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 **Regular Board Meeting** at **1:30 P.M.** on **Thursday, July 28, 2022** 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 Heimel (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 Heimel 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. **2022 Budget Update and Invoice Register**
b. **Approval of Minutes from May 18, 2022 BMC Meeting**
c. **Approval of Minutes from June 15, 2022 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. **Presentation of the Draft Well Modification and New Monitoring Well Location TM**

Recommendation: Receive the Draft Well Modification and New Monitoring Well Location Technical Memorandum and authorize BMC Staff to move forward with modifications to LA 14 and LA 16 or provide alternate direction.

b. **Presentation of Draft Funding Options TM**

Recommendation: Receive a presentation on the Draft Funding Options Technical Memorandum and provide direction to staff.

c. **Draft Spring 2022 Lower Aquifer Groundwater Basin Monitoring Results**

Recommendation: Receive an update on early findings for the Spring 2022 Lower Aquifer Groundwater Monitoring results.

10. ADJOURNMENT

TO: **Los Osos Basin Management Committee**

FROM: **Daniel Heimel, Executive Director**

DATE: **July 28, 2022**

SUBJECT: **Item 6a & B – Approval of Budget Update/Invoice Register and Meeting Minutes**

Recommendations

Staff recommends that the BMC review and consider approval of Budget/Invoice Register and Meetings 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 for Calendar Year 2022 and Meeting Minutes from previous BMC Meetings (see Attachments).

Attachment 1: Cost Summary (January 2022 to Current Date) for Calendar Year 2022 Budget

Item	Description	Budget Amount	Approved Contingency Allocation	Updated Allocated Budget Amount	Costs Incurred	Percent Incurred	Remaining Budget
1	BMC Executive Director Facilitation and Legal Counsel Contingency	$90,000		$90,000	$36,631.25	40.7%	$53,369
2	Meeting Expenses - facility rent	$1,500		$1,500	$0.00	0.0%	$1,500
3	Meeting expenses - audio and video services	$6,000		$6,000	$0.00	0.0%	$6,000
4	Technical Support/Adaptive Management Services	$15,000		$15,000	$4,960.00	33.1%	$10,040
5	Groundwater Monitoring	$42,000		$42,000	$19,735.80	47.0%	$22,264
6	2021 Annual Report	$56,000	$1,270	$57,270	$57,270.00	100.0%	$0
7	Grant Pursuit Contingency	$5,000		$5,000	$0.00	0.0%	$5,000
8	WRFP Study Year 1 (Peer Review)	$15,000		$15,000	$0.00	0.0%	$15,000
9	Lower Aquifer Monitoring Well Improvement	$25,000		$25,000	$0.00	0.0%	$25,000
10	Los Osos Creek Stream Gage Rating Curve	$25,000		$25,000	$7,403.40	29.6%	$17,597
	Subtotal	$280,500		$281,770	$126,000		$155,770
	10% Contingency (rounded to nearest $100)	$28,100					
	Total	**$308,600**			**$126,000**	**40.8%**	**$182,600**
	LOCSD (38%)	$117,268					
	GSWC (38%)	$117,268					
	County of SLO/SLOCFC&WCD (20%)	$61,720					
	S&T Mutual (4%)	$12,344					

Attachment 2: Invoice Register for Los Osos BMC for Calendar Year 2022

Vendor	Invoice No.	Amount	Month of Service	Description	Budget Item	Date Executive Director Approved	Date BMC Chairperson Approved	Date BMC Approved
CHG	20211203	$6,490.00	Dec-21	Annual Report Preparations	6	Jan-22		
CHG	20211204	$2,534.40	Dec-21	Groundwater Monitoring	5	Jan-22		
CHG	20211205	$5,076.40	Dec-21	Rating Curve Development	11	Jan-22		
ConfluenceES	1011	$5,100.00	Jan-22	BMC Executive Director Services	1		Feb-22	
CHG	20220103	$20,495.00	Jan-22	Annual Report Preparations	6	Mar-22		
CHG	20220104	$1,319.40	Jan-22	Groundwater Monitoring	5	Mar-22		
CHG	20220105	$2,327.00	Jan-22	Rating Curve Development	11	Mar-22		
CHG	20220204	$15,400.00	Feb-22	Annual Report Preparations	6	Mar-22		
CHG	20220205	$320.00	Feb-22	Technical Support - Data Request Response	4			Apr-22
ConfluenceES	1018	$5,700.00	Feb-22	BMC Executive Director Services	1		Mar-22	
CHG	20220303	$10,740.00	Mar-22	Annual Report Preparations	6	Apr-22		
CHG	20220304	$1,740.00	Mar-22	Groundwater Monitoring	5	Apr-22		
CHG	20220305	$1,440.00	Mar-22	Technical Support - Monitoring Well Invest.	4			May-22
ConfluenceES	1026	$4,050.00	Mar-22	BMC Executive Director Services	1		Apr-22	
CHG	20220405	$2,545.00	Apr-22	Annual Report Preparations	6	May-22		
CHG	20220406	$11,370.00	Apr-22	Groundwater Monitoring	5	May-22		
ConfluenceES	1031	$7,450.00	Apr-22	BMC Executive Director Services	1		May-22	
CHG	20220501	$3,200.00	May-22	Technical Support - Program C Evaluation	4	Jun-22		
CHG	20220503	$2,772.00	May-22	Groundwater Monitoring	5	Jun-22		
CHG	20220502	$1,600.00	May-22	Annual Report Preparations	6			Jun-22
ConfluenceES	1037	$8,493.75	May-22	BMC Executive Director Services	1		Jun-22	
CHG	20220610	$1,280.00	Jun-22	Technical Support - Monitoring Well Invest.	4			
CHG	20220611	$640.00	Jun-22	Annual Report Preparations	6			
ConfluenceES	1043	$5,837.50	Jun-22	BMC Executive Director Services	1		Jul-22	
	2022 Total	**$127,920.45**						To be approved

BASIN MANAGEMENT COMMITTEE BOARD OF DIRECTORS

Agenda Item 6b: Minutes of the Meeting of May 18, 2022

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	Chairperson Ochylski called the meeting to order at approximately 1:30 PM.
2. Roll Call	Daniel Heimel, Executive Director, called roll to begin the meeting. Director Charlie Cote, Director Reely, Director Gibson, Director Zimmer, Chairperson Marshall Ochylski
3. Pledge of Allegiance	
4. Board Member Comments	None
5. Special Presentation	None
6. Consent Agenda **6a. 2022 Budget Update and Invoice Register** **6b. Approval of minutes from April 20, 2022 BMC Meeting**	**Recommendation:** Review and approved items on the Consent Agenda. **Public Comment** None **6a & 6b Board Action** Approve Consent Agenda **Motion**: Director Cote **Second**: Director Gibson **Ayes**: Director Cote, Director Gibson, Director Zimmer, Chairperson Ochylski **Nays**: None **Abstain**: None **Absent**: None
7. Public Comment on Items Not Appearing on the Agenda	**Public Comment** Lisa D. Jeff Edwards Patrick McGibney Becky McFarland Linde Owen
8. Executive Director's Report	**Public Comment** Jeff Edwards Lynette Tornatzky Patrick McGibney Becky McFarland Emily Miggins Linde Owen
9. Action Items	
9a. Presentation of Draft 2021 BMC Annual Monitoring Report	**Recommendation:** Receive a presentation from Basin Management Committee staff on the Public Draft 2021 Annual Monitoring Report and confirm schedule for BMC to consider approval of the Final Draft 2021 AMR and submission to the Court. **Public Comment**

	Patrick McGibney Becky McFarland Emily Miggins Linde Owen **Board Direction** Receive comments and direction provided on Public Draft 2021 Annual Monitoring Report and incorporate into Final Draft 2021 Annual Monitoring Report.
9b. Permitted Development in Los Osos	**Recommendation:** Receive information regarding correspondences between the California Coastal Commission and County of San Luis Obispo Planning & Building Department on the current permitting and approval processes for development (i.e. remodels, additions, guest houses, new residential development, ADUs) in the Los Osos Basin and direct staff to coordinate with County Planning and Coastal Commission on the identified concerns or provide alternate direction to staff. **Public Comment** Emily Miggins Jeff Edwards Becky McFarland Patrick McGibney Linde Owen **Board Direction** Direct BMC Staff to continue dialog with San Luis Obispo County Planning and Coastal Commission Staff and bring back any specific questions or statements directed at BMC for BMC consideration.
10. Adjournment	Meeting adjourned at approximately 3:40 pm The next regularly scheduled meeting is June 15, 2022

BASIN MANAGEMENT COMMITTEE BOARD OF DIRECTORS

Agenda Item 6b: Minutes of the Meeting of June 15, 2022

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	Vice-Chair Zimmer called the meeting to order at approximately 1:30 PM.
2. Roll Call	Daniel Heimel, Executive Director, called roll to begin the meeting. Director Cote, Director Gibson, Director Zimmer
3. Pledge of Allegiance	
4. Board Member Comments	None
5. Special Presentation	None
6. Consent Agenda **6a. 2022 Budget Update and Invoice Register**	**Public Comment** Linde Owen **6a. Board Action** Approve Consent Agenda **Motion**: Director Gibson **Second**: Director Cote **Ayes**: Director Cote, Director Gibson, Director Zimmer **Nays**: None **Abstain**: None **Absent**: Chair Ochylski
9. Action Items	
9a. Presentation of Final Draft 2021 BMC Annual Monitoring Report	**Recommendation:** Receive the Final Draft 2021 Annual Monitoring Report and authorize submission to the Court or provide alternate direction to staff. **Public Comment** Terry Simons Larry Raio Patrick McGibney **Board Action** Approve the Final Draft 2021 Annual Monitoring Report and authorize submission to the Court. **Motion:** Director Gibson **Second:** Vice Chair Zimmer **Ayes:** Director Gibson, Director Zimmer **Nays:** Director Cote **Abstain:** None **Absent:** Chair Ochylski
7. Public Comments on Items Not Appearing on the Agenda	**Public Comment** Becky McFarland Terry Simons Jeff Edwards

	Patrick McGibney Linde Owen Ronnie Geron
8. Executive Director's Report	Deferred till next meeting
10. Adjournment	Meeting adjourned at approximately 2:30 pm. The next regularly scheduled meeting is Wednesday, July 20, 2022 at 1:30 PM.

TO: **Los Osos Basin Management Committee**

FROM: **Dan Heimel, Executive Director**

DATE: **July 28, 2022**

SUBJECT: **Item 8 – Executive Director's Report**

Recommendations

Staff recommends that the Committee 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.

Discussion

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

Funding and Financing Programs to Support Basin Plan Implementation

SGM Implementation Grant: Applications for Round 2 of the Sustainable Groundwater Management (SGM) Implementation Grant are anticipated to be due in September 2022. This grant program is administered by the California Department of Water Resources (DWR) to provide funding for projects that encourage sustainable management of groundwater resources that support Sustainable Groundwater Management Act (SGMA) and/or invest in groundwater recharge projects for surface water, stormwater, recycled water, and other conjunctive use projects. Round 1 funding was provided to Critically Overdrafted (COD) Basins and final awards were recently announced. Round 2 solicitation is anticipated in September 2022. Eligible applicants for this funding include Groundwater Sustainability Agencies or agencies within adjudicated basins that were adjudicated after January 1, 2015. However, applicants must also be located in Medium, High and COD basins. The Los Osos Basin is currently prioritized as Very Low priority as a result of conditions being met under sub-component C of the Draft SGMA 2019 Basin Prioritizations (i.e. non-adjudicated pumping is less than 9,500 acre-feet per year). Additionally, DWR's interpretation is that the Los Osos Basin Adjudication became effective at the moment that SGMA became effective (September 16th, 2014), not the date that the Stipulated Judgement was filed (October 12, 2015) and thus is not eligible for SGM Implementation Grant funding, see attached email.

Prop 1 GWGP: The Prop 1 GWGP Round 3 solicitation was released on July 6th, 2021 with Concept Proposals due September 7th, 2021. However, as indicated in the January 2018 BMC meeting, the State Board confirmed that seawater intrusion mitigation projects under Program C are eligible for low interest loans but are not currently eligible for grants under the Proposition 1 Groundwater Grant

Program (GWGP). New wells in the upper and lower aquifer are viewed as aquifer management, not aquifer clean-up as defined by the State, therefore we will need to look for future funding rounds and other opportunities. Aquifer clean-up projects (e.g. Community Nitrate Facility, Upper Aquifer Capture and Treatment) could be considered for pursuing grant funding through this program. Unfortunately, this is the 3rd and last round for this Program and they are only looking to fund implementation projects (i.e. projects that have design, CEQA and other planning components completed and are ready for construction), not planning projects.

IRWM: The Program A upper aquifer well at 8th Street was submitted by Los Osos CSD to the local IRWM process in 2019 as part of the Round 1, Prop 1 Implementation Grant cycle and was subsequently selected to be a part of the application for the current funding opportunity. The application for this grant was submitted in December 2019 and the Project was included in the Department of Water Resource's July 2020 Final Funding Award List for the full grant request ($238,000). Prop 1, Round 2 Implementation grant cycle has been initiated and the Call for Projects opened on April 7th, 2022 and closed April 28th, 2022. The BMC did not submit any projects as it was determined that there were not projects that were sufficiently far enough along to be competitive for this grant opportunity.

Prop 1 SWGP: The concept of urban storm water recovery at 8th and El Moro was ranked in the County Stormwater Resource Plan. The Project is labeled as "Capture and Reuse of Storm Water" and listed as a Los Osos Community Services District project. The Stormwater Resource Plan can be found here: https://www.slocounty.ca.gov/Departments/Public-Works/Committees-Programs/Stormwater-Resource-Plan.aspx. The Project is additionally described in the following locations:

- It is **described** here in our SWRP Appendix 4B under "Capture and Reuse of Storm Water" at 9th and El Morro: https://www.slocounty.ca.gov/Departments/Public-Works/Forms-Documents/Committees-Programs/Stormwater-Resource-Plan/Documents/SWRP-Appendix-4-B-Identified-Project-and-Program-D.pdf

- It is **ranked** here on our SWRP website on the **SWRP Project List** link under "Capture and Reuse of Storm Water": https://www.slocounty.ca.gov/Departments/Public-Works/Forms-Documents/Committees-Programs/Stormwater-Resource-Plan/Documents/SWRP-Program-Master-Project-Info-2020-04-16.pdf

- It is also on the **IRWM Project list** under "Capture and Reuse of Storm Water": https://www.slocounty.ca.gov/Departments/Public-Works/Forms-Documents/Committees-Programs/Integrated-Regional-Water-Management-(IRWM)/Current-IRWM-Full-Project-List_20220322.pdf

Grant funding may be available through the Prop 1 Storm Water Grant Program (SWGP). However, the application period for Round 2 of SWGP funding has closed. Information about the Storm Water Grant Program can be found here:
https://www.waterboards.ca.gov/water_issues/programs/grants_loans/swgp/prop1/

WRFP: The State Water Resource Control Board (SWRCB) increased the amount for Water Recycled Program Planning (WRFP) grants from $75k to $150k. This could provide a grant funding opportunity to advance Basin Plan initiatives, with a reduced cost to the community of Los Osos, through preparation of a Recycled Water Facilities Planning Study (RWFPS). Potential scope items for the RWFPS could include:

- Transient Groundwater Model Development
- Soil Aquifer Treatment (SAT) Assessment
- Broderson/Creek Discharge Scenario Analysis
- Stormwater and Perched Water Recovery Project – Feasibility Study
- Adaptive Management Groundwater Modeling
- RWFPS Report Development

Recent communication with the SWRCB Representatives confirmed that this funding program is still fully funded and WRFP grants are available. On 2/11/2022 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) and is still waiting for notification. At its May 5th, 2022 Meeting the Los Osos CSD approved the RFP for the WRFP Study and is waiting on approval of the grant before releasing it.

Status of BMC Initiatives

Sustainable Yield: At its October 27th, 2021 Meeting, the BMC unanimously approved a Sustainable Yield estimate of 2,380 AFY for Calendar Year 2022 and these actions will be documented in the 2021 Annual Report.

Lower Aquifer Transducer Installation: In March, Cleath-Harris Geologists (CHG) initiated requests for permission to access and install transducers in several County monitoring wells, a private well, and a purveyor well. The purveyor well (LA 9) was equipped with a transducer. Due to the uncertainty in accessing County wells, two additional purveyor monitoring wells (LA 40 and LA41) were equipped with transducers. Permission was subsequently received to access County wells, and four County monitoring wells have been equipped with transducers (LA11, LA14, LA16, and LA19). This completes the planned transducer expansion program, with 7 added units.

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. Recommendations regarding potential improvements to the Basin Monitoring Network will be brought to the BMC at a future meeting, followed by potential modifications to the Basin Metrics.

Transient Groundwater Model: At its October 27th, 2021 Meeting, the BMC authorized the preparation of a Water Recycling Funding Program Grant Application and to request access to the $150,000 of funding that the County budgeted for a transient groundwater model for Los Osos. The Los Osos CSD

will be the lead agency for the grant on behalf of the BMC. The grant application was submitted to the SWRCB by Los Osos CSD on 2/11/2022 for $150k in grant funds and the County approved providing $150k to the Los Osos CSD for a Transient Model for the Los Osos Basin. After receiving approval from the SWRCB, the Los Osos CSD will solicit proposals from consulting firms through an RFP process to procure the necessary services to develop the model and complete the WRFP Study.

Wellhead Survey: At its October 27th, 2021 Meeting, the BMC authorized Twin Cities Surveying to survey additional wells in Los Osos Basin and for BMC Staff to request that the County survey the wells in their monitoring program. Both Twin Cities Surveying and the County completed their wellhead surveys in November and December. BMC monitoring network wellhead elevations are now up to date.

Lower Aquifer Monitoring Evaluation: At its October 27th, 2021 Meeting, the BMC authorized CHG to evaluate the feasibility and cost of modifying existing wells or construction a new monitoring well(s) to improve monitoring of Zone E water quality. BMC Party Staff evaluated the potential to fund a new monitoring well in 2022, but there is not sufficient budget. BMC Party Staff will target including a new monitoring well in the Calendar Year 2023 Budget. Recommendations for Monitoring Well Modifications and New Monitoring Well Locations are included in Agenda Item 8a of this Agenda Packet.

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. Additional detail regarding the history of the 3rd Program C Well is available in the April 20th, 2022 BMC Agenda Packet. CHG is currently evaluating the anticipated increase in the Sustainable Yield that the 2nd and 3rd Program C Wells would provide utilizing the criteria for calculating the Sustainable Yield approved by the BMC at their October 27th, 2021 Meeting. Results from this evaluation will be presented to BMC Party Staff and then to the BMC at a future meeting.

Status of Basin Plan Implementation and Funding Plans

The BMC has requested an integrated funding plan for project implementation and BMC monitoring and administration. BMC Staff and BMC Party Staff have formed a Funding and Organizational Working Group to identify and evaluate potential future funding and organization structures for the BMC and implementation of the Basin Plan. Consistent with the Basin Plan, the Working Group is identifying and evaluating funding and organizational structures that will provide a long-term mechanism for funding BMC Administration and Basin Plan Implementation costs and that allocate costs equitably amongst all who benefit from the Basin's water resources.

The Working Group reviewed previously completed analysis on BMC funding and organization structures, documenting the different alternatives and identifying data/information gaps that may require outside technical support. 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 has prepared a draft report, that includes their evaluation of funding alternatives and findings from the funding model, that has been reviewed by BMC Party Staff. SCI's Draft Funding Options Technical Memorandum is included in Agenda Item 8b of this Agenda Packet.

JPA Formation: Staff level discussions continue to focus on the need for, and benefits of, forming a JPA, see table below, to assist with implementation of the Basin Plan.

Table 1. JPA Formation Considerations

Pros	Cons
• Common ownership of basin assets	• Complexity and community perception
• Ability to contract for services as an entity	• Potential for difficulty in formal proceedings - less nimble
• GSWC can participate as a director	• More difficult to exit/change if needed
• Could cover entire limits of basin for funding	
• If carefully done, incremental costs could be limited to insurance and up-front legal expenses	
• Ability to carry-over funds from one budget year to another	

As indicated in previous meetings, it was determined that GSWC could serve as an appointed JPA director without forming a separate Mutual Water Company entity, which would simplify the process.

Discussions with BMC Party Staff indicate that the BMC Parties would like to execute the Implementation Plan initiative to first develop a roadmap for the BMC and then evaluate the potential formation of a JPA or other governance structure once there is a more defined plan for future BMC initiatives.

BMC Legal Counsel – At the December 15, 2021 BMC Meeting, the BMC included in the authorization of the Calendar Year 2022 Budget $20,000 for Legal Counsel Contingency to be included in Executive Director's Budget. The BMC additionally authorized the Executive Director to utilize up to $5,000 before requiring BMC approval and for the Executive Director to provide updates on legal counsel spending in the Executive Director's Report. A Request for Qualifications (RFQ) was approved by the BMC at its April 20th, 2022 Meeting and subsequently released to solicit legal counsel representation for the BMC. BMC Staff received seven Statements of Qualifications (SOQs) and BMC Party Staff are currently interviewing legal firms. A recommendation for selection of BMC Legal Counsel will be brought to the BMC at a future Meeting.

Program B Implementation Process and Funding: The existing nitrate removal facility owned by GSWC is intended to serve existing development, so it is likely that a Program B facility intended for future development would be jointly owned by either a JPA or by one of the public agencies.

- Likely next steps for the implementation of Program B projects include:
    - Technical Studies to validate and update cost estimates
    - Siting Studies to identify project locations

- AB 1600 analysis to evaluate funding options relative to future development in coordination with the Los Osos Community Plan
- Environmental Review (CEQA)
- Land Use Permitting (e.g. Coastal Development Permits, etc.)

Land Use Planning Process Update

Guide to Planning Information for Development in Los Osos:
This website is intended to provide planning information outlining what type of development is currently allowed within 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:

- Which types of permit applications are 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:
Maddaus Water Management Inc. is preparing a study to update water usage estimates for urban and rural residences sourcing water from the Los Osos Groundwater Basin, propose new water conservation measures for the retrofit-to-build program, and estimate remaining water savings potential for the community. They are currently processing data and working with County Planning staff on the first deliverable. Scheduling updates will be posted at:
https://www.slocounty.ca.gov/Departments/Planning-Building/Grid-Items/Community-Engagement/Active-Planning-Projects/Los-Osos-Water-Offset-Study.aspx#:~:text=Los%20Osos%20Water%20Offset%20Study%20The%20County%20has,is%20anticipated%20to%20be%20completed%20in%20March%202022.

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

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.

Coastal Zone Accessory Dwelling Unit (ADU) Ordinance:
On May 17, 2022, the County Board of Supervisors continued to a date certain the hearing to consider accepting the California Coastal Commission's suggested modifications to the Coastal ADU Ordinance, including not allowing ADUs within the Los Osos Groundwater Basin boundary and/or within the Los Osos Groundwater Basin Plan Area. The hearing date is set for August 9, 2022, where Staff will be requesting that the hearing for the Ordinance be continued. Coastal Commission's suggested modifications approved at their February 11, 2022 meeting are available at: https://www.coastal.ca.gov/meetings/agenda/#/2022/2 (Agenda Item # 16a).

Los Osos Vacation Rental Ordinance:
On June 7, 2022, the County Board of Supervisors held a hearing and adopted a resolution to accept the California Coastal Commission's suggested modifications to the Los Osos Vacation Rental Ordinance. On July 14, 2022 the Coastal Commission certified the Los Osos Vacation Rental Ordinance, as part of the Local Coastal Plan.

The Los Osos Vacation Rental Ordinance includes a standard to encourage reducing water usage: "A minimum of one water conservation sign shall be posted in each restroom and kitchen of the dwelling. Water conservation signs shall encourage occupants to reduce water usage by stating (a) the importance of conserving water in Los Osos and (b) ways in which occupants can reduce the amount of water used during the stay. Water conservation signs hall be created and posted utilizing County approved language." Coastal's suggested modifications approved at their February 11, 2022 meeting are available at: https://www.coastal.ca.gov/meetings/agenda/#/2022/2 (Agenda Item # 16b).

Los Osos Wastewater Project Flow and Connection Update

The following table summarizes flows from the LOWRF based on the available data. Past flows have been revised. The plant has a complicated method of calculating effluent flows, which has been confusing and they are in the process of correcting.

LOWRF Wastewater and Recycled Water Flows

Year	Month	Influent	Broderson	Bayridge	Sea Pines	Giaco-mazzi	Construction Water	Ag Users	Discharge/ Recycled Water Delivery Total (AF)
2022	Jan	45	46	1.2	1.3	0.0	0.0	0.0	48
2022	Feb	41	34	1.3	5.8	0.0	0.0	0.1	41
2022	Mar	45	32	1.5	4.0	0.0	0.0	0.2	38
2022	Apr	43	38	1.4	4.7	0.0	0.0	0.2	44
2022	May	45	29	1.7	9.1	0.0	0.0	0.3	40
2022	Jun	43	27	1.6	11	0.0	0.3	0.3	40
2022	Jul								
2022	Aug								
2022	Sept								
2022	Oct								
2022	Nov								
2022	Dec								
Total									

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.

Recycled Water Connections: The County approved $350,000 in funding from the American Rescue Plan Act of 2021 for connecting new users to the LOWRF Recycled Water System. Additional funding was approved for improvements at the LOWRF and the Broderson Leach field.

Water Conservation Update

Rebate Update: Average indoor water usage for 2019 was estimated to be 40 gpd per person and remains at that number currently.

The 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 SGMA[3] and in critical conditions of overdraft [4]
- 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 SGMA[3]

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	LOCSD/ GSWC	NA	NA	NA	NA	**Completed**
	Upper Aquifer Well (8th Street)	LOCSD	NA	Fully Funded	NA	$307,000	The piping and electronic/control equipment installation are complete. LOCSD staff is working with the Division of Drinking Water to complete the steps needed to put the well into service. It is anticipated the well will be operational by the beginning of August.
	South Bay Well Nitrate Removal	LOCSD	NA	NA	NA	NA	**Completed**
	Palisades Well Modifications	LOCSD	NA	NA	NA	NA	**Completed**
	Blending Project (Skyline Well)	GSWC	NA	NA	NA	NA	**Completed**
	Water Meters	S&T	NA	NA	NA	NA	**Completed**
Program B - Shift groundwater production from Lower Aquifer to Upper Aquifer	LOCSD Wells (Upper Aquifer)	LOCSD		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	LOCSD/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)	LOCSD		LOCSD	TBD	BMP: $2.5 mil	The drilling phase of the project is underway with a timeline to complete the work by the beginning of November 2022. A contract for the pipeline design phase has been awarded with the work scheduled for completion in December 2022. Completion of all phases of the project is estimated to be June 2024.
	Expansion Well 3 (Lower Aquifer) and LOVR Water Main Upgrade	GSWC/LOCSD		Cooperative Funding	TBD	BMP: $1.6 mil	This project has been deferred under Adaptive Management.
	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 the completion of S&T's water meter cellular updates.

Program Name	Project Name	Parties Involved	BMC Budgeted Amount	Funding Status	Anticipated Planning/Pre-Construction Cost	Anticipated Capital Cost	Status/Notes
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 Adaptative Management. BMC to review on an annual or semi-annual basis.
Program M – Groundwater Monitoring Plan	New Zone D/E lower aquifer monitoring well in Cuesta by the Sea	All Parties	NA	NA	NA	NA	**Completed**
Program U - Urban Water Reinvestment Program	Creek Discharge Program	All Parties				TBD	These activities are currently on hold.
	8th and El Moro Urban Storm Water Recovery Project	All Parties				TBD	These activities are currently on hold.

Daniel Heimel

Subject: FW: [EXT]RE: Los Osos Adjudication Question

From: List, Kelley@DWR <Kelley.List@water.ca.gov>
Sent: Wednesday, June 15, 2022 10:01 AM
To: Taylor Blakslee <TBlakslee@hgcpm.com>
Cc: Blaine Reely <breely@co.slo.ca.us>
Subject: [EXT]RE: Los Osos Adjudication Question

Taylor,

I met with Keith Wallace and Paul Gosselin and have obtained additional background information on why Los Osos is not eligible for the SGM Grant Program SGMA funds, when the adjudication was put into effect, and why the basin was edited from COD down to low/very low.

SGMA, specifically Water Code Section 10720.8(d), exempts Los Osos from having to develop and implement a GSP, pending the superior court final judgment:

> (d) The Los Osos Groundwater Basin at issue in Los Osos Community Service District v. Southern California Water Company [Golden State Water Company] et al. (San Luis Obispo County Superior Court Case No. CV 040126) shall be treated as an adjudicated basin pursuant to this section if the superior court issues a final judgment, order, or decree.

This Water Code section was also used by DWR to assign the Los Osos Basin a "Very Low" Basin Prioritization determination.

DWR has determined that Los Osos adjudication became effective at the moment that SGMA became effective and why they are not eligible for funding through the SGM Grant Program. In essence, Los Osos is fully exempt from SGMA due to the superior court final judgement and the request to have Los Osos specifically called out within the Water Code.

Los Osos can continue to pursue funding through IRWM (open now), various State Water Board funding, and potentially through the urban or small community grant programs at DWR.

I knew there was some historical background that I was not privy to and am glad you followed up so I could reach out to SGMO for answers.

Kelley

TO: **Los Osos Basin Management Committee**

FROM: **Dan Heimel, Executive Director**

DATE: **July 28, 2022**

SUBJECT: **Item 9a – Presentation of the Draft Well Modification and New Monitoring Well Location TM**

Recommendations

Receive the Draft Well Modification and New Monitoring Well Location Technical Memorandum and authorize BMC Staff to move forward with modifications to LA 14 and LA 16 or provide alternate direction.

Discussion

The Basin Management Committee (BMC) is tasked with monitoring conditions within the Los Osos Groundwater Basin (Basin) to inform management decision for the Basin. The BMC Monitoring Program currently includes 93 wells, including 43 BMC Member Agency monitoring wells, 17 municipal wells and 33 private wells. One of the key components of the BMC's Monitoring Program is monitoring of seawater intrusion in the Lower Aquifer (Zones D & E). To improve the ability to monitor conditions in the Lower Aquifer, the BMC requested that Cleath-Harris Geologists (CHG) evaluate opportunities to modify existing wells and/or install new monitoring wells to improve the BMC's Monitoring Program.

Attached to this agenda item is the Draft Technical Memorandum from CHG for Recommendations for Well Modifications and New Monitoring Well Locations for the Los Osos BMC Groundwater Monitoring Program. Implementing the recommend well modifications would improve the BMC's ability to monitor seawater intrusion in Zone E of the Lower Aquifer. Installation of the recommended new monitoring wells would improve the BMC's ability to monitor seawater intrusion in Zones D & E of the Lower Aquifer and reduce the BMC's reliance on the Rosina Well for the Chloride Metric.

Financial Considerations

The BMC included $25,000 in the approved Calendar Year (CY) 2022 BMC Budget for Lower Aquifer Monitoring Well Improvements. Additionally, there is anticipated to be unused budget under other CY 2022 Budget Items that could be made available for Monitoring Well Improvements, see table below.

Estimated Available CY 2022 Budget for Monitoring Well Modifications

Budget Item	Estimated Available CY 2022 Budget
Monitoring Well Improvements	$25,000
Meeting Expenses - facility rent	$1,500
Meeting Expenses - audio and video services	$5,000
Grant Pursuit Contingency	$5,000
WRFP Study Year 1 (Peer Review)	$15,000
Los Osos Creek Stream Gage Rating Curve	$17,597
Contingency	$25,000
Total	**$94,097**

With the estimated available budget for Calendar Year 2022, it appears that two of the Monitoring Well Modifications could be funded with available funding for this year, see estimated costs in table below. Based on the recommendations provided in the TM, LA 16 modifications are the highest priority, LA 14 second and LA 13 third for improving the Lower Aquifer monitoring network. Construction of a new monitoring well would be a higher priority, but is anticipated to cost over $140,000 and sufficient funding is not available in CY 2022. BMC Staff anticipates prioritizing the construction of a new monitoring well in the CY 2023 BMC Budget, if sufficient budget can be made available.

Monitoring Well Improvement Modification Cost Estimates

Monitoring Well Improvement	Estimated Construction Cost	Estimated Construction Oversight Cost	Total Estimated Cost
LA 13 (Farrell Monitoring Well)	$27,404	$4,111	$31,514
LA 14 (Palisades Monitoring Well)	$38,876	$5,831	$44,707
LA 16 (LOVR Production Well)	$29,028	$4,354	$33,382
Total			$109,604

It is recommended that the BMC authorize BMC Staff to move forward with implementation of the LA 16 and LA 14 Monitoring Well Modifications and utilize budgeted, unused and contingency funds from the CY 2022 BMC budget to cover the anticipated costs or provide alternate direction.

Attachments:

Recommendations for Well Modifications and New Monitoring Well Locations for the Los Osos BMC Groundwater Monitoring Program Technical Memorandum

DRAFT

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

Technical Memorandum

Date: July 22, 2022

From: Spencer Harris, HG 633

To: Dan Heimel, PE, Executive Director
Los Osos Basin Management Committee

SUBJECT: Recommendations for Well Modifications and New Monitoring Well Locations for the Los Osos BMC Groundwater Monitoring Program.

This memorandum presents recommendations for modifying three existing monitoring wells and for adding monitoring well locations to the Los Osos Basin Plan (LOBP) monitoring network. The purpose of the modifications and new wells is to fill data gaps with respect to seawater intrusion monitoring in the Basin. These recommendations were developed as part of the adaptive management process.

Background

Seawater intrusion is a significant threat to the community water supply for Los Osos. Lower Aquifer Zone E is the deepest aquifer in the Basin and is the most susceptible to intrusion. The existing LOBP monitoring program includes 93 wells, however, only a few of these wells (such as LA12, LA18, and LA40) are dedicated Lower Aquifer Zone E monitoring wells that provide water quality information for tracking seawater intrusion[1]. Additional monitoring locations in Zone E are needed.

Four existing monitoring network wells (LA13, LA14, LA16, and LA17) were previously identified as wells that could potentially be modified to provide Zone E water quality monitoring locations in the western portion of the Basin[2]. These four wells were inspected in November 2021 and are the subject of this memorandum. In addition, new locations for Lower Aquifer Zone D and Zone E nested monitoring wells are recommended herein.

Existing Well Modifications

The locations of the wells evaluated for modification are shown in Figure 1 (attached). Currently, these wells have relatively large diameter casings (6-inch to 12-inch) which require large purge volumes to obtain representative samples. They are also mixed zone completions (D and E screened together) which preclude screening exclusively for Zone E, and the wells may also be

[1] Aquifer zone and Basin area designations for monitoring network wells may be found in Appendix B of the 2021 Annual Report.
[2] Figure D6 of Appendix D in the 2019 Annual Report.

affected by borehole leakage. The proposed modifications consist of setting casing liners, along with deep seals, that are intended to isolate specific permeable sediment intervals within Zone E while also mitigating borehole leakage and reducing the required purge volumes prior to sampling by an order of magnitude. Table 1 summarizes the individual modifications.

Table 1. Proposed Well Modifications

Well ID	Location	Elevation	Current screen depth	Current depth of fill	Modified screen depth
		(feet)			
LA13	Ferrell Avenue	104	425-620	537	510-530
LA14	Palisades	80	355-375, 430-480,550-600	554*	550-590
LA16	Los Osos Valley Rd.	109	330-355, 395-415, 465-505, 530-575	511	470-500
LA17	Broderson	210	collapsed during construction	331	not feasible

*requires clean-out prior to modification

Well LA13 is owned by the Los Osos CSD, while the remaining wells are owned by San Luis Obispo County. Conceptually, the modifications consist of placing a small diameter (2.5-inch Schedule 80 PVC) casing liner into the existing wells that would be screened opposite permeable sediments in Zone E. A high solids bentonite slurry would be used to seal the new liner, and would extend across shallower screened intervals in the existing casing that could provide some penetration into the original annular space and potentially mitigate any existing borehole leakage. The modified wells would target specific depth intervals in Zone E and would greatly reduce the purge volumes required to collect representative samples (from a few thousand gallons to a few hundred).

Well LA17, which had collapsed during construction in 1985, was determined to be filled in at least 100 feet above the reported collapse depth, and no modification is considered feasible. Details of the recommended modifications for LA13, LA14, and LA16 are included in Appendix A. Geologic cross-sections showing the locations and depths of the modifications with respect to the inferred location of seawater intrusion, are shown in the attached Figures 2 through 6. Estimated Contractor costs for each of the modifications are included in Appendix B.

The recommended priority for well modification work would be to perform modifications at LA16 first, followed by LA14, and lastly LA13 (proceeding from west to east). LA16, which is also a Water Level metric well, is the farthest west and the modification would help characterize the lateral (southerly) extent of Zone E intrusion that reached LA15 in 2013 (Figure 2). LA16 was sampled in 2005 but borehole leakage (Upper Aquifer influence) currently prevents obtaining a representative sample.

New Monitoring Well Locations

Up to four locations for new monitoring wells are proposed in the Basin. The wells would be nested designs, similar to the LA40/41 well pair, with one casing in Zone E and one in Zone D. Two of the wells are located on County land (Site A and Site B), one well (Site C) is tentatively located on private property (subject to property owner consent), and the fourth well (Site D) is tentatively on San Luis Coastal Unified School District property (subject to school district consent). Table 2 presents the depth and proposed screened intervals of the new monitoring wells.

Table 2. Proposed New Monitoring Wells

Site ID	Location	Elevation	Borehole Depth	Zone D Screen	Zone E Screen
		(feet)			
Site A	Skyline	50	500	300-340	440-490
Site B	Broderson	220	800	370-410	700-780
Site C	Ramona	50	500	330-370	450-490
Site D	Sunnyside	150	800	390-440	700-780

The locations of the proposed new monitoring wells are shown in Figure 1, and the depths and monitored intervals within Zones D and E are shown with respect to the inferred seawater intrusion front in Figures 2 through 6. A brief summary of each well is provided below in the recommended order of construction (from highest to lowest priority):

Site A – Skyline

Site A is located in County right-of-way of Skyline Avenue (paved) at Broderson Avenue (unimproved). This well is recommended to replace key Chloride Metric well LA10, which is affected by borehole leakage and Upper Aquifer influence.

Site B - Broderson

Site B is located on County property at the Broderson recycled water disposal site, and will replace LA17, which was damaged during construction in 1985. A Lower Aquifer monitoring well at the Broderson site is recommended to evaluate the transmission of pressure from the Upper Aquifer groundwater mound into the Lower Aquifer.

Site C – Ramona Avenue

The Ramona Avenue site provides a second Lower Aquifer monitoring control point in the Baywood Park area (supplementing LA11). Site C would track potential Zone E intrusion moving inland of LA40, and help monitor conditions surrounding supply well LA12.

Site D – Sunnyside

The Sunnyside well is tentatively located at Sunnyside School and, along with Site B, would monitor some of the deepest portions of Zone E. Site D would fill a gap in monitoring the Lower Aquifer southwest of downtown Los Osos.

Site A is assigned the highest priority, being the replacement for Chloride Metric well LA10. A nested monitoring well at Site A would differentiate Zone D intrusion from Zone E intrusion, which LA10 is not able to do (Figure 4). The anticipated design would be similar to the Lupine Street monitoring well (LA40/41), which was constructed in 2019 at a contractor cost of $90,000, with bids ranging from $90,000 to $126,500. Current estimated costs for a well at Site A would be between $140,000 and $160,000.

FIGURES

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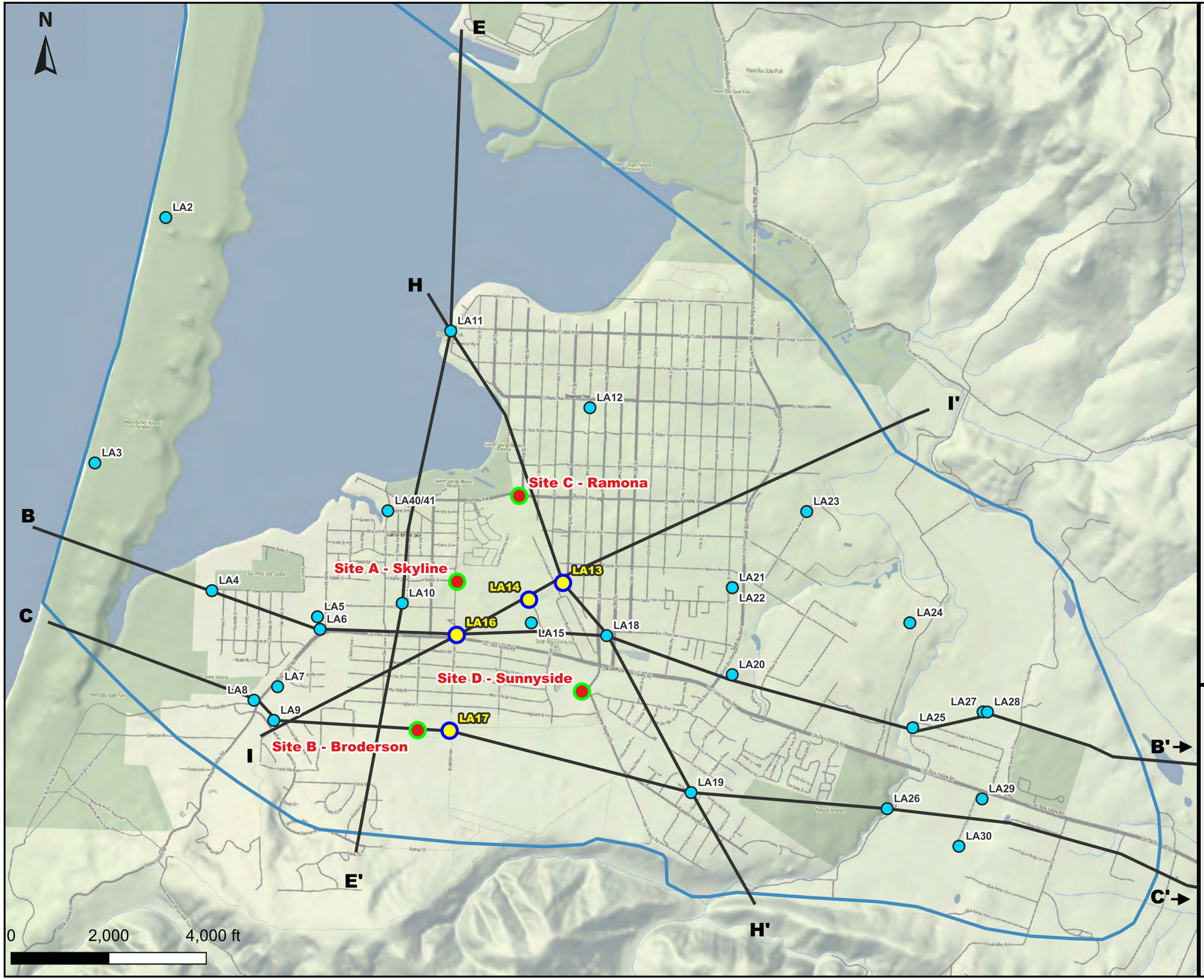
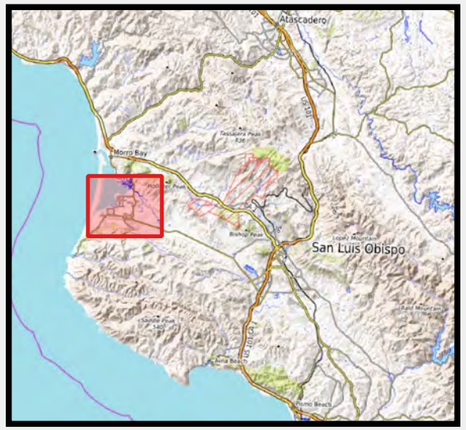




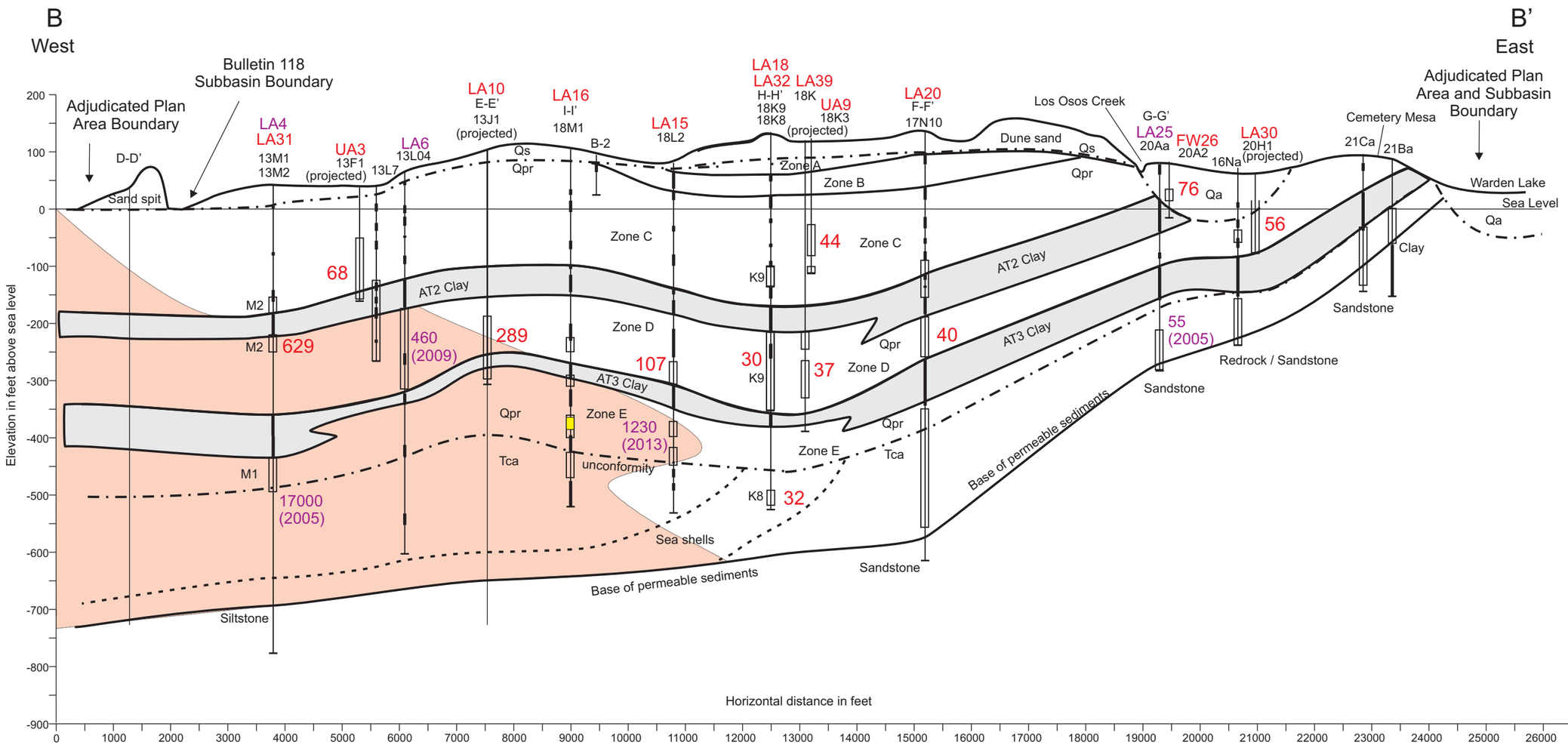
Explanation

- Basin Boundary
- Cross-section line
- Existing Lower Aquifer Well
- Existing Lower Aquifer Well Evaluated for Modification
- New Proposed Monitoring Well

Figure 1
Well Locations

Well Modification TM
Los Osos BMC

Cleath-Harris Geologists



Aquifer Zones:
Zone A - Perched Aquifer
Zone B - Transitional Aquifer
Zone C - Upper Aquifer
Zone D - Lower Aquifer (shallow)
Zone E - Lower Aquifer (deep)

Well data point
18M1 Well ID
Clay layer
Well screen
Clay layers not shown at projected wells

Formation:
Qa - alluvium
Qs - dune sand
Qpr - Paso Robles Formation
Tca - Careaga Formation

Cross-section alignment shown in Figure 1

LA31 - LOBP Monitoring Network ID

310 - Chloride concentration in mg/L (Fall 2021)

Estimated extent of seawater intrusion (Fall 2021)

460 - Historical Chloride concentration in mg/L (year listed)

Proposed well modification to isolate screened interval at LA16 highlighted in yellow

Figure 2

Seawater Intrusion Front
Cross-Section B-B'
Los Osos Groundwater Basin
Well Modification TM

Cleath-Harris Geologists

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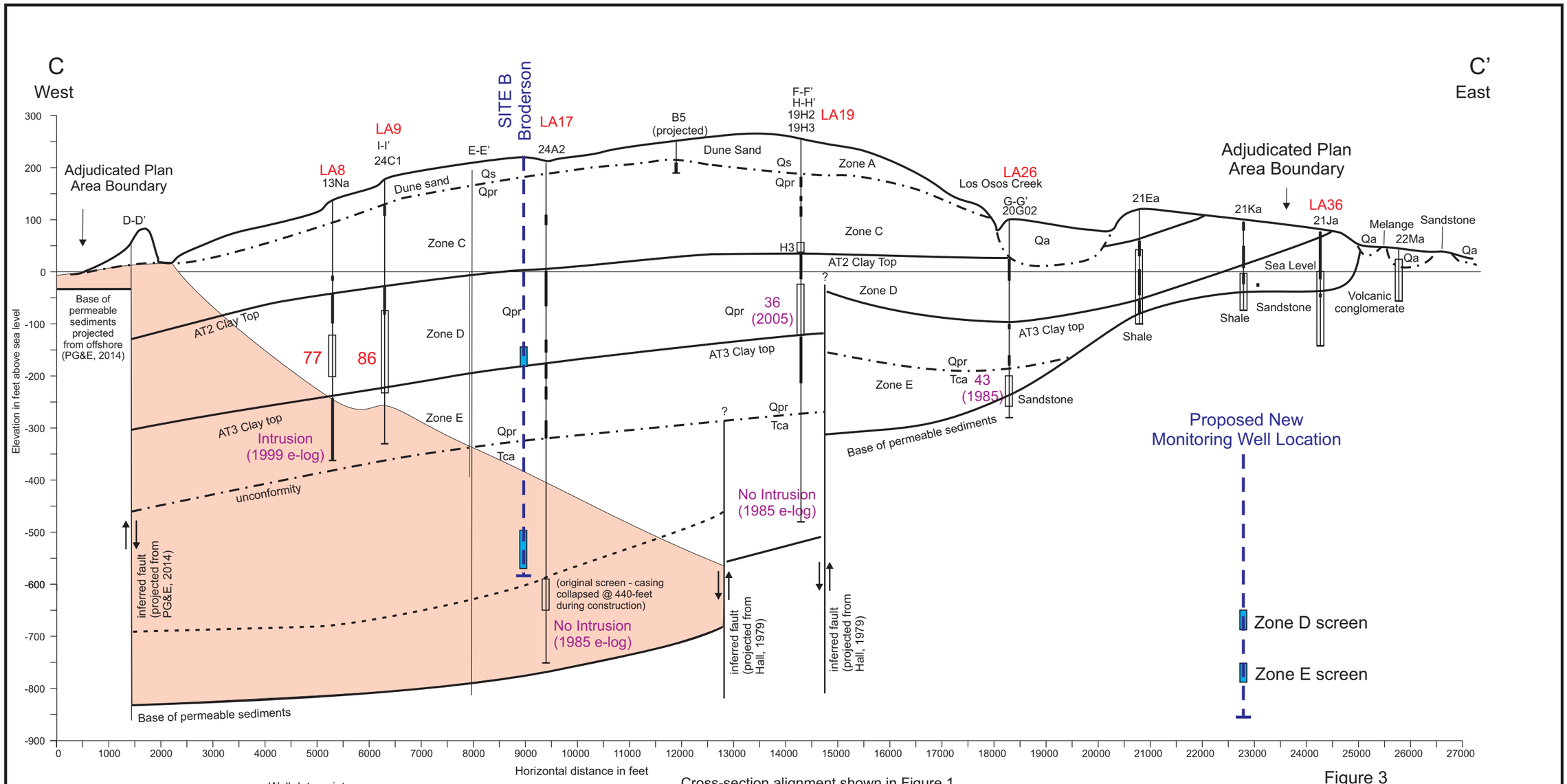

Aquifer Zones:
Zone A - Perched Aquifer
Zone B - Transitional Aquifer
Zone C - Upper Aquifer
Zone D - Lower Aquifer (shallow)
Zone E - Lower Aquifer (deep)

Well data point
24A2 Well ID
Clay layer
Well screen

Formation:
Qa - alluvium
Qs - dune sand
Qpr - Paso Robles Formation
Tca - Careaga Formation

Cross-section alignment shown in Figure 1

LA8 - LOBP Monitoring Network ID

77 - Chloride concentration in mg/L (Fall 2021)

Estimated extent of seawater intrusion (Fall 2021)

36 - Historical Chloride concentration in mg/L (year listed)

Figure 3

Cross-Section C-C'
Los Osos Groundwater Basin
Well Modification TM

Cleath-Harris Geologists

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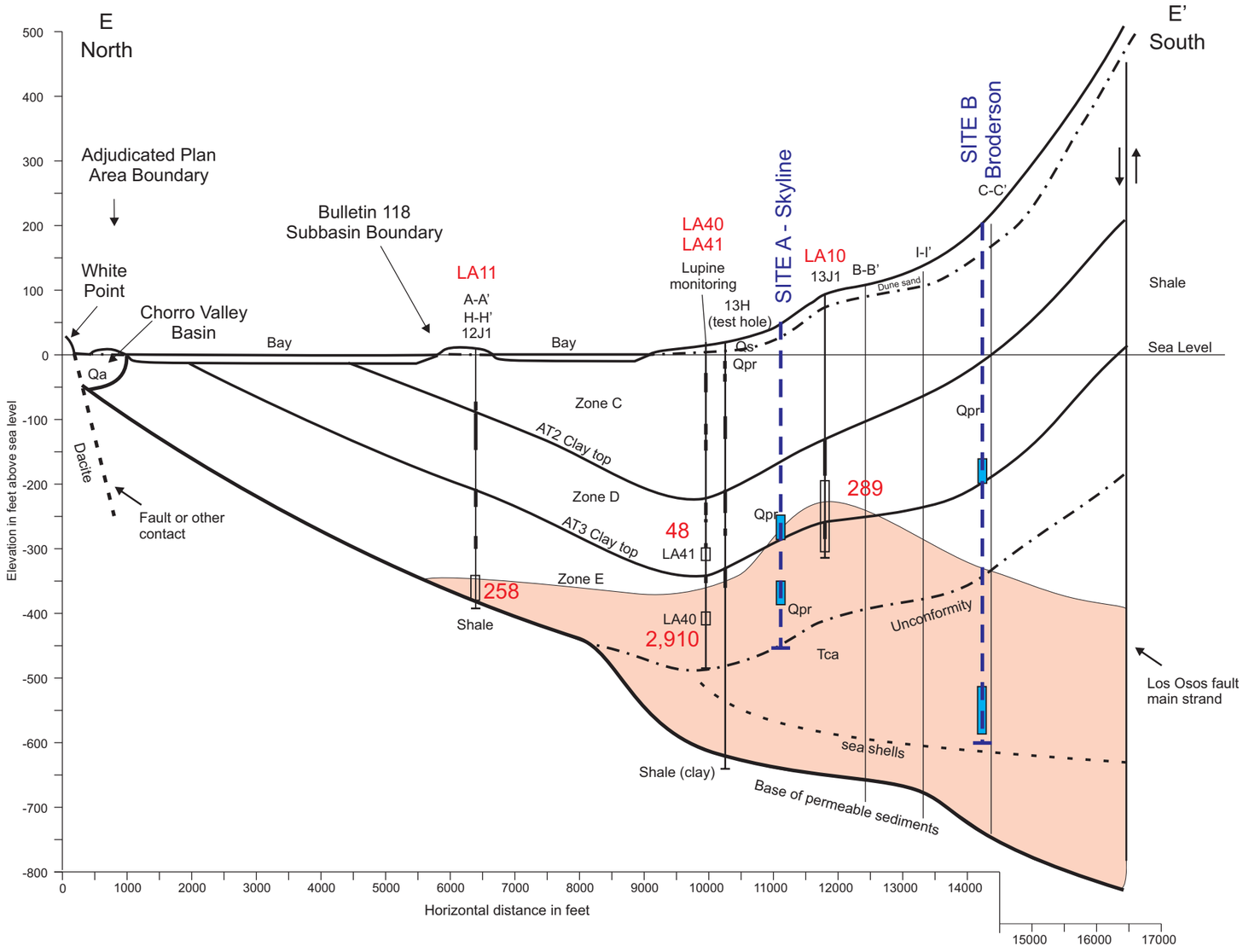

Proposed New Monitoring Well Location

Zone D screen

Zone E screen

Aquifer Zones:
Zone A - Perched Aquifer
Zone B - Transitional Aquifer
Zone C - Upper Aquifer
Zone D - Lower Aquifer (shallow)
Zone E - Lower Aquifer (deep)

Well data point
12J1 Well ID
Clay layer
Well screen

Formation:
Qa - alluvium
Qs - dune sand
Qpr - Paso Robles Formation
Tca - Careaga Formation

Cross-section alignment shown in Figure 1

LA11 - LOBP Monitoring Network ID

258 - Chloride concentration in mg/L (Fall 2021)

Estimated extent of seawater intrusion (Fall 2021)

Figure 4

Cross-Section E-E'
Los Osos Groundwater Basin
Well Modification TM

Cleath-Harris Geologsts

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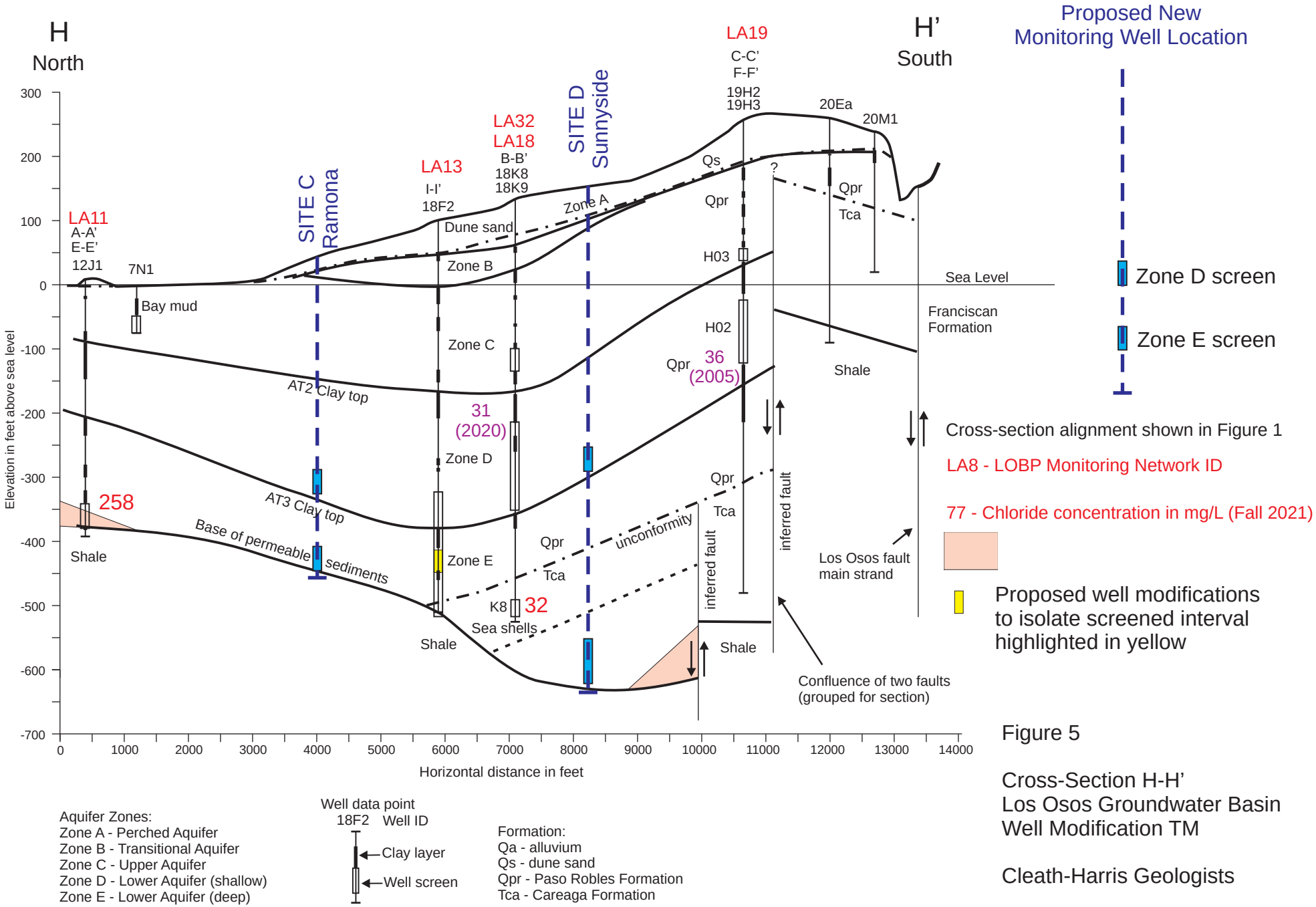

Proposed New Monitoring Well Location

Zone D screen

Zone E screen

Cross-section alignment shown in Figure 1

LA8 - LOBP Monitoring Network ID

77 - Chloride concentration in mg/L (Fall 2021)

Proposed well modifications to isolate screened interval highlighted in yellow

Aquifer Zones:
Zone A - Perched Aquifer
Zone B - Transitional Aquifer
Zone C - Upper Aquifer
Zone D - Lower Aquifer (shallow)
Zone E - Lower Aquifer (deep)

Well data point
18F2 Well ID
Clay layer
Well screen

Formation:
Qa - alluvium
Qs - dune sand
Qpr - Paso Robles Formation
Tca - Careaga Formation

Figure 5

Cross-Section H-H'
Los Osos Groundwater Basin
Well Modification TM

Cleath-Harris Geologists

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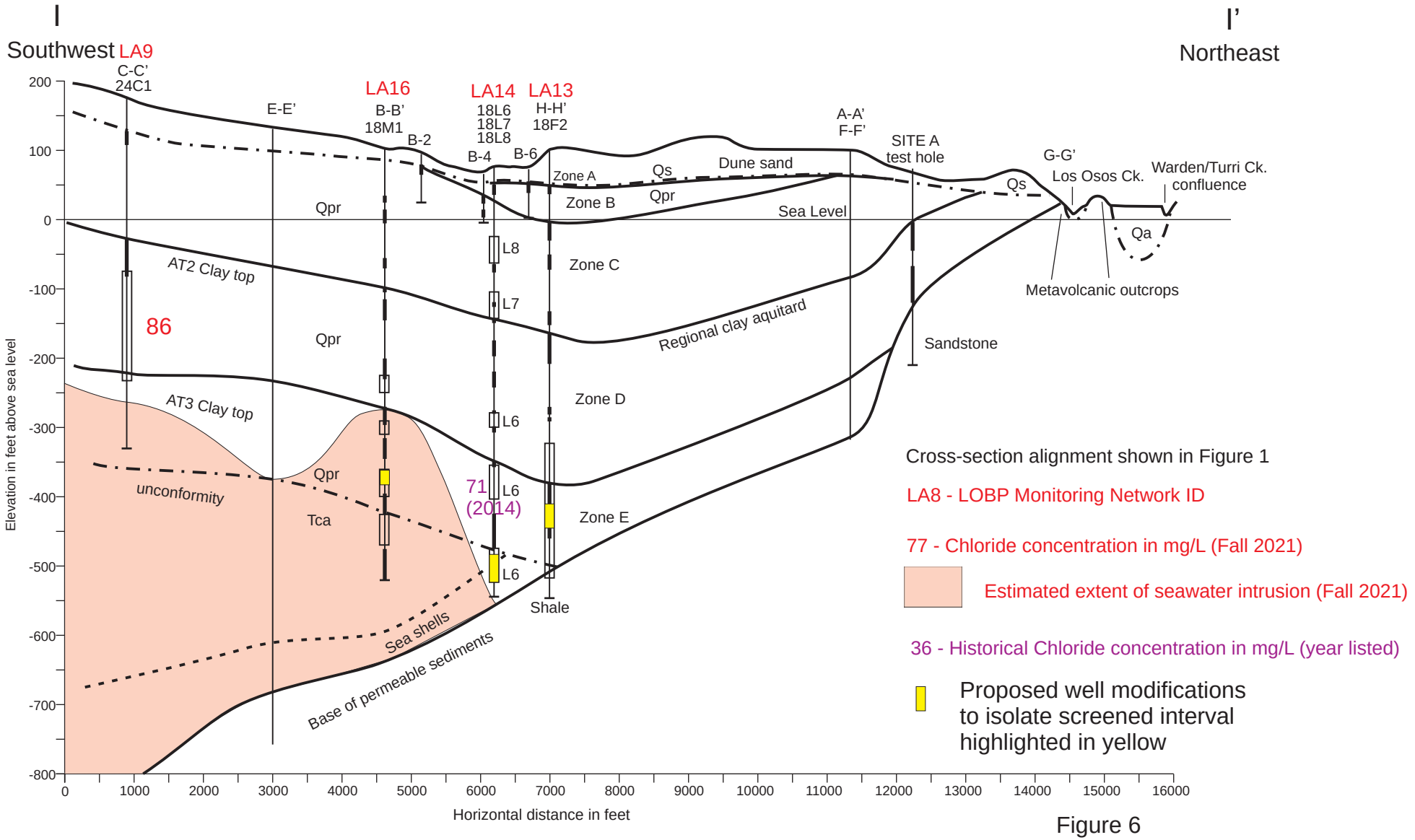

Cross-section alignment shown in Figure 1

LA8 - LOBP Monitoring Network ID

77 - Chloride concentration in mg/L (Fall 2021)

Estimated extent of seawater intrusion (Fall 2021)

36 - Historical Chloride concentration in mg/L (year listed)

Proposed well modifications to isolate screened interval highlighted in yellow

Aquifer Zones:
Zone A - Perched Aquifer
Zone B - Transitional Aquifer
Zone C - Upper Aquifer
Zone D - Lower Aquifer (shallow)
Zone E - Lower Aquifer (deep)

Well data point
18M1 Well ID
Clay layer
Well screen

Formation:
Qa - alluvium
Qs - dune sand
Qpr - Paso Robles Formation
Tca - Careaga Formation

Figure 6

Cross-Section I-I'
Los Osos Groundwater Basin
Well Modification TM

Cleath-Harris Geologists

APPENDIX A

Recommended Well Modification Details

Preliminary Well Modification Design – LA13 (30S/11E-18F2)

Site:	Los Osos CSD Yard between Ferrell Avenue and 7th Street, Los Osos, California
GPS Coordinates:	35.3159, -120.8358
Well Owner:	Los Osos Community Services District
Well Depth:	625 feet (currently sanded in at 536 feet)
Well Diameter:	12-inch steel with 8-inch steel liner beginning at 420 feet

SCOPE OF WORK

1) Submit well modification permit
2) Run camera to inspect existing construction.
3) Perform planned well modification as described below.

PLANNED MODIFICATION:

Liner Completion:	2.5-inch diameter, Sch 80 PVC casing (0.020-inch perforations 510-530 feet depth)

Annular Space inside existing well (from surface)

Seal #1:	Cement top seal (0-3 feet depth)
Inert fill:	Clean sand up to ¼ inch (3-400 feet depth)
Seal #2:	High solids bentonite slurry (400-490 feet depth)
Seal #3:	Bentonite chips 490-500 feet depth
Filter pack:	8 x 20 sand (500-532 feet depth)
Seal #4:	Bentonite chips 532-537 feet depth


038-612-003
074-251-005
038-612-035
038-612-036
074-251-006
038-612-005
074-252-006
038-612-026
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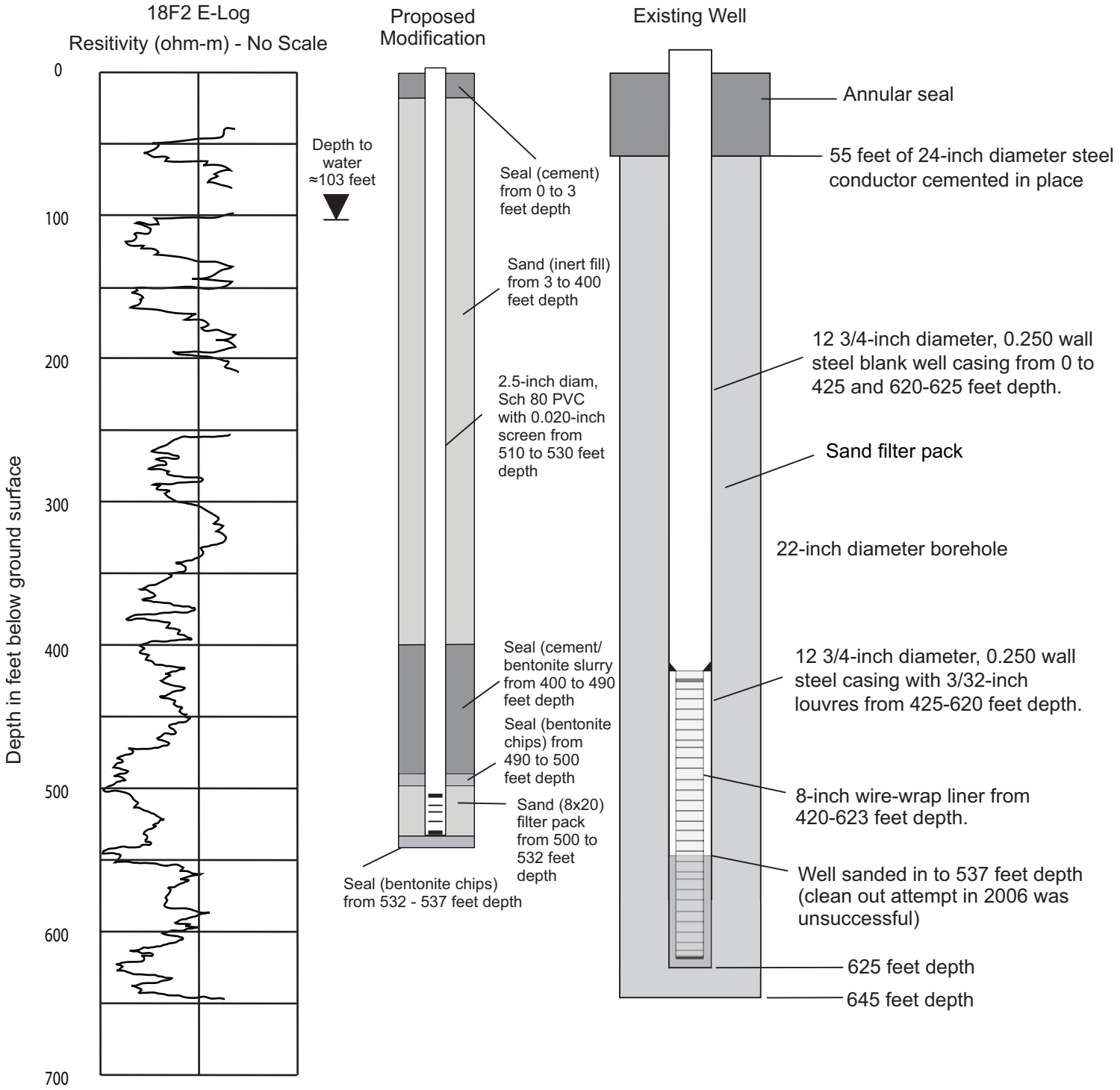


Figure 1
Well 18F2 (LA13)
Well Modification

Cleath-Harris Geologists

30S/11E-18F2

DUPLICATE
Retain this copy

THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
WATER WELL DRILLERS REPORT

No. 77270
State Well No. 30S/11E-18F
Other Well No. #2 Ferrell

(1) OWNER: Ferrel #2 well
Name SLO County Service Area 9A, Baywood Park
Address
San Luis Obispo, Ca. 93401

(2) LOCATION OF WELL:
County SLO Owner's number, if any
Township, Range, and Section
Distance from cities, roads, railroads, etc.

(3) TYPE OF WORK (check):
New Well XX Deepening ☐ Reconditioning ☐ Destroying ☐
If destruction, describe material and procedure in Item 11.

(4) PROPOSED USE (check):
Domestic ☐ Industrial ☐ Municipal XX
Irrigation ☐ Test Well ☐ Other ☐

(5) EQUIPMENT:
Rotary Mud XX
Cable ☐
Other ☐

(6) CASING INSTALLED:
STEEL XX OTHER:
SINGLE XX DOUBLE ☐

From ft.	To ft.	Diam.	Gage or Wall
0	625	12 3/4"	.250

If gravel packed

Diameter of Bore	From ft.	To ft.
22"	0	625

Size of shoe or well ring welded bottom Size of gravel according to specs.
Describe joint welded

(7) PERFORATIONS OR SCREEN:
Type of perforation or name of screen ¼ Louvers

From ft.	To ft.	Perf. per row	Rows per ft.	Size in. x in.
0	425	blank		
425	620	10	120	3/32
620	625	blank		

(8) CONSTRUCTION:
Was a surface sanitary seal provided? Yes XX No ☐ To what depth 55 ft.
Were any strata sealed against pollution? Yes ☐ No XX If yes, note depth of strata
From ft. to ft.
From ft. to ft.
Method of sealing 24½" x ½" well conductor cemented in a 32" hole

(9) WATER LEVELS:
Depth at which water was first found, if known 420 ft.
Standing level before perforating, if known 48 ft.
Standing level after perforating and developing 60 ft.

(10) WELL TESTS:
Was pump test made? Yes XX No ☐ If yes, by whom McCoy Pump Co.
gal./min. with ft. drawdown after hrs.
Temperature of water Was a chemical analysis made? Yes ☐ No XX
Was electric log made of well? Yes XX No ☐ If yes, attach copy

(11) WELL LOG:
Total depth 645 ft. Depth of completed well 625 ft.
Formation: Describe by color, character, size of material, and structure

ft.	to ft.	
0	45	sand
45	65	brown clay
65	70	gravel & sand
70	80	brown clay
80	105	brown clay & gravel
105	117	blue clay
117	120	shale gravel
120	170	brown sandy clay
170	180	brown sand & gravel
180	245	brown clay
245	255	gravel & sand
255	270	brown clay
270	280	blue clay
280	285	sand, some gravel
285	300	blue clay
300	340	brown clay, some gravel & sand
340	420	brown sandy clay
420	455	lite brown sandy shale gravel
455	515	brown clay
515	537	lite clay
537	555	hard sandstone
555	600	sand & gravel (sandy)
600	610	gravel & sea shale (sandy)
610	645	brown shale

Work started 9/2/75 19 Completed 9/11/75

WELL DRILLER'S STATEMENT:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME Miller Drilling Co.
(Person, firm, or corporation) (Typed or printed)
Address Rt. A 1, Box 22
Paso Robles, Ca. 93446
[SIGNED] R. H. Miller (Well Driller)
License No. 236900 Dated 9/22/75, 19

SKETCH LOCATION OF WELL ON REVERSE SIDE

Preliminary Well Modification Design – LA14 (30S/11E-18L6)

Site:	County easement at north end of Palisades Ave, Los Osos, California
GPS Coordinates:	35.3149, -120.8381
Well Owner:	San Luis Obispo County
Well Depth:	600 feet (currently sanded in at 554 feet).
Well Diameter:	6-inch PVC

SCOPE OF WORK

1) Submit well modification permit
2) Submit County encroachment permit (if needed).
3) Temporarily remove portion of traffic barricade to access well (optional).
4) Clean out well from 544 to 600 feet.
5) Run camera to inspect existing construction.
6) Perform planned well modification as described below.
7) Re-install traffic barricade as needed.

PLANNED MODIFICATION:

Liner Completion:	2.5-inch diameter, Sch 80 PVC casing (0.020-inch perforations 550-590 feet depth)

Annular Space inside existing well (from surface)

Seal #1:	Cement top seal (0-3 feet depth)
Inert fill:	Commercial sand up to ¼ inch (3-340 feet depth)
Seal #2:	High solids bentonite slurry (340-500 feet depth)
Seal #3:	Bentonite chips 500-510 feet depth
Filter pack:	8 x 20 sand (510-600 feet depth)


074-229-026
LA14-1816
074-229-024
074-252-018
074-229-012
Google Earth
Earth Point


END

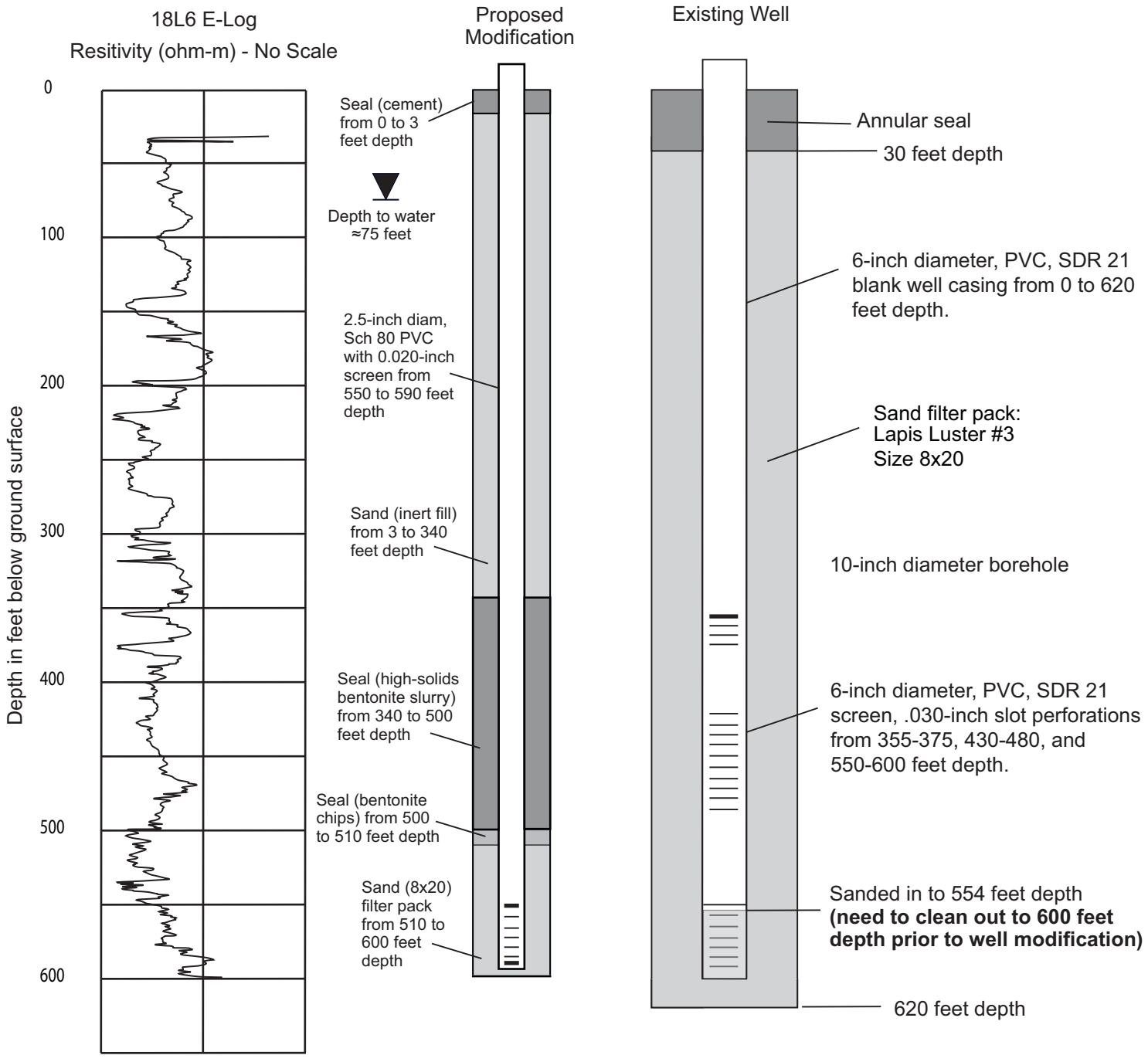


Figure 2
Well 18L6 (LA14)
Well Modification

Cleath-Harris Geologists

30S/11E-18L6

ORIGINAL

File with DWR

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES

WATER WELL DRILLERS REPORT

Do not

No. 17370

Notice of Intent No.

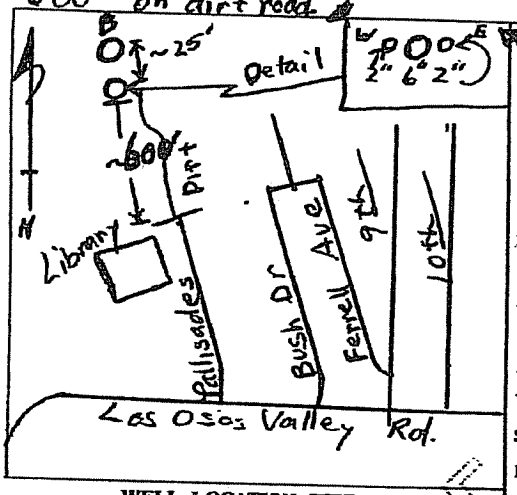
Local Permit No. or Date

State Well No. 30S/11E-18L

Other Well No. ~~Tor~~ Pallsc

(1) OWNER: Name U.S. Geological Survey-WRD
Address 2800 Cottage Way
City Sacramento Zip 95825

(2) LOCATION OF WELL (See instructions):
County San Luis Obispo Owner's Well Number
Well address if different from above ~~Library~~ Palisades
Township Range Section
Distance from cities, roads, railroads, fences, etc. From Los Osos Valley Road proceed North on Pallisades past library to end of road, continue northerly another 600' on dirt road.



WELL LOCATION SKETCH

(3) TYPE OF WORK:
New Well ☒ Deepening ☐
Reconstruction ☐
Reconditioning ☐
Horizontal Well ☐
Destruction ☐ (Describe destruction materials and procedures in Item 12)

(4) PROPOSED USE:
Domestic ☐
Irrigation ☐
Industrial ☐
Test Well ☒
Stock ☐
Municipal ☐
Other ☐

(5) EQUIPMENT:
Rotary ☒ Reverse ☐
Cable ☐ Air ☐
Other ☐ Bucket ☐

(6) GRAVEL PACK: Lapis Lustre #2 Size Bm 20
Yes ☒ No ☐
Diameter of bore 9⅞ inches
Packed from 620 to 80 ft.

(7) CASING INSTALLED:
Steel ☐ Plastic ☒ Concrete ☐

From ft.	To ft.	Dia. in.	Gage or Wall
0	605	6	SDR21

(8) PERFORATIONS:
Type of perforation or size of screen

From ft.	To ft.	Slot size
355	375	.030
430	480	"
550	600	"

(9) WELL SEAL:
Was surface sanitary seal provided? Yes ☒ No ☐ If yes, to depth 20 ft.
Were strata sealed against pollution? Yes ☒ No ☐ Interval 260-265
Method of sealing cement / Bentonite 300-305 570-575

(10) WATER LEVELS:
Depth of first water, if known ft.
Standing level after well completion 92 ft.

(11) WELL TESTS:
Was well test made? Yes ☒ No ☐ If yes, by whom?
Type of test Pump ☒ Bailer ☐ Air lift ☐
Depth to water at start of test 99 ft. At end of test 112 ft
Discharge 60 gal/min after 1 hours Water temperature 7.5°C
Chemical analysis made? Yes ☒ No ☐ If yes, by whom? USGS
Was electric log made? Yes ☒ No ☐ If yes, attach copy to this report

(12) WELL LOG: Total depth 620 ft. Depth of completed well 6

from ft.	to ft.	Formation (Describe by color, character, size or materia
		See attached sheet

Work started 19 Completed 19

WELL DRILLER'S STATEMENT:
This well was drilled under my jurisdiction and this report is true to the best of knowledge and belief.

SIGNED (Well Driller)
NAME USGS-WRD Western Region Drilling Co (Person, firm, or corporation) (Typed or printed)
Address 345 Middlefield Road
City Menlo Park Zip 94025
License No. Date of this report 8-14-85

DWR 188 (REV 7-76) IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

Preliminary Well Modification Design – LA16 (30S/11E-18M1)

Site:	County easement at northeast corner of the Los Osos Valley Road and Broderson Ave, Los Osos, California
GPS coordinates:	35.3128, -120.8430
Well Owner:	San Luis Obispo County
Well Depth:	577 feet (currently sanded in at 511 feet)
Well Diameter:	10-inch steel

SCOPE OF WORK

1) Submit well modification permit.
2) Submit County encroachment permit (if needed).
3) Expose and remove existing steel top plate to access well.
4) Run camera to inspect existing construction.
5) Perform planned well modification as described below.

PLANNED MODIFICATION:

Liner Completion:	2.5-inch diameter, Sch 80 PVC casing (0.020-inch perforations 470-500 feet depth)

Annular Space inside existing well (from surface)

Seal #1:	Cement top seal (0-3 feet depth)
Inert fill:	Commercial sand up to ¼ inch diameter (3-320 feet depth)
Seal #2:	High solids bentonite slurry (320-440 feet depth)
Seal #3:	Bentonite chips 440-450 feet depth
Filter pack:	8 x 20 sand (450 to 505 feet depth)
Seal #4:	Bentonite chips 505-511 feet depth
Wellhead:	Install traffic-rated well box with cement pad (ground surface is above existing wellhead)


074-052-049
LA16-18M1
074-184-023
074-184-024
074-184-008
074-184-009
074-184-010
074-061-023
074-061-002
074-061-003
074-061-004
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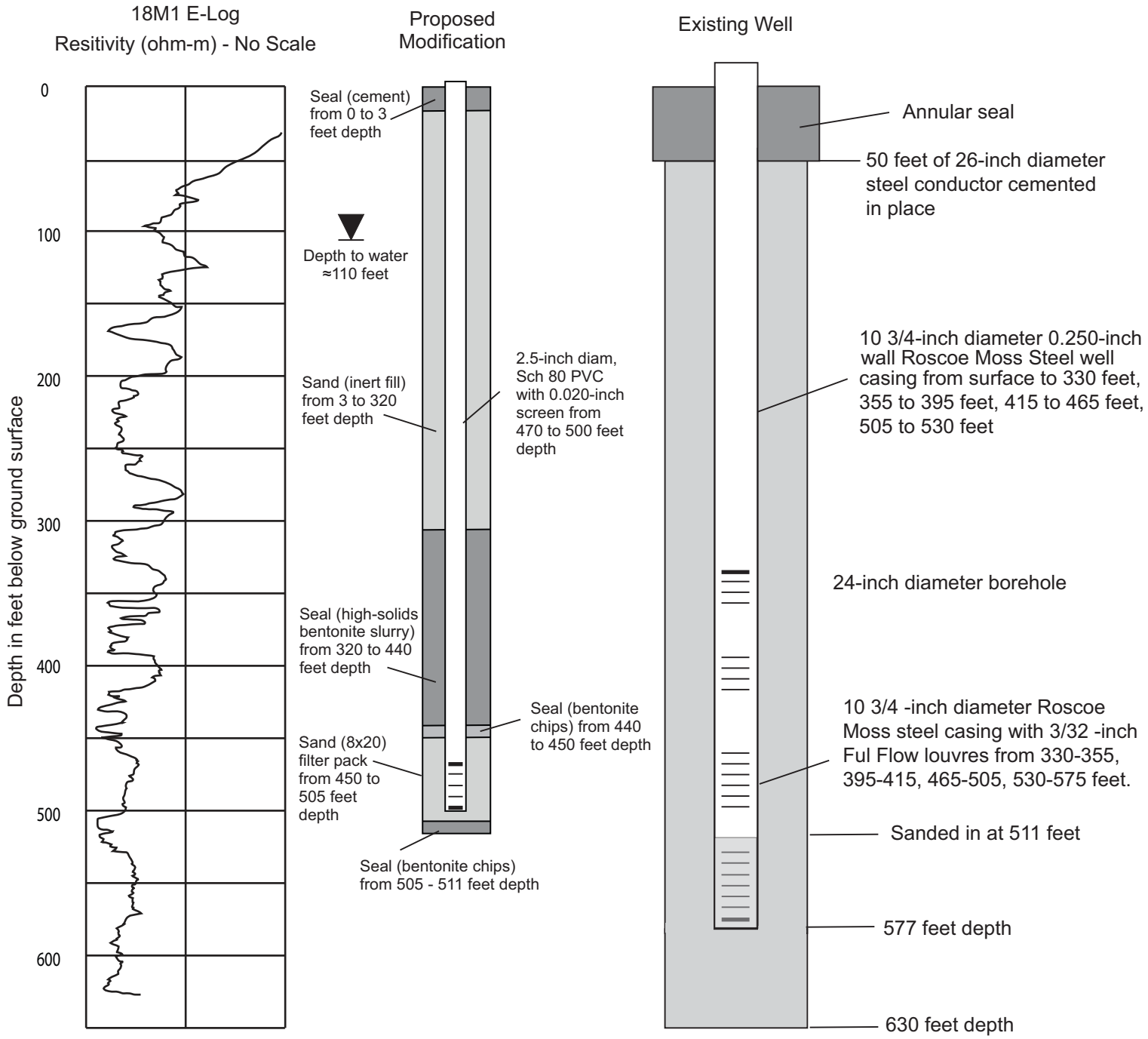

Figure 3
Well 18M1 (LA16)
Well Modification

Cleath-Harris Geologists

305/11E - 18M1

given to County

given to County Broderson/LOVR

Irrigation Systems
Sales and Service

Licensed
Drilling
Contractors

FLOYD V. WELLS, INC.

1337 West Betteravia Road • Phone WAlnut 5-8626
SANTA MARIA, CALIFORNIA 93454

Mailing Address:
Post Office Box 1007
Santa Maria, California

Goleta Office:
5798 Dawson Ave.
Phone 967-4124
Santa Maria
Phone ZEnith 2-7726

Los Osos #5

Log of well drilled for : California Cities Water Co., Baywood Park

Location : 85 ft. north of center line Los Osos Valley Rd., 40 ft. east of center line Broderson Ave.

Surface seal : 50 ft. of 26" x .250 wall pipe cemented in place

Well bore : 24"

Casing : 577 ft. of 10 3/4" x .250 wall Roscoe Moss Ful Flow

Perforations : 575 ft. to 530 ft., 505 ft. to 465 ft., 415 ft. to 395 ft., 355 ft. to 330 ft., 3/32" Ful Flow louvres

Well completed : 10 July 1973

Formation

From	0	to	70	feet	Fine brown sand
"	70	"	110	"	Reddish brown sand and sandy clay
"	110	"	160	"	Brown sand and sandy clay
"	160	"	165	"	Brown snad
"	165	"	245	"	Brown sandy clay with strips of fine sand
"	245	"	265	"	Brown clay with sand and gravel
"	265	"	275	"	Brown sandy clay with small amount of gravel
"	275	"	295	"	Fine sand and sandy clay
"	295	"	328	"	Sandy brown clay with sand strips
"	328	"	338	"	Brown sandy clay with sand and gravel
"	338	"	350	"	Brown sandy clay with sand strips
"	350	"	372	"	Sand and gravel with clay
"	372	"	392	"	Brown sandy clay with sand and small amount gravel
"	392	"	402	"	Fine sand and sandy clay
"	402	"	420	"	Sandy brown clay with sand strips
"	420	"	436	"	Blue and brown sandy clay
"	436	"	460	"	Brown sandy clay with sand strips
"	460	"	477	"	Brown sandy clay with sand and gravel
"	477	"	490	"	Brown sandy clay with sand and small amount gravel
"	490	"	495	"	Brown sandy clay

- continued -

Log of well drilled for : California Cities Water Co., Baywood Park

Formation					
From	495	to	525	feet	Black clay and blue clay with fine sand
"	525	"	536	"	Brown sandy clay and fine sand
"	536	"	562	"	Sand and gravel with small amount of clay
"	562	"	570	"	Blue and brown sandy clay and gravel
"	570	"	630	"	Brown sandy clay and gravel

APPENDIX B

Estimated Well Modification Contractor Costs
Filipponi & Thompson Drilling, Inc.

Filipponi & Thompson Drilling, Inc.
PO Box 845
Atascadero, CA 93423

TEL: (805)466-1271 FAX: (805)466-2388

Filipponi & Thompson Drilling Inc.
License No. CA57-432680

Estimate

DATE	ESTIMATE #
6/2/2022	1276

NAME / ADDRESS
LOS OSOS C.S.D. 2122 9TH STREET, STE. 110 LOS OSOS, CA 93402

E-mail: RMUNDS@losososcsd.org

Project: LA13 (30S/11E-18F2)

DESCRIPTION	QTY	COST	TOTAL
LOS OSOS CSD			
C/O SPENCER HARRIS			
WELL LA13 (30S/11E-18F2)			
ESTIMATE FOR WELL MODIFICATIONS.			
12" STEEL WELL WITH 8" STEEL LINER AT 420 FT.			
WELL MODIFICATION PERMIT	1	1,200.00	1,200.00
VIDEO WELL	1	2,250.00	2,250.00
PERFORM WELL MODIFICATION	1	6,000.00	6,000.00
510' - 2 1/2" FLUSH WALL PVC SCH. 80	1	13,700.00	13,700.00T
20' - 2 1/2" FLUSH WALL PVC SCH. 80 0.020" PERFORATIONS	1	540.00	540.00T
2 1/2" FLUSH WALL CAPS	1	150.00	150.00T
5' (532' - 537') BENTONITE CHIPS	1	150.00	150.00T
32' (500' - 532') 8 X 20 SAND	1	200.00	200.00T
10' (490' - 500') BENTONITE CHIPS	1	200.00	200.00T
90' (400' - 490') HIGH SOLIDS BENTONITE SLURRY	1	300.00	300.00T
397' (3'-400') COMMERCIAL SAND	1	1,400.00	1,400.00T
3' (0-3') CEMENT TOP	1	100.00	100.00T
*** ESTIMATE INCLUDES LABOR COST ***		0.00	0.00
Sales Tax		7.25%	1,213.65

TO ACCEPT THIS OFFER, PLEASE SIGN BELOW AND RETURN THIS CONTRACT TO OUR OFFICE.

TOTAL $27,403.65

THIS OFFER WILL EXPIRE AFTER 30 DAYS UNLESS ACCEPTED.

Operator

Signature Date

I ACCEPT THE ABOVE OFFER

Filipponi & Thompson Drilling, Inc.
PO Box 845
Atascadero, CA 93423

TEL: (805)466-1271 FAX: (805)466-2388

Filipponi & Thompson Drilling Inc.
License No. CA57-432680

Estimate

DATE	ESTIMATE #
6/2/2022	1278

NAME / ADDRESS

LOS OSOS C.S.D.
2122 9TH STREET, STE. 110
LOS OSOS, CA 93402

E-mail

RMUNDS@losososcsd.org

Project

LA14 (30S/11E-18L6)

DESCRIPTION	QTY	COST	TOTAL
LOS OSOS CSD			
C/O SPENCER HARRIS			
WELL LA14 (30S/11E-18L6)			
ESTIMATE FOR WELL MODIFICATION. 6" PVC WELL			
WELL MODIFICATION PERMIT	1	1,200.00	1,200.00
REMOVE & INSTALL TRAFFIC BARRICADE (IF NEEDED)	1	2,000.00	2,000.00
CLEAN OUT WELL FROM 544' - 600'	1	4,800.00	4,800.00
VIDEO WELL	1	2,000.00	2,000.00
PERFORM WELL MODIFICATION	1	6,000.00	6,000.00
560' - 2 1/2" FLUSH WALL PVC SCH. 80	1	15,120.00	15,120.00T
40' - 2 1/2" FLUSH WALL PVC 0.020" PERFORATIONS	1	1,080.00	1,080.00T
2 1/2' FLUSH WALL CAPS	1	150.00	150.00T
90' (510' - 600') 8 X 20 SAND	1	300.00	300.00T
10' (500' - 510') BENTONITE CHIPS	1	100.00	100.00T
160' (340' - 500') HIGH SOLIDS BENTONITE SLURRY	1	300.00	300.00T
337' (3' - 340') COMMERCIAL SAND	1	500.00	500.00T
3' (0 - 3') CEMENT TOP	1	50.00	50.00T
TOOL FABRICATION	1	2,000.00	2,000.00
AIR COMPRESSOR	1	2,000.00	2,000.00
ESTIMATE INCLUDES LABOR COST	1	0.00	0.00
COUNTY ENCROACHMENT PERMIT TO BE OBTAINED BY OTHERS			
Sales Tax		7.25%	1,276.00

TO ACCEPT THIS OFFER, PLEASE SIGN BELOW AND RETURN THIS CONTRACT TO OUR OFFICE.

TOTAL **$38,876.00**

THIS OFFER WILL EXPIRE AFTER 30 DAYS UNLESS ACCEPTED.

Operator

Signature Date

I ACCEPT THE ABOVE OFFER

Filipponi & Thompson Drilling, Inc.
PO Box 845
Atascadero, CA 93423

Filipponi & Thompson Drilling Inc.
License No. CA57-432680

TEL: (805)466-1271 FAX: (805)466-2388

Estimate

DATE	ESTIMATE #
6/2/2022	1277

NAME / ADDRESS
LOS OSOS C.S.D. 2122 9TH STREET, STE. 110 LOS OSOS, CA 93402

E-mail: RMUNDS@losososcsd.org

Project: LA16 (30S/11E-18MI)

DESCRIPTION	QTY	COST	TOTAL
LOS OSOS CSD			
C/O SPENCER HARRIS			
WELL LA16 (30S/11E-18M1)			
ESTIMATE FOR WELL MODIFICATION. 10" STEEL WELL			
WELL MODIFICATION PERMIT	1	1,200.00	1,200.00
EXPOSE AND REMOVE STEEL PLATE TO ACCESS WELL	1	2,400.00	2,400.00
VIDEO WELL	1	2,000.00	2,000.00
PERFORM WELL MODIFICATION	1	6,000.00	6,000.00
470' - 2 1/2" FLUSH WALL PVC SCH. 80	1	12,690.00	12,690.00T
30' - 2 1/2" FLUSH WALL PVC SCH. 80 0.020" PERFORATIONS	1	810.00	810.00T
2 1/2' FLUSH WALL CAPS	1	150.00	150.00T
6' (505' - 511') BENTONITE CHIPS	1	150.00	150.00T
55' (450' - 505') 8 X 20 SAND	1	300.00	300.00T
10' (440' - 450') BENTONITE CHIPS	1	150.00	150.00T
120' (320' - 440') HIGH SOLIDS BENTONITE SLURRY	1	500.00	500.00T
317' (3' - 320') COMMERCIAL SAND	1	1,400.00	1,400.00T
3' (0 - 3') CEMENT TOP	1	100.00	100.00T
ESTIMATE INCLUDES LABOR COST	1	0.00	0.00
COUNTY ENCROACHMENT PERMIT TO BE OBTAINED BY OTHERS			
Sales Tax		7.25%	1,178.13

TO ACCEPT THIS OFFER, PLEASE SIGN BELOW AND RETURN THIS CONTRACT TO OUR OFFICE.

TOTAL **$29,028.13**

THIS OFFER WILL EXPIRE AFTER 30 DAYS UNLESS ACCEPTED.

Operator

Signature Date

I ACCEPT THE ABOVE OFFER

TO: **Los Osos Basin Management Committee**

FROM: **Dan Heimel, Executive Director**

DATE: **July 28, 2022**

SUBJECT: **Item 9b – Presentation of Draft Funding Options TM**

Recommendations

Receive a presentation on the Draft Funding Options Technical Memorandum and provide direction to staff.

Discussion

It was envisioned in the Stipulated Judgement that a formal funding mechanisms (e.g. Zone of Benefit) would be established to fund the administrative or monitoring and management activities of the Basin Management Committee (BMC). However, to-date there has not been a formal funding mechanism established and the BMC is funded through contributions from each of the parties. BMC Staff and BMC Party Staff convened a Funding and Organization Subcommittee (Funding Subcommittee) to discuss and evaluate the potential funding options available to the BMC.

Upon initiating review of available funding options, the Funding Subcommittee determined that it would be beneficial to bring in an outside consultant to review the previous work completed for the BMC on funding options (i.e. Taussig Report) and prepare an updated evaluation for the different funding options that would be available to the BMC and what would be the financial impact of those different funding impacts on the groundwater users within the Los Osos Groundwater Basin (Basin) (e.g. evaluating the number and types of parcels, wells, water use and other related characteristics and the magnitude of fee or assessment that would be required to fund ongoing monitoring and management activities and/or construction and operation of Basin Plan Programs).

In October 2021, the BMC approved the proposal from the SCI Consulting Group to complete a funding options evaluation and develop funding models for the Basin. Through close coordination with BMC Staff and BMC Party Staff, SCI completed their funding options evaluation and prepare the attached draft Technical Memorandum (TM) that describes the available funding options and includes preliminary funding models. This TM is being provided to the BMC to inform future decisions regarding organizational structure and funding program implementation.

Attachments:

Draft SCI Funding Options Technical Memorandum

Los Osos Basin Management Committee

Los Osos Area Subbasin

Funding Options Technical Memorandum

July 2022

SCIConsultingGroup
Public Finance Consulting Services

4745 Mangels Boulevard
Fairfield, California 94534
707.430.4300
www.sci-cg.com

Los Osos Area Subbasin

Los Osos Basin Management Committee

Mark Zimmer, Golden State Water Company, Director
Marshall Ochylski, Los Osos Community Services District, Director
Bruce Gibson, San Luis Obispo County, Director
Charlie Cote, S&T Mutual Water Company, Director
Anthony Lindstrom, Golden State Water Company, Alternate Director
Chuck Cesena, Los Osos Community Services District, Alternate Director
Kate Ballantyne, San Luis Obispo County, Alternate Director
Christopher Gardner, S&T Mutual Water Company, Alternate Director

Staff

Dan Heimel, P.E., M.S., BMC Director
Ron Munds, General Manager, Los Osos Community Services District
Toby Moore, PhD, PG, CHG, Chief Hydrologist, Golden State Water Company
Spencer Harris, PG, CHG, CEG, Senior Hydrogeologist, Cleath-Harris Geologists, Inc.
Chris Gardner, Marketing Manager, Wallace Group
Courtney Howard, Water Resources Division Manager, County of San Luis Obispo
Erica Stuckey, J.D., County Counsel, County of San Luis Obispo
Jena Acos, J.D., Brownstein Hyatt Farber Schreck, Golden State Water Company
Kylie Hensley, Planner, County of San Luis Obispo

Consultant Team

John Bliss, P.E., SCI Consulting Group
Blair Aas, SCI Consulting Group
Jerry Bradshaw, P.E., SCI Consulting Group
Valerie Flores, SCI Consulting Group
Ryan Aston, SCI Consulting Group

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1. Introduction and Executive Summary

1.1. Introduction and Goals

The Los Osos Area Subbasin ("Basin") is located on the central coast of California and underlies the unincorporated communities of Los Osos, Baywood Park, and Cuesta-by-the-Sea in San Luis Obispo County. The total population of these areas is approximately 14,000.

In 2004, an action was initiated with the San Luis Obispo Superior Court by the filing of a complaint for Injunctive Relief and Adjudication of Water Rights in the Basin. The result of these proceedings was an Interlocutory Stipulated Judgment, approved in 2008, between all Parties to this action: Los Osos Community Services District ("LOCSD"), Golden State Water Company ("GSWC"), S&T Mutual Water Company ("S&T"), (known collectively as the "Purveyors,") and the County of San Luis Obispo ("County") (Collectively referred to as the "Parties"). The Interlocutory Stipulated Judgement called for the formation of a Working Group to facilitate a solution to the management of the Basin's resources. The Working Group prepared a Basin Management Plan ("Basin Plan" or "BMP") which was incorporated into the Stipulated Judgment approved by the Court in 2015. The Stipulated Judgment replaced the interlocutory, and also created the Los Osos Basin Management Committee ("Committee") for the purpose of managing the Basin's resources pursuant to the Stipulated Judgment. The Parties to the Stipulated Judgement form the Committee and are collectively referred to as the Basin Management Committee Members ("BMC Members" or "Member Agencies").

As an adjudicated basin, the Basin is exempt from the requirements of the Sustainable Groundwater Management Act ("SGMA"), passed by the California Legislature in 2014. The Basin is instead required to proceed according to the Stipulated Judgment. While the Basin may share certain goals and criteria with SGMA, the Committee is unique in the sense that it does not share all the same legal and procedural requirements and powers allotted to groundwater sustainability agencies ("GSA") through SGMA.

Several other attributes of the Basin make it unique. It is the sole water source for its overlying communities, making responsible management of its resources particularly important. Additionally, issues relating to seawater intrusion and nitrate contamination present specific challenges to Basin management. For these reasons, the Basin will likely require long-term funding for administration, capital projects, and operations and maintenance. One of the goals of the Committee is to establish a reliable funding mechanism to support activities that protect the sustainability of the Basin. This process highlights the need to focus on efficiency, equity, and the overall well-being of the community of Los Osos.

In October of 2021, the Committee engaged SCI Consulting Group to develop a Funding Options Technical Memorandum for the Basin ("Technical Memorandum". The purpose of this Memorandum is to provide guidance for the implementation of long-term funding mechanisms. The Technical Memorandum includes goals and recommendations, as well as the associated costs and other considerations required for their implementation.

1.2. Executive Summary

Following is a brief summary of the findings and recommendations contained within this Technical Memorandum, including a summary of projected BMP implementation costs, potential funding mechanisms, and recommendations for the funding of their implementation.

Revenue Needed for Basin Management Plan Implementation

Annual administration of BMC activities is estimated to cost between $315,000 and $600,000 into the near future. The BMC's comprehensive Basin Plan makes numerous additional implementation recommendations, including specific capital projects and their associated annual operations and maintenance, which require additional funding.

In accordance with the Los Osos Community Plan ("LOCP"), the community may see a growth of an additional approximately 1,844 housing units over a 20-year span, pending approval by the California Coastal Commission. This growth would require the construction of specific capital facilities for the purpose of increasing the Basin's sustainable yield, allowing for more water demand. At this point, however, additional community development has not begun. Pending the approval of the LOCP by the California Coastal Commission ("CCC"), the appropriate level of development in Los Osos is still under consideration.

As stated in the Basin Plan,

> *"The Parties have not unconditionally agreed to implement Program B. The determination of whether to implement Program B depends upon whether the residents of Los Osos decide to provide funding for the Basin Infrastructure Program through a Basin-wide assessment and whether the County and Coastal Commission approve a Los Osos Area Plan that would allow for development of lots that are currently undeveloped or underdeveloped."*

It is anticipated that the BMP's Basin Infrastructure Program B ("Infrastructure Program B") would increase the sustainable yield of the Basin by around 700 acre feet per year ("AFY"). At the direction of staff, SCI has modeled the capital revenue needs of the Committee based on Infrastructure Program B alone, as this program would likely implement the necessary infrastructure improvements to provide for new development. The estimated annual cost of the construction of Infrastructure Program B, adjusted for inflation, is $10,160,000. Additionally, the annual operations and maintenance of Infrastructure Program B facilities is estimated to be around $450,000. Should the Committee decide that other BMP programs are more advantageous, such as Basin Infrastructure Program D or the Morro Bay Pipeline, these options may be implemented instead.

Table 1 – Summary of Total Estimated Costs

Administration, Capital Construction and O&M

	Low Range	High Range
BMC Administration	$315,000	$600,000
Program B Construction and O&M	$1,110,497	$1,385,200
Total:	**$1,425,497**	**$1,985,200**

Funding Approaches and Options for Plan Implementation

There are a variety of funding approaches for BMP implementation, each with pros and cons. It is possible that a portfolio of approaches will prove optimal. The likely most optimal funding mechanisms for BMC administration, operations and maintenance of facilities, and construction of capital projects are listed below:

Note: BMC Administration includes all costs required to run BMC, but not new infrastructure.

BMC Administration

First Option:

- Special Tax – Balloted (allocated to all property owners, including well owners, within the basin)

Second Option:

- Regulatory Fee – Allocated to well owners

Capital Infrastructure

First Options:

- Grants and Loans *and*

- Community Facilities District Special Tax – Balloted (allocated to the existing community and new development)
    - Including one-time annexation taxes on new development for capital costs
    - Including annual tax for O&M of new capital infrastructure

  or

- Community Facilities District Special Tax – Balloted (allocated to new development *only*)
    - Including financed annual taxes for capital costs
    - Including annual tax for O&M of new capital infrastructure

Second Option:

- Development Impact Fee – Non-Balloted (allocated to new development)

Other Options (allocated to all property owners, including well owners, within the basin)

- Property Related Fee – non-Balloted
- Property Related Fee – Balloted
- Benefit Assessment – Balloted

Selection of the optimal approach or, more likely, portfolio of approaches, requires consideration of the key attributes of each.

Each funding mechanism and approach has key attributes - each of which should be considered to select the optimal funding portfolio, including:

- Flexibility of Methodology (per water connection, per acre, per acre-feet pumped, per well, etc.)
- Cost of Implementation
- Revenue Generation Potential
- Political Viability / Community Acceptance
- Legal Rigor
- Administration

These considerations are discussed in detail below.

Allocating Implementation Costs to Well Owners Versus Property owners

If funding beyond use of existing revenue sources and grants is needed, then one of the most important considerations for the BMC is the allocation of BMP implementation costs between landowners receiving water from a purveyor and all other property owners within the Basin Plan Area, including those with private wells. Conventional wisdom suggests that the costs of the implementation of groundwater sustainability policies should be directly borne by the immediate users of the groundwater. In most Basins the most immediate users of the groundwater are the well owners. However, most community members of Los Osos are immediate users of groundwater, as the Basin is the sole water source for the community. There are clear benefits to all properties and residents within a well-managed groundwater basin that provides reliable water resources. It is likely that a portfolio approach that allocates costs to both well owners and water users will be optimal for the Basin. Both types of approaches are discussed in Section 3 of this Technical Memorandum.

Optimal Funding Mechanism for BMC Administration

As listed above, the likely most advantageous path forward for funding the Basin's Administration would be the implementation of a special tax program. Although special taxes are politically challenging, if successfully passed they are legally robust and provide stable and flexible revenue. Depending on the implementing Agency, a special tax program could potentially be established with a methodology that charges varying rates based on parcel attributes such as residential units, built square footage, or acreage. Within such a structure, the BMC could pursue an equitable tax program that attempts to appropriately assign cost relative to estimated water use.

Other mechanisms were considered for funding BMC Administration, most notably regulatory fees. While regulatory fees for groundwater are relatively quick and inexpensive to implement, with minimal administrative burden, there are questions surrounding whether any BMC Member Agencies have the authority to implement a regulatory fee program for the Basin. While the lack of a clear path forward for this mechanism casts doubt on its efficacy, the Committee could consider the possibility of exploring it in the future.

Optimal Funding Mechanisms for Funding Construction and Operations & Maintenance of Capital Facilities

The Basin Plan indicates that the groundwater-related administration and infrastructure required for the existing developed community be funded by existing developed parcels, and accordingly, that the groundwater-related administration, infrastructure and associated operations and maintenance needed to increase water demand for new development be borne by property owners of parcels as they are developed. This dynamic underscores the need for a bifurcated approach to funding infrastructure in Los Osos.

Due to their great flexibility in the method of apportionment, CFD special taxes would be an optimal choice for the Committee to consider in order to generate funds for the construction and operations and maintenance of capital facilities. The potential for grants and loans to lessen the financial burden on the community should also be explored.

Grants and Loans

Grant funding may be an integral part of funding the Basin's capital revenue needs. Grants and loans are discussed in further detail in Section 3 of this Technical Memorandum.

Community Facilities District Special Taxes

Community facilities districts ("CFD"), also known as Mello-Roos Districts, are special tax districts that generate public funding and financing for specific services and infrastructure in California. Although it is not likely that CFD special taxes could fund the costs of BMC administration due to specific limitations of the Mello-Roos Act, they could fund public facilities and the operations and maintenance of those facilities.

There are two types of CFDs that could be implemented in Los Osos:

- A CFD *only* on new development.
    - Each undeveloped property could pay a one-time annexation tax as it is built.
    - Each newly developed property could then pay an annual tax rate.
- A CFD that includes the existing development *and* new development.
    - All parcels could pay an annual tax rate, and currently developed parcels could be taxed at a significantly lower rate than newly developed parcels.
    - New development could pay an annexation charge as it is built before beginning to pay an annual tax rate.

There are various ways in which a CFD can be structured, and there is more flexibility in the methodology that CFD special taxes can employ. For example, a CFD that includes the entire community could utilize a tiered structure in which those community members of Los Osos who are already paying the sewer assessment pay a lower tax rate than those who do not. Because revenue from the sewer assessment is used to improve water quality in the community, this type of tax structure may be considered as a means to support equitable solutions to the Basin's revenue needs.

A CFD special tax on new development would effectively allocate the costs of infrastructure required for growth to newly developed parcels. This approach would likely be used *instead of* a development impact fee.

CFD special taxes, including their relative advantages compared to development impact fees, are discussed in further detail in Section of this Technical Memorandum.

Roadmap Forward and Recommendations

A summary of this Technical Memorandum's major recommendations for the implementation of funding mechanisms includes a step sequential roadmap as summarized below:

- Conduct community outreach regarding the Basin Plan and its implementation
- Conduct a public opinion survey and focused community outreach
- Consider a special tax election

The process of establishing long-term, sustainable, comprehensive funding for BMC Administration through implementation of a special tax will likely take at least 18 months to complete. More detail is provided in Section 3, below.

As additional revenue is needed for capital infrastructure:

- Consider implementation of a CFD special tax or development impact fee program

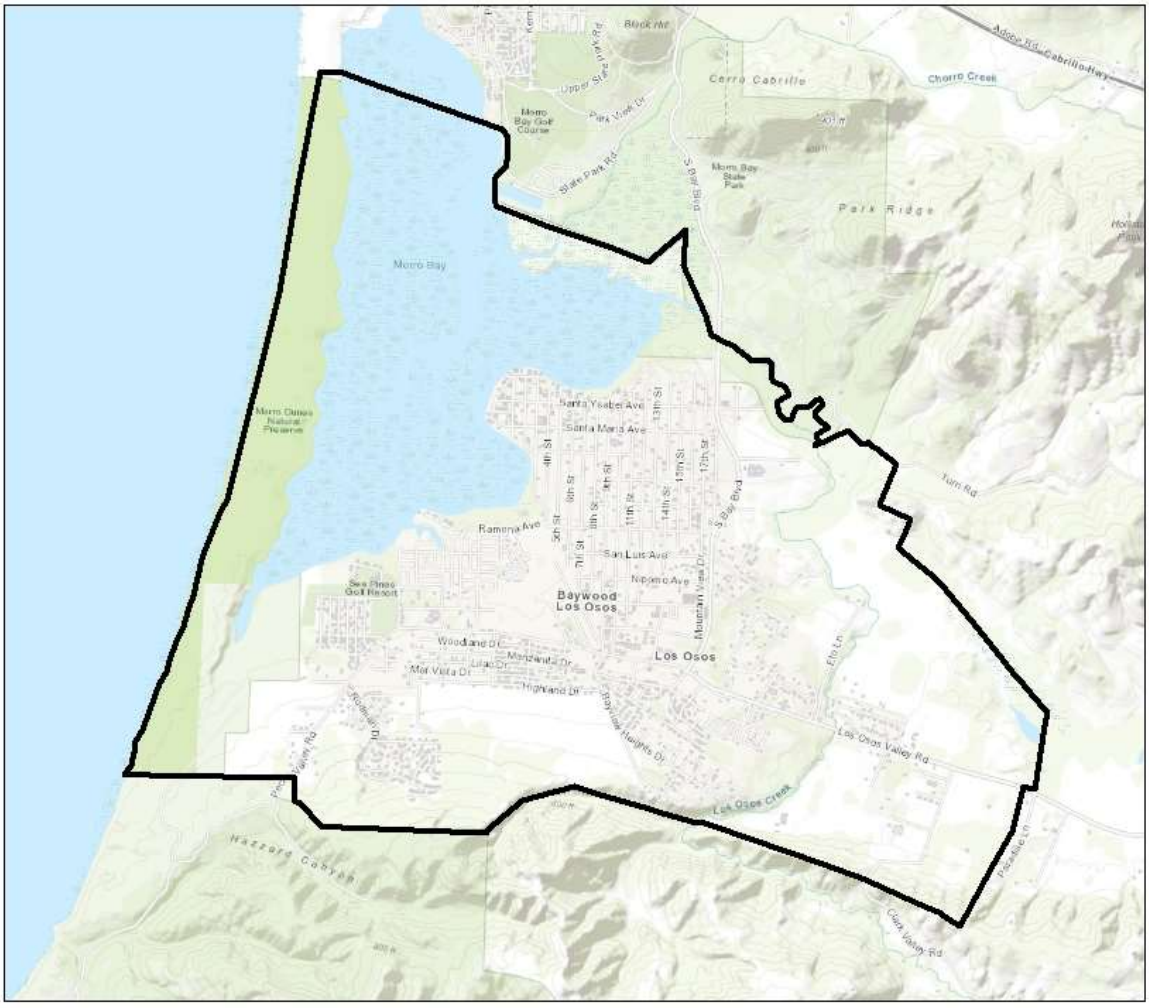
The process of establishing long-term, sustainable, comprehensive funding for capital infrastructure will likely take at least 18 months to complete. More detail is provided in Section 3, below.

1.3. Basin Plan Area

The Los Osos Basin Plan Area ("Plan Area") encompasses approximately 12 square miles, with approximately 4 square miles underlying Morro Bay and approximately 8 square miles underlying Los Osos and surrounding communities. The Plan Area was determined by the Stipulated Judgement and represents the geographical extent of the Basin Plan's jurisdiction[1]. Figure 1 below illustrates the boundaries of the Plan Area.

[1] Note that the Plan Area differs slightly from the Department of Water Resources ("DWR") Bulletin 118 Basin boundary as determined in 2019

Figure 1 – Los Osos Area Subbasin Plan Area



1.4. Parties and Organizational Issues

Governance Structure

One of the more pertinent questions surrounding the BMC's implementation of funding mechanisms is the governance structure of the Committee and any collective actions it would take in pursuit of generating revenue. Staff has shared with SCI that the Committee has considered the potential of forming a joint powers agreement ("JPA") for the purpose of improving organizational structure. However, there are stipulations surrounding JPAs that could potentially limit the efficacy of such a structure.

"Common Powers" Clause

California Government Code § 6502 states "two or more public agencies by agreement may jointly exercise any power common to the contracting parties, including, but not limited to, the authority to levy a fee, assessment, or tax." Thus, a JPA between members of the BMC would be limited to only the powers common to each member of the agreement. This presents a potential challenge for BMC members to enter into such an agreement for the purpose of implementing a funding mechanism as a collaborative entity.

However, a uniquely structured JPA could potentially resolve these issues. As government agencies, the County and LOCSD maintain the authority to impose a wide range of revenue mechanisms. The Committee should consider the potential for these entities to form a JPA as signatories, with the ability to exercise their common powers. The other BMC members could then be appointed to the governing board by the signing members. A key consideration in this structure would be maintaining consistency with the Stipulated Judgement. As such, representation of all parties to the Stipulated Judgement remains a priority.

In the event that a CFD is formed, a JPA or Joint Community Facilities Agreement ("JCFA") may be necessary in order for the Purveyors to own or operate facilities financed by the CFD. In this case, concerns over common powers would be diminished, as the CFD would be the entity generating revenue.

The creation of a JPA is explored in more detail below.

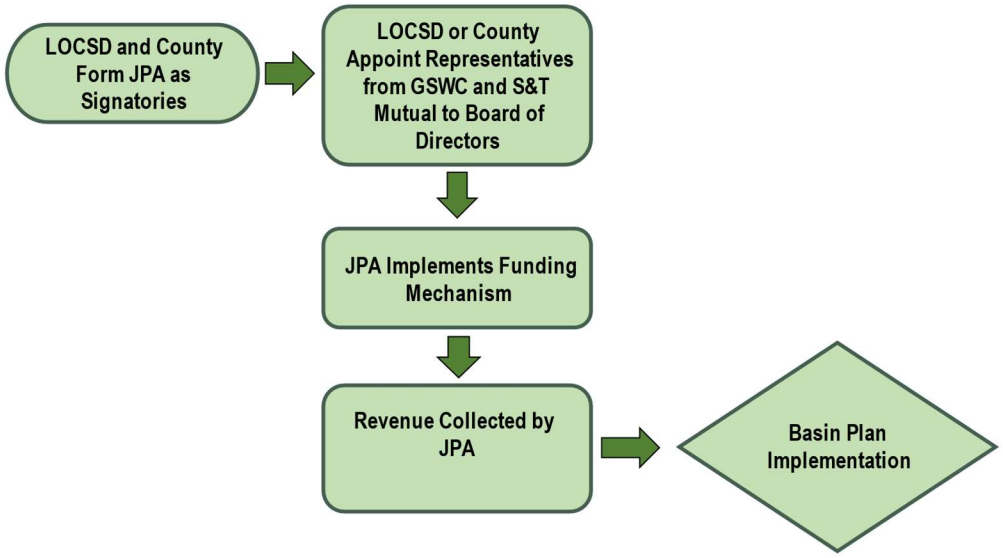
Potential Los Osos Joint Powers Agreement Structure

In an effort to address concerns over "common powers" limitations of a joint powers agreement consisting of all BMC Member Agencies, a unique structure should be considered. One potential structure could consist of the County and LOCSD as the only signatory members to the agreement, with representatives from GSWC and S&T Mutual appointed to the Board of Directors by one of these signatory agencies. In this case, the governing board of the JPA would mirror the BMC's governing body.

This structure would potentially eliminate any issues relating to the "common powers" limitations of a JPA consisting of all four BMC Members as signatory entities, while also ensuring adequate representation of GSWC and S&T mutual. This could allow the JPA to exercise powers common to both the County and LOCSD, while still involving GSWC and S&T Mutual in terms of input and decision making. There are examples of several similarly structured JPAs throughout California, specifically in the groundwater management space. For example, the Sacramento Central Groundwater Authority utilizes this structure in order to incorporate representatives from non-signatory agencies on its governing board. Further discussion with legal counsel is recommended in order to establish a better understanding of this governance structure.

In Table 6 below, we have illustrated this potential JPA structure:

Figure 2 – BMC JPA Flowchart



Joint Community Facilities Agreements (For CFD Implementation)

In accordance with California Government Code § 53316.2, any facilities funded by a CFD, to be owned or operated by agencies other than those that establish the CFD, must enter into either a JPA or a joint community facilities agreement ("JCFA"). In the case that the Committee decides to pursue a CFD, it should consider whether a JPA or JCFA would be more appropriate according to the relationship Member Agencies will share regarding the operation of CFD-funded infrastructure.

Members of the Basin Management Committee

Parties to the Stipulated Judgement

The Stipulated Judgment established the BMC and defined membership of the Committee as the Parties to the Stipulated Judgement. BMC Member Agencies collaborate to implement the Basin Plan. Each Member Agency has specific authorities and constraints relating to the implementation of funding mechanisms. General characteristics of each Member Agency are provided below.

Los Osos Community Services District

The LOCSD is a community services district formed pursuant to the California Government Code, commencing with section 61000. The LOCSD operates a public water system within a specified zone within its jurisdictional boundaries. The LOCSD is defined as a water purveyor within the Basin Plan Area.

Government Codes § 61123 authorizes community services districts to charge fees to cover the cost of services provided. This refers to property related fees in accordance with Article XIII D of the California Constitution.

In accordance with Government Code § 61121, community services districts may levy special taxes in accordance pursuant to Government Code § 50075. However, § 61121 adds the requirement that they be applied uniformly across all taxpayers or property, with the exception of a lower rate for unimproved property.

Golden State Water Company

GSWC is a California corporation and a public utility defined by California Public Utilities Code section 216. GSWC owns and operates a public water system in Los Osos. Its water supplies, infrastructure standards, service quality, and customer rates are regulated by the California Public Utilities Commission ("PUC"). GSWC is also defined as a water purveyor within the Basin Plan Area.

In accordance with California Public Utilities Code section 454, GSWC's rates are set by a general rate case decided by the PUC. Because of this limitation on what it can charge its customers there are potential constraints to any funding mechanism implemented by GSWC.

S&T Mutual Water Company

S&T is a California corporation and mutual water company, as defined in California Public Utilities Code section 2705 and California Corporations Code section 14300(b). S&T owns and operates a public water system in Los Osos, through which it delivers water exclusively to its shareholders at cost. S&T is also defined as a water purveyor within the Basin Plan Area.

In accordance with California Corporations Code § 14301, mutual water companies maintain the ability to impose fees, charges, or assessments on their customers at actual cost, plus necessary expenses. For example, S&T Mutual currently imposes a charge of $10 per month for the purpose of maintaining their capital reserve fund. However, a mutual water company does not have the authority to implement certain funding mechanisms considered in this Technical Memorandum, including special taxes or regulatory fees.

County of San Luis Obispo

The County of San Luis Obispo is a California general law County that utilizes Basin water for irrigation and the Los Osos Wastewater Project ("LOWWP"). The LOWWP was undertaken in order to address nitrate contamination and to provide a recycled water source for beneficial use within the Basin.

The County, subject to certification of the local coastal plan by the California Coastal Commission ("Coastal Commission"), is the agency that has land use authority within the unincorporated area of Los Osos, including all those lands that overlie the Basin or otherwise receive water from the Basin.

Article XI § 7 of the California Constitution authorizes California counties to make and enforce ordinances and regulations providing they do not conflict with general laws.

Several sections of the California Government Code authorize California counties to levy fees, including § 54985 and § 54344. All fees must still comply with Constitutional requirements. However, the unique governance structure in the Los Osos Area Subbasin may complicate traditional fee implementation.

In accordance with California Government Code § 50075, California counties maintain the authority to levy special taxes pursuant to Article XIII A of the California Constitution. However, it is the opinion of San Luis Obispo County that a specific statute is required to authorize the levying of a tax for the purpose of groundwater management. For this reason, the San Luis Obispo County Flood Control and Water Conservation District may be a more well-suited source of special tax authority.

San Luis Obispo County Flood Control and Water Conservation District

The San Luis Obispo County Flood Control and Water Conservation District ("SLOFC&WCD") was established in 1945 "to provide for the control and conservation of flood and storm waters and the protection of watercourses, watersheds, public highways, life and property from damage or destruction from such waters." This purpose is outlined in the SLOFC&WCD's enabling act, which also authorizes the SLOFC&WCD "to provide for the retention and reclaiming of drainage, storm, flood, and other waters and to save and conserve, purchase and sell such waters for beneficial use in said district." This act also authorizes the SLOFC&WCD to levy and collect taxes for these purposes.

The Stipulated Judgment contemplates that the administrative costs of managing the Basin would be funded by a special tax imposed by the SLOFC&WCD. Unlike any of the other Parties, the SLOFC&WCD has the statutory authority to impose a special tax to fund such costs within the entire Basin under its enabling act.

2. Detailed Revenue Needs

Annual Administrative and Operations & Maintenance Costs

The BMP contains numerous recommendations for the annual administrative, operations and maintenance costs of existing monitoring infrastructure in support of the long-term sustainability of the Basin. Estimated costs of these recommendations have been bracketed with a low range of $315,000 per year and a high range of $600,000, and are detailed in Table 2, below:

Table 2 – Detailed Summary of Estimated Maintenance and Operations Costs

BMC Administration

	Annual Budget	
	Low Range	**High Range**
Annual Administration	$315,000	$600,000

BMC Administration includes:

- Governmental administration of BMC
- Required meetings and notification
- Groundwater Basin monitoring
- Recording, analysis and reporting
- Technical studies related to the above
- No capital projects

Capital Costs

The BMP includes numerous recommendations for capital improvements in support of the long-term sustainability of the Basin. These improvements stand to serve both the existing community of Los Osos, as well as any future development. The Basin Plan outlines several Infrastructure Improvement Programs that detail the purpose and cost of specific improvements.

Basin Plan Program B

Infrastructure Program B of the Basin Plan includes projects that will maximize the use of the Basin's Upper Aquifer groundwater. This includes the construction of additional wells and a community nitrate removal facility, to be undertaken by LOCSD and GSWC. The estimated costs of projects and associated operations and maintenance of Infrastructure Program B are shown below for reference, updated according to the Engineering News-Record Construction Cost Index over the six years since the initial estimate.

Table 3 – Estimated Capital Project Costs

Capital Infrastructure

	Estimated Costs	
Infrastructure Program B Construction Costs	$10,160,000	(One-time cost adjusted for Inflation)
Infrastructure Program B O&M Costs	$450,000	(Annual)

Debt Financing

Next, we have adjusted these costs according to a projection of annual debt service. This was done by calculating a low range and high range debt service insurance rate (6.3% and 10%) along with a low range and high range interest rate (2%-6%), spread over the course of 20 years, as shown below:

Table 4 – Estimated Annual Debt Financing of Capital facilities and O&M Costs

Program B Constuction Debt Financing

	Low Range	High Range
Construction Cost	$10,160,000	$10,160,000
Debt Service Insurance	6.3%	10.0%
Loan Amount	10,800,080	11,176,000
Interest Rate	2%	6%
Period of Loan	20	20
Annual Payment	$660,497	$935,200
Annual O&M	$450,000	$450,000
Total Annual Revenue Need	**$1,110,497**	**$1,385,200**

Total Annual Implementation Costs

The total costs of these recommendations including all groundwater sustainability supporting existing and new (full build out) development have been bracketed with a low range of $1,425,497 per year and a high range of $1,985,200, and are detailed in Table 5, below:

Table 5 – Summary of Total Estimated Annual Costs

Administration, Capital Construction and O&M

	Low Range	High Range
BMC Administration	$315,000	$600,000
Program B Construction and O&M	$1,110,497	$1,385,200
Total:	**$1,425,497**	**$1,985,200**

3. Detailed Evaluation of Potential Funding Mechanisms

3.1. Background of Funding Strategies for the Los Osos Area Subbasin

Basin Plan implementation has been funded to this point by contributions from BMC Members as well as grants.

A brief summary of annual BMC administration budget is shown below.

Historic Budget Summary

Calendar Year	Budget
2022 (Proposed)	$316,300
2021	$314,050
2020	$193,050
2019	$335,685
2018	$294,800

Member contributions have traditionally been allocated according to specific percentages of budget costs. The schedule below is representative of typical member contributions:

Member Contributions, 2021 Calendar Year

BMC Member	Contribution	Contriubtion %
LOCSD	$119,358	38%
GSWC	$119,358	38%
County of SLO	$62,820	20%
S&T Mutual	$12,564	4%
Total:	$314,100	100%

3.2. Introduction to Available Potential Funding Mechanisms in California

Existing California law provides a relatively finite number of mechanisms for local public agencies to reliably generate revenue to provide services. A portfolio approach of several of these mechanisms will be optimal in many cases. Also, it is crucial to work closely with legal counsel on the implementation of all funding mechanisms to ensure legal compliance. This section provides a discussion of the mechanisms best suited to provide funding for groundwater management services recommended in the Basin Plan.

3.3. Funding BMC Administration

As noted above, the annual cost of BMC administration including operations and maintenance of existing groundwater monitoring facilities is projected to be between $315,000 and $600,000 into the near future. These costs include all administrative activities relating to the annual implementation of the Basin's regulatory program.

A special tax program would spread the costs of this expense to all Basin water users. This lends itself to the concept of equity, providing a broad allocation of costs to all stakeholders.

3.3.1. Special Tax on All Property Owners in the Basin

An annual special tax program should be considered for the funding of BMC Administration. This approach would sufficiently generate the necessary annual funds for general Committee activities. Funds from a special tax are quite flexible in use; any reserve amount generated could be used for capital projects or other Basin activities.

Registered voters decide special taxes and require a two-thirds majority for approval. Traditionally, special taxes have been decided at polling places corresponding with general and special elections. Special taxes are well known to Californians but are not as common as property related fees for funding of water-related services and infrastructure activities.

Parcel Based Taxes

Many special taxes are conducted on a parcel basis with a uniform "flat" rate across all parcels, or varied rates based upon property attributes such as use and/or size. Parcel taxes based upon the assessed value of a property are not allowed. Parcel-based taxes (as opposed to sales taxes, etc.) are the most viable type of special tax for funding water-related activities. As such, most discussion of special taxes in this report will focus on parcel taxes.

Special Tax Implementation Process

Public agencies typically work with special tax consultants familiar with the administrative and political aspects of proposing a special tax to a community. Special tax elections held at polling places are conducted on the statutorily designated dates (typically in November for the general election and either March or June for the primary). If the Committee ultimately decides to pursue a special tax, it is highly recommended that a special all-mail election be considered. Special all-mail ballot elections are often less expensive and allow for more optimization of the election date, as well as having the advantage of presenting a single issue to the voters.

Required Documents for a Parcel Based Special Tax

- Ordinance stating special tax type, rates, collection method, election date and services provided
- Notice to the Registrar of Voters of measure submitted to voters
- Measure Text including:
- Ballot question (75 words or less)
- Full ballot text (300 words or less) including rate structure
- Arguments in favor or against and independent analysis
- Tax Report

Flexibility of Methodology

There is considerable flexibility in tax methodology. The Committee could propose a flat tax rate in which all parcels are charged the same or a "tiered approach" where, for example larger, and/or commercial parcels may be taxed more than vacant lots. If a more in-depth tiered approach is desired, the Agency should consider using existing Community Facilities District ("CFD") law and practice which better defends the use of a tiered structure. However, revenue from a CFD cannot be used to fund groundwater services such as BMC Administration.

Governance Structure

The SLOFC&WCD maintains the ability to implement a special tax with considerable flexibility in methodology. If the District were to proceed with such a tax, it would need to first form (a) zone(s) of benefit. This could encompass the entire Plan Area or be separated into portions thereof.

In accordance with Government Code § 61121, any tax levied by Los Osos Community Service District would have to be applied uniformly to all property, with the exception of a lower rate for unimproved property. An additional consideration is that there are parcels outside of LOCSD's jurisdiction that would not be subject to a tax implemented by LOCSD.

However, it may be advantageous for a JPA to be established, through which these two entities could jointly implement a tax. As noted above in the discussion of coordination of funding mechanism implementation, a JPA may be established with the County and LOCSD as signatories, and GSWC and S&T Mutual as non-signatory Agencies but with Board representation. This may prove to be the optimal governance structure for the implementation of a special tax.

Revenue Generation Potential

A detailed breakdown of the parcel attributes including number of parcels, number of residential units (for multi-family parcels) and acres for agricultural parcels overlying the Los Osos Area Subbasin is shown in Table 6, below.

Table 6 – Parcel Attributes Within the Basin Plan Area

	Parcels	Residential Units	Acres
Single Family	4,937	5,028	1,385
Condo	112	112	2
Multi: 2-4 Units	136	319	21
Apartments	25	227	12
Mobile Home	8	9	29
Mobile Home Park	5	NA	80
Commercial/Industrial	120	NA	93
Parking and Storage	11	NA	11
Vacant	595	NA	523
Agricultural	15	NA	632
Timber and Pasture	5	NA	70
Government & Institutional	101	NA	2,848
Not Assessable	55	NA	640
Totals	**6,125**	**5,695**	**6,347**

Next, we have modelled hypothetical tax rates to generate the BMC Administration revenue goals in Table 7.

Table 7 – Model of Tax Rate and Revenues for Special Tax

	Parcels	Residential Units	Acres	Built Sq. Footage	Low Range		Mid Range		High Range		Units
Single Family	4,937	5,028	1,385	NA	$45.00	$226,260	$65.00	$326,820	$85.00	$427,380	*per residential unit*
Condo	112	112	2	NA	$45.00	$5,040	$65.00	$7,280	$85.00	$9,520	*per residential unit*
Multi: 2-4 Units	136	319	21	NA	$45.00	$14,355	$65.00	$20,735	$85.00	$27,115	*per residential unit*
Apartments	25	227	12	NA	$45.00	$10,215	$65.00	$14,755	$85.00	$19,295	*per residential unit*
Mobile Home	8	9	29	NA	$45.00	$405	$65.00	$585	$85.00	$765	*per residential unit*
Mobile Home Park	5	NA	80	NA	$10.00	$800	$15.00	$1,199	$20.00	$1,599	*per acre*
Commercial/Industrial	120	NA	93	570,111	$0.02	$11,402	$0.03	$17,103	$0.06	$34,207	*per built square foot*
Parking and Storage	11	NA	11	NA	$25.00	$275	$35.00	$385	$50.00	$550	*per parcel*
Vacant	595	NA	523	NA	$25.00	$14,875	$35.00	$20,825	$50.00	$29,750	*per parcel*
Agricultural	15	NA	632	NA	$50.00	$31,615	$65.00	$41,100	$75.00	$47,423	*per acre*
Timber and Pasture	5	NA	70	NA	$10.00	$704	$15.00	$1,056	$25.00	$1,760	*per acre*
Government & Institutional	101	NA	2,848	NA	$0.00	$0	$0.00	$0	$0.00	$0	*NA*
Not Assessable	55	NA	640	NA	$0.00	$0	$0.00	$0	$0.00	$0	*NA*
Totals	**6,125**	**5,695**	**6,347**			**$315,946**		**$451,843**		**$599,363**	
			Hypothetical Revenue Goals:			**$315,000**		**$450,000**		**$600,000**	

Alternatively, a special tax could be levied that charges more uniform rates. For example, there could be one charge for developed properties and a lower charge for undeveloped properties. This approach would be simpler, but perhaps less equitable, because charges would not be relative to estimated water use. Uniform tax rates for each of these property types are modeled below in Table 8.

Table 8 – Model of Uniform Tax Rate and Revenues for Special Tax

	Parcels	Low Range		Mid Range		High Range		Units
Developed Parcels	5,374	$55.00	$295,570	$80.00	$429,920	$105.00	$564,270	*per parcel*
Vacant	595	$30.00	$17,850	$40.00	$23,800	$50.00	$29,750	*per parcel*
Government & Institutional	101	$0.00	$0	$0.00	$0	$0.00	$0	*NA*
Not Assessable	55	$0.00	$0	$0.00	$0	$0.00	$0	*NA*
Totals	**6,125**		**$313,420**		**$453,720**		**$594,020**	
	Hypothetical Revenue Goals:		**$315,000**		**$450,000**		**$600,000**	

Advantages

- Revenue generation. A special tax would likely be sufficient to fund all BMC administration costs if voter approved.
- Flexible. Special tax methodology is relatively flexible, allowing for rates and apportionment that allocate costs effectively.
- Legally defensible. Special taxes, if approved by two-thirds of the registered voters within a community, are generally reliable and are often more defensible than other types of taxes or fees. Special tax revenue has not been subject to state level "take-aways" like Educational Revenue Augmentation Funds ("ERAF").
- Well known. Most property owners are aware and comfortable with (but not necessarily supportive of) the special taxes and the special tax process.
- Efficient administration.

Challenges

- Political support at required rate and revenue may be difficult. Generally speaking, the two-thirds majority threshold for approval is very politically challenging. Special taxes are subject to significant outside influence from media and opposition groups during voting and are more vulnerable to other measures and candidates that share the ballot.
- Expensive to implement. The cost of placing a special tax initiative on the ballot can be upwards of $100,000.

General Obligation Bonds Supported by a Special Tax

In California, special taxes can be linked directly to the sale of general obligation bonds to finance the construction of infrastructure. In 2004, the City of Los Angeles successfully passed "Measure O" which provided funding for a variety of capital improvements related to water quality. Arguably, voters are more likely to support general obligation bond special taxes than parcel-based taxes at equivalent rates.

However, since special taxes for general obligations bonds can only be used for the financing of capital improvements, this mechanism could only be used to fund the CIP portion of the needs – not the operating costs of the groundwater management infrastructure.

In other words, the passage of a G.O. Bond would not satisfy the Committee's overall groundwater management funding goals, because this source could not fund ongoing operations and maintenance. However, it is possible that community priorities and a revised funding strategy could dictate that pursuit of a G.O. bond measure is optimal to fund any significant groundwater management capital projects. Results of a public opinion survey would likely help guide this decision.

3.3.2. Alternative Option for Funding BMC Administration

While a special tax is likely the most optimal mechanism for funding BMC Administration, there is another option that warrants discussion. A regulatory fee on Basin wells would theoretically fulfill all annual BMC Administrative revenue needs. This option was strongly explored in compiling this Technical Memorandum. However, a lack of legal clarity on whether any Member Agency could implement a regulatory fee program on Basin wells brings into question the ability of the Committee to pursue this path. Nonetheless, a discussion of regulatory fees is provided below for the purpose of future consideration.

Regulatory fees are becoming increasingly common for groundwater sustainability agencies in SGMA Basins. However, the authority granted to them by Water Code § 10730 does not apply to the BMC. Furthermore, as the BMC is a Committee pursuant to the Stipulated Judgment, and not a public agency in and of itself, it does not have the authority to implement a regulatory fee program as a standalone entity. This presents an issue with any potential implementation of such a fee program.

While the County of San Luis Obispo does maintain the ability to implement regulatory fees in general *in connection with regulatory programs that it implements*, there are questions surrounding its jurisdiction over Basin wells given the complex nature of the Basin's governance structure and the fact that the Basin is being managed pursuant to a Court order and not a "regulatory program." The intent of this section is to provide an overview of regulatory fees for future consideration. Should a pathway to their implementation be found, this memorandum recommends that regulatory fees be strongly considered.

3.3.3. Regulatory Fees

Public agencies throughout California often reimburse themselves for the costs of site inspections, permits, plan checks, plan reviews, and associated administrative and enforcement activities using regulatory fees. These fees are often approved and published as part of a "Master Fee Schedule," and are often collected as part of review for approval process. This approach can assist in significantly reducing the financial burden faced by public agencies.

Proposition 26, approved by California voters in 2010, tightened the definition of regulatory fees. It defined a tax as *"any levy, charge, or exaction of any kind imposed by a local government"* with certain exceptions. Pursuant to law, all special taxes must be approved by a two-thirds vote of the electorate.

Regulatory fees are thus defined through the cited exceptions. There are three pertinent exceptions listed in Article XIII A of the California Constitution. One is:

> *"a charge imposed for a specific benefit conferred or privilege granted directly to the payor that is not provided to those not charged, and which does not exceed the reasonable costs to the State of conferring the benefit or granting the privilege to the payor."*

Another exception is:

> *"a charge imposed for the reasonable regulatory costs to a local government for issuing licenses and permits, performing investigations, inspections, and audits, enforcing agricultural marketing orders, and the administrative enforcement and adjudication thereof."*

The third exception is "assessments and property-related fees imposed in accordance with the provisions of Article XIIID."

The Proposition goes on to state that, "the local government bears the burden of proving by a preponderance of the evidence that a levy, charge, or other exaction is not a tax, that the amount is no more than necessary to cover the reasonable costs of the governmental activity, and that the manner in which those costs are allocated to a payor bear a fair or reasonable relationship to the payor's burdens on, or benefits received from, the governmental activity."

Proposition 26 provides the primary guidance for funding BMC Administration with a regulatory fee.

It should be noted that the Constitution clearly states that Propositions 26 and 218 do not provide any authority to impose any levy—they constitute limitations on the authorities that agencies already have under some other authority. (See Cal. Const. Article XIII D, Section 1(a))

Regulatory Fee Implementation Process

Regulatory fees are relatively easy and straightforward to implement. Neither a public noticing nor balloting is required. Typically, a public agency will engage a specialized consultant to conduct a Fee Study. This Study will present findings to meet the procedural requirements of Proposition 26, which require analysis and support that:

A. The levy, charge, or other exaction is not a tax; and

B. The amount is not more than necessary to cover the reasonable cost of the governmental activity; and

C. The way those costs are allocated to a payor bears a fair or reasonable relationship to the payor's burden on, or benefits received from, the governmental activity.

Additionally, case law has provided further clarification of these substantive requirements, that:

A. The costs need not be "finely calibrated to the precise benefit each individual fee payor might derive."

B. The payor's burden or benefit from the program is not measured on an individual basis. Rather, it is measured collectively, considering all fee payors.

C. That the amount collected is no more than is necessary to cover the reasonable costs of the program is satisfied by estimating the approximate cost of the activity and demonstrating that this cost is equal to or greater than the fee revenue to be received. Reasonable costs associated with the creation of the regulatory program may be recovered by the regulatory fee.

Required Documents for Regulatory Fees

- A Fee Study, reviewed by legal counsel and adopted by the governing authority (In this case, it is unclear what Agency, if any, could be the governing authority for a regulatory fee program).

Flexibility of Methodology

Legal requirements and industry practice limit these fees to recovery of costs associated with eligible activities (e.g., inspections, permits, and other regulatory activity). The Agency is advised to work closely with legal counsel and review Proposition 26 requirements.

Governance Structure

In several ways, the likely most optimal agency for regulatory fee implementation would be the County of San Luis Obispo. However, after discussion with County Counsel, it has become clear that the County may not have the legal authority to implement such a fee program in the Basin.

While LOCSD may be able to implement a regulatory fee program, there are wells outside of their jurisdiction that would likely not be included if this were the case. To some extent, this would diminish the efficacy of a regulatory fee.

In the event that one or both of these Agencies considers a regulatory fee in the future, a BMC JPA, as discussed above, would likely be the most advantageous way to implement such a fee program.

Revenue Generation Potential

Traditionally, regulatory fees have been used to fully recover costs associated with eligible activities such as inspections and permits. Various other costs related to Basin Plan implementation, such as administration, groundwater monitoring, annual reporting, and model maintenance, are likely also eligible to be funded by regulatory fees.

Table 9, below models rates and revenue generated using a charge per acre-foot of water drawn from the Basin. (Acre feet based on estimates for the Los Osos Area Subbasin).

Table 9 – Model of Usage Rate and Revenue for Regulatory Fee on Acre Feet Drawn

Basin Acre Feet

	Approx. Acre Feet Drawn	Low Range		Mid Range		High Range	
		Rate	Revenue	Rate	Revenue	Rate	Revenue
Water Purveyors	1,063	$160	$170,080	$225	$239,175	$300	$318,900
Agricultural	650	$160	$104,000	$225	$146,250	$300	$195,000
Community	80	$160	$12,800	$225	$18,000	$300	$24,000
Domestic	220	$160	$35,200	$225	$49,500	$300	$66,000
Total	**2,013**		**$322,080**		**$452,925**		**$603,900**
Hypothetical Revenue Goals:			$315,000		$450,000		$600,000

Also, a regulatory fee could be established based on a flat estimated usage rate for each type of well, as shown in Table 10, below. (Number and types of wells is an approximate count for the Los Osos Area Subbasin).

Table 10 – Model of Estimated Usage Rate and Revenue for Regulatory Fee on Wells

Basin Wells	Approx. Number Wells	Low Range		Mid Range		High Range	
		Rate	Revenue	Rate	Revenue	Rate	Revenue
Water Purveyors	13	$15,000	$195,000	$22,000	$286,000	$28,000	$364,000
Agricultural	15	$5,000	$75,000	$7,000	$105,000	$10,000	$150,000
Community	4	$3,000	$12,000	$3,500	$14,000	$5,500	$22,000
Domestic	214	$150	$32,100	$225	$48,150	$300	$64,200
Total	**246**		**$314,100**		**$453,150**		**$600,200**
Hypothetical Revenue Goals:			$315,000		$450,000		$600,000

Advantages

- Quick and inexpensive to implement. No noticing nor balloting is required.
- Revenue generation is sufficient to offset significant costs of certain key activities.
- Legally rigorous as long as fees are for eligible activities.
- Efficient administration.

Challenges

- Potential for concern from affected well owners.
- Potential legal scrutiny if fee covers non-eligible activities.
- Do not typically apply to infrastructure operations and capital costs.

3.4. Funding Construction and Operations & Maintenance of Capital Facilities in Support of New Development

As noted above, funding the construction and operations and maintenance of capital facilities in support of new development will likely require a two-pronged approach. The need to allocate costs appropriately to the existing community and any new development is detailed in the Basin Plan. Community Facilities Districts would likely offer the most advantageous path for finding a balance in this allocation.

Grants and loans may also prove to be a key element of this funding need, as they can alleviate the financial burden on the community.

Given the financial burden water infrastructure places on the community of Los Osos, the importance of allocating the appropriate cost of Basin management to new development cannot be overstated. Two methods of this cost allocation are presented in this Memorandum– community facilities districts and development impact fees. There are important distinctions between these two options, as well as relative advantages and disadvantages.

While development impact fees are commonly used by public agencies across California to mitigate the effects of new development, they are often not sufficient means to secure debt financing. For this reason, if the Committee decides to pursue loans to finance the construction of the Basin's Infrastructure, development impact fees may not be the optimal mechanism.

A CFD would be the mechanism more suited to securing debt financing for such projects. This could be used to procure land-secured financing, which would likely achieve a more advantageous loan package. A CFD also has the benefit of allowing for one-time special taxes upon annexation of properties into the CFD, as well as an annual special tax on parcels, which would provide initial revenue in larger amounts in addition to a stable a reliable tax revenue that would increase as more properties are developed.

Another consideration of cost allocation to new development is the flexibility of the mechanism. CFDs are quite flexible in their structure, but once approved and established, are not easily adjusted without a re-balloting. Development impact fees, while less flexible, are passed by ordinance and can be adjusted to changes more easily.

Both CFDs and developments impact fees are discussed in more detail below.

3.4.1. Grants and Loans

Grant funding is highly desirable, as it eliminates/lessens the need to generate revenue directly from well owners and/or the broader community of property owners. Grant funding is typically available for capital projects but can be available for other programmatic activities, including maintenance and operations. It is worth noting that grants often come with other funding requirements such as matching funds or requirements for post-project maintenance. For these reasons, an underlying revenue stream is very important to have access to leverage these opportunities.

California Grant Opportunities

California has a limited number of State grants and programs which provide funding opportunities for groundwater management. The primary State grants in support of groundwater management are described below, as disclosed on the California Grant Portal.[2]

Proposition 1, Round 2 Integrated Regional Water Management (IRWM)

The Proposition 1 Round 2 IRWM Implementation Grant Program is expected to open in 2022, with $192 million becoming available in the upcoming solicitation. Water Code §79744 specifies that $43 million is designated for the Central Coast hydrologic region, of which $18.7 million will be made available in the Round 2 solicitation. There will be a 50% matched funding requirement for all grant awards.

Priority will be placed on projects that integrate regional strategies to water management. Listed examples of projects include those that improve water reuse and recycling, surface and underground water storage, aquifer cleanup or recharge, regional water conveyance facilities that improve integration of separate water systems, and water desalination projects.

Eligible applicants include Public Agencies, Mutual water companies, and Public Utilities. Eligible projects must be included in an adopted IRWM Plan and listed on the IRWM Plan project List. The BMC should continue to coordinate with the County in determining the eligibility of projects specific to the Basin.

[2] https://www.grants.ca.gov/

Small Community Drought Relief Program

The Department of Water Resources is currently accepting grant applications for the Small Community Drought Relief Program, with nearly $2 million available in the current solicitation. The intent of the Program is to provide interim or immediate relief in response to conditions arising from current or future drought that have impacts on human health and safety or fish and wildlife resources. Grants may be used to provide water to communities that face loss or contamination of water. The Program aims to implement needed resiliency measures and infrastructure improvements for small water suppliers and rural communities. Example objectives include projects that provide reliable water supply sources, improve water system storage, and replace aging and leaking pipelines. Regarding groundwater specifically, well drilling, well deepening, and well rehabilitation are mentioned as eligible projects.

Grant solicitation opened August 11, 2021 and will continue through 2023 or until all funds have been awarded. Awards will be disbursed on a rolling basis, with applications being processed as they are received. Eligible applicants include public agencies, special districts, and nonprofit organizations.

Future State Grant Opportunities

The federal Infrastructure Investment and Jobs Act (see more detail below) will allocate approximately $14 billion to the State of California, which will oversee its distribution to local agencies. The Governor's office has already committed $3.72 billion to improve local water systems, though much of the allocation of this funding is still unknown at this time. The Committee should track these grant solicitations as they become available.

Future bond measures will likely emphasize funding for multi-benefit projects and programs that cross traditional organizational structures, and Committee Member Agencies should also consider coordinating with other affected local agencies to put forth larger and potentially more competitive grant applications.

Federal Grant Opportunities

Infrastructure Investment and Jobs Act

The federal Infrastructure Investment and Jobs Act, passed in 2021, stands to contribute over $45 billion to California over the next 5 years. As noted above, $14 billion will be distributed by the State, which leaves approximately $31 billion that will pass directly from the federal government to local agencies. The Committee should continue to track the distribution of these funds as they are made available.

Other Grants

The Committee should work to identify applicable Federal grants, if any, and compete, in coordination with other affected local agencies for funding. Also, the Committee should consider working with local elected officials to pursue provisions that direct approved funds to be spent on specific projects, often called earmarks.

Grants from non-profits, foundations, high-net-worth individuals, and other stakeholders should be considered, especially with an emphasis on environmental sustainability.

Required Documents for Grants

- Grant applications define specific requirements.

Flexibility of Methodology

Use of grant funding is specified in the grant.

Revenue Generation Potential

Amount of grant funding is specified in the grant.

Advantages

- Does not require cost to be allocated to local well owners or property owners.
- Revenue generation can be sufficient to offset significant costs of certain key activities.
- Legally rigorous as long as grants are expended on eligible activities.

Challenges

- Provides funding for a limited time period only – difficult for long term planning solution.
- Awarded through a highly competitive process.
- Often requires matching local funds, tends to be focused on capital expenses, and are often narrowly focused in terms of scope and services.

3.4.2. Community Facilities District Special Taxes

Community Facilities Districts ("CFDs") were established by the Mello-Roos Community Facilities Act of 1982. They provide an alternative method of financing certain public facilities and services, particularly in developing areas.

Government Code section 53313 defines the specific services and facilities that can be funded by CFDs. The services specified in this section, and the typical use for CFDs, include those relating to police and fire protection, recreational programs, landscaping and lighting, and flood protection and storm drainage. Unfortunately, services relating to groundwater management are not eligible for funding derived from a CFD as the list of services identified in the statute is exhaustive.

However, the section goes on to list "maintenance and operation of any real property or other tangible property with an estimated useful life of five or more years" that is owned by a local agency. This indicates that while general BMC administration could not be funded by a CFD, the operation and maintenance of Basin management facilities *would* be eligible for this revenue. Additionally, section 53313.5 specifies that "a community facilities district may also finance the purchase, construction, expansion, improvement, or rehabilitation of any real or other tangible property with an estimated useful life of five years or longer," which provides the legal basis for funding the construction of Basin capital projects with revenue generated from a CFD special tax.

In summary, revenue from a CFD special tax could be used to fund the construction of the Basin's capital facilities and the operation and maintenance of these facilities. It could not, however, be used to fund general BMC Administration.

It is important to note that in forming a CFD, a description of the facilities and services to be provided must be established. While this description does not need to be particularly specific, any changes to these facilities or services at a later time would require a re-balloting.

As a reminder, this Memorandum discusses multiple ways in which a CFD could be established in Los Osos. These include:

- Community Facilities District Special Tax – Balloted (allocated to the existing community *and* new development)
    - Including a significantly lower rate for existing properties to support any benefits from the new infrastructure
    - Including one-time special tax on new development for capital costs
    - Including annual special tax for O&M of new capital infrastructure

- Community Facilities District Special Tax – Balloted (allocated to new development *only*)
    - Including financed annual special taxes for capital costs
    - Including annual special tax for O&M of new capital infrastructure

CFD Special Tax Formation Process

Public agencies typically engage a special tax consultant familiar with the administrative substantive and procedural requirements of establishing a CFD. Special tax elections held at polling places are conducted on the statutorily designated dates. This has typically been in November for the general election and either March or June for the primary. If the Committee ultimately decides to pursue a CFD special tax, it is highly recommended that a special all-mail election be considered. Special all-mail ballot elections are often less expensive and allow for more optimization of the election date and have the advantage of presenting a single issue to the voters.

There are two types of elections that may determine the establishment of a CFD: registered voter elections and landowner elections. These two paths are discussed in detail below.

Registered Voter Election

In the case that twelve or more registered voters reside within the proposed boundaries of the CFD, then registered voters are the qualified electors. In this case, 2/3 support of registered voters with the boundaries of the CFD that participate in the election are required for the formation of the CFD. This would be the case for a CFD comprised of the existing community of Los Osos.

Landowner Election

In the case that less than 12 registered voters reside within the proposed boundaries of the CFD, then landowners are the qualified electors. In this case, 2/3 support of landowners is required for the formation of the CFD. This would likely be the case for a CFD comprised only new development.

Other Implementation Considerations

Timeline

As noted above, the timing of revenue generation allocated to new development may take years to achieve the necessary funds for new infrastructure. For this reason, CFD implementation may require negotiations with developers, potential debt financing, and other challenges. The Committee should evaluate these potential challenges and any change to the Community Development Plan as it considers CFD implementation.

Required Documents for a CFD Special Tax

- Local Goals and Policies for CFDs
- Description of Services and Facilities Finance by the CFD
- Rate and Method of Apportionment of the Special Tax
- CFD Boundary Map

- Public Hearing Report
- Other CFD formation documents
- Notice to the Registrar of Voters of measure submitted to voters
- Measure Text including:
- Ballot question (75 words or less)
- Full ballot text (300 words or less) including rate structure

Flexibility of Methodology

There is considerable flexibility in CFD special tax methodology. Similar to a traditional special tax, the Committee could propose a flat tax rate in which all parcels are charged the same or a "tiered approach" where, for example larger, and/or commercial parcels may be taxed more than vacant lots.

As noted above, the Act better defends the use of a tiered tax structure. In the case of Los Osos, such a structure could be established that charges those already paying the Sewer Assessment a lower rate than those who are not connected to the sewer system. This may contribute to a more equitable funding solution, as revenue from the Sewer Assessment contributes to the sustainability of the Basin.

Governance Structure

The most likely optimal agency for CFD implementation may be a BMC JPA. As discussed above, a uniquely structured JPA in which the County and LOCSD are signatory members may be the most advantageous entity to initiate various funding mechanisms. Like the other options presented in this Memorandum, this is also true of CFD formation.

Other options include initiation by LOCSD or by the County. As discussed in the special tax section, the SLOFC&WCD may be the optimal arm of County government to initiate these proceedings. However, CFD formation initiated by a BMC JPA would provide the benefit of all Member Agencies jointly undertaking funding implementation.

In the case that one or both of these Agencies implement CFD formation, a JPA or Joint Community Facilities Agreement ("JCFA") may be necessary. California Government Code § 53316.2 adds an additional requirement for situations where facilities financed by a CFD are to be owned or operated by external agencies.

> *"A community facilities district may finance facilities to be owned or operated by a public agency other than the agency that created the district, or services to be provided by a public agency other than the agency that created the district, or any combination, only pursuant to a joint community facilities agreement or a joint exercise of powers agreement adopted pursuant to this section."*

As such, if a CFD were to be formed by less than all BMC members, a JPA or JCFA would be required for any non-founding Parties to own or operate facilities funded by revenue from a CFD.

Revenue Generation Potential

CFD on the Existing Community

A CFD formed to include the existing community could generate revenue for construction and operations and maintenance of infrastructure that is required to maintain the sustainability of the Basin in accordance with the community's current water demand.

In Table 11 below, we have modelled a CFD special tax on the existing community. Note that a tiered structure is presented here in which a lower rate is assigned to properties that currently pay the Sewer Assessment.

Table 11 – Model of Tax Rate and Revenue for CFD Special Tax on Existing Community

Sewer Assessment Parcels

	Parcels	Residential Units	Acres	Built Sq. Footage	Low Range		High Range		Units
Single Family	4,235	4,311	634	NA	$50.00	$215,550	$100.00	$431,100	*per residential unit*
Condo	112	112	2	NA	$50.00	$5,600	$100.00	$11,200	*per residential unit*
Multi: 2-4 Units	135	317	20	NA	$50.00	$15,850	$100.00	$31,700	*per residential unit*
Apartments	24	222	7	NA	$50.00	$11,100	$100.00	$22,200	*per residential unit*
Mobile Home	3	3	3	NA	$50.00	$150	$100.00	$300	*per residential unit*
Mobile Home Park	5	NA	80	NA	$10.00	$800	$20.00	$1,599	*per acre*
Commercial/Industrial	119	NA	93	567,928	$0.05	$28,396	$0.10	$56,793	*per built square foot*
Parking and Storage	11	NA	11	NA	$25.00	$275	$50.00	$550	*per parcel*
Vacant	490	NA	154	NA	$25.00	$12,250	$50.00	$24,500	*per parcel*
Agricultural	2	NA	23	NA	$10.00	$231	$20.00	$461	*per acre*
Government & Institutional	59	NA	226	NA	$0.00	$0	$0.00	$0	*NA*
Not Assessable	38	NA	22	NA	$0.00	$0	$0.00	$0	*NA*
Totals	5,233	4,965	1,275			$290,202		$580,403	

Parcels Not Paying Sewer Assessment

	Parcels	Residential Units	Acres	Built Sq. Footage	Low Range		High Range		Units
Single Family	702	717	751	NA	$100.00	$71,700	$150.00	$107,550	*per residential unit*
Multi: 2-4 Units	1	2	1	NA	$100.00	$200	$150.00	$300	*per residential unit*
Apartments	1	5	5	NA	$100.00	$500	$150.00	$750	*per residential unit*
Mobile Home	5	6	26	NA	$100.00	$600	$150.00	$900	*per residential unit*
Commercial/Industrial	1	NA	0	2,183	$0.08	$175	$0.15	$327	*per built square foot*
Parking and Storage	0	NA	0	NA	$50.00	$0	$75.00	$0	*per parcel*
Vacant	105	NA	370	NA	$50.00	$5,250	$75.00	$7,875	*per parcel*
Agricultural	13	NA	609	NA	$15.00	$9,138	$25.00	$15,231	*per acre*
Timber and Pasture	5	NA	70	NA	$15.00	$1,056	$25.00	$1,760	*per acre*
Government & Institutional	42	NA	2,622	NA	$0.00	$0	$0.00	$0	*NA*
Not Assessable	17	NA	618	NA	$0.00	$0	$0.00	$0	*NA*
Totals	892	730	5,072			$88,619		$134,693	

Combined Totals:	**6,125**	**5,695**	**6,347**			**$378,820**		**$715,096**	

CFD on New Development

Additionally, a CFD could be structured to include annexation charges for parcels to be brought in to the CFD as they are developed. Similar to development impact fees, this would allocate cost to new development as the community grows. After paying the annexation charge each property would pay the annual rate based on specific property type and other attributes.

As a reminder, this Technical Memorandum is recommending the Committee consider a CFD annexation tax, or possibly a development impact fee program, but not both.

Potential revenue generation of one-time CFD annexation charges are modeled in Table 12, below.

Table 12 – Model of One-Time Annexation Charges and Revenue for a CFD

One-Time CFD Annexation Special Tax

Development Type	Residential Units	Square Footage	Low Range		High Range		Units
Single Family	1,045	NA	$5,500	$5,747,500	$7,000	$7,315,000	*per residential unit*
Multi-Family	799	NA	$5,500	$4,394,500	$7,000	$5,593,000	*per residential unit*
Commercial	NA	328,010	$1.00	$328,010	$2.00	$656,020	*per built square foot*
Totals	**1,844**	**328,010**		**$10,470,010**		**$13,564,020**	
Hypothetical Revenue Goals:				$10,160,000		$10,160,000	

Newly developed properties could also be assessed an annual tax rate. As properties are purchased and become lived-in homes, they could be assigned a special tax rate that would contribute annually to the operations and maintenance of capital facilities required to maintain an increased water demand. This is modeled in Table 13, below.

Table 13 – Model of Annual Tax Rate on Newly Developed CFD Parcels

CFD Annual Special Tax

Development Type	Residential Units	Square Footage	Low Range		High Range		Units
Single Family	1,045	NA	$225	$235,125	$300	$313,500	*per residential unit*
Multi-Family	799	NA	$225	$179,775	$300	$239,700	*per residential unit*
Commercial	NA	328,010	$0.10	$32,801	$0.20	$65,602	*per built square foot*
Totals	**1,844**	**328,010**		**$447,701**		**$618,802**	
Hypothetical Revenue Goals:				$420,000		$450,000	

Advantages

- Revenue is likely sufficient to fund operation and maintenance of facilities and a significant portion of construction costs if voter approved.
- Legally rigorous. CFD special taxes, if approved by voters, are very reliable and rarely legally challenged successfully. Special tax revenue has not been subject to state level "take-aways" like ERAF.
- Flexible in methodology and rate of apportionment. CFDs can be implemented in a number of ways with considerations of various interests and revenue goals.
- Efficient administration.

Challenges

- Political support at required rate and revenue may be difficult. Generally speaking, the two-thirds majority threshold for approval is very politically challenging. CFD Special taxes may also be subject to significant outside influence from media and opposition groups during voting and are more vulnerable to other measures and candidates that share the ballot.
- However, if the CFD is for new development only (most likely), then it would most likely be conducted as a landowner election as a condition of approval and would be relatively administrative.
- Not eligible to fund Agency overhead costs (BMC Administration).

3.4.3. Alternative Option for Funding Capital Facilities

Development impact fees, an alternative option for funding capital facilities, are presented below. While SCI has determined that this mechanism may be less optimal given the current goals and needs of the Basin, they still warrant discussion.

3.4.4. Development Impact Fees

Development impact fees ("impact fees") are one of the primary funding mechanisms of local public infrastructure and facilities projects in California. As a community grows, the public facilities and infrastructure serving the growing community need to grow as well. The general purpose of impact fees is to fund the one-time cost of expanding the public infrastructure and public facilities required to serve the growing community. Impact fees may be used to construct schools, parks, roads, water and wastewater facilities, and other public facilities (such as fire stations, police stations, and civic centers). Impact fees are determined to ensure new development pays its proportionate share of new infrastructure and facilities needed to serve growing communities. It is important to note that existing deficiencies, such as renovation and reconstruction costs, may not be funded with impact fees as they are seen as the financial responsibility of existing development.

One of the challenges of using a development impact fee program in Los Osos would likely be the timeline of revenue generation. Because any new development is projected to occur slowly over time, the associated fee revenue may not occur in accordance with the need for expanded Basin infrastructure. As noted above, debt financing is often more difficult to secure based on projected revenue from development impact fees.

Development Impact Fee Implementation Process

In order to impose an impact fee, State law requires the preparation of a Development Impact Fee Nexus Study ("Nexus Study") to establish the legal and policy basis for imposing the fee. The Nexus Study must demonstrate that a reasonable relationship or "nexus" exists between new development and the need for new infrastructure and facilities resulting from new development. More specifically, this Nexus Study must present specific findings to meet the procedural requirements of the Mitigation Fee Act, California Government Code Section 66000 et al., which governs the determination, collection, accounting, and reporting of impact fees. (The general parameters are listed below for reference).

Once a Nexus Study has been completed, demonstrating compliance with the Mitigation Fee Act, the fee program is passed by ordinance.

Required Documents for a Development Impact Fee

- Nexus Study, which must:
- Identify the purpose of the fee.
- Identify the use to which the fee is to be put.
- Determine how there is a reasonable relationship between the fee's use and the type of development project on which the fee is imposed ("benefit relationship").
- Determine how there is a reasonable relationship between the need for the fire facilities and the type of development project on which the fee is imposed ("impact relationship").
- Determine how there is a reasonable relationship between the amount of the fee and the cost of the facilities or portion of the facilities attributable to the development on which the fee is imposed ("rough proportional relationship").

Flexibility of Methodology

As noted above, development impact fees must be established according to strict parameters regarding the relationship between new development and the impact it will have on the community. This is one way in which a CFD would be more flexible in terms of methodology.

Governance Structure

As the Agency with land-use authority through the Plan Area, the County of San Luis Obispo would be the entity to implement development impact fees. While the BMC could initiate the Nexus Study and identify the structure of the fee program, the County would need to implement it through resolution or ordinance.

Revenue Generation Potential

In Table 14, we have modeled the revenue generation potential of a development impact fee program. Note that the revenue generated here is purely hypothetical. For implementation, revenue generation would have to be determined by the Nexus Study, justifying that it aligns with the benefit relationship, impact relationship, and rough proportional relationship between new development and the costs of new infrastructure.

Table 14 – Model of Development Impact Fee Program

Development Impact Fee Program

Development Type	Dwelling Units	Square Footage	Low Range		High Range		Units
Single Family	1,045	NA	$10,000	$10,450,000	$20,000	$20,900,000	*per residential unit*
Multi-Family	799	NA	$10,000	$7,990,000	$20,000	$15,980,000	*per residential unit*
Commercial	NA	328,010	$0.75	$246,008	$1.50	$492,015	*per built square foot*
Totals	**1,844**	**328,010**		**$18,686,008**		**$37,372,015**	
Annual Totals				**$934,300**		**$1,868,601**	

Notes:

Annual Totals Based on assumed annual growth rate of 1.3% through a 20-Year Period

Advantages

- Revenue generation is likely sufficient to fund a significant portion of capital construction costs.
- No balloting required; fees imposed by ordinance.
- Legally rigorous as long as fees are apportioned appropriately.
- Effective in allocating cost to new development, mitigating its effect on the community.
- Efficient administration.

Challenges

- Not suitable to be used for debt financing.
- Revenue would likely take years to generate, which may conflict with the timeline needed for new infrastructure.
- One-time revenue that is not likely to be sufficient for long-term operations and maintenance costs.

3.5. Other Approaches

there are two other approaches described in Proposition 218 worthy of discussion, especially if voter support is marginal: (1) a property related fee or (2) a benefit assessment. Both are more expensive to implement and administer and both would be more complicated to apportion (especially with no solid precedent) than other options. Nonetheless, both require only a 50% approval for implementation. Further research and evaluation would need to be pursued.

Property-Related Fees

Property-related fees were first described in 1996's Proposition 218, (which is manifested as Section 6 of Article XIII D of the California Constitution) and are commonly used today to fund water, sewer, solid waste and even storm drainage. They are most commonly referred to as a "water charge or a "sewer charge," etc., but are technically a property-related fee.

Proposition 218 imposes certain procedural requirements for imposing or increasing property related fees. There are two distinct steps: 1.) a mailed noticing of all affected property owners (well owners in this case) and 2.) a mailed balloting on all affected property owners requiring a 50% approval for adoption.

One key element of property related fees is the flexibility the revenue that they generate. Unlike regulatory fees, property related fees may be used to fund administrative *and* capital costs.

However, as indicated above, Proposition 218 does not provide the authority to impose a property-related fee. That would need to located in the statutory authorities of the relevant agency / statutory authorities for certain services applicable to multiple kinds of agencies.

An Important Exemption Eliminates the Balloting Requirement

Proposition 218 goes on to exempt fees for water, sewer and refuse collection from the second step – the balloting. Hence, a property-related fee imposed on well owners' properties would be exempt from the balloting requirement. This is very significant because it reduces costs and political risk and lessens willingness-to-pay limitations.

Section 6 of Article XIII of the California Constitution describes the specific requirements of the implementation of a property related fee, and most importantly, refers to subdivision (a) as the noticing requirement, (b) as the limitations on fees and services, and subdivision (c) as the balloting requirement. Hence, by omission of (c) in Section 10730.2, balloting is not required for property related fees for groundwater sustainability. In lieu of a balloting, property related fees are subject to a protest hearing, requiring less than 50% protest of affected property owners.

The appropriateness of relying on this exemption from balloting regarding groundwater management may require additional research.

Property Related Fee Implementation Process

As described above, only the first step of the two-step process applies to property related fees likely is required to fund groundwater management. That step is the noticed public hearing. Once the Committee has determined the fees they wish to impose, it must mail a written notice to each affected property owner at least 45 days prior to the public hearing. During that time, and up until the conclusion of the hearing, any affected property owner may file a written protest opposing the proposed fees. If the owners of a majority of the affected parcels file a written protest, the Committee cannot impose the fee (known as a "majority protest"). If a majority protest is not formed, the Committee may impose the fees.

Required Documents for a Property Related Fee

- Mailed Notices of Rate Proposal/Opportunity to Protest/Public Hearing.
- Fee Study and Presentation for Public Hearing.
- Report to Governing Board (assumes < 50% protest).
- Ordinance or Resolution Adopting Fees (assumes >50% support).

Flexibility of Methodology

Long standing use of property related fees for water charges support relatively flexible use of this approach to fund a wide range of Basin Plan implementation activities.

Ideas to consider include:

- Parcel-based Administration Fee
- Water Service Fee
- Irrigated Acreage Fee
- Remediation Fee for over-pumping
- Augmentation Fee on over users to pay to import water

Benefit Assessments

The other funding mechanism outlined by Article XIII D of the California Constitution (§4) is a benefit assessment. Benefit assessments are commonly used through California to fund fire districts, mosquito districts, and reclamation districts. While there are limited precedents for their use in groundwater management (and no clear underlying act justify their use) likely given the difficulty of making the requisite findings, a benefit assessment would assign specific benefits to each parcel from the management of Basin resources, allocating cost accordingly.

Benefit Assessment Implementation Process

The process of implementing a benefit assessment is substantial, with several key procedural requirements. See summary below (From Article XIII D, section 4, California Constitution):

- Supported by an Engineer's Report, identify all parcels which will have a specific benefit conferred upon them for which an assessment will be imposed.
- Determine proportionate special benefit in relationship to the entirety of the capital cost of a public improvement, O&M of public improvement, or cost of service.
- Establish "reasonable cost" of the "proportional special benefit" allocated to each parcel.
- Establish distinction between "special" and "general" benefit.
- Mail ballot and notification of all affected property owners of the total assessment amount, proposed assessment to their parcel(s), reason for assessment, and the basis on which this was calculated.
- Conduct a Public Hearing not less than 45 days after the mailing of notice and ballot for consideration of protest and ballot tabulation.
- If election is successful, the Governing Body may impose the assessment through ordinance.

Required Documents for a Benefit Assessment

- Mailed notices of rate proposal/Ballots/Public Hearing to all affected property owners
- Engineers Report

Flexibility of Methodology

California law requires strict methodology and apportionment regarding the use of benefit assessments. Rates must be assessed based on the specific benefit received by each parcel, relative to the overall cost of its funding purpose.

As mentioned above, the use of benefit assessments for the purpose of groundwater management is uncommon and there is no clear California Code that describes their use to fund groundwater management. While not without precedent entirely, more research would need to be conducted in order to validate this mechanism.

3.6. Other Considerations

Conduct a Survey

See a full discussion in the next section.

Implement Rigorous Community Outreach

See a full discussion in the next section.

Timing and Schedule

The selection of the balloting date is one of the most important factors affecting the success of any measure. Potential competition with other measures, income and property tax due dates, seasons, and holidays, etc. should all be evaluated when choosing a balloting date.

A Cost Escalator Is Recommended for Balloted Mechanisms

Non-balloted funding mechanisms can be updated periodically using the noticed public hearing procedure described above. This is the typical method of keeping revenues aligned with costs through the years as in the case for retail water and sewer fees. Accordingly, the rates can be kept updated for inflationary forces and other cost increases on a five-year recurrence cycle.

However, for balloted mechanisms, any increase or change in rate structures requires a re-balloting unless the original balloting included a pre-determined formula for escalation – such as the Consumer Price Index (CPI). Infrastructure-intensive utilities are driven by many different forces than those that drive the CPI, including the need for capital investment programs, regulatory programs, and the economics of sustainability, conservation, and commodity constraints. Due, in part, to these other drivers, rates for utilities have not traditionally been tied to a straightforward CPI, but rather have been expressed as a specific rate amount for a given year based on actual projected costs. Nonetheless, costs do increase over time and a cost escalator is recommended to reimburse the Agency for this increase. The simplest to explain to property owners and to administer annually is a CPI, based upon a readily available index such as the U.S. Department of Labor, which would allow for annual rate increases without annual balloting. A CPI escalator is legally defensible with property related fees, regulatory fees, and special taxes.

A Sunset Provision Is Not Recommended, But Should Be Considered

A "Sunset Provision" is a mechanism used to increase political support by setting an expiration date for a measure, and can be used with a property related fee, regulatory fee, or tax. Sunset provisions typically range from five years to as much as 20 years in some rare cases. However, the political advantage may be slight and does not outweigh the negative aspect of the increased costs and political risk of having to re-ballot at the termination of the sunset period.

One variation is the “sundown” clause. This is the name given to a tax or fee that would reduce after a specific date – leaving a portion of the tax or fee to continue indefinitely. This tactic is useful for programs that have a one-time capital need and then would reduce to fund only operations and maintenance beyond that. If the one-time capital need is debt financed, the “sundown” period would need to be at least as long as the debt repayment period.

4. Recommendations for Implementation of Funding Mechanisms

Following is a "Game Plan" outline of the recommended steps for implementation of funding for the implementation of the Basin Management Plan. Most of the steps have been discussed above – a discussion of community public opinion surveying and community outreach is included below.

4.1. Next Steps

1. Conduct community outreach regarding the Basin Plan and its implementation.
2. Conduct a public opinion survey
3. Consider a potential BMC JPA
4. Consider special tax implementation to fund BMC Administration

As additional revenue is needed for capital infrastructure:

5. Conduct a survey and stakeholder outreach to better evaluate:
6. Community priorities and associated messaging.
7. Optimal rates.
8. Preference of CFD apportionment and potential of development impact fees as an alternative.
9. Use results of surveys, stakeholder input and other analyses to develop a community outreach plan.
10. Implement the community outreach.
11. Implement a CFD balloting or development impact fee program:
12. Include a cost escalator schedule or mechanism.
13. Include the use of rate zones or other distinguishing factors.
14. Do not include a rate expiration date (also known as a "Sunset Clause").

4.2. Consider a Public Opinion Survey

The primary purpose of the public opinion survey is to produce an unbiased, statistically reliable evaluation of voters' and property owners' interest in supporting a local revenue measure. Should the Committee decide to move forward with a revenue measure (particularly a special tax, CFD, or property related fee), the survey data provides guidance as to how to structure the measure so that it is consistent with the community's priorities and expressed needs. Agencies typically engage specialized survey firms to conduct surveys.

Specifically, a survey should:

- Gauge current, baseline support for a local revenue measure associated with specific dollar amounts. (How much are well owners/property owners willing to pay?)
- Identify the types of services and projects that voters and property owners are most interested in funding.
- Identify the issues voters and property owners are most responsive to (e.g., preventing seawater intrusion, maintaining water availability, reducing pumping costs, protecting water quality, etc.).
- Expose respondents to arguments in favor of—and against—the proposed revenue measure to gauge how information affects support for the measure.
- Identify local residents' preference regarding type and methodology of funding mechanisms.

As the nation struggles with the COVID-19 pandemic, it is more important than ever to measure a community's position on all of these elements. What community leaders thought they knew about public opinion may no longer be accurate in a post-COVID world. And while a survey can provide the Agency with valuable information, it will also be an opportunity to begin getting the groundwater "brand" out into the community – a valuable early step in this process.

4.3. Community Support and Engagement

Clear, concise, and appropriate community outreach is one of the most important elements for successful implementation of a funding mechanism. The basic message components need to be simple, clear, and transparent, and need to be well supported with detailed and substantive information. Credibility is the most important factor in this outreach. The District's Stakeholder Communications and Engagement Plan represents an established effort to reach these goals. The following sections are included for general reference.

Agencies often, but not always, will engage specialized consultants to assist with community outreach in support of implementation of funding mechanisms. A community outreach plan should be developed and implemented. Three major steps are described blow.

Develop Communication Infrastructure

The Committee should carefully evaluate and develop potential communication infrastructure, ultimately coordinating with existing communication infrastructure, including stakeholder contacts, print media, website, social media, print publications, neighborhood groups, and newsletters, etc. Use of e-mail contacts (with HOA, neighborhood and stakeholder groups and leaders, and web-based platforms like nextdoor.com is encouraged). Develop a schedule of community stakeholder meetings, due dates for local group newsletters, etc.

In most cases, the most effective communication mechanisms for this type of infrastructure are small, local, and neighborhood-based, with personal communication or face-to-face (as appropriate in COVID-19 environment). This approach is not expensive, but it is a significant amount of work and is very effective when well-executed.

Develop Communication Messaging

The development of the messaging and supporting information is an iterative process with staff, consultant, and community members. (If a community survey is conducted, it can be extremely helpful in developing the most effective messaging.) Throughout this process, the Agency and consultant will analyze and refine messaging associated with groundwater sustainability management benefits. In this task, the Agency should develop draft communications of various types, including Frequently Asked Questions documents, social media content, mailers and brochures, PowerPoint presentations, and e-mails, scripts, and other adaptable messages.

Communications Rollout and Implementation

Once the outreach plan is well-vetted, reviewed, and refined, the Agency should coordinate the plan's rollout and implementation.

TO: **Los Osos Basin Management Committee**

FROM: **Daniel Heimel, Executive Director**

DATE: **July 28, 2022**

SUBJECT: **Item 9c – Draft 2022 Spring Lower Aquifer Groundwater Basin Monitoring Results**

Recommendations

Receive an update on early findings for the Spring 2022 Lower Aquifer Groundwater Monitoring results.

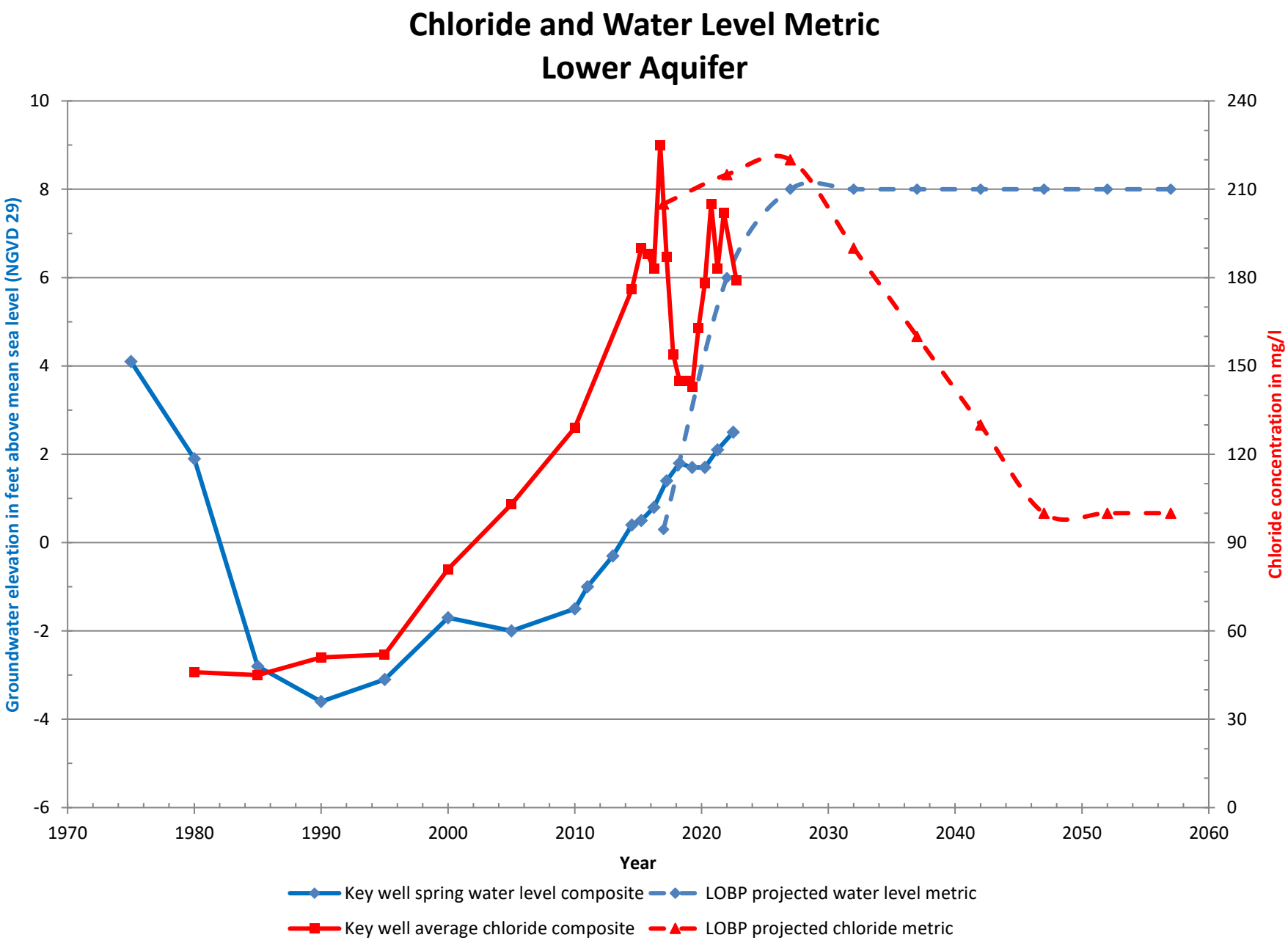
Discussion

As described in Section 5.14 of the Stipulated Judgment and Chapter 7 of the Basin Plan, the Basin Management Committee (BMC) established a groundwater monitoring program to provide the BMC, parties to the adjudication, private Basin water users and public agencies with continuously updated information on groundwater resources in the Basin. The BMC retained Cleath Harris Geologists (CHG) to perform the groundwater monitoring program for 2022. The following attachments include the draft results from the Spring 2022 lower aquifer groundwater monitoring and updated Water Level and Chloride Metrics. Final results, including water levels and results from the first water and upper aquifer monitoring, will be included in the 2022 Annual Report.

Attachments:

Draft Spring Lower Aquifer Monitoring Results and Updated Water Level and Chloride Metrics

SPRING 2022 DRAFT



Water Quality Results - Lower Aquifer Monitoring

Station ID	Well Name	Basin Plan Well ID	Aquifer Zone	Date	HCO3	Total Hardness	Cond	pH	TDS	Cl	NO3-N	SO4	Ca	Mg	K	Na
					mg/l	mg/l	umhos/cm		mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
30S/10E-11A2	Sand Spit #1 East	LA2	D	3/14/2005	180	4600	16000	7.3	8900	5400	ND	430	770	640	20	1300
				10/21/2015	150	6640	17700	7.4	13100	6300	ND	740	1030	990	31	1560
				11/5/2020	220	6700	18000	7.7	15300	5890	ND	777	1140	936	38	1560
30S/10E-12J1	MBO5 DWR Obs.	LA11	E	2/14/2005	350	370	1300	8.1	840	77	ND	190	51	58	6.1	110
				11/20/2009	300	360	1150	7.5	732	83	ND	190	51	58	4.4	95
				7/24/2014	360	489	1290	7.7	780	105	ND	212	69	77	5	88
				4/22/2015	360	475	1290	7.8	810	112	ND	189	65	76	5	88
				10/1/2015	250	486	1280	7.3	840	117	ND	188	68	77	4	85
				4/20/2016	330	524	1370	n/a	840	151	ND	193	73	40	5	83
				10/10/2016	350	497	1370	7.1	930	173	ND	189	69	79	4	81
				4/11/2017	350	541	1380	7.5	880	167	ND	186	75	86	4	81
				10/4/2017	300	543	1370	7	850	162	ND	191	76	86	5	90
				4/10/2018	350	595	1390	7.6	820	173	ND	192	85	93	5	97
				10/2/2018	350	497	1340	7.4	870	160	ND	160	69	79	3	87
				4/9/2019	350	539	1430	7.4	860	196	ND	189	76	85	4	85
				10/2/2019	250	290	1520	7.6	1000	187	ND	189	80	90	5	91
				4/14/2020	350	667	1580	7	950	222	ND	187	81	113	5	83
				10/1/2020	350	763	1650	7.1	1040	242	ND	183	85	134	5	88
				4/5/2021	345	612	1630	7.6	1050	256	ND	192	88	96	5	91
				10/6/2021	340	569	1710	7.3	1020	258	ND	176	83	88	5	82
				4/13/2022	330	620	1800	7.3	1020	**287**	ND	183	90	96	4	87
30S/10E-13Bb	Lupine Zone D	LA41	D	11/7/2019	210	312	1310	7.7	760	136	3.1	188	69	34	4	140
				4/8/2020	310	204	943	7.1	560	68	0.3	109	44	23	2	101
				10/8/2020	340	263	920	7.1	490	52	0.1	89.4	51	33	2	72
				4/14/2021	333	289	855	7.9	505	66	ND	86	53	38	2	60
				10/11/2021	340	309	812	7.2	460	48	ND	80	58	40	2	64
				4/12/2022	330	309	818	8.3	500	**47**	ND	67	58	40	2	58
30S/10E-13Ba	Lupine Zone E	LA40	E	11/6/2019	210	2090	5330	7	4750	1460	1.3	224	388	272	6	182
				4/7/2020	240	3300	7360	7.6	6340	2190	0.3	202	569	458	7	203
				10/7/2020	270	4100	8220	6.9	7930	2220	ND	192	720	560	8	217
				4/15/2021	274	3760	8590	7.4	6760	2510	ND	217	558	576	7	210
				10/13/2021	270	3540	8930	7.4	7430	2910	ND	201	544	530	6	190
				4/14/2022	270	3780	8790	7.3	6790	**2410**	ND	187	523	601	6	178

Water Quality Results - Lower Aquifer Monitoring

Station ID	Well Name	Basin Plan Well ID	Aquifer Zone	Date	HCO3	Total Hardness	Cond	pH	TDS	Cl	NO3-N	SO4	Ca	Mg	K	Na
					mg/l	mg/l	umhos/cm		mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
30S/10E-13J1* Highlighted chloride values have been adjusted for wellbore leakage	GSWC Rosina	LA10	D,E	12/20/2004	72	230	720	7.1	410	150	1.6	14	38	33	1.4	29
				1/14/2010	35	260	778	6	435	200	1.6	13	41	38	1.5	33
				7/24/2014	80	418	1200	7.3	910	303	1.7	16	67	61	2	39
				4/22/2015	80	431	1230	7.1	750	331	1.9	20	69	63	2	39
				10/5/2015	70	460	1280	7	950	329	1.7	19	74	67	2	41
				4/26/2016	80	412	1170	7.1	840	299	1.8	18	66	60	2	37
				10/12/2016	60	509	1430	6.8	1100	389	1.8	26.7	82	74	2	44
				4/10/2017	80	327	957	6.9	720	300	2.6	14.7	52	48	2	35
				10/12/2017	80	245	702	6.9	510	220	3.4	12.5	39	36	2	33
				4/24/2018	70	188	620	7.4	400	190	4.3	12.3	29	28	1	29
				10/9/2018	70	265	730	7.1	450	210	3.2	12.7	42	39	2	34
				4/15/2019	80	251	744	7	600	174	1.9	10.4	38	38	2	31
				10/14/2019	80	332	961	7.1	830	229	2	12.7	54	48	1	33
				4/21/2020	80	353	1310	6.4	970	250	2.1	14.2	59	50	2	32
				10/7/2020	70	183	618	7.6	430	310	4.6	11.3	29	27	1	33
				4/6/2021	81	405	1110	7.6	815	258	2.1	16.1	66	58	2	36
				10/8/2021	80	413	1180	7.2	790	289	2.1	16.8	65	61	2	37
				4/18/2022	70	192	612	7.1	420	220	5.8	14.9	29	29	1	37
30S/10E-13M2 4/1/2021 sample results show Upper Aquifer influence due to reduced pumping	Howard East	LA31	C,D	11/22/2004	51	810	2900	7.3	1500	810	0.5	140	60	120	4.7	210
				12/9/2009	55	1100	3740	7.1	2170	1100	0.5	220	160	160	4.8	370
				8/4/2014	60	757	3340	7.1	2450	990	0.6	178	117	113	5	382
				4/21/2015	60	739	3430	7.3	1930	950	0.6	178	117	113	5	382
				10/6/2015	30	756	3370	7.1	2140	960	0.5	185	115	114	5	342
				4/20/2016	50	726	3520	7.2	2190	941	0.7	179	113	108	5	400
				10/19/2016	70	722	3420	7.4	2190	943	0.6	182	113	107	4	398
				4/17/2017	60	733	3380	6.8	2060	907	0.6	178	114	109	4	413
				10/5/2017	60	738	3350	7.5	2190	960	0.7	160	116	109	5	411
				4/24/2018	70	664	3370	7.2	2020	946	0.6	2.8	103	99	4	367
				10/17/2018	60	740	3400	7.3	2180	834	0.6	153	115	110	5	414
				4/3/2019	70	640	3290	7.8	2010	940	0.6	179	103	93	4	341
				10/3/2019	70	574	3120	7.4	2120	827	0.7	169	90	85	4	340
				4/9/2020	70	519	2970	7.8	1740	738	0.6	152	86	74	4	258
				10/1/2020	70	774	3330	8	2080	844	0.7	169	94	131	5	495
				4/1/2021	218	187	1010	8.3	581	161	2.9	47	31	27	20	113
				11/4/2021	70	509	2780	7.9	1700	629	0.6	124	77	77	4	305
				5/11/2022	70	388	2550	7.6	1540	578	0.6	134	60	58	3	303

Water Quality Results - Lower Aquifer Monitoring

Station ID	Well Name	Basin Plan Well ID	Aquifer Zone	Date	HCO3	Total Hardness	Cond	pH	TDS	Cl	NO3-N	SO4	Ca	Mg	K	Na
					mg/l	mg/l	umhos/cm		mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
30S/10E-13N	S&T #5	LA8	D	11/23/2004	42	80	390	6.9	200	67	5.9	9.2	13	12	1.7	38
				11/19/2009	41	89	386	6.8	267	73	6.1	11	15	13	1.4	38
				7/24/2014	50	100	438	7.4	270	76	7	10	17	14	2	38
				4/21/2015	50	98	445	6.9	280	77	7.7	11	16	14	2	38
				10/6/2015	40	98	422	7.2	310	75	6.8	10	16	14	1	38
				4/20/2016	20	97.5	446	7	320	76	7.2	12	16	14	1	38
				10/13/2016	50	104	470	8	320	79	7.2	12	17	15	1	40
				4/11/2017	50	100	434	7.4	270	77	7.3	12.4	17	14	1	38
				10/2/2017	30	95	438	7.2	290	78	7.6	13.2	15	14	1	36
				4/11/2018	60	104	440	7	260	79	7.9	13.5	17	15	1	39
				10/3/2018	60	107	430	6.5	340	66	6.7	12.9	18	15	2	40
				4/3/2019	50	100	434	6.3	250	75	7.3	12.7	17	14	1	36
				10/7/2019	60	95	446	7.6	250	77	7.7	14.4	15	14	1	37
				4/13/2020	60	104	443	8	300	75	7.4	14.5	17	15	2	37
				10/1/2020	60	108	464	7.9	300	76	7.5	14.4	17	16	1	40
				4/6/2021	63	103	438	7.4	302	78	7.8	13.1	17	15	1.4	38
				10/8/2021	60	108	443	7.8	290	77	7.5	13.3	17	16	2	41
				4/13/2022	60	106	449	8.1	270	**76**	7.3	12.8	16	16	1	40
30S/10E-14B2	Sand Spit #3 Deep	LA3	D	3/15/2005	100	3600	30000	8	17000	8500	ND	960	1200	130	34	4300
				10/21/2015	ND	7140	29500	11	24700	10000	ND	530	2830	20	80	4040
30S/10E-24C1	GSWC Cabrillo	LA9	D	12/20/2004	64	130	610	7	310	110	4.5	19	22	19	1.6	50
				11/20/2009	60	150	611	7.1	347	130	4.1	22	23	22	1.6	52
				7/24/2014	40	69	339	7.6	240	46	8.4	6	11	10	1	32
				4/22/2015	70	117	530	7.3	320	95	5.5	16	19	17	2	45
				10/5/2015	50	75	349	7.6	270	50	7.6	7	12	11	1	34
				4/26/2016	70	115	499	7	300	90	5.6	16	18	17	2	44
				10/12/2016	70	111	506	7.1	320	93	5.5	15.1	18	16	1	44
				4/10/2017	70	111	490	7	310	89	5.7	15.9	18	16	1	43
				10/12/2017	70	117	484	7	270	89	6	16.3	19	17	2	46
				4/24/2018	70	115	486	7.8	300	90	6.2	16.7	18	17	1	43
				10/9/2018	60	135	477	6.9	280	76	5.8	17.2	21	20	2	50
				4/15/2019	70	112	488	7.1	310	92	5.7	15.6	17	17	2	45
				10/14/2019	no sample (off-line)											
				4/21/2020	300	75.2	674	6.71	370	37	0.2	28.4	3	35	2	42
				10/7/2020	60	102	460	7.4	270	75	6.6	13.1	16	15	1	40
				4/6/2021	63	98.6	443	7.89	287	78	6.8	12.2	16	15	1	39
				10/8/2021	60	112	490	7.7	280	86	6.4	16	17	17	2	44
				4/18/2022	70	126	533	7.2	330	**93**	6.2	16.2	19	19	2	46

Water Quality Results - Lower Aquifer Monitoring

Station ID	Well Name	Basin Plan Well ID	Aquifer Zone	Date	HCO3	Total Hardness	Cond	pH	TDS	Cl	NO3-N	SO4	Ca	Mg	K	Na
					mg/l	mg/l	umhos/cm		mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
30S/11E-7Q3	LOCSD 8th St.	LA12	D	11/18/2004	250	270	790	7.5	410	73	ND	39	44	40	2.3	48
				11/19/2009	220	290	782	7.4	465	92	ND	46	46	42	1.9	53
				7/23/2014	290	303	876	7.6	460	91	ND	43	49	44	2	54
				4/21/2015	290	305	897	7.7	500	101	ND	55	48	45	2	59
				10/6/2015	280	298	828	7.4	490	91	ND	46	47	44	2	55
				4/20/2016	190	307	907	7.7	520	91	ND	49	49	45	2	54
				10/11/2016	280	278	827	4.9	490	93	ND	46.2	44	41	2	52
				4/10/2017	300	294	839	7.3	480	91	ND	49.5	47	43	2	54
				10/4/2017	220	305	826	6.5	470	92	ND	45	48	45	2	56
				4/10/2018	300	319	814	7.7	440	93	ND	46.2	52	46	2	56
				10/2/2018	290	283	822	7.3	470	78	ND	50.1	46	41	1	53
				4/9/2019	300	301	844	7.5	480	94	ND	49.7	48	44	2	53
				10/2/2019	290	312	877	8	530	91	ND	50.9	49	46	2	56
				4/16/2020	310	301	883	7.8	500	94	ND	54.7	48	44	2	52
				10/5/2020	300	321	891	7.9	510	89	ND	49.6	51	47	2	57
				4/5/2021	305	297	849	7.7	504	94	ND	54.1	48	43	2	54
				10/6/2021	300	283	874	7.5	510	95	ND	55	46	41	2	51
				4/13/2022	300	276	879	7.4	490	**94**	ND	51.5	43	41	2	50
30S/11E-17E8	So. Bay Obs. Middle	LA22	D	1/14/2005	150	150	440	7.5	290	34	2.2	11	24	22	1.4	28
				11/20/2009	120	160	455	7.3	255	42	4.3	12	25	23	1.3	29
				7/23/2014	150	166	500	7.6	270	43	6.3	10	27	24	2	28
				4/21/2015	150	157	481	7.6	270	49	7.1	13	25	23	1	28
				10/1/2015	120	164	475	7.4	290	44	6.6	10	26	24	1	28
				4/19/2016	150	164	476	6.9	290	45	6.9	12	26	24	1	29
				10/13/2016	140	161	521	7.3	290	46	6.9	11.9	25	24	1	29
				4/13/2017	150	164	466	7.3	300	46	6.7	13.2	26	24	1	29
				10/11/2017	150	168	476	7.7	260	47	7.2	14	26	25	1	29
				4/16/2018	150	165	473	6.4	310	47	6.7	14.2	25	25	1	29
				10/10/2018	150	160	471	7.5	250	43	6.1	15	26	23	1	28
				4/10/2019	180	153	466	7.2	290	46	5.8	13.6	25	22	1	28
				10/9/2019	150	155	485	7.3	270	49	7	14.9	24	23	1	28
				4/14/2020	160	164	482	8	280	48	6.3	14.9	26	24	1	27
				10/6/2020	160	181	506	7.5	340	47	6.7	14.7	28	27	1	30
				4/8/2021	159	154	470	7.5	329	46	5.8	12.5	24	23	1	27
				10/19/2021	170	181	480	7.4	310	41	5.8	14.9	28	27	1	29
				4/20/2022	160	178	518	7.6	320	**43**	7.4	14.6	27	27	1	29

Water Quality Results - Lower Aquifer Monitoring

Station ID	Well Name	Basin Plan Well ID	Aquifer Zone	Date	HCO3	Total Hardness	Cond	pH	TDS	Cl	NO3-N	SO4	Ca	Mg	K	Na
					mg/l	mg/l	umhos/ cm		mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
30S/11E-17N10	GSWC So. Bay #1	LA20	C,D,E	Jan 2003	250	--	510	7.1	290	37	ND	21	41	25	1.3	35
				11/20/2009	230	220	638	7.3	357	41	0.5	30	35	33	1.7	37
				7/24/2014	280	232	646	7.7	370	37	0.5	24	37	34	2	41
				4/22/2015	290	234	653	7.4	360	43	0.6	27	36	35	2	42
				10/5/2015	280	227	614	7.2	370	38	0.5	23	35	34	2	41
				4/26/2016	230	227	629	7.1	360	39	0.6	27	35	34	2	40
				10/12/2016	290	221	631	7	370	40	0.6	25.2	34	33	2	40
				4/10/2017	280	227	624	7.2	380	39	0.6	26.7	35	34	2	40
				10/12/2017	260	240	583	6.6	320	41	0.7	27.9	37	36	2	43
				4/24/2018	200	166	515	7.4	330	43	3.2	23.2	27	24	2	31
				10/9/2018	290	273	632	7.2	340	38	0.6	29.2	42	41	3	47
				4/15/2019	200	181	559	7.4	310	42	3.1	21.7	28	27	2	34
				10/14/2019	290	221	626	7.2	380	41	0.7	29	34	33	2	40
				4/21/2020	300	230	705	7	400	50	0.7	26.9	36	34	2	42
				10/7/2020	290	227	654	7.5	350	40	0.7	27	35	34	2	42
				4/6/2021	204	178	529	7.9	329	43	3	21.1	29	26	2	33
				10/7/2021	290	245	633	6.8	340	40	0.7	27.8	37	37	2	43
				4/18/2022	280	242	636	7.4	360	**39**	0.7	26.6	36	37	2	42
30S/11E-18K8	10th St. Obs. East (Deep)	LA18	E	1/19/2005	260	290	650	7.5	370	33	ND	38	62	33	2.5	28
				11/20/2009	230	220	620	7.5	378	32	ND	40	51	24	1.8	23
				7/24/2014	290	271	647	7.5	380	28	ND	34	56	32	2	27
				4/21/2015	290	265	634	7.7	400	33	ND	39	55	31	2	27
				10/19/2015	230	256	621	7.3	370	29	ND	33	53	30	2	26
				4/20/2016	190	265	700	7.5	390	31	ND	38	55	31	2	26
				10/18/2016	290	256	615	6.8	370	31	ND	35.9	53	30	2	26
				4/12/2017	290	274	616	7.5	450	31	ND	38	57	32	2	27
				10/10/2017	220	271	619	7.8	350	30	ND	35.5	56	32	2	27
				4/17/2018	290	260	625	7.3	390	33	ND	39.9	53	31	2	27
				10/10/2018	290	254	608	7.5	360	31	ND	39.8	54	29	2	26
				4/10/2019	290	245	620	7.6	380	32	ND	37.4	52	28	2	25
				10/9/2019	290	253	647	7.9	390	33	ND	40.5	52	30	2	26
				4/14/2020	290	269	629	7.5	400	33	ND	40.2	55	32	2	26
				10/22/2020	300	247	669	7.5	370	32	ND	38.2	51	29	3	26
				4/12/2021	298	267	621	7.6	389	32	ND	41.2	54	32	2	27
				10/19/2021	300	287	657	7.4	400	32	ND	38.4	59	34	2	28
				4/15/2022	290	257	638	8.3	420	**31**	ND	36.5	52	31	2	25

Water Quality Results - Lower Aquifer Monitoring

Station ID	Well Name	Basin Plan Well ID	Aquifer Zone	Date	HCO3	Total Hardness	Cond	pH	TDS	Cl	NO3-N	SO4	Ca	Mg	K	Na
					mg/l	mg/l	umhos/ cm		mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
30S/11E-18K9	LOCSD 10th St.	LA32	C,D	May 2002	250	--	550	6.9	320	37	0.2	26	31	32	--	39
				11/20/2009	180	160	539	7.2	307	36	1	27	27	24	1.3	32
				7/23/2014	220	190	546	7.7	300	32	1	20	30	28	1	35
				4/21/2015	190	108	504	7.6	270	38	1.6	20	17	16	1	27
				10/6/2015	50	62	248	7.2	190	31	5.9	3	10	9	ND	21
				4/20/2016	130	121	382	7.5	220	32	3.3	12	19	18	1	27
				10/11/2016	200	168	511	6.6	270	36	1.2	21.5	26	25	1	34
				4/10/2017	190	155	461	7.3	270	35	1.9	19.1	24	23	1	31
				10/9/2017	200	168	493	7.6	270	36	1.4	23.1	26	25	1	33
				4/10/2018	50	75.2	256	7.7	150	35	6.5	28.6	12	11	ND	23
				10/2/2018	210	168	492	7.3	270	36	1.3	22	26	25	ND	33
				4/9/2019	200	172	474	7.6	270	34	1.6	21.5	26	26	1	33
				10/2/2019	200	185	531	7.4	310	36	1.4	24.7	28	28	1	35
				4/16/2020	60	72.7	272	8.1	190	35	6	5.4	11	11	ND	20
				10/6/2020	60	68.6	246	8	180	30	4	4.9	11	10	ND	21
				4/5/2021	143	128	390	7.8	247	34	2.1	15.7	20	19	1	27
				10/6/2021	60	68.6	255	7.7	150	30	3.9	5.7	11	10	ND	20
				4/13/2022	70	66.1	262	7.6	150	**30**	3.8	5.2	10	10	ND	20
30S/11E-18K	GSWC Los Olivos #5	LA39	D	4/15/2019	290	230	619	8.1	350	38	ND	27.4	33	36	2	41
				10/14/2019	300	225	628	7.2	370	37	ND	28.6	34	34	1	41
				4/21/2020	300	236	674	6.9	370	37	0.2	28.4	37	35	2	42
				10/7/2020	300	227	657	7.4	360	37	ND	28.2	35	34	2	43
				4/6/2021	301	226	629	8.0	382	38	ND	25.8	34	34	2	40
				10/8/2021	300	253	638	7.4	360	37	ND	29.3	37	39	2	45
				4/18/2022	250	209	561	7.6	330	**34**	ND	17.8	31	32	2	34

Water Quality Results - Lower Aquifer Monitoring

Station ID	Well Name	Basin Plan Well ID	Aquifer Zone	Date	HCO3	Total Hardness	Cond	pH	TDS	Cl	NO3-N	SO4	Ca	Mg	K	Na
					mg/l	mg/l	umhos/cm		mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
30S/11E-18L2**	LOCSD Palisades	LA15	D,E	11/18/2004	220	330	880	7.3	420	120	ND	31	54	48	2.2	40
				11/19/2009	200	590	1460	7.2	890	360	0.4	39	94	86	2	44
			D	7/23/2014	250	293	783	7.8	390	90	0.4	26	48	42	2	40
				4/29/2015	80	78	348	7.4	230	43	5	10	13	11	ND	30
				10/28/2015	230	288	782	7.4	420	104	0.6	29	46	42	ND	36
				4/27/2016	230	264	796	7.3	450	93	0.9	28	43	38	2	43
				10/11/2016	200	221	694	7	380	91	1.7	25.5	36	32	1	35
				10/5/2017	180	306	768	7.6	400	102	0.7	27	50	44	2	40
				4/10/2018	250	311	767	7.3	420	100	0.8	32.4	52	44	2	40
				10/23/2018	250	288	772	7.7	440	83	0.6	30.7	48	41	1	38
				4/9/2019	250	301	774	7.4	460	102	0.8	29.2	48	44	1	38
				11/14/2019	210	303	806	7.8	430	107	0.7	32.9	49	44	2	39
				4/16/2020	260	299	832	7.7	460	109	0.8	32.5	49	43	2	37
				10/5/2020	250	319	841	7.8	450	109	0.7	29.7	52	46	2	41
				4/6/2021	234	290	780	7.7	444	108	1	27.2	47	42	2	38
				10/6/2021	250	295	856	7.3	490	107	0.5	32.8	49	42	2	37
				4/13/2022	250	330	876	7.3	470	**116**	0.5	30.3	53	48	2	43

ND = Not Detected

Chloride Metric Wells in Green (13J1 weighted x2); current chloride concentrations in red

*Chloride concentrations at 13J1 can vary seasonally by 100+ mg/l and are affected by well production and borehole leakage, so fluctuations are expected.

**Water from 18L2 affected by wellbore leakage/upper aquifer influence when inactive

Legend and Detection Limits

Constituent	Description	Practical Quantitation Limit*
HCO3	Bicarbonate Alkalinity in mg/L CaCO3	10.0
Total Hardness	Total Hardness in mg/L CaCO3	--
Cond	Electrical Conductance in µmhos/cm	1.0
pH	pH in pH units	--
TDS	Total Dissolved Solids in mg/L	20.0
Cl	Chloride concentration in mg/L	1.0
NO3-N	Nitrate as Nitrogen concentration in mg/L	0.1
SO4	Sulfate concentration in mg/L	2.0
Ca	Calcium concentration in mg/L	1.0
Mg	Magnesium concentration in mg/L	1.0
K	Potassium concentration in mg/L	1.0
Na	Sodium concentration in mg/L	1.0

*where dilution not required

*where dilution not required