	
FW31	SLO CO.	(added in 2015)			L
FW32	PRIVATE	(added in 2017)			L
FW33	PRIVATE	(added in 2018)			L

L = WATER LEVEL

G = GENERAL MINERAL

CEC = CONSTITUENTS OF EMERGING CONCERN

TL = TRANSDUCER WATER LEVEL

LOCSD = Los Osos Community Services District

SLCUSD = San Luis Coastal Unified School District

SLO CO. = San Luis Obispo County

NOTES:

1 - Summer and winter monitoring schedule

2 - Spring and Fall water levels, water quality in Fall only

**Los Osos Basin Plan
Monitoring Well Network 2024
UPPER AQUIFER**

Program Well ID	Well Owner	Basin Plan Monitoring Code	County Water Level Program	LOWRF Groundwater Monitoring Program ¹	2024 Basin Plan Monitoring Program ²
UA1	SLO CO.	L	L		
UA2	SLO CO.	L	L		
UA3	GSWC	L, G			L, G
UA4	S&T	TL			TL
UA5	LOCSD	L		L	L
UA6	SLO CO.	L	L		
UA7	SLO CO.	L	L		
UA8	LOCSD	L			L
UA9	GSWC	L, G			L, G
UA10	LOCSD	TL			TL
UA11	PRIVATE	L	L	L	
UA12	LOCSD	L		L	L
UA13	LOCSD	L, G			L, G
UA14	PRIVATE	L	L		
UA15	PRIVATE	L	L		
UA16	PRIVATE	(added in 2015)	L		
UA17	PRIVATE	(added in 2015)	L		
UA18	PRIVATE	(added in 2015)	L		
UA19	LOCSD	(added in 2019)			L

L = WATER LEVEL

G = GENERAL MINERAL

TL = TRANSDUCER WATER LEVEL

LOCSD = Los Osos Community Services District

SLO CO. = San Luis Obispo County

GSWC = Golden State Water Company

S&T = S&T Mutual Water Company

NOTES:

1 - Summer and winter monitoring schedule

2 - Spring and Fall water levels, water quality in Fall only

**Los Osos Basin Plan
Monitoring Well Network 2024
LOWER AQUIFER**

Program Well ID	Well Owner	Basin Plan Monitoring Code	County Water Level Program	2024 Basin Plan Monitoring Program ¹
LA1	SLO CO.	L	L	
LA2	SLO CO.	L	L	
LA3	SLO CO.	L	L	
LA4	PRIVATE	L, GL		L, GL
LA5	S&T	L	L	
LA6	GSWC	L, G	L	TL
LA7	PRIVATE	TL		
LA8	S&T	L, G		L, G
LA9	GSWC	L		L, G
LA10	GSWC	L, G		L, G
LA11	SLO CO.	L, G		TL, G
LA12	LOCSD	L, G		L, G
LA13	LOCSD	TL		TL, G
LA14	SLO CO.	L, GL	L	TL, GL
LA15	LOCSD	L, G		L, G
LA16	PRIVATE	L	L	TL
LA17	SLO CO.	L	L	
LA18	LOCSD	L, G		L, G
LA19	SLO CO.	L	L	TL
LA20	GSWC	L, G		L, G
LA21	LOCSD	L	L	
LA22	LOCSD	L	L	G
LA23	PRIVATE	L, G		no access
LA24	PRIVATE	L	L	
LA25	PRIVATE	L		L
LA26	PRIVATE	L	L	
LA27	PRIVATE	TL		L
LA28	PRIVATE	L, G		L
LA29	PRIVATE	L	L	
LA30	PRIVATE	L, G		L, G
LA31	PRIVATE	(added in 2015)	L	G
LA32	LOCSD	(added in 2015)	L	G
LA33	PRIVATE	(added in 2015)	L	
LA34	SLO CO.	(added in 2015)	L	
LA35	SLO CO.	(added in 2015)		L
LA36	PRIVATE	(added in 2015)		no access
LA37	SLO CO.	(added in 2017)		TL
LA38	PRIVATE	(added in 2017)		L
LA39	GSWC	(added in 2019)		L, G
LA40	LOCSD	(added in 2019)		L, G, GL
LA41	LOCSD	(added in 2019)		L, G
LA42	LOCSD	Pending 2023		TL, G
LA43	LOCSD	Pending 2023		TL, G

L = WATER LEVEL

LOCSD = Los Osos Community Services District

G = GENERAL MINERAL

SLO CO. = San Luis Obispo County

GL = GEOPHYSICAL LOG (triennial)

GSWC = Golden State Water Company

TL = TRANSDUCER WATER LEVEL

S&T = S&T Mutual Water Company

1 - Water level and water quality both Spring and Fall

Cleath-Harris Geologists, Inc.
75 Zaca Lane, Suite 110
San Luis Obispo, CA 93401
(805) 543-1413



October 10, 2023

Los Osos Basin Management Committee
c/o Mr. Daniel Heimel, P.E.
Confluence Engineering Solutions, Inc.
P.O. Box 7098
Los Osos, CA 93412

SUBJECT: Proposal for preparing the 2023 Annual Monitoring Report for the Los Osos Groundwater Basin.

Dear Mr. Heimel:

Cleath-Harris Geologists (CHG) proposes to perform hydrogeologic services for completing the 2023 Annual Monitoring Report for the Los Osos Basin Plan (LOBP) Groundwater Monitoring Program. This proposal includes a scope of work, schedule, and estimated cost.

SCOPE OF WORK

2023 Annual Report

Annual Report tasks include:

- Update databases with 2023 groundwater level and quality data for LOBP monitoring network wells.
- Prepare the draft 2023 Annual Monitoring Report for Basin Management Committee (BMC) review. The report will include data reporting and interpretation for the period from January 1, 2023 through December 31, 2023. The report shall follow the 2022 Annual Monitoring Report format as a template, with updates for changed conditions.
- Preview Sustainable Yield₂₀₂₄ as adopted by the BMC.
- Update 2023 private domestic water use estimates based on Appendix C of the 2023 Los Osos Offset Study.
- Receive BMC comments and incorporate into a final 2023 Annual Monitoring Report.
- Assist BMC with preparing CASGEM datasets.

Management Task 1: Sustainable Yield₂₀₂₅

The Interlocutory Stipulated Judgement (ISJ), adopted in 2015, includes requirements to the effect that the Basin Management Committee (BMC) shall annually establish the sustainable yield of the Basin, based on the conservation implemented and Basin Plan infrastructure then developed in the Basin and simulated in the model. The following tasks are proposed to comply with these requirements:



- In coordination with BMC Staff, evaluate Sustainable Yield₂₀₂₅ based on changes in LOBP infrastructure, groundwater inflow or outflow parameters, the understanding of hydrogeologic or geologic features in the basin, or other factors.
- Upon direction from BMC Staff, modify selected parameters from the previous Sustainable Yield₂₀₂₄ and, using the Basin model, estimate Sustainable Yield₂₀₂₅.
- Prepare a brief technical memorandum or similar materials presenting the Sustainable Yield₂₀₂₅ estimate for consideration and adoption by the BMC. If adopted, the Sustainable Yield₂₀₂₅ value would be previewed in the 2024 Annual Report.

SCHEDULE

The draft Annual Report will require approximately four months to complete. The final report would be available approximately 2-3 weeks following receipt of BMC comments.

The Sustainable Yield₂₀₂₄ task (Management Task 1) will be initiated after completion of the 2023 Annual Report. The schedule will be coordinated with BMC Staff to allow for evaluation and adoption Sustainable Yield₂₀₂₅ before January 2024.

FEES AND CONDITIONS

CHG proposes to perform the above scope of work on an hourly rate plus expenses basis in accordance with the hourly rates schedule and attached terms of fees and conditions. The estimated cost for hydrogeologic services to complete 2023 annual report tasks is estimated at \$64,500. Management Task 1 is estimated to cost \$3,500. The total estimated cost for 2023 Annual Report preparations and the additional management task is **\$68,000**.

SCHEDULE OF HOURLY RATES

Principal Hydrogeologist	\$195
Senior Hydrogeologist	\$180
Project Geologist	\$165
Environmental Scientist	\$165
Staff Geologist II	\$145
Staff Geologist I	\$130

EXPENSES

Mileage	\$0.70/mile
Other expenses at cost plus 10 percent handling	



AGREEMENT

If the above work scope and fees and conditions are acceptable, this proposal will serve as the basis for agreement.

Respectfully submitted,

CLEATH-HARRIS GEOLOGISTS, INC.

A handwritten signature in black ink, reading "Spencer J. Harris". The signature is fluid and cursive, with the first name "Spencer" and last name "Harris" clearly legible.

Spencer J. Harris, President

attachment



TERMS OF FEES AND CONDITIONS

1. Invoices will be submitted monthly. The invoice is due and payable upon receipt.
2. In order to defray carrying charges resulting from delayed payments, simple interest at the rate of ten percent (10%) per annum (but not to exceed the maximum rate allowed by law) will be added to the unpaid balance of each invoice. The interest period shall commence 30 days after date of original invoice and shall terminate upon date of payment. Payments will be first credited to interest and then to principle. No interest charge would be added during the initial 30 day period following date of invoice.
3. The fee for services will be based on current hourly rates for specific classifications and expenses. Hourly rates and expenses included in the attached schedule are reevaluated on January 1 and July 1 of each year.
4. Documents including tracings, maps, and other original documents as instruments of service are and shall remain properties of the consultant except where by law or precedent these documents become public property.
5. If any portion of the work is terminated by the client, then the provisions of this Schedule of Fees and Conditions in regard to compensation and payment shall apply insofar as possible to that portion of the work not terminated or abandoned. If said termination occurs prior to completion of any phase of the project, the fee for services performed during such phase shall be based on the consultant's reasonable estimate of the portion of such phase completed prior to said termination, plus a reasonable amount to reimburse consultant for termination costs.
6. If either party becomes involved in litigation arising out of this contract or the performance thereof, the court in such litigation shall award reasonable costs and expenses, including attorney's fees, to the party justly entitled thereto.
7. All of the terms, conditions and provisions hereof shall inure to the benefit of and be binding upon the parties hereto and their respective successors and assigns, provided, however, that no assignment of the contract shall be made without written consent of the parties to the agreement.

Robert Stilts, CPA
1398 Los Osos Valley Road, Suite E
Los Osos, CA 93402
(805) 528-4181

Re: BMC Accounting Services Proposal

Dear Los Osos Basin Management Committee,

I am very pleased with the opportunity to present my proposal to provide bookkeeping services to the Los Osos Basin Management Committee (Los Osos BMC). I am prepared to provide a range of services as outlined below:

A. Regular Monthly Basis

- Processes Accounts Payable and Cash Disbursements. Responsible for processing approved vendor invoices for payment, prints checks for signatures, and prepares Accounts Payable reports and basic transactions.
- Prepares periodic statistical and financial reports.
- Verifies the accuracy of journal and ledger postings and makes adjusting entries when necessary.
- Reconciles bank statements.
- Records revenues.
- Prepares the following items to be included in the committee's agenda packet: the warrant report, balance sheets, Revenue and Expenditure reports, and written Financial reports.

B. Annual Basis:

- Prepares 1099's
- Work with auditors to prepare annual financial statements, if needed.

C. General Support:

- Provides assistance to the committee as needed.
- Provides assistance, guidance, and suggestions to the committee to improve internal control procedures.

The estimated cost to provide the scope of Accounting Services described above for one year is \$6,300. These services will be provided on a time and materials basis at an hourly rate of \$175 per hour and charges will not exceed the estimated cost without written authorization from the BMC or its authorized agents. This proposal is specifically tailored to the Los Osos BMC's accounting requirements. This offer is a firm and irrevocable offer for 120 days.

Please feel free to contact me with any questions that you may have regarding the proposal. I look forward to continuing my professional relationship with your organization.

Sincerely,

Robert Stilts

Robert Stilts, CPA



STREAMLINE

Los Osos Basin Management Committee

Quote created: September 21, 2023 Reference: 20230921-102615639

Confluencees

Dan Heime

danheimel@confluencees.com

8054598498

Comments

Setup Fee: \$250

Kaitlyn Xiong - Streamline



Products & Services

Streamline Web 250k-500k

1 x \$1,440.00 /year

Annual subtotal \$1,440.00

Total \$1,440.00

This quote expires on December 20, 2023

Purchase terms

Questions? Contact me



Kaitlyn Xiong

kaitlyn@getstreamline.com

Streamline

3301 C Street #1000

Sacramento CA 95816

US

TO: Los Osos Basin Management Committee

FROM: Dan Heibel, Executive Director

DATE: December 6, 2023

SUBJECT: Item 9e – Public Review Draft Title 19 (Retrofit-to-Build) and Title 8 (Retrofit-Upon-Sale) Amendments

Recommendation

Receive a presentation from County of San Luis Obispo Planning & Building Department on the Public Review Draft Title 19 (Retrofit-to-Build) and Title 8 (Retrofit-Upon-Sale) Amendments and provide comments to staff.

Discussion

On June 30th, 2023, the County of San Luis Obispo Planning & Building Department (Planning Department) and Maddaus Water Management, Inc. published a study (Los Osos Water Offset Study) that provided updated water usage estimates for urban and rural residences sourcing water from the Los Osos Groundwater Basin, proposed new water conservation measures for the retrofit-to-build program, and estimated the remaining water savings potential for the community. The Planning Department gave a presentation on the Los Osos Water Offset Study results at the August 16th, 2023 Basin Management Committee (BMC) public meeting and at the August 24th, 2023 Los Osos Community Advisory Council public meeting.

Based on the findings and comments received on the Los Osos Water Offset Study, the County Board of Supervisors directed Planning Department staff on October 17th, 2023 to present a draft of ordinance amendments to the Title 19 Los Osos offset program by February of 2024. The Title 19 ordinance amendments necessitated amendments to the according Title 8.

Attached to this staff report is a Memo from the Planning Department that includes the Public Review Draft of the amendments to the Title 19 (Retrofit-to-Build) and Title 8 (Retrofit-Upon-Sale) ordinances and related information. The public review draft package may also be found on the Planning Department's website: [Los Osos Retrofit to Build \(Title 19\) and Retrofit Upon Sale \(Title 8\) Program Update - County of San Luis Obispo \(ca.gov\)](#).

The public comment period for the Draft Title 19 and Title 8 amendments is open from **November 27th through December 31st, 2023**. Please send all comments by December 31st, 2023 to Claire Momberger at cmomberger@co.slo.ca.us via email or via mail to the Department:

ATTN: Los Osos Ordinance Amendments/Claire Momberger
976 Osos Street, Room 300
San Luis Obispo, CA 93408

The Planning Department will provide a presentation on the Draft Title 19 and Title 8 amendments and related initiatives at the December 6th, 2023 BMC Meeting.

Attachments

1. Los Osos Water Offset Update - Title 19 and Title 8 Ordinance Amendments - PUBLIC REVIEW
DRAFT

COUNTY OF SAN LUIS OBISPO

LOS OSOS WATER OFFSET PROGRAM UPDATE – TITLE 8 AND TITLE 19 ORDINANCE AMENDMENTS PUBLIC REVIEW DRAFT



November 27, 2023

Claire Momberger, Planner II
cmomberger@co.slo.ca.us
(805) 781-1392

Please submit comments on the Public Review Draft to Claire Momberger, by December 31st, 2023. Comments may be submitted by e-mail or mail (Department of Planning and Building, San Luis Obispo County Government Center, 976 Osos Street, San Luis Obispo, CA 93408, ATTN: Claire Momberger).



MEMO

DATE: November 27, 2023

TO: Interested Parties

FROM: San Luis Obispo County Department of Planning and Building

SUBJECT: Los Osos Offset Program Amendments, Title 8 and Title 19 – Public Review Draft

On October 17, 2023, the County Board of Supervisors (BOS) identified amendments to Title 19 as a priority for the first quarter of the 2024 calendar year. Title 19 codifies what is commonly called the Los Osos “water offset” program, also known as the Retrofit-to-Build program and the 2:1 offset program. Title 8 codifies the Retrofit-Upon-Sale component of the water offset program and requires an according update to the plumbing fixture flow retrofit requirements for toilets and showerheads. This public review package includes the proposed changes to Title 19 (the Building and Construction Ordinance, Section 19.07.042) and Title 8 (the Health and Sanitation Ordinance, Sections 8.91.020 and 8.91.040), the updated applications for both programs, and public comments with the according Planning & Building Department (Department) responses regarding the Los Osos Water Offset Study and the October 17, 2023 BOS meeting (Item 40).

The Public Review Draft of the Los Osos Program Amendments is attached for review and comment. The ordinance is tentatively scheduled for introduction to the public as a consent item on the BOS agenda on February 6, 2024. The ordinance is tentatively scheduled for a BOS hearing on February 27, 2024. **Comments are due on December 31, 2023.** Late comments will be forwarded to the BOS but will not be responded to in the staff report or considered in the public hearing draft of the ordinance.

Submit your comments on the draft ordinance amendments to Claire Momberger by email (cmomberger@co.slo.ca.us) or by mail addressed to the Department of Planning and Building, San Luis Obispo County Government Center, 976 Osos Street, San Luis Obispo, CA 93408, ATTN: Los Osos Ordinance Amendments/Claire Momberger.

Background

The purpose of the Los Osos water offset program amendments, as requested by the BOS on October 17, 2023, is to update the program requirements according to the program audit that was completed by Maddaus Water Management, Inc. in June 2023. The published audit document can be found on the Department website at: [Los Osos Water Offset Study - County of San Luis Obispo \(ca.gov\)](https://www.sloplanning.org/los-osos-water-offset-study-county-of-san-luis-obispo-ca-gov)

The Los Osos water offset program is applicable to all properties that lie within the boundary of the Los Osos Groundwater Basin (see Figure 1 below). The Los Osos water offset program requirements need to be updated to address significant changes in water savings technology, water consumption patterns, and water conservation efforts of the community since the program was adopted in 2008. The program updates also include changes to the program processes to enhance program success and public confidence.

Additions to existing ordinances are shown in underlined red and removals are shown in ~~strikethrough red~~.

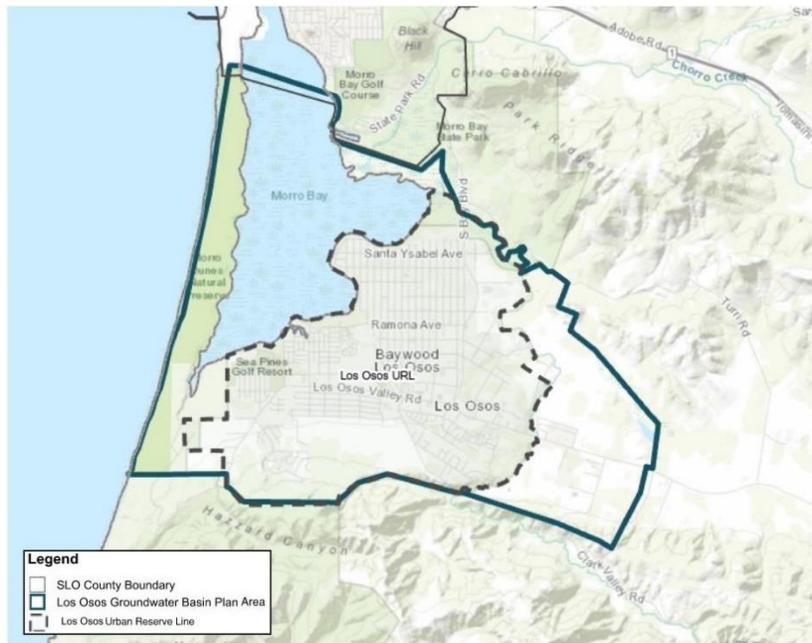


Figure 1. Los Osos Groundwater Basin area (map is proposed in the ordinance amendment package).

Summary of Title 19 and Title 8 Ordinance Amendments

Title 19 Retrofit-to-Build and Title 8 Retrofit-Upon-Sale

- 1) An update to the program map, requirements apply to all properties within the boundary of the Los Osos Groundwater Basin Plan Area.
- 2) New fixture flow requirements for retrofitted toilets (effective flush rate of 1.0 gallon per flush) and showerheads (1.5 gallons per minute).

Title 19 Retrofit-to-Build

- 1) An update to the total amount of water savings required for Mobile Homes/Multi-Family and Single Family dwellings; the required amount of water savings is dependent upon the water source for the property (Water Purveyor or Self-Source) and the parcel size.
- 2) Program implementation and process updates:
 - a. Department staff required to conduct post-installation inspections at random.
 - b. Instruction to the Department to update the total water savings requirements (located in the program application) every 5 calendar years using the method established in the Los Osos Offset Study.
- 3) Allowance of properties within the boundary of the Prohibition Zone/Los Osos Sewer Service Area to be a source of bathroom fixture water savings.
- 4) Authorization granted to the Department to conduct a pilot program to test the capacity/effectiveness of an outdoor water conservation program.
- 5) New compliance requirements for hot water recirculation system installations, where the total water savings vary depending on the specific layout of the installation site and systems must be demand-initiated.
- 6) A change to the organization of the ordinance through extraction of the "Los Osos Plumbing Retrofit Program" table from the ordinance and relocation of the new total water savings and average plumbing fixture use tables to the Retrofit-to-Build program application document.

PUBLIC REVIEW DRAFT

AN ORDINANCE AMENDING TITLE 8 AND TITLE 19 OF THE SAN LUIS OBISPO COUNTY CODE, THE HEALTH AND SANITATION ORDINANCE AND THE BUILDINGS AND CONSTRUCTION ORDINANCE, TO UPDATE THE PLUMBING FIXTURE RETROFIT REQUIREMENTS FOR THE RETROFIT UPON SALE AND RETROFIT TO BUILD PROGRAMS WITHIN THE LOS OSOS GROUNDWATER BASIN PLAN AREA

8.91.020 – Definitions.

- (3) "Low consumption plumbing fixtures for residential units" include:
- Toilets that are rated at no more than ~~an effective flush rate of 4.28~~ 1.0 gallon per flush ~~(HET);~~
 - Showerheads that do not exceed ~~2.0~~ 1.5 gallons per minute;
 - Aerators on all lavatory sinks that do not exceed one gallon per minute.
- (4) "Low consumption plumbing fixtures for commercial units" include:
- Urinals that use no more than 0.5 gallon per flush;
 - Toilets that are rated at no more than ~~an effective flush rate of 4.28~~ 1.0 gallon per flush ~~(HET);~~
 - Showerheads that do not exceed ~~2.0~~ 1.5 gallons per minute;
 - Aerators on all lavatory sinks that do not exceed one gallon per minute.
- (5) The Los Osos groundwater basin is shown in Figure A as the area within the "Los Osos Groundwater Basin ~~Plan Area Boundary.~~"

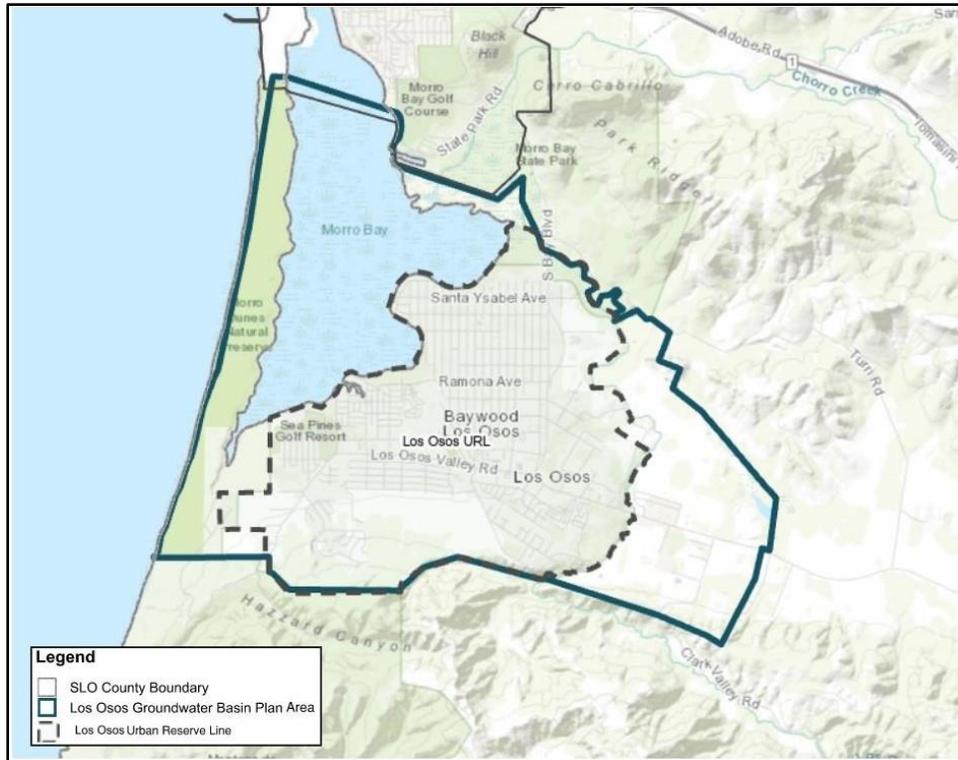


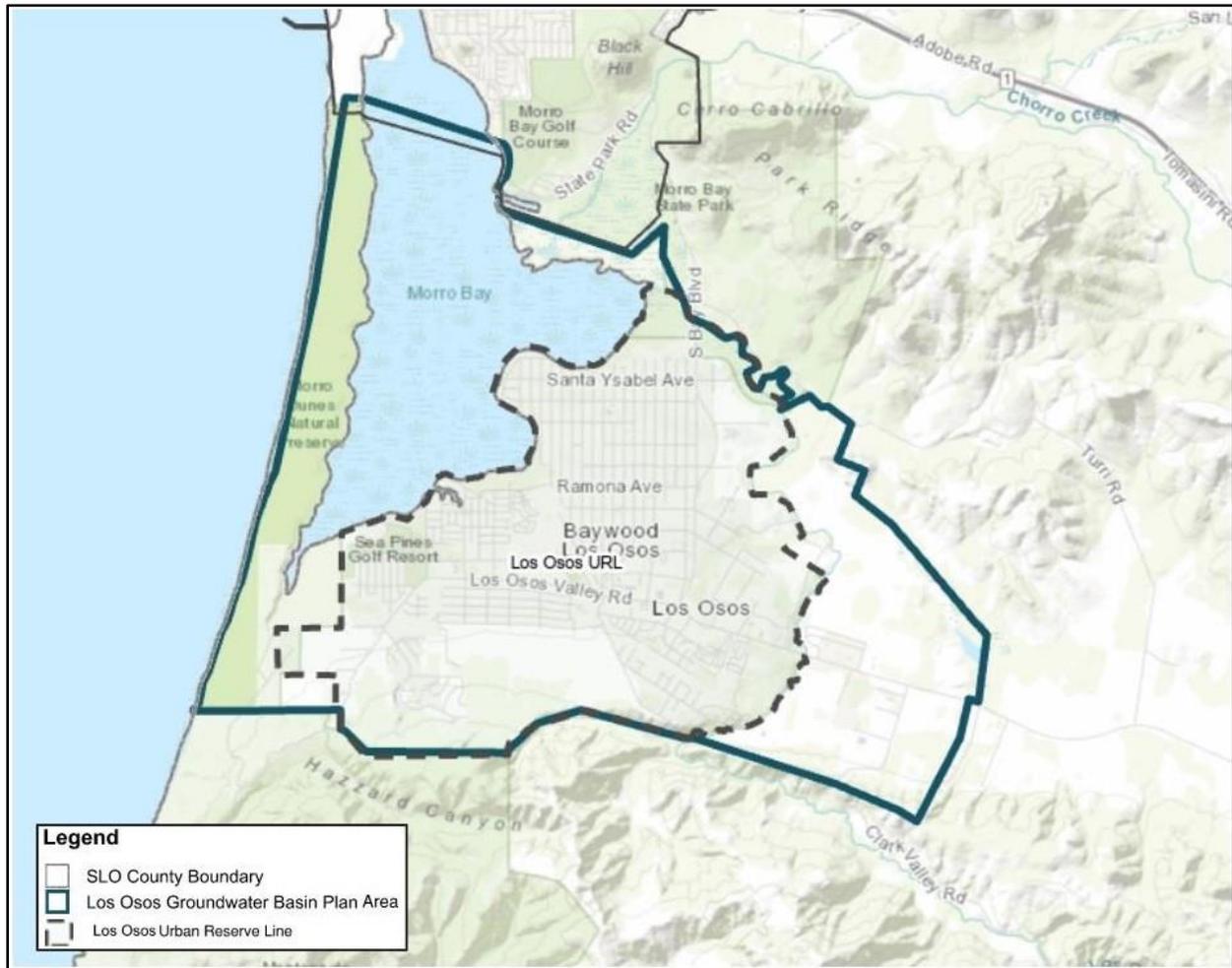
Figure A. Los Osos Groundwater Basin Plan Area Boundary, not to scale.

8.91.040 – Exemptions.

- (a) All existing ~~4.6~~ 1.28 gallons-per-flush toilets shall be exempt from the provisions of this chapter.

19.07.042 – Water conservation provisions.

- (8) Los Osos Groundwater Basin: In addition to the requirements in sections a, b and c above, the requirements in subsections (8)a. through (8)j. below shall apply to all new development that uses water from the Los Osos Groundwater Basin shown in Figure 7-2.



Map created November 2023.

Figure 7-2 – Los Osos Groundwater Basin Plan Area

- a. The developer of any new structure that uses water from the Los Osos Groundwater Basin shall install plumbing fixtures that meet the following requirements:
1. Toilets rated at no more than an effective flush rate of 1.28 1.0 gallon per flush (HET) (allowing for the installation of dual flush models);
 2. Showerheads rated at no more than 1.85 gallons per minute;
 3. Bathroom sink aerators with a volume of no more than 1.2 gallons per minute;
 4. Hot water circulation systems for master bathrooms and kitchens if the furthest plumbing fixture unit in these rooms is greater than twenty pipe-feet from the hot water heater;

5. Commercial structures shall use urinals rated at no more than 0.5 gallons per flush;
 6. New residences shall be plumbed for grey-water systems pursuant to Chapter 16 of the Uniform Plumbing Code.
- b. Prior to issuance of a construction permit for a new structure with plumbing fixtures that uses water from the Los Osos Groundwater Basin, the developer of such new structure shall retrofit plumbing fixtures in existing structures within the Los Osos Groundwater Basin, ~~but outside the Prohibition Zone~~ as shown in figure 7-2. The number and type of plumbing fixtures to be installed shall be as required in the Total Retrofit Water Savings Required for Certificate (gallons per day, or gpd) equivalency table as adopted and codified in Appendix A, which shall be maintained by and kept on file with the Department of Planning and Building (Department). The ~~equivalency~~ table indicates the ~~point-flow~~ values of existing fixtures which may be retrofitted and the corresponding ~~point-flow~~ requirements for each newly constructed or remodeled structure. A package of proposed retrofits and water conservation requirements must add up to no less than the minimum requirements established in the Appendix C Total Retrofit Water Savings Required for Certificate (gallons per day, or gpd) table.
1. The total amount of water savings or the “offset” amount required for building permit issuance of a new structure is determined per dwelling type and water source and is maintained by and kept on file with the Department. Applicants for new structures shall refer to the Department staff for the most current water savings requirements.
 2. If a new structure is not a dwelling unit, the method of and total amount of water savings required through offsetting shall be determined in the development plan or building permit process through coordination with Department staff.
 3. To achieve water savings and receive a certificate for permit issuance, developers may retrofit existing toilets, showerheads, and clothes washers and/or install demand-initiated hot water recirculation systems. Refer to the Department staff for eligible fixture replacements.
 4. The total water savings requirement for a new structure may be met through the sum of total water savings by retrofit of any multiple types of fixtures referenced in subsection (b)(3), or through other projects as authorized by the Department director.
 5. The Total Retrofit Water Savings Required for Certificate (gallons per day, or gpd) and the Average Water Savings per fixture type shall be updated by the Department director every 5 calendar years based on the best available residential end use studies and consumption data average use rates, using the methodology established in the Los Osos Water Offset Study published on June 30th, 2023 and managed by the Department. The published study is kept on file with the Department.
- c. Any addition of one hundred twenty square feet or more to an existing structure or any remodel of an existing structure that uses water from the Los Osos Groundwater

Basin shall require the replacement of plumbing fixtures in the entire structure with the following types of plumbing fixtures:

1. Toilets rated at no more than ~~an effective flush rate of 1.28~~ 1.0 gallon per flush (HET) (allowing for the installation of dual flush models);
 - a. Existing toilets in the existing structure that are rated at an effective flush rate of 1.28 gallons per flush do not need to be retrofitted to 1.0 gallons per flush.
 2. Showerheads rated at no more than 1.85 gallons per minute;
 3. Bathroom sink aerators with a volume of no more than 1.2 gallons per minute;
 4. All urinals in commercial structures shall be replaced with urinals rated at no more than 0.5 gallons per flush.
- ~~d. Any remodel of an existing structure that uses water from the Los Osos Groundwater Basin that requires a construction permit pursuant to this title shall require the replacement of plumbing fixtures in the entire structure with the following types of plumbing fixtures:-~~
- ~~1. Toilets rated at no more than 1.28 gallons per flush (HET);-~~
 - ~~2. Showerheads rated at no more than 1.8 gallons per minute;-~~
 - ~~3. Bathroom sink aerators with a volume of no more than 1.2 gallons per minute;-~~
 - ~~4. All urinals in commercial structures shall be replaced with urinals rated at no more than 0.5 gallons per flush.-~~
- ~~e d.~~ The planning director (or designee) is authorized to make determinations for fixtures or projects not specifically designated in the Total Retrofit Water Savings Required for Certificate (gallons per day, or gpd) equivalency table in Appendix A , which is maintained by and kept on file with the Department.
1. All average plumbing fixture use rates referenced in the total water savings tables for each fixture type, referenced in subsections (k) through (n) of this chapter, originate from the methodology used in the Los Osos Water Offset Study, published on June 30, 2023 and kept on file by the Department.
- ~~f e.~~ The Total Retrofit Water Savings Required for Certificate (gallons per day, or gpd) equivalency table in Appendix A shall be amended by the planning director ~~from time to time every 5 calendar years based on the best available residential end use studies and consumption data average use rates. to reflect changes in water use and/or water savings.~~
- ~~g f.~~ Owners of existing structures that are retrofitted under this program shall agree to allow their water purveyors to release water use figures to the ~~D~~department of planning and building in order to gauge the effectiveness of the program, to the extent allowed by California Law.
- ~~h g.~~ Upon retrofitting of the required number of fixtures, the developer shall submit evidence of the completed retrofits to the ~~D~~department of planning and building. This evidence shall consist of a retrofit verification declaration completed and executed by a licensed plumber and/or contractor. The retrofit verification declaration shall be assigned to and used for development of a specific property or properties or land use permit and shall not be transferred to another parcel.

- h. The department of planning and building shall conduct post-installation inspections of participating properties at random to verify that fixtures installed for the purpose of offsetting water demand have been maintained.
- i. Upon submittal to the San Luis Obispo County Department of Planning and Building of a completed and executed retrofit verification declaration accompanied by the required fee, the developer shall be issued a water conservation certificate from the Department of planning and building. Once the water conservation certificate is issued, the new structure may receive final occupancy approval. The water conservation certificate shall be assigned to and used for development of a specific property or properties or land use permit and shall not be transferred to another parcel, except as provided in the following subsection (8)j.
- ~~j. Water conservation certificates that were issued for vacant parcels inside the prohibition zone prior to the effective date of this ordinance may be transferred to specified vacant parcels or land use permits for vacant parcels outside the prohibition zone one time before January 1, 2019, except when the county is in a drought emergency as proclaimed by the board of supervisors. These water conservation certificates are encouraged to be transferred to vacant parcels with approved minor use permits.~~
- j. The Department may conduct a pilot program, at the discretion of the director, which allows total water savings for the offset of a new structure to be sourced from outdoor water conservation measures. The pilot program shall include pre- and post-landscape change inspections, require the installation of water-efficient irrigation technologies, and include an ongoing monitoring component to confirm water savings over time. The discretion of the director will be exercised to determine if an applicant's participation in a pilot program complies with the total water savings required to secure a retrofit certificate.
- k. Retrofit of toilet(s) for offset requirements:
1. New toilet(s) shall be rated at no more than an effective flush rate of 1.0 gallon per flush.
 2. New eligible toilet(s) may be dual flush models, so long as the effective flush rate is no more than 1.0 gallon per flush.
- l. Retrofit of showerhead(s) for offset requirements:
1. New showerhead(s) shall be rated at no more than 1.5 gallons per minute.
- m. Retrofit of clothes washer(s) for offset requirements:
1. Existing clothes washers may not be Energy Star Efficient.
- n. Installation of hot water recirculation system(s) may be used to satisfy offset requirements using the method on file with the Department.
1. Hot water recirculation systems shall be demand-initiated and have a calculated hot water volume of 0.5 gallon maximum between the hot water source and each fixture.

2. Plumbing systems can minimize water use by reducing the distance between the hot water source and each plumbing fixture that uses hot water. Hot water recirculation systems are only appropriate for certain plumbing layouts with large distances between the hot water source and hot water fixtures. At the time of submittal of a water savings verification application, the applicant shall submit a fixture diagram, list of pipe diameter and length measurements, and printouts of the calculator for the before-and-after configurations prepared by a licensed plumber.

Los Osos Plumbing Retrofit Program

RESIDENTIAL-				
Existing Toilet-	Replacement Toilet-	Single-Family-Residential-Gallons Saved Per Day (Credits)-	Multi-Family-Residential¹⁺ Credits-	Mobile Home²⁻ Credits-
6 gallons per flush	1.28 gpf	52	39	26
6 gpf	1.1 gpf	54	40	27
3.5 gpf	1.28 gpf	30	22	15
3.5 gpf	1.1 gpf	31	23	16
1.6 gpf	1.28 gpf	14	10	7
1.6 gpf	1.1 gpf	15	11	8
¹⁺ Multi Family Residential (MFR) is 75% of Single Family Residential Water Use-				
²⁻ Mobile Home is 50% of Single Family Residential Water Use-				
Existing Shower-	Replacement Shower-	Single-Family-Residential-Gallons Saved Per Day (Credits)-	Multi-Family-Residential¹⁺ Credits-	Mobile Home²⁻ Credits-
5 gallons per minute	2.5 gpm	19	14	10
5 gpm	1.5 gpm	26	20	13
2.5 gpm	1.5 gpm	13	10	7
Gallons Saved Per Day (Credits)				
Installation of a Hot Water Recirculation System-				17

Total retrofit credits needed for a new single family is 300 gallons-

¹⁺A structures on a parcel must be retrofitted at the same time-

²⁻A third bathroom in a house does not have to be retrofitted-

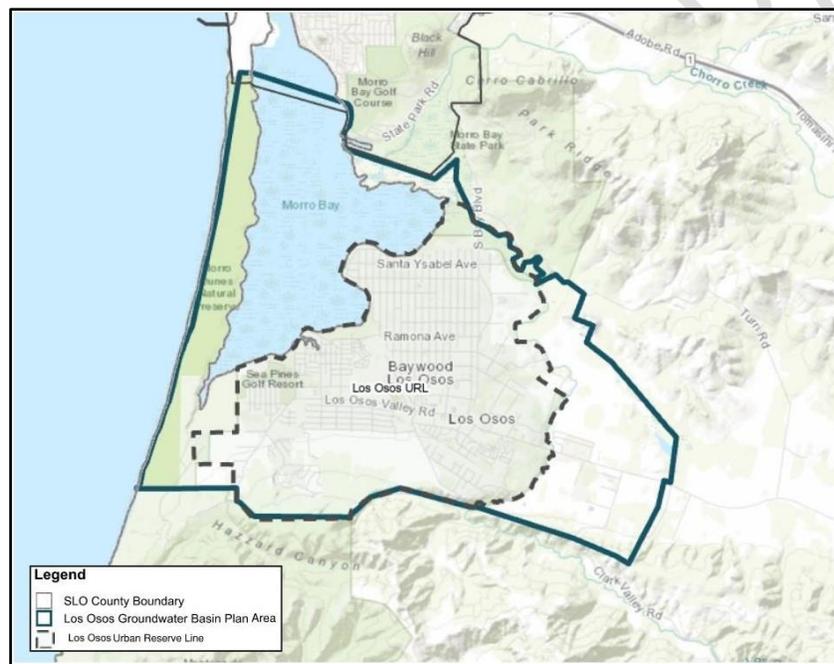
³⁻Replacement toilets must be rated at no more than 1.28 gpf-

⁴⁻If two toilets are replaced in one household, the average gallons (credits) saved between the two will be used-

Title 19: Los Osos Groundwater Basin Retrofit-to- Build Requirement

On April 22, 2008, the Board of Supervisors approved two plumbing retrofit ordinances for the Los Osos area. The ordinances address the groundwater quality concerns of the Los Osos Groundwater Basin. The ordinances require both new and existing development to retrofit older, non-conserving toilets and showerheads with fixtures that are water efficient. The ordinances went into effect May 22, 2008.

The Retrofit-to-Build program (Title 19) requires all new development that uses water from the Los Osos Groundwater Basin to retrofit older plumbing fixtures in existing homes and businesses **to save twice the amount of water** that is estimated to be used by the new development.



A total water savings table has been developed (Page 3) to calculate the total water savings required of the new dwelling, based on the water source (i.e., water purveyor or self-source) and the dwelling type (i.e., Single Family or Multifamily/Mobile Homes). The amount of savings required was determined using the methodology provided in the Los Osos Water Offset Study, completed in June 2023 and published on the Department of Planning & Building (Department) website: https://www.slocounty.ca.gov/Departments/Planning-Building/Forms-Documents/Planning-Projects/Los-Osos-Water-Offset-Study/TM-FINAL_County-of-San-Luis-Obispo_Los-Osos-Water-.pdf

The total water savings are achieved through the retrofit of existing plumbing fixtures (i.e., toilets, showerheads, and clothes washers) and/or installation of a demand-initiated hot water recirculation system anywhere within the boundary of the Los Osos Groundwater Basin Plan Area (see map above). To calculate toilet and showerhead water savings, please utilize the average water savings per fixture type tables. To calculate clothes washer water savings,



Title 19: Los Osos Groundwater Basin Retrofit-to- Build Requirement

please use the method described in Part 3: Water Savings Calculations – Clothes Washers. To calculate hot water recirculation system water savings, please use the [EPA Hot Water Volume Calculator](#) and the equation in Part 3: Water Savings Calculations – Hot Water Recirculation System. The total water savings are achieved by adding up the gallons saved per day of each fixture type. Staff will assess the application for completeness and for fulfillment of the total water savings. Please contact county staff at waterprograms@co.slo.ca.us with any questions.

Per Title 19 of the County Code, the Total Water Savings Required for Water Conservation Certificate table and the tables representing the average water savings per fixture replaced per household are to be updated every 5 years by the Department through the methodology established in the Los Osos Water Offset Study (June, 2023). Updated requirements will be posted on the Department website and amended on this form (Title 19: Los Osos Groundwater Basin Retrofit-to-Build Requirement, LNG-1016).

PUBLIC REVIEW DRAFT



Title 19: Los Osos Groundwater Basin Retrofit-to- Build Requirement

Total Water Savings Required for Water Conservation Certificate (gallons per day, or gpd)¹

<i>Residence Type</i>	<i>Water Source</i>	<i>Total Water Savings Required for Certificate (gpd)²</i>
Single Family	Water Purveyor	256
	Self-Source ³	$(92 + \frac{196.4}{\text{parcel size (acres)}}) * 2$
Multifamily and Mobile Homes	Water Purveyor	200
	Self-Source ³	$(58 + \frac{196.4}{\text{parcel size (acres)}}) * 2$

¹ The department of planning and building will update this table every 5 years, as is required in subsection (g).

² Water Savings requirements are totaled per the rates of the Los Osos Plumbing Retrofit Program Equivalency Table and reflect the 2:1 ratio offset requirement.

³ The Total Water Savings Required for Certificate (gallons per day) for self-source parcels must be calculated according to the size of the parcel in acres, where Total Water Savings Required for Certificate (gpd) for self-source parcels is equal to $(\text{Average Indoor Water Use} + \frac{\text{Average Outdoor Water Use}}{\text{parcel size (acres)}}) * 2$.



Title 19: Los Osos Groundwater Basin Retrofit-to- Build Requirement

Retrofit-to-Build Process

To obtain a Water Conservation Certificate, a complete Title 19: Retrofit Verification Table must be submitted to the Department of Planning and Building. The Table is in three parts (described below). All sections must be filled out correctly for the Water Conservation Certificate to be issued.

1. **Part 1** of the Retrofit Verification Table must include the following information about the building site:
 - a. Project Address/Assessor's Parcel Number (APN);
 - b. Required Total Water Savings;
 - c. Property Owner Name (First & Last);
 - d. Property Owner Phone Number;
 - e. Licensed Plumber or Home Inspector Name (First & Last);
 - f. Licensed Plumber or Home Inspector Phone Number/License Number.
2. **Part 2** of the Retrofit Verification Table must include the following information about the retrofitted properties:
 - a. Retrofitted Property Address/Assessors Parcel Number (APN);
 - b. Retrofitted Property Owner Name (First & Last);
 - c. Date of Retrofit
 - d. Total Number of Toilets in Household
 - e. Total Number of Showerheads in Household
 - f. Existing Energy Star Efficient Clothes Washer?
 - g. Plumbing System Appropriate for Hot Water Recirculation System Installation?
3. **Part 3** of the Retrofit Verification Table must include the following information about the retrofits and/or installations completed:
 - a. Toilet Retrofits
 - i. New toilets shall be rated at no more than an effective flush rate of 1.0 gallon per flush (gpf).
 - ii. New eligible toilets may be dual flush models, so long as the effective flush rate is no more than 1.0 gpf.
 - b. Showerhead Retrofits
 - i. New showerheads shall be rated at no more than 1.5 gallons per minute (gpm).
 - c. Clothes Washer Retrofits
 - i. Existing clothes washers may not be Energy Star Efficient to receive credit towards water savings.
 - ii. New clothes washer must be on the Energy Star list.
 - iii. Required attachments:
 - 1) Receipt of purchase of new washer.
 - 2) Photos of old washer, prior to removal.
 - 3) Photos of new washer, after installation.



Title 19: Los Osos Groundwater Basin Retrofit-to- Build Requirement

- d. Hot Water Recirculation System Installation
 - i. System must be demand-initiated.
 - ii. System must have a calculated hot water volume of 0.5 gallons maximum between the hot water source and each fixture.
 - iii. **Applicants are advised to request a licensed plumber fill out the EPA Hot Water Volume Calculator before investing in a system, to ensure the estimated water savings is worth their investment.**
 - iv. Required attachments:
 - 1) Receipt of purchase for hot water recirculation system.
 - 2) Photos of hot water recirculation system, after installation.
 - 3) Plumbing fixture diagram including a list of pipe diameter and length measurements, and printouts of the calculator for the before-and-after configurations, prepared by a licensed plumber.
- 4. All Title 19: Retrofit Forms must be submitted with photos of the old and newly installed fixtures in order to be valid for the Retrofit-to-Build Program.
- 5. Email completed forms to waterprograms@co.slo.ca.us



TITLE 19: RETROFIT VERIFICATION TABLE

Part 1: Proposed Building Site

a. Project Address/Assessor's Parcel Number (APN):	b. Property Owner Name (First & Last):	c. Phone #:
d. Required Total Water Savings*:	e. Plumber/Home Inspector (First & Last):	f. Phone #/License #:

*Based on the Total Water Savings Required for Water Conservation Certificate table (i.e., dwelling type and water source).

Part 2: Retrofitted Properties

	a. Address/Assessor's Parcel Number (APN)	b. Property Owner Name (First & Last)	c. Date of Retrofit	d. Total No. of Toilets in Household	e. Total No. of Showerheads in Household	f. Existing Energy Star Efficient Clothes Washer?	g. Plumbing System Appropriate for Hot Water Recirc. System?
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							



Title 19: Los Osos Groundwater Basin Retrofit-to- Build Requirement

Average Water Savings per One Toilet Replaced per Household (gpd)

Total No. of Toilets per Household	Existing Flow Rate to Replacement Flow Rate (gallons per flush)			
	6.0 to 1.0	3.5 to 1.0	1.6 to 1.0	1.28 to 1.0
1	69	35	8	4
2	35	17	4	2
3	12	12	3	1
4	17	9	2	1
5	14	7	2	1
Etc.	$^4 \text{Water Savings per Toilet Retrofit} = \frac{(\text{Existing flow rate} - \text{Replacement flow rate}) \left(\frac{13.8 \text{ average flushes}}{\text{household} \cdot \text{day}} \right)}{\text{Total number toilets per household}}$			

*Add up the total water savings due to toilet retrofits based on the Average Water Savings per One Toilet (gpf) replaced, according to the total number of toilets in the household.

Part 3a: Water Savings Calculations - Toilets

Retrofitted Property (Part 2.a.)	Total No. of Toilets (Part 2.d.)	No. of 6.0 to 1.0 Retrofits	No. of 3.5 to 1.0 Retrofits	No. of 1.6 to 1.0 Retrofits	No. of 1.28 to 1.0 Retrofits	Total Average Water Savings Per No. of Toilets Replaced per Household (gpd) *
Example	3		2	1		<i>(using Average Water Savings table): 12+12+3 = 27 gpd</i>
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
Total:						

⁴ $\left(\frac{13.8 \text{ average flushes}}{\text{household} \cdot \text{day}} \right)$ is based on the average number of flushes (5.75) per 2.4 person household per day.



Title 19: Los Osos Groundwater Basin Retrofit-to- Build Requirement

Average Water Savings per One Showerhead Replaced per Household (gpd)

Total No. of Showerheads Per Household	Existing Flow Rate to Replacement Flow Rate (gallons per minute)	
	2.5 to 1.5	2.0 to 1.5
1	15	8
2	8	4
3	5	3
4	4	2
5	3	2
Etc.	$^5 \text{Water Savings/Showerhead Retrofit} = \frac{(\text{Existing flow rate} - \text{Replacement flow rate}) \left(\frac{15.1 \text{ average shower minutes}}{\text{household} \cdot \text{day}} \right)}{\text{Total number showerheads per household}}$	

*Add up the total water savings due to showerhead retrofits based on the Average Water Savings per One Showerhead (gpd) replaced, according to the total number of showerheads in the household.

Part 3b: Water Savings Calculations - Showerheads

Retrofitted Property (Part 2.a.)	Total No. of Showerheads (Part 2.e.)	No. of 2.5 to 1.5 Retrofits	No. of 2.0 to 1.5 Retrofits	Other Fixture Flow Rates (use Water Savings/Showerhead Retrofit equation)	Total Average Water Savings Per No. of Showerheads per Household (gpd) *
<i>Example</i>	3		2	$\frac{(2.2-1.5)(15.1)}{3} = 3.52$ (round up to 4 for total count)	(using Average Water Savings table below): 4+4+4 = 12 gpd
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
					Total:

⁵ $\left(\frac{15.1 \text{ average shower minutes}}{\text{household} \cdot \text{day}} \right)$ is based on the average shower minutes (6.3) per 2.4 person household per day.



Title 19: Los Osos Groundwater Basin Retrofit-to- Build Requirement

Part 3c: Water Savings Calculations - Clothes Washers

Retrofitted Property (Part 2.a.)	Existing Washer Energy Star Efficient?	Existing Washer (gpd) ⁶ $\left(\frac{\text{Gallons}}{\text{Cycle}}\right) * \left(\frac{\text{Number of Cycles}}{\text{Load}}\right) * \left(\frac{203 \text{ Loads}}{\text{Year}}\right) * \left(\frac{1 \text{ Year}}{365 \text{ Days}}\right)$	New Washer (gpd): $\frac{\text{Annual Water Use in Gallons}}{365 \text{ Days}}$	Total Average Water Savings Per No. of Clothes Washers Replaced per Household (gpd)
<i>Example</i>	<i>No</i>	$(24*2*203)/365=27$	$(4278)/365=12$	<i>(using Average Water Savings table below): 27-12 = 15 gpd</i>
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
				Total:

New Washer Must be on [Energy Star](#) List

⁶ $\left(\frac{203 \text{ Loads}}{\text{Year}}\right)$ for average household (2020 RECS Data, U.S. Homes in Marine Climate Region).



Title 19: Los Osos Groundwater Basin Retrofit-to- Build Requirement

Part 3c: Water Savings Calculations – Clothes Washers (continued)

Retrofitted Property (Part 2.a.)	Existing Make/Model	Existing Serial No.	New Make/Model	New Serial No.
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

To be completed by the person receiving the new washer. By signing below I certify that:

- I am the owner of the property above.
- The specifications listed above accurately represent the existing washing machine and the new washing machine that I have received and installed.
- I understand that the new washing machine must remain with the property if my house is sold, unless it is replaced with a model that is at least as efficient.
- I understand that I will be contacted and asked to verify that the information is correct.

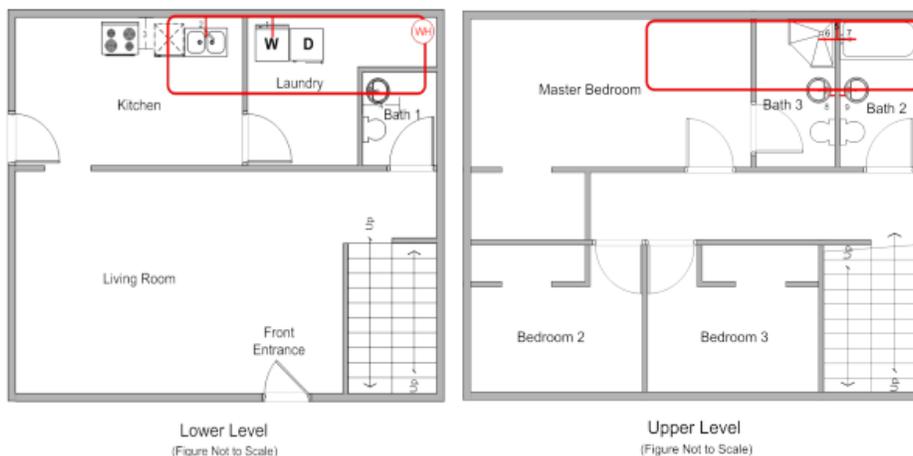
X _____
Property Owner

Part 3d: Water Savings Calculations – Hot Water Recirculation System

Retrofitted Property (Part 2.a.)	Plumbing Fixture Diagram Attached?	New System Demand-Initiated?	Estimated Water Savings (gpd) = $[\text{change in hot water storage volume (gal) for all fixtures}]^7 * 2$
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
Total:			

Estimated water savings (gpd) = [change in hot water storage volume (gal) for all fixtures] x 2
(Assuming hot water lines are flushed twice per day for morning showers and evening dishes.)
Change in hot water storage volume to be calculated using the [EPA Hot Water Volume Calculator](#)

Example fixture diagram for a demand-initiated recirculation system (a drawn and labeled diagram with measurements by a Licensed Plumber is required for application submittal):

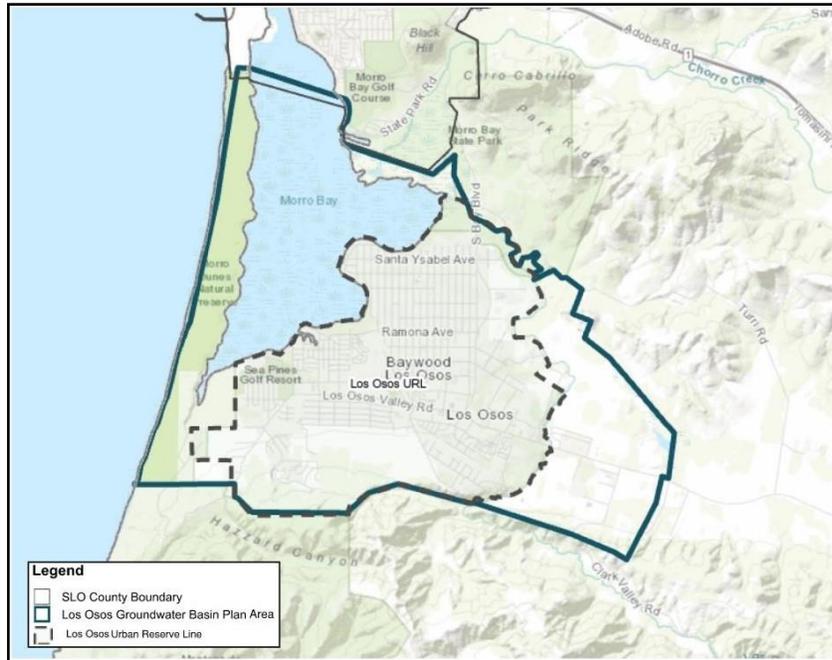


⁷ Using the [EPA Hot Water Volume Calculator](#). Refer to the EPA Guide for Efficient Hot Water Delivery System for example diagrams and calculations.



TITLE 8: LOS OSOS GROUNDWATER BASIN RETROFIT UPON SALE ORDINANCE

In 2008, the Board of Supervisors approved retrofit-upon-sale ordinance for the Los Osos Groundwater Basin. The ordinance addresses groundwater basin resource constraints by requiring plumbing retrofits of older, non-conserving toilets and showerheads with those that are water efficient before buildings can be sold.



Sellers of homes that use water from the Los Osos Groundwater Basin must submit verification to the Department of Planning and Building that plumbing fixtures meet the following requirements. To find out if a property is within these areas, visit [LandUseView \(ca.gov\)](http://LandUseView.ca.gov). Under layers, click Planning, Impacted Groundwater Basins, and check "Groundwater Basins at LOS III". Zoom in on Los Osos to see if the property is within the shaded area.

Existing Toilets	Replacement Required? (Effective Flush rate of 1.0 gpf or less gpf)
Greater than 1.28 gpf	Yes
Less than or equal to 1.28 gpf	No
Existing Showerheads	Replacement Required (1.5 or less gpm)
Greater than 1.5 gpm	Yes
Faucet Aerators	Must install or replace to not exceed 1 gpm



Retrofit Verification Process

1. Prior to transfer of title, a Title 8: Retrofit Verification Form must be submitted to the Department of Planning and Building. All sections must be filled out correctly for the retrofit certificate to be issued.
2. **Part 1** of the Retrofit Verification Form must include:
 - a. Date of Inspection;
 - b. Property Address;
 - c. Assessor Parcel Number¹;
 - d. Seller's First & Last Name;
 - e. Agent Name & Phone Number;
 - f. Inspector's Printed First & Last Name;
 - g. Inspector's Phone Number; and
 - h. Inspector's License # or Certification.
3. When filling out **Part 2** of the form, circle whether each of the Existing Toilets and Showerheads are **low flow**:
 - a. **If low flow**, write the existing gallons per flush (gpf) or gallons per minute (gpm) for the respective toilet and showerhead.
 - b. **If not low flow**, write the existing gpf or gpm for the respective toilet and showerhead, and then write the flow rate of the newly installed low flow fixture.
4. All retrofitted toilets must have an effective flow rate of 1.0 gpf or less and all retrofitted showerheads must have a flow rate of 1.5 gpm or less.
5. Circle whether a faucet aerator is present on each of the sinks and the respective flow rate. If a faucet aerator is not present or over 1gpm, replace and state the new flow rate.
6. If a property contains more than 2 bathrooms, a second Retrofit Verification Form must be submitted with the flow rates of the fixtures for each additional bathroom.
7. The Title 8: Retrofit Verification Form must be completed and signed by either a licensed plumber or a licensed home inspector.
8. The form must be submitted via email to: waterprograms@co.slo.ca.us.
9. The department will approve the information and provide the Seller or Agent, via email, with a Title 8: Retrofit Certificate.

¹ Assessor's Parcel Number can be found by searching the property address at www.sloplanning.org/PermitView/MapSearch.



Los Osos Title 8: Retrofit Verification Form

PART 1

Date of Inspection:	Seller's Name: (Printed First & Last)
Property Address:	Assessor's Parcel Number:
Agent's Name: (Printed First & Last)	Agent's Phone Number:
Inspector's Name: (Printed First & Last)	Inspector's Phone Number:
Inspector Type: Plumber / Home Inspector (Circle One)	License #:

PART 2

Bathroom #1			
Existing Toilet 1.28 gpf? YES / NO	_____ gpf (Must replace if greater than 1.28)	New Toilet	_____ gpf (Must be 1.0 or less)
Existing Showerhead 1.5 gpm? YES / NO	_____ gpm (Must replace if greater than 1.5)	New Showerhead	_____ gpm (Must be 1.5 or less)
Faucet Aerator Present? YES / NO	_____ gpm (1.0 or less)	New Faucet Aerator	_____ gpm (1.0 or less)
Bathroom #2			
Existing Toilet Low Flow 1.28 gpf? YES / NO	_____ gpf (Must replace if greater than 1.28)	New Toilet	_____ gpf (Must be 1.0 or less)
Existing Showerhead 1.5 gpm? YES / NO	_____ gpm (Must replace if greater than 1.5)	New Showerhead	_____ gpm (Must be 1.5 or less)
Faucet Aerator Present? YES / NO	_____ gpm (1.0 or less)	New Faucet Aerator	_____ gpm (1.0 or less)

Response to Verbal Public Comments on the Los Osos Water Offset Study

Presentation slides available at: https://www.slocounty.ca.gov/Departments/Planning-Building/Forms-Documents/Planning-Projects/Los-Osos-Water-Offset-Study/Study-Overview-Summer-2023_LOBMC_LOCAC_KH.pdf

Los Osos Basin Management Committee Presentation: August 16, 2023

Video available at: https://slo-span.org/meeting/lobmc_20230816/

Los Osos Community Advisory Council Presentation: August 24, 2023

Video available at: <https://www.youtube.com/watch?v=4P5nojWrOlk>

Commenter	Comment/Request	Planning Staff Response
Comments from 8/16/23 BMC Meeting		
Jeff Edwards	Why is kitchen use not considered in the “end use” concept?	See Appendix D of the study for estimated average end use assumptions for kitchen fixtures (13% of indoor use for kitchen faucets and 2% for dishwashers). The study does not include estimated water savings for kitchen fixtures because the County does not have baseline data for existing kitchen fixture flow rates.
	The offset program should only include indoor retrofits and not expand to outdoor measures.	The draft Title 19 amendments include an allowance to establish a pilot program for outdoor measures.
	Saturation is closer to 50% not 70% for toilets and showerheads in the Prohibition Zone (PZ) due to exemptions allowed for the sewer connection requirements. The memo underestimates indoor potential water savings.	The fixture retrofit saturation estimates in the study are based on fixture-specific tracking data from the County’s retrofit programs.
Patrick McGibney, Chairman of the Los Osos Sustainability Group	The water conservation options identified in the offset study should be mandated and paid for by the County per Condition 5 of the Coastal Development Permit (CDP) for the community sewer.	The sewer CDP special condition 5 requires the County to spend \$5 million to implementation a water conservation program to reduce water use to 50 gallons per person per day on average within the basin. The average water use per person is estimated as less than 50 gallons per day within the sewer service area. See sewer annual monitoring reports to the Coastal Commission for more detail.

Commenter	Comment/Request	Planning Staff Response
	<p>The assumption of 300 loads/year for an average household in the formula to estimate water savings for clothes washing machines should be adjusted by 40% because it is based on an average household size of 4 people, and the average household size in Los Osos is 2.4 people.</p>	<p>The national average household size is 2.53 people per unit, not 4 people per unit (2020 census data). The draft Title 19 amendments estimate 285 loads per year per average household, adjusting the national Energy Star 300 loads/year average. $300 \times 2.53/2.4 = 285$.</p>
	<p>The program is based on assumptions and estimates. Why isn't there hard data?</p>	<p>The water offset program is based on average use rates to be administratively feasible. The study uses best available data to estimate average residential water use rates and fixture use rates.</p>
<p>Lynette Tornatzky</p>	<p>Could a smart meter device be offered to homeowners to monitor indoor and outdoor water use?</p>	<p>See page 9 of the study for a discussion of the current use of smart water meters by the various purveyors.</p>
<p>Emily Megans</p>	<p>Is there going to be a summary with best practices? Still need more public education - what is the status?</p>	<p>Please contact the purveyors for information about their education campaigns. County resources are available at: Water Conservation - County of San Luis Obispo (ca.gov).</p>
	<p>An executive summary for the public would be great.</p>	<p>The study includes an executive summary on page 3. The slides from this overview presentation are posted on the project webpage: Los Osos Water Offset Study - County of San Luis Obispo (ca.gov).</p>
<p>Linde Owen</p>	<p>Water offsets are not required for guesthouses.</p>	<p>Guesthouses are considered part of the existing single-family residential use. The draft Title 19 amendments do not require water offsets for new guesthouses in Los Osos.</p>
	<p>We don't know if a new house will use more water than average.</p>	<p>The water offset program is based on average use estimates. The draft Title 19 amendments require the average use estimates codified in the ordinance to be updated every 5 years to reflect updated purveyor consumption data. New houses may use more or less than the estimated averages.</p>

Commenter	Comment/Request	Planning Staff Response
Becky McFarland	Supports including outdoor measures in the offset program. Would like to see rebates for rainwater catchment and rain gutters. Many homes have back lawns for Cash for Grass.	The draft Title 19 amendments include an allowance to establish a pilot program for outdoor measures.
	Guest homes contain up to two bedrooms and a bathroom and don't need to offset water.	Guesthouses are considered part of the existing single-family residential use. The draft Title 19 amendments do not require water offsets for new guesthouses in Los Osos.
	Seawater intrusion continued for years after the offset program began.	The offset program was intended to offset water use for limited new development, not to address the larger water supply issues for the basin.
Richard Margetson	The assumption of 2.4 people/unit for multi-family units and mobile home parks could be more accurate than using the community-wide average from the census data. Mobile home parks in Los Osos are all 55+ communities. Maximum capacity for mobile homes is 2 people. Each park has their own phone book. Looking at those, Morro Shores averages 1.51 people/unit, and Daisy Hills averages 1.52 people/unit. Sea Oaks is mostly single-wides. Sunny Oaks is comparable to Morro Shores. Most multi-family units on Santa Ynez are small apartments. Numbers should be adjusted to not overestimate savings from multi-family units.	At this time, the U.S. Census data has provided the County with the most reliable and consistent source of population data for Los Osos and is used to develop program averages.
	Page 16 chart estimates a higher % outdoor water use for multi-family units than single-family units, which does not make sense since most apartment complexes and mobile homes have minimal landscaping.	Outdoor water use proves to be the greatest variable in estimating water consumption. For this reason, the draft Title 19 amendments include a requirement that the total water savings for self-source parcels be based on parcel size, allowing for an adjustment based on actual parcel size and therefore outdoor water usage.
Allen Godly	Concerned about the water quality of groundwater pumped from the basin.	The purveyors meet State safe drinking water regulations.

Commenter	Comment/Request	Planning Staff Response
	Would like to see meters on vacation rentals and hotels with an allotment of water use allowed per person.	The draft Title 19 amendments do not include a requirement to meter water use or limit water use for vacation rentals or hotels.
Chuck Cesena (BMC Board, LOCSD)	Verification is going to be the key. Can the verification for the issued Title 19 certificates be made available to the public?	The Title 19 verification certificates with supporting documentation are publicly available for issued construction permits on the Department's CSS Portal .
	Is it possible to monitor water use for participating properties?	The draft Title 19 amendments require the average use estimates codified in the ordinance to be updated every 5 years to reflect updated purveyor consumption data.
Bruce Gibson (BMC Board, County)	Need to update the parameters and verification.	The draft Title 19 amendments require the average use estimates codified in the ordinance to be updated every 5 years to reflect updated purveyor consumption data and the Department to conduct random post-installation verification inspections.
	Concerns about confidentiality for specific water user data, but available in aggregated analysis to verify program effectiveness.	
Beth Reineke (BMC Board, S&T)	EPA estimates are useful, but Los Osos is more conservative. Maybe Los Osos is not consistent with a nationwide average.	The draft amendments include an adjustment on estimating the water use of clothes washers based on climate region by the Residential Energy Consumption Survey (U.S. Energy Information Administration - EIA - Independent Statistics and Analysis), rather than the countrywide estimates of the U.S. EPA.
	How will outdoor use be incorporated into the program? Is it based on data?	The draft Title 19 amendments include an allowance for the Department to establish a pilot program for outdoor measures.
	Is switching to 1.0 gpf toilets a reasonable estimate? Most can be adjusted to use more water. Would they be monitored?	The County has proposed an amendment that instructs Department staff to complete post-retrofit/installation inspections at random.
Comments from 8/24/23 LOCAC Meeting		

Commenter	Comment/Request	Planning Staff Response
Becky McFarland (LOCAC attendee)	Can dishwashers be added to the list of fixtures eligible for water offsets?	Industry research (collected for the Offset Study) revealed that most dishwashers experience “natural replacement” over the course of home ownership and would not be a plentiful source for offsets at this time.
Kristin Horowitz (LOCAC Member)	Allowing dishwashers as a source of water offsets could be viable.	
Linde Owen (LOCAC attendee/LUC Member)	If we know how many homes have already been retrofitted?	Yes, the Study created a “saturation analysis” that estimated how many toilets/showerheads/clothes washers have been retrofitted, using the information from the Title 8 and Title 19 programs. See the study here: Los Osos Water Offset Study - County of San Luis Obispo (ca.gov) .
Linde Owen (LOCAC attendee/LUC Member)	Single Family seems to use much more than Mutli-Family. Why did it vary so much?	The first large difference in usage is based on outdoor use, the self-source parcels use a larger amount of water for outdoor use. The 2.4 persons/household information was used determine the overall plumbing fixture use. The average annual residential water usage estimates for indoor were based on consumption data from the water purveyors.
Linde Owen (LOCAC attendee/LUC Member)	There is much discussion about properties outside of the water purveyor service areas/agricultural uses. It is important that this be balanced. There are also areas in Los Osos with larger lots that are excluded from the sewer. Is a retrofit required for those larger lots?	Yes, all new development within the entire Los Osos Groundwater Basin area is required to do a 2:1 offset.
Linde Owen (LOCAC attendee/LUC Member)	The Flume systems monitor leaks and are effective. Could that be added as a list of conservation measures?	We were informed that some of the purveyors use Flume and provide rebates or offer affordability programs to use smart water meters.
Lynette (LOCAC attendee)	How were dual flush toilets counted in this survey?	The largest reason was the lack of existing data with the County’s Title 8 and Title 19 programs.

Commenter	Comment/Request	Planning Staff Response
Bob Crizer (LOCAC attendee)	He has a client that completed the requirement when it was 300 gpd. That client is still not allowed to go forward and build even though he's retrofitted 2x that. Has the Coastal Commission stopped all of this and are we allowed to move forward?	Our ordinance requires a 2:1 offset of 300 gpd currently for a SFD. That's a bigger question.
John Lindt (LOCAC Member)	What is the timetable for this Study becoming the law of the land?	At that time, there were no drafted ordinance amendments to take to the BOS, but that would be the next step.