

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 Wednesday, March 15, 2023** at the **Los Osos Community Services District Boardroom**, located at 2122 9th Street, Suite 106, Los Osos, CA 93402. Members of the public may participate in this meeting in person or via teleconference and/or electronically.

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

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

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

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

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

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

NOTE: The Basin Management Committee reserves the right to limit each speaker to three (3) minutes per subject or topic. In compliance with the Americans with Disabilities Act, all possible accommodations will be made for individuals with disabilities, so they may participate in the meeting. Persons who require accommodation for any audio, visual or other disability in order to participate in the meeting of the BMC are encouraged to request such accommodation 48 hours in advance of the meeting from Dan HeimeI at danheimel@ConfluenceES.com.

BASIN MANAGEMENT COMMITTEE BOARD OF DIRECTORS AGENDA

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

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

5. SPECIAL PRESENTATION

Lower Aquifer Nitrate Contamination Investigation Update - Regional Water Quality Control Board Representative

6. CONSENT AGENDA

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

- a. **2023 Budget Update and Invoice Register**
- b. **Approval of Minutes from February 15, 2023 BMC Meeting**

7. PUBLIC COMMENTS ON ITEMS NOT APPEARING ON THE AGENDA

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

8. EXECUTIVE DIRECTOR'S REPORT

9. ACTION ITEMS

- a. **Los Osos CSD BMC Director Change**

Recommendation: Receive letter from Los Osos CSD regarding change in BMC Director and Alternate Director positions.

- b. **Appointment of Remaining BMC Officers for Calendar Year 2023**

Recommendation: For the BMC to review the existing remaining officer positions and appoint officers for CY 2023 or provide alternative direction to staff.

- c. **Draft Los Osos Basin Sustainable Yield Update for Program C Wells with Adaptive Method Technical Memorandum**

Recommendation: Receive overview of the Draft Los Osos Basin Sustainable Yield Update for Program C Wells with Adaptive Method Technical Memorandum and provide direction to staff.

10. ADJOURNMENT

TO: Los Osos Basin Management Committee

FROM: Daniel Heimel, Executive Director

DATE: March 15, 2023

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

Recommendations

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

Discussion

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

BASIN MANAGEMENT COMMITTEE BOARD OF DIRECTORS

Agenda Item 6b: Minutes of the Meeting of February 15, 2023

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

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

Agenda Item	Discussion or Action
1. Call to Order	Director 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 Reineke, Director Gibson, Director Zimmer, Chair Ochylski
3. Pledge of Allegiance	
4. Board Member Comments	Director Zimmer commented on Golden State Water Company's real-time water metering program with Flume.
5. Special Presentation	None
6. Consent Agenda 6a. 2022 Budget Update and Invoice Register 6b. 2023 Budget Update and Invoice Register 6c. Approval of Minutes from November 16, 2022 BMC Meeting	Public Comment (07:36) Lynette Tornatzky Board Action 6a and 6b and 6c (09:30) Approve Consent Agenda. Motion: Director Zimmer Second: Director Gibson Ayes: Director Reineke, Director Gibson, Director Zimmer, Chair Ochylski Nays: None Abstain: None Absent: None
7. Public Comments on Items Not Appearing on the Agenda	Public Comment (10:10) Becky McFarland Jeff Edwards Patrick McGibney
8. Executive Director's Report	Public Comment (36:50) Becky McFarland Jeff Edwards Toby Moore Patrick McGibney
9. Action Items a. Appointment of BMC Officers for Calendar Year 2023	Recommendation: For the BMC to review the existing officer positions and appoint officers for CY 2023 or provide alternative direction to staff. Public Comment (50:20) None Board Action (50:35) Appoint Director Zimmer as Chair of the BMC for 2023 and defer appointment of the other three officers until the next meeting.

	<p>Motion: Director Gibson Second: Director Zimmer Ayes: all Nays: None Abstain: None Absent: None</p>
<p>9a. Draft Fall 2022 Los Osos Basin Lower Aquifer Water Quality Monitoring Results and Updated Chloride Metric</p>	<p>Recommendation: Receive an update on the Draft Fall 2022 Los Osos Basin Lower Aquifer Water Quality Monitoring Results and Updated Chloride Metric.</p> <p>Public Comment (104:45) Becky McFarland Patrick McGibney</p>
<p>10. Adjournment</p>	<p>Meeting adjourned at approximately 2:50 PM. The next regularly scheduled meeting is Wednesday, March 15th, 2023, at 1:30 PM.</p>

TO: Los Osos Basin Management Committee

FROM: Dan Heibel, Executive Director

DATE: February 15, 2023

SUBJECT: Item 8 – Executive Director’s Report

Recommendations

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

Discussion

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

Presentations

No recent or planned presentations

Funding and Financing Programs to Support Basin Plan Implementation

WRFP Grant: On 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). Los Osos CSD was notified of the award of the grant in January 2023 and all the required documents were signed and fully executed. The Los Osos CSD released the RFP for the WRFP Study on 2/27/23 and proposals are due 3/31/23.

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

Status of BMC Initiatives

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

Basin hydrogeology and seawater intrusion. The AEM Survey is currently scheduled to occur in April 2023. Additional information on DWR's Statewide AEM Survey Project can be found here: <https://water.ca.gov/Programs/Groundwater-Management/Data-and-Tools/AEM>

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

Los Osos Basin Well Database: Cleath-Harris Geologists (CHG) completed the development of the Los Osos Basin Well Database and after review by BMC and BMC Party Staff an overview of the database will be presented to the BMC at a future meeting.

Basin Monitoring Program Improvement: At its October 27th, 2021 Meeting, the BMC authorized CHG to evaluate the feasibility and cost of modifying existing wells or constructing new monitoring well(s) to improve monitoring of Lower Aquifer water quality. At the September 21st, 2022 BMC Meeting, the BMC authorized funding for modifications to the Ferrell Well (LA 13) to improve its ability to monitor seawater intrusion in Zone E of the Lower Aquifer. The Los Osos CSD contracted with Filiponi and Thompson Drilling to complete the modifications in December 2022. CHG will prepare a final as-built for the modified Ferrell Well and it will be provided to the BMC once complete. Sampling data from the modified Ferrell Well will be incorporated into the BMC's annual groundwater monitoring program and included in future Annual Monitoring Reports. BMC Staff are currently working on construction of a new monitoring well at the eastern end of Skyline Drive in 2023.

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

Transient Groundwater Model: See update under WRFP Grant above.

Lower Aquifer Nitrate Investigation: On October 19, 2022 the BMC authorized Calendar Year (CY) 2022 funding to perform additional Nitrate Source Investigation to better understand the source of nitrate

impacting the S&T Mutual Water Company's LA8 Well. However, due to the inability to obtain well owner permission to sample the desired wells, much of that work was not completed in 2022. Subsequently, Regional Water Control Board staff reviewed the investigation information and findings available to date and has identified potential additional investigations to help better inform the sources of the nitrate in the LA8 Well. Included in Agenda Item 9c of this agenda packet is a proposal from CHG to complete the recommended additional investigations for the BMC's consideration.

Program C Adaptive Management: At its April 20th, 2022 Meeting, the BMC approved CHG to evaluate the re-inclusion of the 3rd Well into Program C. CHG completed the evaluation of the anticipated increase to the Sustainable Yield that the 2nd and 3rd Program C Wells would provide utilizing the new criteria for calculating the Sustainable Yield approved by the BMC at their October 27th, 2021 Meeting. The results of this evaluation are presented in Agenda Item 9d of this agenda packet.

Status of Basin Plan Implementation and Funding Plans

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

Land Use Planning Process Update

Guide to Planning Information for Development in Los Osos:

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

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

Topics covered include but are not limited to:

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

- Status of the Communitywide Habitat Conservation Plan

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

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. Maddaus and County Planning staff are planning and preparing a technical memorandum describing the analysis carried out in the study. The project completion date is June 30th, 2023.

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

LOCP Background

The Board authorized preparation of this update on December 11, 2012. A series of community outreach meetings to unveil the Community Plan were conducted in the Spring of 2015. The plan was prepared to be consistent and coordinated with the draft groundwater basin management plan and the draft Habitat Conservation Plan ("HCP"). The draft Environmental Impact Report was released on September 12, 2019; comments were due December 11, 2019. A Community Meeting on the Draft Environmental Impact Report for the LOCP, HCP, and associated Environmental Documents was held on October 28, 2019. The Final Environmental Impact Report and Public Hearing Draft were released on June 8, 2020. The Planning Commission held hearings on July 9, 2020, August 13, 2020, and October 8, 2020. At the October 8, 2020 hearing, the Planning Commission recommended approval of the Plan to the Board of Supervisors.

Los Osos Habitat Conservation Plan (HCP):

The Los Osos HCP is an effort of the County of San Luis Obispo (County) to receive a programmatic incidental take permit with a term of 25 years from the US Fish and Wildlife Service. The permit(s) authorize take of covered species associated with covered activities in the HCP area, which is approximately 3,560 acres bounded by the Los Osos Urban Reserve Line. As the permittee, the County will have the ability to issue certificates of inclusion to confer incidental take coverage to landowners and other entities if their activities are included on the incidental take permit(s). Once approved, the LOHCP will be incorporated into the LOCP. The County anticipates submitting the HCP to the US Fish and Wildlife Service in March 2023.

Coastal Zone Accessory Dwelling Unit (ADU) Ordinance:

On March 21, 2023, the County BOS will review Coastal Commission’s suggested modifications. Please use the following link to access the agenda when it is published:

<https://www.slocounty.ca.gov/Home/Meetings-Calendar.aspx> Meetings-Calendar - County of San Luis Obispo.

The 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). Significant suggested modifications include not allowing ADUs within the Los Osos Groundwater Basin boundary and/or within the Los Osos Groundwater Basin Plan Area.

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 their stay. Water conservation signs shall be created and posted utilizing County approved language.” The Commission’s suggested modifications that were approved at the February 11, 2022 meeting are available at: <https://www.coastal.ca.gov/meetings/agenda/#/2022/2> (Agenda Item # 16b).

Los Osos Water Recycling Facility Project Update

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

LOWRF Wastewater and Recycled Water Flows (Acre Feet)

Year	Month	Influent	Broderson	Bayridge	Sea Pines	Ag Users	Effluent
2023	Jan	46.78	50.82	1.45	0.03	0.00	55.24
2023	Feb	41.07	41.90	1.10	1.26	0.00	42.92
2023	Mar						
2023	Apr						
2023	May						
2023	Jun						
2023	Jul						
2023	Aug						
2023	Sept						
2023	Oct						
2023	Nov						
2023	Dec						
Total		87.85	92.72	2.55	1.29	0	98.16

LOWRF Project Updates:

- The County has contracted West Yost to prepare plans and specifications for connecting the four school sites in Los Osos to the existing recycled water system. The estimated completion date is mid-2023. The plans and specifications will be used for going out to bid for construction, as funding is available. The priority site for SLCUSD is Los Osos Middle School, and it is anticipated that this will be the first school site connected. The design project is funded by ARPA grant money.
- The County is finalizing plans and specifications for installing a flow meter at the Broderson Leach Field. The project includes a flow meter and two isolation gate valves for maintenance. The current method for calculating the volume of water at Broderson Leach Field is a calculation based on other meters in the recycled water distribution system. The flow meter will improve the accuracy of water discharged here and will be connected to the LOWRF's SCADA system through the existing local control panel. The project is funded by ARPA grant money.
- The County is working with GHD to update the recycled water distribution model in Los Osos. The updated model will be calibrated based on field testing and will be used for the setpoints of the new VFDs at the LOWRF effluent pump station. Existing and future scenarios are included in the project to analyze the pressures and flow rates at the different recycled water users. The future scenarios include the four school sites. This project is funded by ARPA grant money.
- The County is working with a consultant for preparing design plans for installing VFDs on the LOWRF's effluent pumps. This will allow the pumps to ramp up and down based on need in the recycled water distribution system and the plant return water supply. Currently the pumps only have the capability to run at one speed and that leads to increased wear and tear on the motor and impellers. The VFDs will be set to specific pressure setpoints that will be determined using the recycled water distribution model. The expected outcome from installing the VFDs is decreased energy consumption and recirculated water within the system.

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.

Water Conservation Update

Average indoor water usage for 2021 was estimated to be 38 gpd per person and remains at that number currently.

Sustainable Groundwater Management Act (SGMA)

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

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

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

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

Additional Attachments:

1. Updated Status of Basin Plan Programs

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

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

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

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

Update on Status of Basin Plan Infrastructure Projects

Program Name	Project Name	Parties Involved	BMC Budgeted Amount	Funding Status	Anticipated Planning/Pre-Construction Cost	Anticipated Capital Cost	Status/Notes
Program A – Shift groundwater production from Lower Aquifer to Upper Aquifer	Water Systems Interconnection	LOCS D/ GSWC	NA	NA	NA	NA	Completed
	Upper Aquifer Well (8 th Street)	LOCS D	NA	Fully Funded	NA	\$307,000	Completed
	South Bay Well Nitrate Removal	LOCS D	NA	NA	NA	NA	Completed
	Palisades Well Modifications	LOCS D	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	LOCS D Wells (Upper Aquifer)	LOCS D		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	LOCS D/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)	LOCS D		LOCS D	TBD	BMP: \$2.5 mil	<u>The well construction and development activities are completed; the water transmission main is out to bid with submittals due March 30th. The well equipping phase is in design and is scheduled to be completed mid-April. Completion of all phases of the project is estimated to be June 2024.</u>
	Expansion Well 3 (Lower Aquifer) and LOVR Water Main Upgrade	GSWC/LOCS D		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 further evaluation of the project.
Program D - Shift production within the Lower Aquifer from the Western Area to the Eastern Area of the Basin							Currently being considered for deferment through Adaptive Management. BMC to review on an annual or semi-annual basis.
Program M – Groundwater Monitoring Plan	New Zone D/E lower aquifer monitoring well in Cuesta by the Sea	All Parties	NA	NA	NA	NA	Completed

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

TO: Los Osos Basin Management Committee
FROM: Dan Heibel, Executive Director
DATE: March 15, 2023
SUBJECT: Item 9a – Los Osos CSD BMC Director Change

Recommendations

Receive letter from Los Osos CSD regarding change in BMC Director and Alternate Director positions.

Discussion

In accordance with Article 3.4 of the Los Osos Basin Management Committee, the Los Osos Community Services District (Los Osos CSD) provided the attached letter informing the BMC of changes to its BMC Representative Positions.

Attachments:

Los Osos CSD March 3rd, 2023 BMC Representation Change Letter



March 3, 2023

President
Charles L. Cesena

Vice President
Marshall E. Ochylski

Directors
Matthew Fourcroy
Troy C. Gatchell
Christine M. Womack

General Manager
Ron Munds

District Accountant
Robert Stilts, CPA

Unit Chief
John Owens

Battalion Chief
Paul Provence

To: Basin Management Committee

Attention: Dan Heimel, Executive Director

Basin Management Committee,

In accordance with Article 3.4 of the Rules and Regulations of the Los Osos Groundwater Basin Management Committee (BMC), it is our duty to inform the BMC of the change in representation on the committee by the Los Osos Community Services District's (District). Consistent with District's bylaws, each year the President of the Board selects representatives for outside agencies and committees. The representatives for the BMC effective immediately are as follows:

- BMC Director: Chuck Cesena
Email: ccesena@losososcsd.org
- BMC Alternate Director: Matthew Fourcroy
Email: mfourcroy@losososcsd.org

If you have any questions, please contact me at the above email address.

Respectively,

Chuck Cesena
President
Los Osos Community Services District

Mailing Address:
P.O. Box 6064
Los Osos, CA 93412

Offices:
2122 9th Street, Suite 110
Los Osos, CA 93402

Phone: 805/528-9370
FAX: 805/528-9377

www.losososcsd.org

TO: Los Osos Basin Management Committee

FROM: Dan Heimerl, Executive Director

DATE: March 15, 2023

SUBJECT: Item 9b: Appointment of BMC Officers for Calendar Year 2023

Recommendations

For the BMC to review the existing remaining officer positions and appoint officers for CY 2023 or provide alternative direction to staff.

Discussion

The adopted Rules and Regulations (January 2016) for the BMC require appointment of the Committee's officers as noted in the excerpt below from Section 4.2:

Appointment of Officers. The officers shall be appointed annually by, and serve at the pleasure of, the Basin Management Committee. Officers shall be elected at the first Basin Management Committee meeting, and thereafter at the first Basin Management Committee meeting following December 1 of each year. An Officer may serve for multiple consecutive terms. Any Officer may resign at any time upon written notice to the Basin Management Committee. The Secretary or Treasurer may be removed and replaced by an affirmative decision of the Basin Management Committee.

At the February 15, 2023 BMC Meeting, the BMC to action took appoint Director Zimmer as Chair of the BMC for 2023 and defer appointment of the other three officers until the next meeting. The current officer appointments for 2023 are listed below.

The current 2023 BMC Officer Appointments are as follows:

Chairperson: Director Zimmer
Vice Chairperson: TBD
Secretary: TBD
Treasurer: TBD

TO: Los Osos Basin Management Committee

FROM: Dan Heimerl, Executive Director

DATE: March 15, 2023

SUBJECT: Item 9c – Draft Los Osos Basin Sustainable Yield Update for Program C Wells with Adaptive Method Technical Memorandum

Recommendations

Receive overview of the Draft Los Osos Basin Sustainable Yield Update for Program C Wells with Adaptive Method Technical Memorandum and provide direction to staff.

Discussion

The 2015 Basin Plan included three (3) wells in Program C to shift Lower Aquifer Pumping from the western area to the central areas of the Los Osos Basin (Basin) to reduce the threat of seawater intrusion. On March 20th, 2019, the Basin Management Committee (BMC) received the Los Osos Basin Plan Metric Trends Review and Infrastructure Program C Evaluation Technical Memorandum (CHG, 2019), which recommended the deferral of the 3rd Program. Based on estimates that under the existing population scenario, the 3rd Program C well was not needed to achieve the Basin Yield Metric target of 80 (i.e. where the estimated Basin pumping equals 80% or less than the estimated Sustainable Yield for the Basin), the BMC deferred the 3rd Well from Program C.

In 2021, the BMC updated the methodology for estimating the Sustainable Yield for the Basin to incorporate updated hydrology or rainfall data, characterize the Broderson Mound as being 50% developed and modify the seawater intrusion criteria to limit it at its current extent, see the 10/27/21 BMC Agenda Packet for additional detail. Utilizing the updated methodology, the BMC estimated and unanimously approved a Sustainable Yield estimate of 2,380 Acre-Feet for Calendar Year 2022 and subsequently approved that same estimate for 2023. While this Sustainable Yield estimate is greater than current estimates of groundwater pumping in the Basin (~2,000 Acre-Feet per Year ([AFY])), the target for Basin pumping, established during the development of the Basin Plan, is 80% of the Sustainable Yield or 1,904 AFY to account for uncertainty and prevent degradation from seawater intrusion. If estimates of current pumping were applied to the 2022 and 2023 Sustainable Yield estimate, the Basin Yield Metric would be greater than 80, indicating that pumping is exceeding the target.

To achieve a target ratio of 80 or less between estimated production and the Sustainable Yield estimate, additional water conservation measures, implementation of additional Basin Plan Programs, enhanced use of recycled water and/or importation of supplemental water supplies are needed under current conditions. Implementation of a 3rd Program C Well is estimated to increase the Sustainable Yield, assist

the BMC in achieving the target Basin Yield Metric of 80 and improve water supply resiliency for the Los Osos Water Purveyors.

At its April 20th, 2022 Meeting, the BMC approved CHG to evaluate the re-inclusion of the 3rd Well into Program C. CHG completed the evaluation of the anticipated increase to the Sustainable Yield that the 2nd and 3rd Program C Wells would provide utilizing the new criteria for calculating the Sustainable Yield approved by the BMC at their October 27th, 2021 Meeting. The results of this evaluation are included in the attached Draft Technical Memorandum.

Attachments

1. Draft Los Osos Basin Sustainable Yield Update for Program C Wells with Adaptive Method Technical Memorandum

DRAFT

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



DRAFT Technical Memorandum

Date: November 11, 2022

From: Spencer Harris, HG 633

To: Dan Heimel, P.E., Executive Director
Los Osos Basin Management Committee

SUBJECT: Los Osos Basin Sustainable Yield Update for Program C Wells with Adaptive Method.

Dear Mr. Heimel:

As requested, Cleath-Harris Geologists (CHG) has updated the estimated sustainable yield of the Los Osos Basin (Basin) with Program C Expansion Wells in place. The purpose of the update is to apply the Adaptive Method for estimating Basin sustainable yield that was approved by the Los Osos Basin Management Committee (BMC) in 2021¹.

Background

Los Osos Basin Plan (LOBP) Program C includes a set of infrastructure improvements that would allow the water purveyors to shift some groundwater production within the Lower Aquifer from the Western Area to the Central Area. Groundwater production from the Central Area generally results in less seawater intrusion than the same amount of production from the Western Area, which increases the sustainable yield of the Basin. Program C originally consisted of three Expansion Wells located on the eastern side of the Central Area, and associated pipelines. Implementation of Program C was projected to have a direct, beneficial impact on mitigating seawater intrusion².

The LOBP estimated that, without supplemental water, the existing population scenario would require 2,230 acre-feet per year (AFY) of groundwater to meet Basin demand (LOBP Table 46). In recent years, estimated Basin water demand has declined from 2,560 acre-feet in 2013 to 2,000 acre-feet in 2021³. As a result of significantly lower water demand for the existing population, a reduction from three to two Expansion Wells for Program C was recommended in 2019⁴. The first Expansion Well had been constructed in 2016, and alternate sites for the second Expansion Well were evaluated in 2020⁵.

¹ Los Osos BMC meeting, October 27, 2021, Agenda Item 8a – Sustainable Yield Methodology Review and Recommendations (reprinted in 2021 Annual Monitoring Report, Appendix A).

² ISJ, Los Osos Basin Plan Update, January 2015

³ CHG, Los Osos Basin Plan Groundwater Monitoring Program, 2021 Annual Monitoring Report, June 2022

⁴ CHG, Los Osos Basin Plan Metric Trends Review and Infrastructure Program C Evaluation, February 28, 2019.

⁵ CHG, Los Osos Basin Plan Program C Expansion Well No. 2 Sites Alternatives Update, February 19, 2020.



Sustainable Yield Methodology

Sustainable yield is determined for a given set of basin infrastructure in place by using the Basin model to determine the maximum amount of groundwater extractions that may occur with a stable seawater intrusion front (no further inland advance) and with no active purveyor well producing water with chloride concentrations above 250 mg/L. The Historical Method does not place any restriction on where the seawater front stabilizes, while the Adaptive Method restricts intrusion to the current (2021) extents.

Both the Adaptive Method and the Historical Method incorporate updated maximum production capacities for individual purveyor wells, along with minimum production allowances for selected wells, and a long-term average precipitation value of 17.3 inches per year. The Adaptive Method reduces the estimated sustainable yield of the Basin, compared to the Historical Method, and both methods reduce the estimated sustainable yield, compared to the reported LOBP values.

For example, the estimated Sustainable Yield₂₀₂₂ would be 2,760 acre-feet per year (AFY) using the Historical Method with the original maximum purveyor well production capacities and a long-term average precipitation of 17.5 inches, as approved during LOBP preparations. Using the Historical Method with updated maximum production capacities, minimum production allowances, and slightly lower long-term precipitation, the estimated Sustainable Yield₂₀₂₂ declines to 2,650 AFY. Using the Adaptive Method, which also incorporates maximum production capacities, minimum production allowances, and slightly lower long-term precipitation, the estimated Sustainable Yield₂₀₂₂ declines to 2,510 AFY. A further reduction in Sustainable Yield₂₀₂₂ to 2,380 AFY was approved by the BMC based on 50 percent development of the Broderson mound⁶.

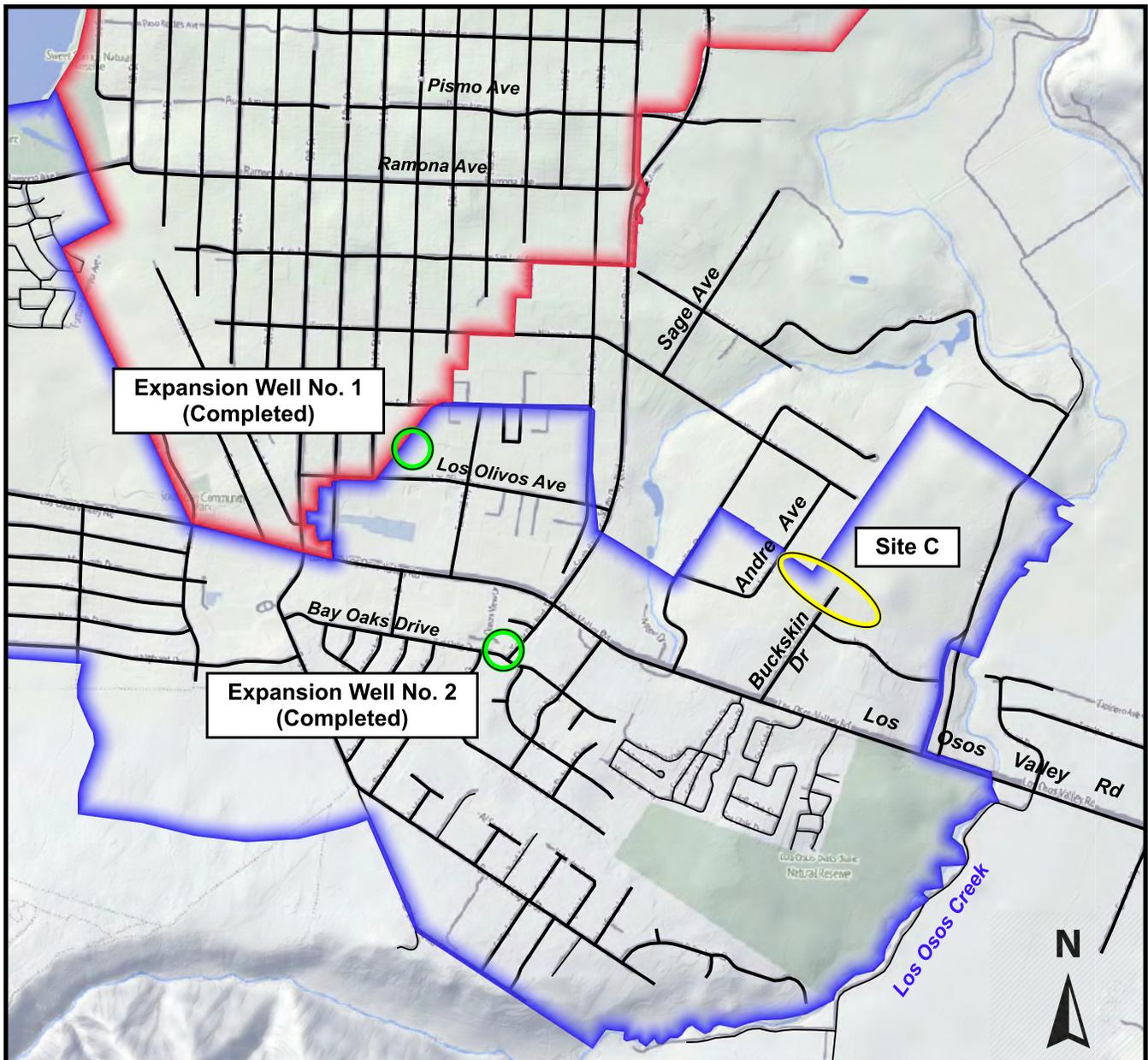
Summary of Program C Well Sites

General areas for the three Program C Expansion Wells were described in the LOBP (pages 239-240). Expansion Well No. 1 was originally planned in the vicinity of Buckskin Avenue north of Los Osos Valley Road and within the Golden State Water Company (GSWC) service area (Site C on Figure 1). Expansion Well No. 1 was relocated to Los Olivos Avenue and GSWC constructed a new Lower Aquifer well there in 2016 (Figure 1).

The Los Osos Community Services District (LOCSO) was tasked with developing Expansion Well No. 2, and selected Site E (Bay Oaks Drive; Figure 1) for their new well. The Bay Oaks well was recently complete and is scheduled to be active in 2024, following pipeline construction.

⁶Los Osos BMC meeting, October 27, 2021, Agenda Item 8a – Sustainable Yield Methodology Review and Recommendations (reprinted in 2021 Annual Monitoring Report, Appendix A).

DRAFT



Base Image: Stamen-Terrain

0 750 1,500 2,250 3,000 ft



Scale: 1 inch ≈ 1,500 feet

Explanation

 Completed Expansion Well Site

 Potential Expansion Well Site

Water Systems

 Golden State Water Company - Los Osos

 Los Osos CSD

Figure 1
Expansion Well Locations
Los Osos Groundwater Basin
Program C Update

Cleath-Harris Geologists



As mentioned, the third Program C well appeared unnecessary in 2019 due to significant reductions in the projected water demand for the existing population scenario. However, this recommendation was based on an estimated sustainable yield of 2,760 AFY⁷. The Sustainable Yield₂₀₂₂ estimate adopted by the BMC, based on the Adaptive Method, is substantially lower than the 2019 estimate, and a third Program C well may now be appropriate.

Several locations for Expansion Well No. 2 were evaluated by the LOCS D during the project, and the two highest ranking sites were Site C and Site E (Bay Oaks). Site C had a greater potential for Basin sustainable yield benefit, but Site E was ultimately selected due to more favorable site access, well constructability, environmental constraints, opportunity for Upper Aquifer development at the site in the future, and other considerations⁸. For the purposes of this Program C update, Site C is assumed to be the location for a third Expansion Well, if completed (Figure 1). A brief summary of Site C follows:

SITE C - Vicinity of Andre Avenue and Buckskin Avenue, equivalent to the original location identified for Expansion Well No. 2 in the LOBP. There are a few parcels that may be considered for Site C. Due to multiple private wells in the proximity, a well survey and groundwater impacts evaluation was performed for the site⁹. Site C is expected to meet or exceed the minimum production objective of 200 AFY.

Basin Sustainable Yield Update

Table 1 presents the updated Basin sustainable yield estimates for Program C wells in place and using the Adaptive Method.

Table 1 – Updated Basin Sustainable Yield Estimates for LOBP Program C		
Program C Expansion Well Scenario	Total Expansion Well Production (AFY)	Estimated Sustainable Yield using Adaptive Method (AFY)*
Well No. 1 only	150	2,510
Wells No. 1 and No. 2	300	2,540
Wells No. 1 No. 2, and No. 3	450	2,610

*with the Broderson mound fully developed and Expansion Well No. 3 at Site C

As calculated from Table 1 results, the benefit to the Basin sustainable yield of adding the second Program C Expansion Well is estimated at 30 AFY, and adding a third Expansion Well at Site C

⁷CHG, Los Osos Basin Plan Metric Trends Review and Infrastructure Program C Evaluation, February 28, 2019

⁸LOCS D Board Meeting, November 21, 2020, Agenda Item 2A – Program C Site Selection.

⁹CHG, DRAFT Well Survey and Groundwater Impacts Evaluation related to Site C Expansion Well, Los Osos Groundwater Basin, August 27, 2018.



is estimated at 70 AFY (total of 100 AFY added sustainable yield). Other observations related to Program C wells are summarized below.

- The updated Basin sustainable yield with all Program C wells in place is estimated at 2,610 AFY, compared to an estimated 3,000 AFY reported in the LOBP. This decline in sustainable yield is due to:
 - Restrictions on further inland movement of the seawater intrusion front (the Adaptive Method).
 - Revised maximum production rates and minimum allowances for individual purveyor wells.
 - Changes in Expansion Well locations.
- The incremental increase to the Basin sustainable yield is greatest when adding the third Expansion Well at Site C, which is closer to the Los Osos Creek valley, compared to the other two Expansion Wells (Figure 1). Moving Lower Aquifer production away from the coast and closer to the Los Osos Creek valley results in greater recharge to the Lower Aquifer from the creek valley, and increases Basin sustainable yield.
- A third Expansion Well at Site C would have a minimum production objective of 200 AFY, which is the maximum production for the well assumed in sustainable yield scenarios. If a greater production capacity is available, the estimated sustainable yield of the Basin will increase. For example, increasing the production capacity of a third expansion well by 50 AFY results in a 20 AFY increase to the estimated Basin sustainable yield.
- Assuming Basin groundwater production of 2,000 AFY (the average production over the last five years), and the Broderson mound fully developed, the Basin Yield Metric is 79 with Program C wells No. 1 and No. 2 in place, which meets the LOBP target of BYM 80 or less. Adding a third Expansion Well at Site C will lower the Basin Yield Metric from 79 to 77 (an improvement).