CALIFORNIA COASTAL COMMISSION
CENTRAL COAST DISTRICT
725 FRONT STREET, SUITE 300
SANTA CRUZ, CA 95060
PHONE: (831) 427-4863
FAX: (831) 427-4877
WEB: WWW.COASTAL.CA.GOV

Th15b

CDP A-3-SLO-24-0011 (BRAWER WATT SINGLE FAMILY RESIDENCE)
MAY 8, 2025 HEARING
EXHIBITS

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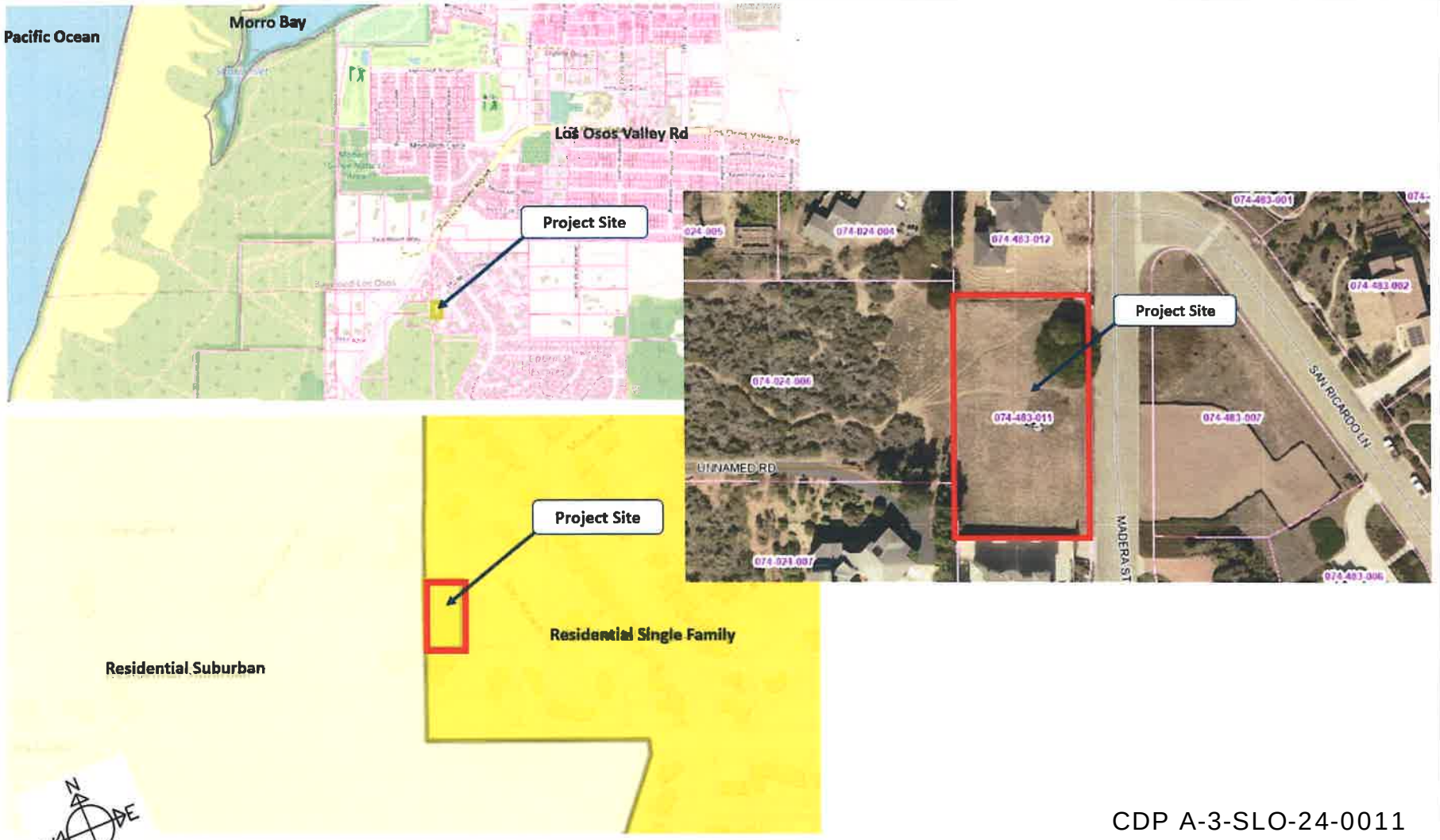

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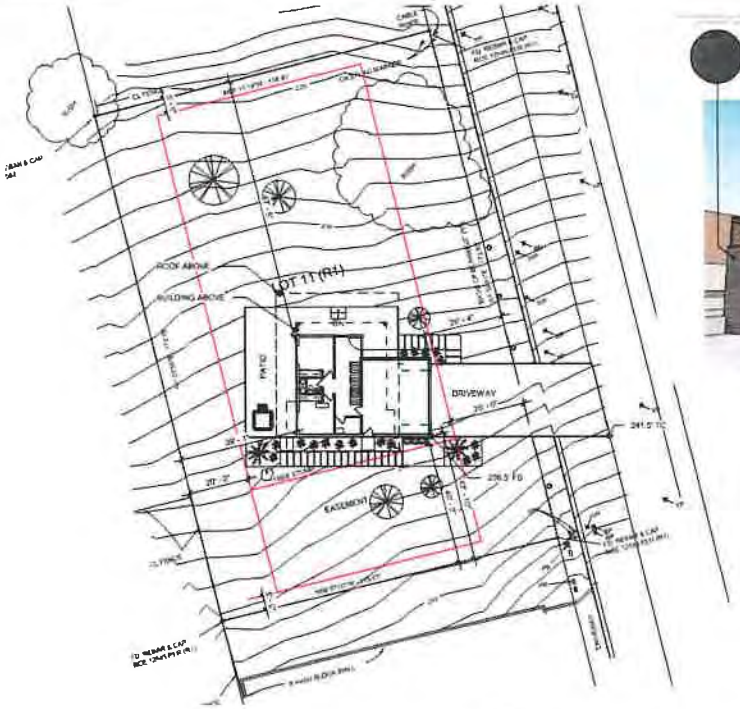

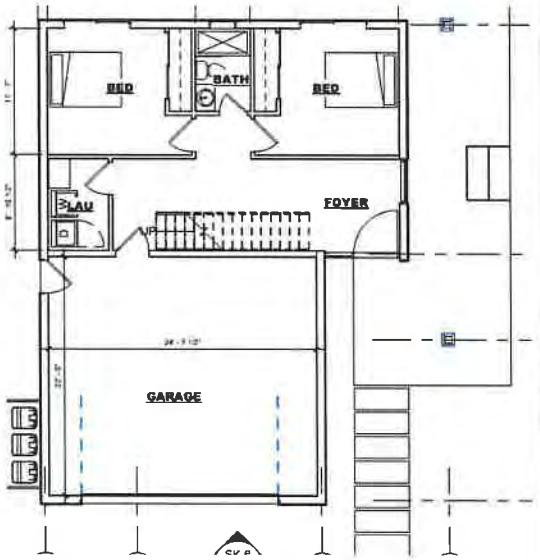

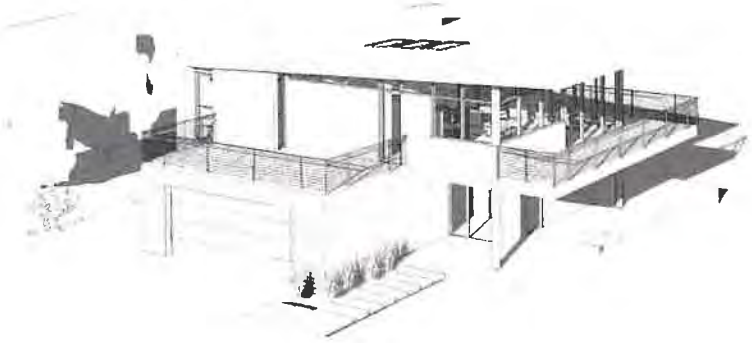

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EXHIBIT B – CONDITIONS
MINOR USE PERMIT/COASTAL DEVELOPMENT PERMIT C-DRC2022-00009 WATT/BRAWER

Approved Development
This approval authorizes:

- Construction of a two-story 2,019 square-foot single-family residence with an attached 541 square-foot two-car garage, 870 square-foot deck, and 1,095 square feet of exterior patio area;

- A maximum height of all buildings and structures which shall not exceed 15 feet above the highest point of the lot when measured from the highest point of the roof; and

- Other site improvements including a new access driveway, installation of an on-site septic system, and public utility extensions (gas and water) and support appurtenances.

Conditions required to be completed at the time of application for grading, construction and/or encroachment permits:

Access

1. **At the time of application for construction permits**, the applicant shall submit to the Department of Public Works an encroachment permit application, plans, fees, and post a cash damage bond to install improvements within the public right-of-way in accordance with County Public Improvement Standards, unless already constructed and acceptable or design exceptions are approved by the Public Works Department in accordance with Section 1.2 of the Public Improvement Standards. The plans are to include, as applicable:

    a. A new Madera Street site access shall be constructed in accordance with B-2a modified driveway approach (no sidewalk) and A-5 sight distance standards.
    b. Drainage ditches, culverts, and other structures (if drainage calculations require).
    c. Public utility plan, showing all existing utilities and installation of all new utilities to serve the site.
    d. Tree removal/retention plan for trees to be removed and retained associated with the required public improvements. The plan shall be approved jointly with the Department of Planning and Building.
    e. Traffic control plan for construction in accordance with the California Manual on Uniform Traffic Control Devices (CA-MUTCD).
    f. The applicant shall provide satisfactory evidence that the Army Corps of Engineers and the California Department of Fish and Game environmental permits have either been secured or that the regulatory agency has determined that their permit is not required.

Air Quality (AQ)

2. **AQ-1** Diesel Idling Restrictions for Construction Phases. The APCD recognizes the public health risk reductions that can be realized by idle imitations for both on- and off- road equipment. The following idle restricting measures are required for the construction phase of projects. Upon application for construction and/or encroachment permits, all required measures shall be shown on applicable grading or construction plans and made applicable during grading and construction activities, as described below.

    A. Idling Restrictions Near Sensitive Receptors for Both On- and Off-Road Equipment.

i. Staging and queuing areas shall be located at the greatest distance feasible from sensitive receptor locations;
ii. Diesel idling when equipment is not in use shall not be permitted;
iii. Use of alternative fueled equipment shall be used whenever possible; and
iv. Signs that specify the no-idling requirements shall be posted and enforced at the construction site.

B. California Diesel Idling Regulations. On-road diesel vehicles shall comply with 13 California Code of Regulations 2485. This regulation limits idling from diesel-fueled commercial motor vehicles with gross vehicular weight ratings of more than 10,000 pounds and licensed for operation on highways. It applies to California- and non-California-based vehicles. In general, the regulation specifies that drivers of said vehicles:

i. Shall not idle the vehicle's primary diesel engine when vehicle is not in use, except as noted in Subsection (d) of the regulation; and
ii. Shall not operate a diesel-fueled auxiliary power system (APS) to power a heater, air conditioner, or any ancillary equipment on that vehicle during sleeping or resting in a sleeper berth for greater than 5.0 minutes at any location when within 100 feet of a restricted area, except as noted in Subsection (d) of the regulation.
iii. Signs must be posted in the designated queuing areas and job sites to remind drivers of the no-idling requirement. The specific requirements and exceptions in the regulation can be reviewed at the following website: www.arb.ca.gov/msprog/truck-idling/2485.pdf.

3. **AQ-2** At the time of application for grading and construction permits for initial site improvements and future residential development, the following measures shall be provided on project grading and construction plans and shall be implemented throughout the duration of project grading and construction activities to manage fugitive dust emissions such that they do not exceed the San Luis Obispo County Air Pollution Control District (SLOAPCD) 20% opacity limit (SLOAPCD Rule 401) and minimize nuisance (SLOAPCD Rule 402) impacts:

A. The amount of the disturbed area shall be reduced where possible;

B. Water trucks or sprinkler systems shall be used in sufficient quantities to prevent airborne dust from leaving the site and from exceeding the SLOAPCD's limit of 20% opacity for greater than 3 minutes in any 60-minute period. Increased watering frequency would be required whenever wind speeds exceed 15 miles per hour. Reclaimed (non-potable) water shall be used whenever possible. When drought conditions exist and water use is a concern, the contractor or builder shall consider use of a dust suppressant that is effective for the specific site conditions to reduce the amount of water used for dust control. Please refer to the following link from the San Joaquin Valley Air District for a list of potential dust suppressants:
a. http://www.valleyair.org/busind/comply/PM10/Products%20Available%20for%20Controlling%20PM10%20Emissions.htm

C. All dirt stockpile areas shall be sprayed daily and covered with tarps or other dust barriers as needed;

D. All roadways, driveways, sidewalks, etc. to be paved shall be completed as soon as possible, and building pads shall be laid as soon as possible after grading unless

seeding, soil binders, or other dust controls are used;

E. All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least 2 feet of freeboard (minimum vertical distance between top of load and top of trailer) or otherwise comply with California Vehicle Code Section 23114;

F. "Track-Out" is defined as sand or soil that adheres to and/or agglomerates on the exterior surfaces of motor vehicles and/or equipment (including tires) that may then fall onto any highway or street as described in California Vehicle Code Section 23113 and California Water Code 13304. To prevent track out, access points shall be designated, and all employees, subcontractors, and others shall be required to use them. A "track-out prevention device" shall be installed and operated where vehicles enter and exit unpaved roads onto paved streets. The track-out prevention device can be any device or combination of devices that are effective at preventing track out, located at the point of intersection of an unpaved area and a paved road. Rumble strips or steel plate devices need periodic cleaning to be effective. If paved roadways accumulate tracked out soils, the track-out prevention device may need to be modified;

G. All fugitive dust mitigation measures shall be shown on grading and building plans;

H. The contractor or builder shall designate a person or persons whose responsibility is to ensure any fugitive dust emissions do not result in a nuisance and to enhance the implementation of the mitigation measures as necessary to minimize dust complaints and reduce visible emissions below the SLOAPCD's limit of 20% opacity for greater than 3 minutes in any 60-minute period. Their duties shall include holidays and weekend periods when work may not be in progress (for example, wind-blown dust could be generated on an open dirt lot). The name and telephone number of such persons shall be provided to the SLOAPCD Compliance Division prior to the start of any grading, earthwork or demolition (Contact the Compliance Division at 805-781-5912).

I. Permanent dust control measures identified in the approved project revegetation and landscape plans shall be implemented as soon as possible, following completion of any soil-disturbing activities;

J. Exposed ground areas that are planned to be reworked at dates greater than 1 month after initial grading shall be sown with a fast-germinating, non-invasive grass seed and watered until vegetation is established;

K. All disturbed soil areas not subject to revegetation should be stabilized using approved chemical soil binders, jute netting, or other methods approved in advance by the SLOAPCD;

L. Vehicle speed for all construction vehicles shall not exceed 15 miles per hour on any unpaved surface at the construction site;

M. Sweep streets at the end of each day if visible soil material is carried onto adjacent paved roads. Water sweepers shall be used with reclaimed water where feasible. Roads shall be pre-wetted prior to sweeping when feasible; and

N. Additional measures shall be taken as needed to ensure dust from the project site is not impacting areas outside the project boundary.

Drainage and Flood Hazard

4. **At the time of application for construction permits,** the applicant shall submit complete drainage plans for review and approval in accordance with Section 23.05.040 of the Land Use Ordinance. The plan must provide onsite storage and sediment containment as recommended in the Los Osos Drainage Study (p. III-148).

5. **At the time of application for construction permits,** the applicant shall submit complete erosion and sedimentation control plan for review and approval in accordance with Section 23.05.036 of the Land Use Ordinance.

Site Development

6. **At the time of application for construction permits** plans submitted shall show all development consistent with the approved site plan, floor plan, architectural elevations and landscape plan.

7. **At the time of application for construction permits** plans submitted shall show a project limit area which outlines all areas of grading (including cut and fill areas, utility trenching and offsite improvements) and vegetation removal, the development footprint (i.e., all structures and/or site disturbance) necessary fire clearances and staging areas for all construction activities, the location of those activities, and areas for equipment and material storage.

8. **At the time of application for construction permits** plans submitted shall note that all areas of the site disturbed by project construction shall be re-vegetated with native, drought and fire-resistant species that are compatible with the habitat values of the surrounding area.

9. **At the time of application for construction permits,** the applicant shall provide details on any proposed exterior lighting, if applicable. The details shall include the height, location, and intensity of all exterior lighting. All lighting fixtures shall be shielded so that neither the lamp or the related reflector interior surface is visible from adjacent properties. Light hoods shall be dark colored.

10. Recommendations included in the Geotechnical Engineering Reports for the project shall be shown on all construction and building plans **at the time of application for construction permits**.

Architectural Review Committee

11. **At the time of application for construction permit**, the applicant shall provide evidence to the Planning Department certifying that the Architectural Review Committee for Cabrillo Estates has reviewed and approved plans and specifications (unless the Architectural Review Committee does not exist).

Stormwater Control Plan (SWCP)

12. **At the time of application for construction or grading permits,** the applicant shall demonstrate whether the project is subject to post-construction stormwater requirements by submitting a Stormwater Control Plan application or Stormwater Post Construction Requirements (PCRs) Waiver Request Form.

    a. The applicant must submit a SWCP for all regulated projects subject to Performance Requirement #2 and above. The SWCP must be prepared by an appropriately licensed

professional and submitted to the County for review and approval. Applicants must utilize the County's latest SWCP template.

b. If post-construction stormwater control measures (SCMs) are proposed, the applicant must submit a draft Stormwater Operations and Maintenance Plan for review by the County. The plan must consist of the following Planning & Building Department forms;

    1. Structural Control Measure Description (Exhibit B)
    2. Stormwater System Contact Information
    3. Stormwater System Plans and Manuals

c. If applicable, following approval by the County, the applicant shall record with the County Clerk-Recorder the Stormwater Operation and Maintenance Plan and an agreement or provisions in the CCRs for the purpose of documenting on-going and permanent storm drainage control, management, treatment, inspection and reporting.

Stormwater

13. The project is located within the County of San Luis Obispo Municipal Stormwater Management Area (MS4 Coverage Area) and compliance with the Central Coast Post-Construction Requirements (Resolution R3-2013-00032) may be required. **At the time of application for construction permits,** the applicant shall complete a Stormwater Control Plan (SWCP) Application and supporting documents or Stormwater Post Construction Requirements Wavier Request Form.

Water Service

14. **At the time of application for construction permits,** the applicant shall provide a current letter from Golden State Water Company stating they are willing and able to service water to the property. The applicant shall comply with conditions and requirements of the will-serve letter.

Conditions required to be completed prior to issuance of construction permits/building permits:

Title 19 Retrofit

15. **Prior to issuance of building permits,** the applicant shall submit to the Department of Planning and Building for review and approval evidence to the satisfaction of the Director that the applicant has provided a Title 19 Retrofit Certificate, certifying that the project applicant has secured the necessary retrofit credits (sufficient to construct one Single Family Dwelling).

Biological Resources (BIO)

16. **BIO-1** The project would be eligible for coverage under the current proposed terms of County of San Luis Obispo's ("County") Los Osos Habitat Conservation Plan ("LOHCP") awaiting U.S. Fish and Wildlife Service final approval and issuance of an Incidental Take Permit ("ITP"). **Following the effective date of the County's ITP and LOHCP, but prior to building permit issuance,** the project proponent shall secure a Certificate of Inclusion ("COI") from the County, which would confer take coverage under the ITP. The project proponent shall comply with the terms of the COI and ITP, which includes compliance with the LOHCP. If the County finds that the project proponent is out of compliance with the terms of the COI and ITP, the County has the authority to revoke the COI. Without a valid COI, all work relating to the project shall cease immediately.

If, following two years from the effective approval date of the project, unless time extensions are granted pursuant to Land Use Ordinance Section 23.02.050, the ITP has not been issued by the U.S. Fish and Wildlife Service and the LOHCP is not in effect, the project will not have coverage under a County ITP. Without coverage under a County ITP, no site disturbance or construction may occur at the site, and no building permits may be approved without amendment of this land use permit. Amendment of this land use permit to allow the project to proceed without coverage under a County ITP will require submittal of an application to amend this land use permit and the necessary surveys and reports to properly consider and address the potential for incidental take (harm, injure, capture and/or kill) of Morro Shoulderband Snail (Helminthoglypta walkeriana), and the application to amend this land use permit (including its environmental determination and conditions of approval) would require review and approval by the appropriate Review Authority.

Agency Clearance

17. **Prior to issuance of construction permits**, the applicant shall provide evidence satisfactory to the Department of Planning and Building that any applicable Army Corps of Engineers and the California Department of Fish and Game environmental permits have either been secured or that the regulatory agency has determined that their permit is not required.

Fees

18. **Prior to issuance of a construction permit**, the applicant shall pay all applicable school and public facilities fees.

19. Prior to the issuance of construction permits, and in accordance with Title 13.01 of the County Code, the applicant must pay to the Department of Public Works the Los Osos Road Improvement Fee based on the latest adopted area fee schedule and 1.00 peak hour trip as estimated based on the project description. The estimated fee is $4,198 ($4.198/PHT x 1.0 PHT).

    The applicant shall be responsible for paying to the Department of Public Works the Los Osos Road Improvement Fee consistent with the approved fee schedule at the time of issuance of building permit, or within 30 days of land use permit approval if no building permit is required. In accordance with Government Code section 66020(d)(1), the County provides notice to the applicant that the 90-day approval period in which the applicant may protest imposition of the Road Improvement Fee has begun.

Conditions required to be completed prior to ground/site disturbance:

Biological Resources

20. **BIO-2** Northern Legless Lizard and Coast Horned Lizard Impact Avoidance. **No more than 3 days prior to initiation of ground-disturbing activities,** all areas of the project footprint, including under shrubs, shall be surveyed by a qualified biologist. Any individuals found shall be relocated to an area on the parcel consisting of appropriate habitat at least 50 feet outside the project development footprint. A qualified biologist shall monitor all initial vegetation-clearing and ground-disturbing activities in areas of suitable habitat to capture and relocate individuals to an area on the parcel consisting of appropriate habitat at least 50 feet outside the project development footprint.

21. **BIO-3** Nesting Bird Impact Avoidance and Protection. To the maximum extent possible, site preparation, ground-disturbing, and construction activities should be conducted outside of the migratory bird breeding season (February 1– September 15). If such activities are required during this period, the applicant shall retain a County of San Luis Obispo-approved biologist to conduct a nesting bird survey and determine if migratory birds are occupying the site within 14 days prior to vegetation removal or construction. The surveys shall be conducted within 500 feet of construction areas. If nesting activity is detected, the following measures shall be implemented:

    A. If feasible, vegetation removal activities should be scheduled to occur outside the nesting season (February 1–September 15). No surveys for nesting birds shall be required for project activities occurring between September 16 and January 31.

    B. For project-related activities that occur during the nesting season (February 1–September 15), a nesting bird survey shall be conducted by a qualified biologist at least 14 days prior to vegetation removal for each phase of the project. The surveys shall be conducted within all accessible areas within 500 feet of the work area.

    C. If nests are located during any survey, all project-related activities shall be avoided within the following buffer zones: 50 feet for non-raptor species and 500 feet for all active raptor nests. Buffer areas shall be closed to all construction personnel and equipment until a qualified biologist has determined nesting has ended and the young have fledged the nest and the nest is no longer active.

Conditions to be completed during ground disturbance and project construction:

Timing of New Construction and Grading

22. Land clearing and grading shall be avoided during the rainy season if there is a potential for serious erosion and sedimentation problems. All slope and erosion control measures shall be in place before the start of the rainy season. Soil exposure shall be kept to the smallest area and the shortest feasible period.

Building Height

23. The maximum allowable height of all buildings and structures shall not exceed 15 feet above the highest point of the lot when measured from the highest point of the roof.

    a. **Prior to any site disturbance**, a licensed surveyor or civil engineer shall stake the highest point of the lot and set a reference point (benchmark).

    b. **Prior to approval of the foundation inspection,** the benchmark shall be inspected by a licensed surveyor prior to pouring footings or retaining walls, as an added precaution.

    c. **Prior to approval of the roof nailing inspection**, the applicant shall provide the building inspector with documentation that gives the height reference, the allowable height and the actual height of the structure. This certification shall be prepared by a licensed surveyor or civil engineer.

Conditions to be completed prior to final building inspection /establishment of the use:

Access

24. **Prior to commencing permitted activities,** all work in the public right-of-way must be constructed or reconstructed to the satisfaction of the Public Works Inspector and in accordance with the County Public Improvement Standards; the project conditions of approval, including any related land use permit conditions; and the approved improvement plans.

Stormwater Control Plan (SWCP)

25. **Prior to acceptance of the improvements (if applicable),** the Stormwater Operations and Maintenance plan and General Notice must be updated to reflect as-built changes, approved by the County, and re-recorded with the
26. County Clerk-Recorder as amendments to the original document.

Water Service

27. **Prior to final building inspection,** the applicant shall submit evidence to the Planning and Building Department that they have complied with all conditions of the Golden State Water Company's will-serve letter.

Development Review

28. **Prior to occupancy of any structure associated with this approval**, the applicant shall contact the Department of Planning and Building to have the site inspected for compliance with the conditions of this approval.

Fire Safety

29. Prior to occupancy or final inspection, whichever occurs first, the applicant shall obtain final inspection and approval from CDF of all required fire/life safety measures.

On-going conditions of approval (valid for the life of the project):

30. This land use permit is valid for a period of 24 months from its effective date unless time extensions are granted pursuant to Land Use Ordinance Section 23.02.050 or the land use permit is considered vested. This land use permit is considered to be vested once a construction permit has been issued and substantial site work has been completed. Substantial site work is defined by Land Use Ordinance Section 23.02.042 as site work progressed beyond grading and completion of structural foundations; and construction is occurring above grade.

31. All conditions of this approval shall be strictly adhered to, within the time frames specified, and in an on-going manner for the life of the project. Failure to comply with these conditions of approval may result in an immediate enforcement action by the Department of Planning and Building. If it is determined that violation(s) of these conditions of approval have occurred, or are occurring, this approval may be revoked pursuant to Section 23.10.160 of the Land Use Ordinance.

Access
Indemnification

34. The applicant shall, as a condition of approval of this land use permit application, defend, hold harmless and indemnify, at his or her sole expense (including attorney's fees, with Counsel approved by the County), any action brought against the County of San Luis Obispo, its present or former officers, agents, or employees, by a third party challenging either its decision to approve this land use permit or the manner in which the County is interpreting or enforcing the conditions of this land use permit, or any other action by a third party relating to approval or implementation of this land use permit. The applicant shall reimburse the County for any court costs and attorney fees that the County may be required by a court to pay as a result of such action, but such participation shall not relieve the applicant of his obligation under this condition. Upon request of the County, the applicant shall also enter into a separate agreement with the County (the "Indemnity Agreement"), in a form approved by County Counsel, agreeing to defend, indemnify, save and hold harmless the County, its present or former officers, agents, or employees, against actions by a third party challenging either its decision to approve this land use permit or the manner in which the County is interpreting or enforcing the conditions of this land use permit, or any other action by a third party relating to or arising out of the approval or implementation of this land use permit. The agreement shall provide that the applicant will indemnify the County and reimburse it for any costs and/or attorney's fees which the County incurs as a result of such action, and that the County's participation or non-participation in any such litigation shall not relieve the applicant of his or her obligations under this condition or the agreement. The applicant shall also provide sufficient guarantees for the obligations hereunder as determined by County Counsel. Any violation of this condition, including the applicant's failure to execute the Indemnity Agreement or breach thereof, or failure to provide sufficient guarantees, is grounds for the County to rescind and/or revoke its approval of this land use permit. These defense and indemnity obligations shall survive any recission, revocation and/or set aside of this land use permit.

March 5, 2025

Subject: W14a - Appeal Number: A-3-SLO-23-0014

Honorable Commissioners:

There are substantial issues regarding groundwater sustainability in Los Osos. Contrary to estimates, actual current data shows the Los Osos Water Basin is in overdraft and is not sustainable. The Los Osos Basin Plan was created to secure a sustainable water basin for the current population. The Basin Plan states that a **supplemental** water supply would be required for future buildout. There is no supplemental water supply, nor any other source of water available.

San Luis Obispo County's assertion that the Los Osos Water Basin is now suddenly sustainable after 4 decades of being in overdraft, has no factual basis or data to support it, and is based solely on assumptions using an adjustable and estimated Sustainable Yield, and Basin Yield Metric. The Los Osos Basin Management Committee, which the County is part of, claims it follows SGMA's Best Management Practices. SMGA says that **the Sustainable Yield is neither a measure of, nor proof of, a Basin's sustainability**. That is only demonstrated when there are no "undesirable results" when pumping within the estimated Sustainable Yield.

The Los Osos Basin Management Committee took control of our water basin in 2015. The Court had approved a Basin Plan which set a 20% buffer on the Sustainable Yield, meaning there would be no pumping at 100% of the Sustainable Yield but only at 80% or less. This buffer was set for uncertainties such as climate change, estimated Ag use, or modeling. The 20% buffer could have been 10% or 50%, but the arbitrary choosing of 20% meant that any water use producing a BasinYield Metric under 80% of the Sustainable Yield was seen as safe, meaning it would not have any "undesirable results" or adverse effects on the Basin.

The court's Stipulated Judgement set the Sustainable, or Safe Yield, at 2400 AFY for the first 5 years, unless conditions warranted an adjustment by the Basin Management Committee based on the Basin Plan infrastructure **then developed** in the Basin - meaning programs that were developed and ready to be implemented.

In 2016, the water production (extraction) was 2010 AFY, giving a BYM of 83.75%, more than the 20% buffer would allow. The Basin Plan states that there are two ways to balance the BYM with the extraction rate; either reduce extraction or increase the SY. There were two programs which, if implemented, could raise the SY - but they had not yet been developed. Those were programs A&C, which would add new monitoring and extraction wells. So, in anticipation of development of these, the BMC increased the SY to 2760 AFY, creating a BYM of 73%. The problem was that programs A&C were never fully developed or implemented. This highlights just how easy it is to manipulate both the sustainable yield and the BYM.

According to the Stipulated Judgement, "For purposes of adjudication of a groundwater basin, 'safe yield' is defined as 'the maximum quantity of water which can be withdrawn annually from a ground water supply without causing an undesirable result.'" Also, "When safe yield is exceeded by production, a basin is considered to be in a state of overdraft. Overdraft can result in a number of 'undesirable results' for a basin, including decrease in water quality, loss of water storage capacity, and, perhaps most damagingly, in a coastal basin, seawater intrusion."

Our estimated Sustainable Yield has produced 'undesirable results' for over 40 years. According to the most current Basin Management Report, the chloride levels are the highest recorded (see attachments), indicative of seawater intrusion. One major problem is that the Steady State Model being used was programmed over 20 years ago, and will soon be replaced by the Transient Model. The Basin Plan addresses this, saying:

"Despite the Parties' best efforts to build a reliable, scientifically sound Model of the Basin"… "uncertainty persists."… "This uncertainty could potentially have significant impacts on future Basin water supply. The primary existing sources of uncertainty are the assumptions embedded in the Model about the physical characteristics of and hydrogeologic relationships within the Basin, which particularly determine recharge rates, and assumptions regarding the quantity of non-Purveyor pumping currently occurring within the Basin. **The Basin Model predictions are premised on estimated levels of pumping by the non-Purveyor groundwater users, because data on the actual pumping by those users is not**

available. The Model is operated as a steady state, non-transient model. Accordingly, it is not used to depict changes in groundwater flow or levels across time. That means the model assumes that a given set of conditions persists over time, without changing. This obscures potential drought impacts and precludes evaluating seasonal Basin management strategies. Use of the steady state model May also lead to a more limited understanding of the advance or retreat of the seawater-freshwater interface."

The Model was also never programmed to stop seawater intrusion. This can be best exemplified by two modeling metrics presently in use: the average rainfall, which the Model estimates to be 17.5 inches per year, and creek flow, which is estimated to have an 800 AFY recharge. Over the last decade of management, both of these estimates have been shown to be highly exaggerated. The average rainfall has been closer to 13 inches annually rather than the estimated 17.5" and the Los Osos Creek has been mostly dry.

One last quote from the Basin Plan which emphasizes how estimates create inaccuracies in the steady state model:

"While reporting of groundwater production by the Purveyors is necessary, the Basin Management Committee and Parties will face significant challenges to successful management of the basin without the collection and use of data from non-Purveyors. In particular, with over 40% of the basin production based on estimates, the Basin Management Committee and Parties **may not be able to accurately predict or measure the effects of their actions to stop seawater intrusion, using the Basin Yield Metric** and other metrics. Because there is a substantial lag time between potential over-extractions from the Basin, as calculated through the Basin Yield Metric, and measurements of actual impacts on the Basin in the Water Level Metric and Chloride Metric, any **errors resulting from use of estimated rather than actual production figures will not be known for as long as 15 years, when it will be too late to correct**. It is vitally important for the Basin Yield Metric to be as accurate as possible in order to ensure that the proper actions are being taken to stop seawater intrusion as early as possible".

The Los Osos Water Basin is not in a state of sustainability. Any additional water use, or intensification of use, will continue to harm the basin and surrounding ecosystems, putting the Community at large at risk of losing its only water supply.

Unfortunately, even with water saving retrofits, rainwater capture, and drought tolerant landscapes, new development means new and more water use, and is why we ask that this project be denied.

Patrick McGibney
Chair Los Osos Sustainability Group

Sodium concentration in mg/L	1.0

ution not required

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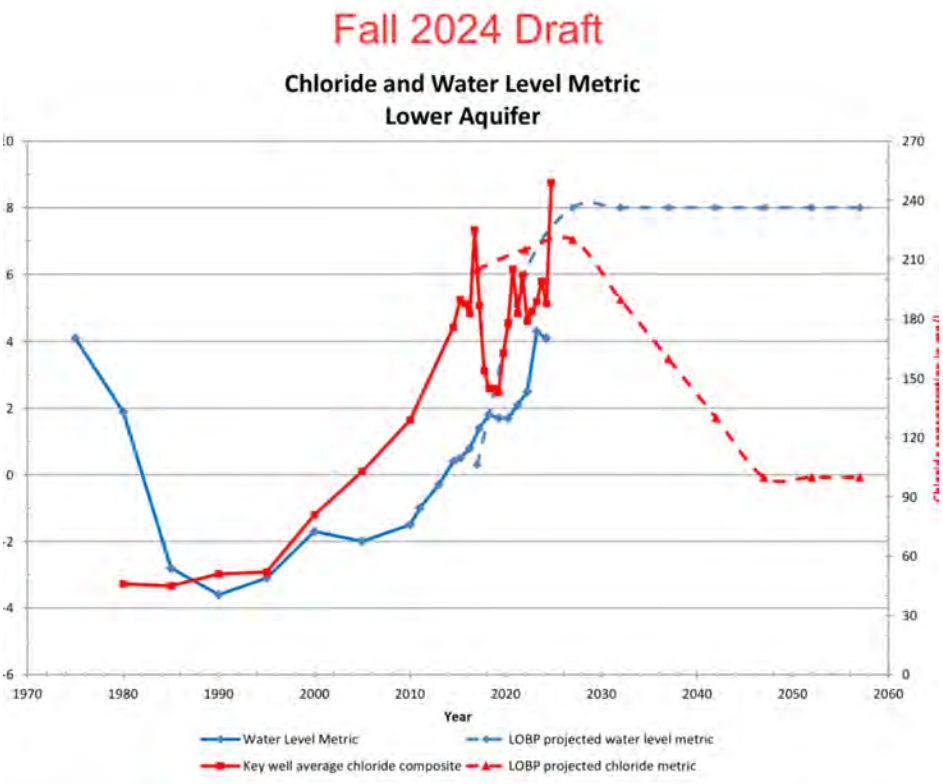

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From:	ExecutiveStaff@Coastal
To:	Moroney, Ryan@Coastal
Cc:	CentralCoast@Coastal
Subject:	FW: Comments for March 12 meeting
Date:	Monday, March 10, 2025 11:28:22 AM
Attachments:	Los osos basin is not sustainable.pdf

fyi

From: Lynette Brooks <lerkbrooks@yahoo.com>
Sent: Monday, March 10, 2025 7:54 AM
To: ExecutiveStaff@Coastal <ExecutiveStaff@coastal.ca.gov>
Subject: Comments for March 12 meeting

I know these comments are a little late. I hope they can still become part of the record opposing the development in Los Osos.

The comments were prepared for the San Luis Obispo County Supervisors, but the science in them remains the same. The data and the Annual Reports prepared by the Los Osos Management Committee prove that the basin is in overdraft.

Thank you,
Lynette Brooks

CURRENT WATER PRODUCTION FROM THE LOS OSOS BASIN IS CAUSING OVERDRAFT

Today I will use data and reports from the Los Osos Basin Management Committee to demonstrate that the Los Osos Basin is in Critical Overdraft as defined and determined during the SGMA process.

MY BACKGROUND

- Almost 30 years with U.S. Geological Survey as groundwater hydrologist.
  - Sole modeler and primary author for 10 groundwater models of basins in Utah and surrounding states including peer-reviewed reports and archives of the model files.
  - Involvement and coauthor for 2 other models and primary or coauthor on 12 other hydrology and data reports.
  - 10 peer reviews for models and reports.
  - In-depth classes from people who wrote MODFLOW and associated programs.
- Masters Degree in Civil and Environmental Engineering.
- Previously registered as Professional Engineer in Utah, currently registered in Hawaii. California doesn't recognize groundwater hydrology as Civil Engineering.

I did 10 models of Utah alluvial basins, including saltwater intrusion from the Great Salt Lake. I also did a model of the Great Basin Carbonate and Alluvial Aquifer system covering 110,000 square miles of Utah, Nevada, California, and a little of Idaho and Arizona.

I like groundwater models. They are useful tools for aggregating data and increasing understanding of a groundwater system. I also know they can have a large degree of uncertainty and should not be relied on if data contradicts model predictions. If the data contradicts the model, the model is wrong. I also think models need meticulous documentation and public availability if they are used to make decisions affecting public resources. The model being relied on to make long-term decisions for the Los Osos Basin is poorly documented and is not publicly available.

I previously sent a report to the supervisors detailing some of the items in this presentation and also listing the many groundwater studies and models I was involved in at the USGS.

INTRODUCTION

- The SLO County Planning Department is using the Basin Yield Metric as the only indication of sustainability. They are ignoring data, statements in the Annual Reports, and problems with the Los Osos Basin Management Committee (LOBMC) model.
- LOBMC data and reports indicate saltwater intrusion is continuing to worsen.
- The LOBMC model is out of date and most peer review comments from 2010 have not been incorporated, most importantly transient simulation and uncertainty analysis.
- Sustainability as calculated by the LOBMC model has never been about stopping saltwater intrusion.
- All water produced by wells reduces flow to Morro Bay Estuary, Los Osos and Warden Creeks, or the ocean. Reduction in flow to the creeks and estuary is never addressed by the model, the Los Osos Basin Management Committee, or the County.

This presentation will focus on everything the County Planning Department is ignoring in their decision that Los Osos Basin is not in overdraft and that development should be allowed.

The Los Osos Basin Management Committee was created as part of a Stipulated Judgment, are in charge of monitoring and managing groundwater in the basin.

The County and LOBMC are currently funding a transient (input and output varies through time) model, but results from the model are not yet available.

LOBMC Metrics

- The LOBMC Basin Plan that is being used to monitor and manage the basin includes 4 metrics to evaluate health of the basin.
  - **Basin Yield Metric (BYM)** is the percent of estimated water pumped compared to a poorly defined model-estimated sustainable yield. Below 80 is considered safe in the Basin Plan and by the County. It was 69 in 2023, following historic low water use (estimated) caused by historic high precipitation.
  - **Chloride Metric, Water Level Metric, and Nitrate Metric** are calculated from actual data at selected wells. The goal for the chloride metric is an average of 100 mg/liter of chloride in 4 wells. This presentation focuses on the chloride metric even though the other metrics have also not been met.

The Basin Plan details 4 metrics that must be met for sustainability. The SLO County Planning Department is ignoring other metrics and focusing only on the Basin Yield Metric.

Basin Yield Metric is a calculated number based on a lot of assumptions, including unknown agricultural pumping, model estimates of recharge, and model uncertainty. Essentially, the BYM is one estimated number divided by another estimated number. This is what the County Planning Department is using to say the basin is not in overdraft. It is very questionable if the BYM calculated in 2023 represents long-term conditions because of the historic low estimated water use caused by the historic high precipitation, as will be shown on the next slides.

The other metrics are based on field measurements of conditions on an annual or semi-annual basis.

Because the chloride metric is the metric most directly related to measuring saltwater intrusion, it is the only metric I will discuss today. Just remember, the goals for the water-level metric and nitrate metric have not been met.

The water level metric is the only metric where a larger number is good. The goal for the water level metric is 8 ft to provide enough freshwater to prevent saltwater intrusion. After

the very wet winter/spring 2023, the metric was 4.3 ft, only ½ of the height needed to prevent intrusion.

The goal for the nitrate metric is 10 mg/liter, but was still 14 mg/L in 2023. The projected trendline indicates that the goal of 10 mg/L will not be met until 2050. Until then, pumping from the upper aquifer will be limited to avoid producing water exceeding health standards. The sustainable yield is calculated assuming more pumping from the upper aquifer and less pumping from the lower aquifer. Until that can happen, the model-calculated sustainable yield is not reality.

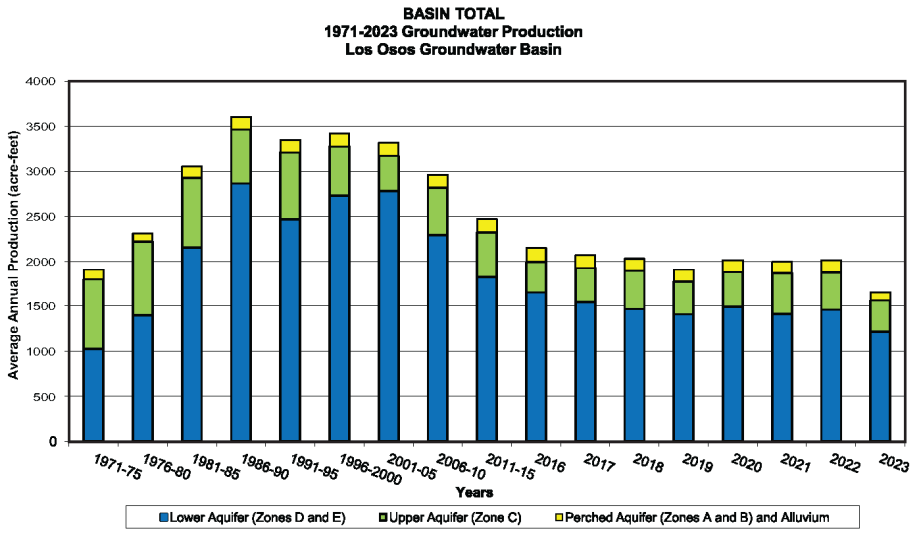
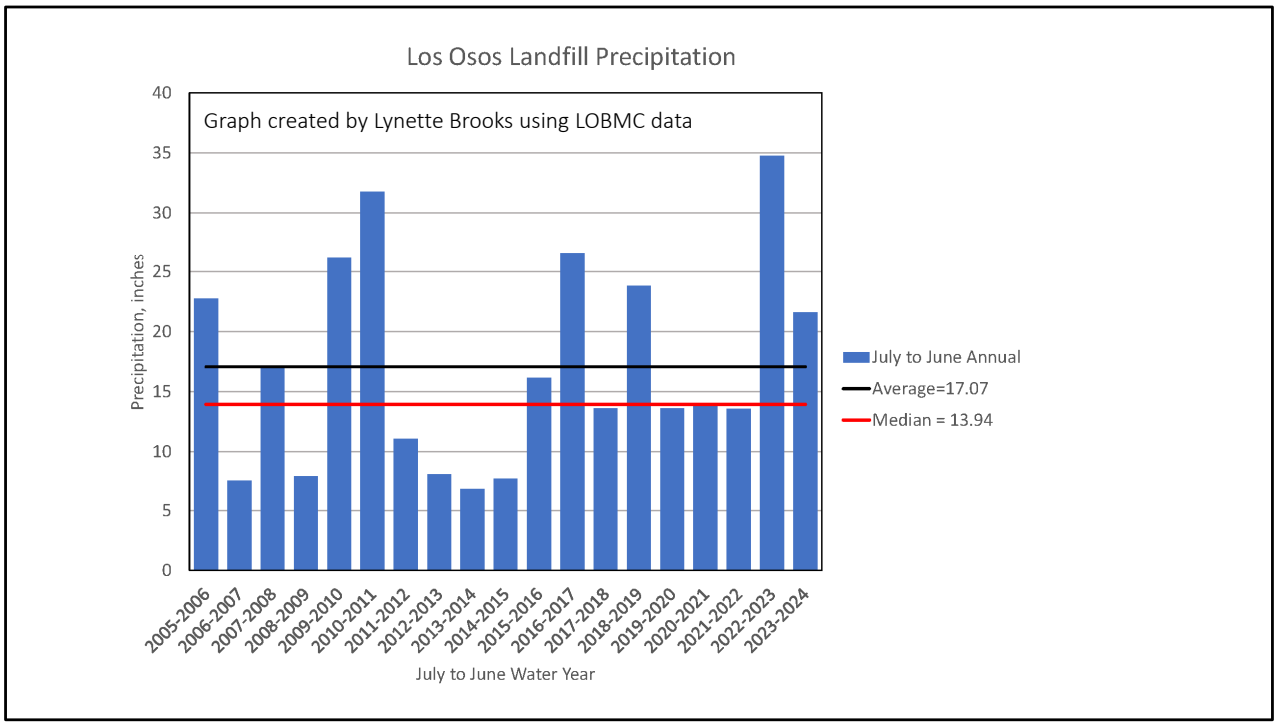


Figure 6
Basin Production 1971-2023
Basin Total and Western Areas
Los Osos Groundwater Basin
2023 Annual Report

Cleath-Harris Geologists

The low estimated water use in 2023 probably will not be continued in years with normal precipitation or especially in years with below normal precipitation like the current year.



It is critical to understand that the decision to allow development in Los Osos was made after a year with rainfall of more than twice the average and 2-1/2 times the median. This high rainfall and low water use cannot be relied on. For instance, currently rainfall at the Los Osos Landfill gage is only 51% of average with 9.26 inches. We do have some rain coming, but everyone knows the wet season is almost done. This is not the time to allow development.

LOBMC BASIN PLAN, SGMA, AND STIPULATED JUDGMENT

- Page 15 of the Basin Plan: "The Parties intend their efforts to be fully compliant with the substantive requirements of the SGMA."
- SGMA defines sustainable yield as "the maximum quantity of water…that can be withdrawn annually from a groundwater supply without causing an undesirable result."
  - "Significant and unreasonable seawater intrusion"
  - "Depletions of interconnected surface water that have significant and unreasonable adverse impacts on beneficial uses of the surface water" such as Morro Bay Estuary.
- The Stipulated Judgment defines safe yield as a Conclusion of Law:
  - Maximum quantity of water which can be withdrawn annually from a ground water basin without causing an undesirable result, such as seawater intrusion.

Although SGMA does not apply to Los Osos Basin, the LOBMC committed to following SGMA requirements. The LOBMC, of which the county is a part, is legally required to follow the stipulated judgment and the Basin Plan created as part of the Stipulated Judgment.

Critical Overdraft

- During the SGMA process, California Department of Water Resources declared Los Osos Basin to be in "critical overdraft" and still considers the basin to be in critical overdraft because of continued saltwater intrusion.
- The SLO County Planning Department is not using that designation because they do not think it represents up-to-date information.
- The next pages use the Chloride Metric to show that saltwater intrusion in Los Osos Basin is worse than in 2019 and the **basin is in critical overdraft,** despite the BYM indicating a sustainable condition.

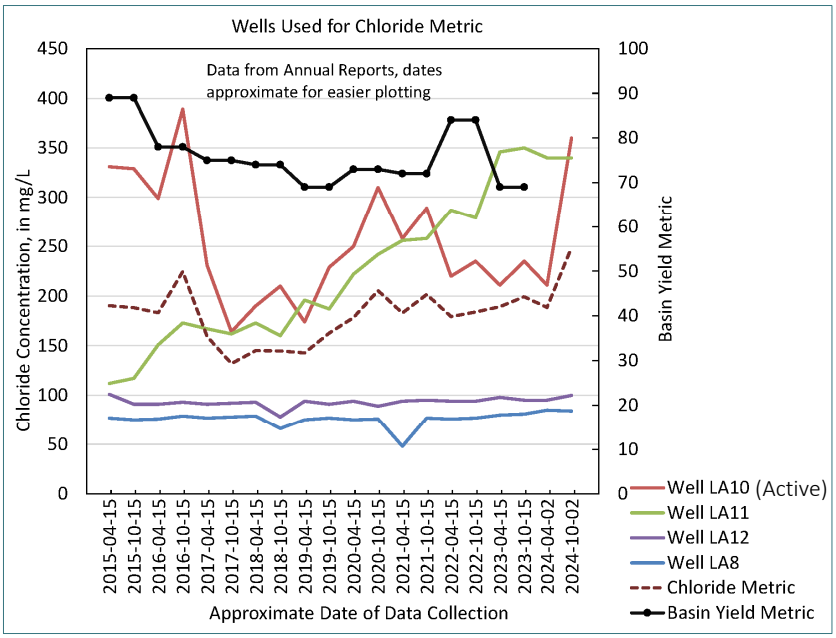
Chloride Metric, page 1

SGMA and the Stipulated Judgment declare saltwater intrusion to be a sign that the basin is not sustainable and is in overdraft. The County Planning Department is defying both the California Department of Water Resources and the Superior Court of California by not using that designation. If you approve these projects, you are also defying the Court.

Saltwater Intrusion Continues Despite the Low BYM in 2023

Chloride Metric

These next slides will discuss the chloride metric.

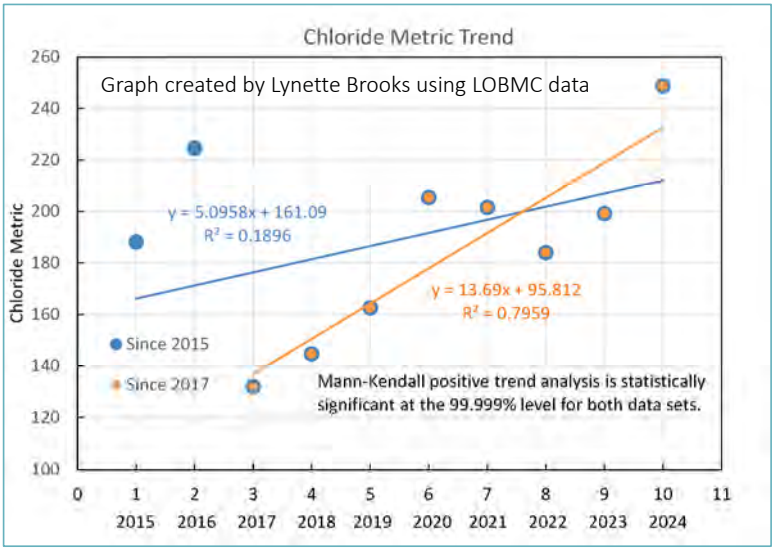


- The Basin Yield Metric has been below 80 many times.
- The Chloride Metric, however, continues to rise.
- The Chloride Metric in Fall 2024 was higher than in any previous period.

Chloride Metric, page 2

An email from Nicole Ellis, SLO County Supervising Planner states “water level and chloride metrics have been improving, even during recent periods of drought.“

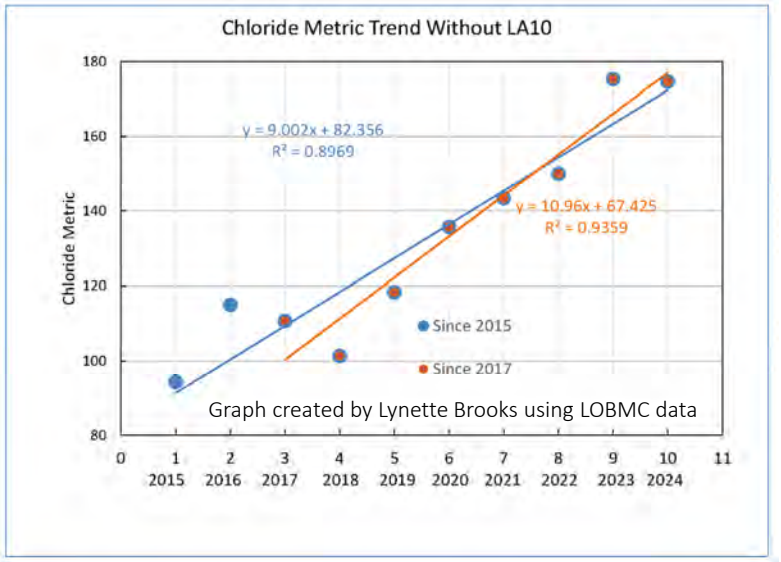
Chloride metric certainly does not seem to be improving in this graph, even with declining Basin Yield Metric. Let’s look at the chloride data more closely.



- The Chloride Metric has a strong upward trend.
- Average production has been about 2,000 acre-ft/yr since 2017, or 84% of current "sustainable yield".
- Low production in 2023 was anomalous.

Chloride Metric, page 3

This graph shows the fall chloride metric, which is typically higher than spring chloride metric. In long-term planning, it is best to use the most conservative (in this case worst) data. The Chloride Metric has a statistically significant upward trend. The County and the Los Osos BMC have said the chloride metric is not reliable because of Well LA10, but the LOBMC has never changed the metric. Let's look at what happens without Well LA10.



- The basin is not being managed sustainably and is in **critical overdraft**.

Chloride Metric, page 4

This graph makes it very clear that the chloride metric is dramatically increasing, not "improving" as stated by Nicole Ellis.

Saltwater Intrusion Continues Despite the Low BYM in 2023

Statements from 2023 Annual Report

The County Planning Department is using one number from the Annual Report and ignoring several statements in the Annual Report that express concern with continued saltwater intrusion.

- “Lower Aquifer Zone D is currently the main water supply source for the community. Seawater intrusion is a major concern for the Lower Aquifer and **continues to advance** under current Basin conditions.”
- “Chloride concentrations at LA40 increased between 2019 and 2021, remained stable through Spring of 2023, and then **increased to the highest concentration so far in Fall of 2023** at 3,200 mg/L. Seawater intrusion into Zone E is a significant threat to basin sustainability and has been for decades.”

Statements from 2023 Annual Report, page 1

- "In Zone E, seawater intrusion is interpreted to be laterally pervasive in the Western Area, based on the elevated concentration in LA40 (Lupine Avenue) and an increasing trend in chloride concentrations at LA11 (Pasadena Drive) which indicates a **worsening condition over time**."
- "**Seawater intrusion in Zone E continued to move inland** through LA11 in 2023, **despite a Basin Yield Metric value of 69**, which [is] significantly less than the goal of 80 or less."
- "A Basin Yield Metric value of 69 suggests the level of Basin production in 2023 should be sustainable, yet **Zone E intrusion continues**."

Statements from 2023 Annual Report, page 1

If the model is saying the basin should be sustainable, but intrusion continues, then the model is wrong.

Saltwater Intrusion Continues Despite the Low BYM in 2023

Maybe the Model is Wrong

The previous statements from the Annual Report recognize the disconnect between the model and reality. What those statements do not say is that maybe the model is wrong.

- The model uses optimized pumping, not actual pumping.
- Model calibration has not been documented since 2009, was calibrated to water levels that occurred in 2000, and was never calibrated for changes in water levels.
- Pumping scenarios for sustainable yield are different than calibration stresses and different model parameters may be required.
- Model has not had a documented post-audit to see if it is accurate under new conditions.
- The possibility of intrusion from Morro Bay Estuary into deeper zones does not appear to be simulated although water level contours indicate connection to Morro Bay, not directly to the ocean.

Maybe the Model is Wrong, page 1

The model simulates pumping at the best wells to reduce saltwater intrusion, not at the wells where the pumping is actually occurring. It's an "IF we could do this, then MAYBE saltwater intrusion would stop" analysis. For example, the 2023 Annual Report states: "The volume of Lower Aquifer pumping from Western Area wells in 2023 remains greater than modeled in the 2,380 AFY Program C Sustainable Yield scenario." I have not been allowed access to the model files, so I cannot determine exactly how the model is being used.

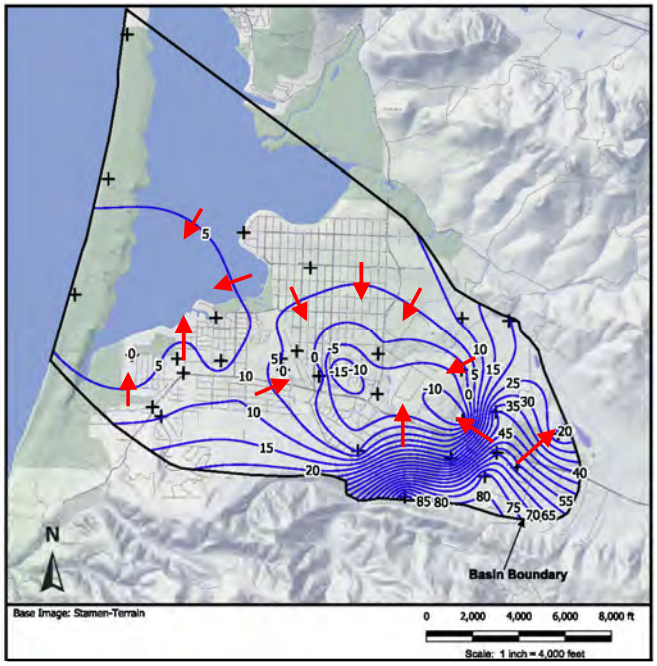
Calibration is the process of adjusting the model inputs (usually recharge and hydraulic conductivity) to more closely match the water levels and chloride concentrations measure in wells.

Because the calibrated model is steady-state (assumes the same recharge and pumping every year), it was never calibrated to yearly changes in water levels that occur because of changes in recharge and pumping. Water-level change data provides critical information about aquifer properties that may not be correct in the model without calibrating to that data, which can only be done with a transient model.

Moving pumping east was not part of calibration and it is impossible to know how accurately the model is representing those conditions.

A model post-audit is when the model is used with new conditions to see if it matches new measurements of water levels and chloride concentrations. If the model still fits the data, it has a better chance of being an accurate model.

The next slide will discuss movement of water from Morro Bay.



- Red arrows show the direction of flow based on the contours provided in the Annual Report.
- Water levels indicate the lower aquifer is getting water from Morro Bay Estuary in part of the basin and contributing water to Morro Bay Estuary in the western part of the basin.

Maybe the Model is Wrong, page 2

These are the water-level contours presented in the 2023 Annual Report for the Lower Aquifer. The red arrows were added by me to highlight flow direction, which is always perpendicular to contours. As indicated by the red arrows, much of the flow in the lower aquifer is going towards pumping wells in the center of the basin. All water going to the pumping center means that little water is going to the estuary or the ocean to prevent saltwater intrusion. No arrows can be drawn that indicate flow from the Lower Aquifer to the ocean.

Stetson Engineers, Inc. Peer Review 2010

- The need for additional model documentation including definition of model limitations, uncertainty in the results, and technical basis for input data.
- Development of a monthly transient flow model using the model structure from the existing model.
- The current SEAWAT model and results regarding seawater intrusion and safe yield provides usable results on which to base near-term changes in pumping distribution to **mitigate** seawater intrusion.

Maybe the Model is Wrong, page 3

The water purveyors and the County hired Stetson Engineers to do a peer review of the model, as required by the Stipulated Judgment.

The main points are that uncertainty in the sustainable yield needs to be determined and that a monthly transient model is needed. The Annual Reports never discuss uncertainty and the transient model is still not complete 15 years after the recommendation.

Note that Stetson Engineers did not say the plan to move wells east would STOP saltwater intrusion, only mitigate saltwater intrusion by moving the wells out of the way of additional intrusion. Therefore, the 3,200 acre-ft maximum sustainable yield described in the Basin Plan does not meet the criteria for sustainability under SGMA or as defined as safe yield by the Court in the Stipulated Judgment.

HydroFocus, Inc. Model Review 2010

- The measured chloride concentrations in 2009 indicate the seawater front advance approximately 4,500 ft in 8 years from 2001 to 2009.
- In contrast the model projected the seawater front would move only about 2,000 feet over the next 50 years.
- There is uncertainty in the estimated agricultural pumping and in the recharge from precipitation.
- Additional pumping from the upper aquifer could cause saltwater intrusion into the upper aquifer.
- The model simulates a steady-state flow regime, which can underestimate seawater intrusion impacts.
- There is substantial uncertainty in the basin yield.

Maybe the Model is Wrong, page 4

Los Osos Sustainability Group asked for another peer review from Hydrofocus, Inc. The author for the HydroFocus review was Gus Yates, who was previously employed by the U.S. Geological Survey and did the 1988 USGS model of Los Osos Basin, so he has experience with the area and with groundwater modeling.

One key takeaway from this review is that the measured saltwater front advanced more than twice the distance in less than one-sixth of the time as the model predicted.

Agricultural pumping is determined outside of the model using an algorithm regarding crop demand, soil type, rooting depth, and other properties. The largest assumption is that agricultural users pump exactly as the algorithm would indicate. Recharge from precipitation is also based on storm intensity, soil type, rooting depth, vegetation type, etc. As with the estimate for agricultural pumping, none of those properties are exact.

As with the Stetson Review, the lack of a transient simulation and uncertainty in the estimate of sustainable yield are major concerns.

Sustainable Yield as Calculated by the Model Is Wrong

The previous slides have pointed out differences between the model and real data:
1. Intrusion is continuing despite pumping being only 69% of estimated sustainable yield.
2. The simulated front moves a lot slower than the measured front.
3. The system responds to changes on monthly or smaller time steps, the model assumes the same conditions every day, every year, for however long the simulation period is.

In addition to all of those reasons, the main reason is that the model has never been used to estimate pumping that would STOP saltwater intrusion.

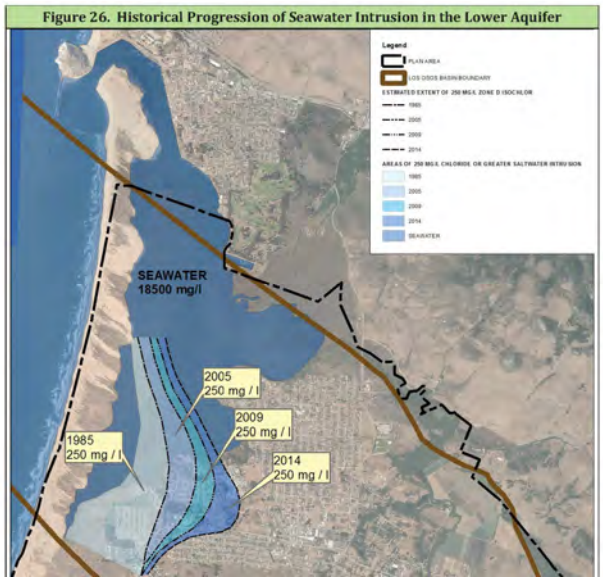


Figure from Basin Plan, 2015

Contours through Morro Bay Estuary are not based on any known data.

January 2015

- Page 108 of the Basin Plan: "The primary goal of this Basin Plan is to halt or, to the extent possible, reverse seawater intrusion into the Basin."
- Los Osos citizens were led to believe this meant stopping intrusion at the location in 2015, and continued their amazing efforts at conservation.

Sustainable Yield is Wrong, page 1

This figure from the Basin Plan shows the historic progression of saltwater intrusion. The plan states that intrusion will be stopped close to line shown for 2014, leaving much of the basin without saltwater intrusion.

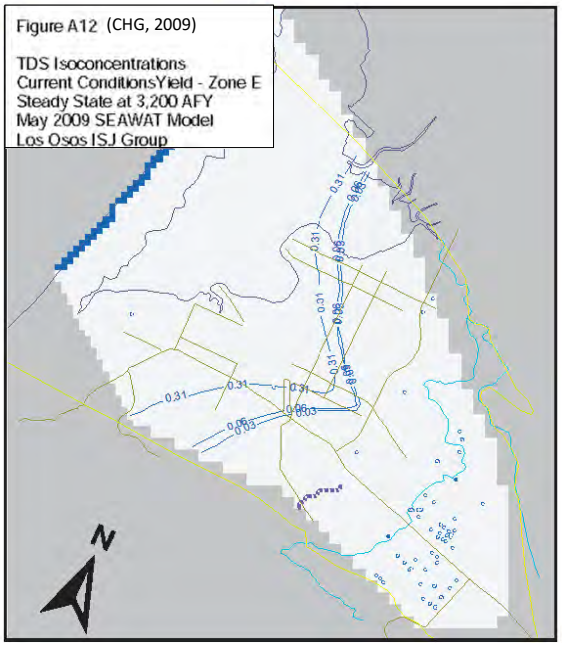
- The model has **never been used to** calculate sustainable yield that would **stop saltwater intrusion**.
- The model was used to determine where to move wells to keep them producing acceptable water.
- Page 79 of the Basin Plan: "A scenario is considered sustainable if none of the active wells in the Basin are producing water with chloride concentrations in excess of 250 milligrams per liter."
- The model optimizes pumping at select wells to maximize production and minimize chloride concentration in the producing wells, it does not use actual pumping amounts and locations that occur each year.
- Plans were made, new wells were drilled, new pipelines constructed, and increased water bills were passed onto the citizens of Los Osos to move the wells out of the way of the intrusion, not to stop intrusion.

Sustainable Yield is Wrong, page 2

Despite the main goal of the Basin Plan, the model has never been used to simulate pumping that would STOP saltwater intrusion. It was used to figure out how far east to move the wells to keep them safe, and how to pump from the upper aquifer if the nitrate becomes low enough.

The model simulates sustainable yield every year, and the maximum sustainable yield, by optimizing the pumping at select wells. I assume these are farther from the ocean and in the upper aquifer, but I do not know that because the details of the model simulations are not in the Annual Reports.

The citizens of Los Osos were assured by plans to stop intrusion, even when they had to pay more to move wells and build pipelines.

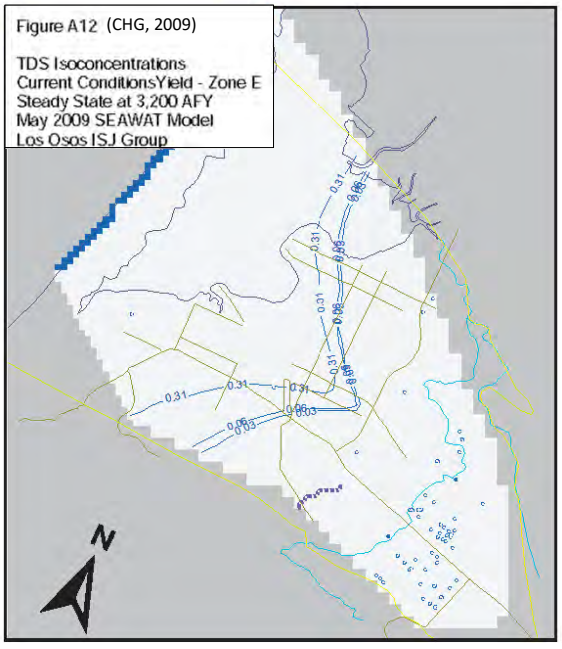


- For at least 14 years, from the beginning of the ISJ Group in 2008 continuing with the LOBMC through 2021, sustainable yield was based on a model that allowed saltwater to intrude over the most productive areas of the Los Osos Basin.
- This violated the Stipulated Judgment (2015) and a primary goal of the Basin Plan.

Sustainable Yield is Wrong, page 3

This figure from the 2009 memo documenting the groundwater model shows the intrusion allowed under maximum “sustainable” yield.

The water purveyors and the County knew that the plans to move the wells would not stop saltwater intrusion, and yet they continued to implement those plans instead of figuring out how to stop intrusion.



- The **maximum sustainable yield** calculated by the model was never meant to stop saltwater intrusion.
- A recent email from Nicole Ellis indicates SLO County seems unaware of this*: "The current sustainable yield is substantially below the maximum sustainable yield which provides further opportunity for Basin Plan projects."*
- Moving wells east will increase saltwater intrusion through large parts of the basin.

Sustainable Yield is Wrong, page 4

The County Planning Department seems to think additional development could occur if enough projects can be completed to attain maximum sustainable yield. Again, this figure shows increasing saltwater intrusion with that much pumping, not sustainability.

Cleath-Harris Geologists, Inc. 2009

- "These **hypothetical examples** were chosen by Cleath-Harris Geologists in order to test the basin yield under various potential future scenarios, and do not necessarily represent pumping patterns that are planned or agreed-upon by the water purveyors."
- "Balancing the basin, however, requires a significant redistribution of pumping between the upper and lower aquifers. These aquifers are not independent, and **yield values should be interpreted accordingly**." (CHG, 2009)
- "Under any balanced basin scenario, shutting down lower aquifer production wells may significantly affect system peaking capacity, since upper aquifer wells generally do not have as high an instantaneous discharge capacity as lower aquifer wells. Planning for nitrate removal or blending is also more challenging with less lower aquifer yield."

Sustainable Yield is Wrong, page 5

The estimates of maximum sustainable yield, and the saltwater intrusion that it would cause, were not based on real pumping locations and amounts. The effects of shifting more pumping to the upper aquifer may also have unknown and unintended consequences.

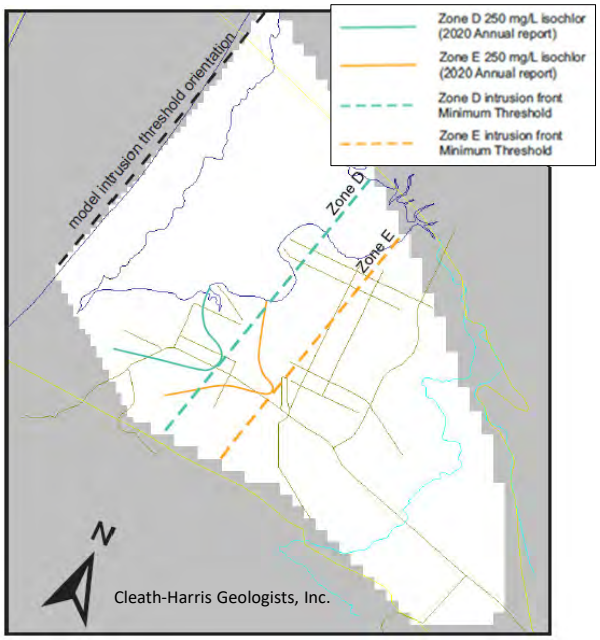
An Improved Goal

- In September 2021, LOBMC staff proposed that the model use "an alternative approach, which would not allow seawater to intrude further than has been observed to-date."
- "The Sustainable Yieldx would be calculated as the amount of water that could be extracted from the basin, with existing infrastructure, without causing seawater to intrude further than the current extent and with no active well producing water with a chloride concentration above 250 mg/L."
- As shown on the figure presented by LOBMC staff in September 2021, this **alternative approach also continues to allow saltwater intrusion**.

Sustainable Yield is Wrong, page 6

In 2015, the LOBMC Basin Plan stated the main goal is to stop saltwater intrusion. That has not been done. Finally, in 2021, they modify the model definition of sustainable yield. This is the definition County Planning seems to be using as written in the email from Nicole Ellis.

The figure is discussed on the next page.



- The new definition of "stop", still allows additional saltwater intrusion over much of the Los Osos Basin.
- This figure assumes no saltwater intrusion from Morro Bay
- As explained earlier, water-level data indicate the lower aquifer is connected to Morro Bay.

Sustainable Yield is Wrong, page 7

The new definition of "sustainable" still allows saltwater intrusion over large parts of the Los Osos Basin, so is still creating overdraft.

Summary of Why Sustainable Yield Calculated by the Model is Wrong

- The model is out-of-date.
- The model has never been calibrated to transient conditions.
- The model is simulating "hoped for" pumping, not actual pumping.
- The model is underestimating saltwater intrusion.
- Uncertainty in the model estimate of sustainable yield has never been quantified.
- Despite these issues, **the model is the only thing the County Planning Department is using** to determine the basin is not in overdraft.

Sustainable Yield is Wrong, page 9

I have presented a lot of information about the model-calculated sustainable yield. Here is a recap of the major problems.

Source of Water to Wells

- All water discharged by wells is balanced by a loss of water somewhere (Theis, 1940).
- This loss is always to some extent and in many cases largely from storage in the aquifer, creating drawdown and lower water levels.
- After sufficient time has elapsed for drawdown to reach the areas of natural discharge, further discharge by wells will be made up in part by decrease in the natural discharge to the Morro Bay Estuary, Los Osos and Warden Creeks, or the ocean.
- Moving the wells east may increase the risk to Morro Bay National Estuary by reducing fresh water inflow from groundwater, Los Osos Creek, and Warden Creek to the estuary.

All water pumped from the basin used to flow to the ocean or Morro Bay Estuary. Only about ¼ of the water now being pumped recharges the aquifer at Broderson and Bayridge Estates leach fields. The basin plan and annual report claim that this recharge will increase the sustainable yield, but this amount of recharge is much less than when septic tanks were in use.

The loss of storage in the aquifer is why the contours I showed earlier indicate a large portion of groundwater in the basin is flowing to the production wells. The letter I previously sent to the Supervisors and CCC had more detail and more references about the basic effects of groundwater pumping on the aquifer system and connected surface water features.

To my knowledge, the Basin Plan, Annual Reports, and SLO County Planning Department have never commented on the loss of freshwater flow to the Estuary as a result of groundwater development.

Conclusions

- I have shown that the Chloride Metric is higher than it has ever been and shows a strong upward trend. This indicates worsening saltwater intrusion, not sustainability; the metric is **not** "trending in the right direction".
- I have listed statements from the latest Los Osos Basin Management Committee Annual Report that saltwater intrusion is worsening, despite the low Basin Yield Metric in 2023.
- I have described several possible reasons why the LOBMC model is not accurately predicting sustainable yield.
- Current groundwater pumping in the Los Osos Basin is not sustainable and development should not occur until it is.

As an alternative to the last bullet point, if County Planning and County Supervisors wish to proceed with development in spite of the data, and in defiance of California Department of Water and the Superior Court of California, they need to admit to the public that they know saltwater intrusion is worsening, but that development is more important.

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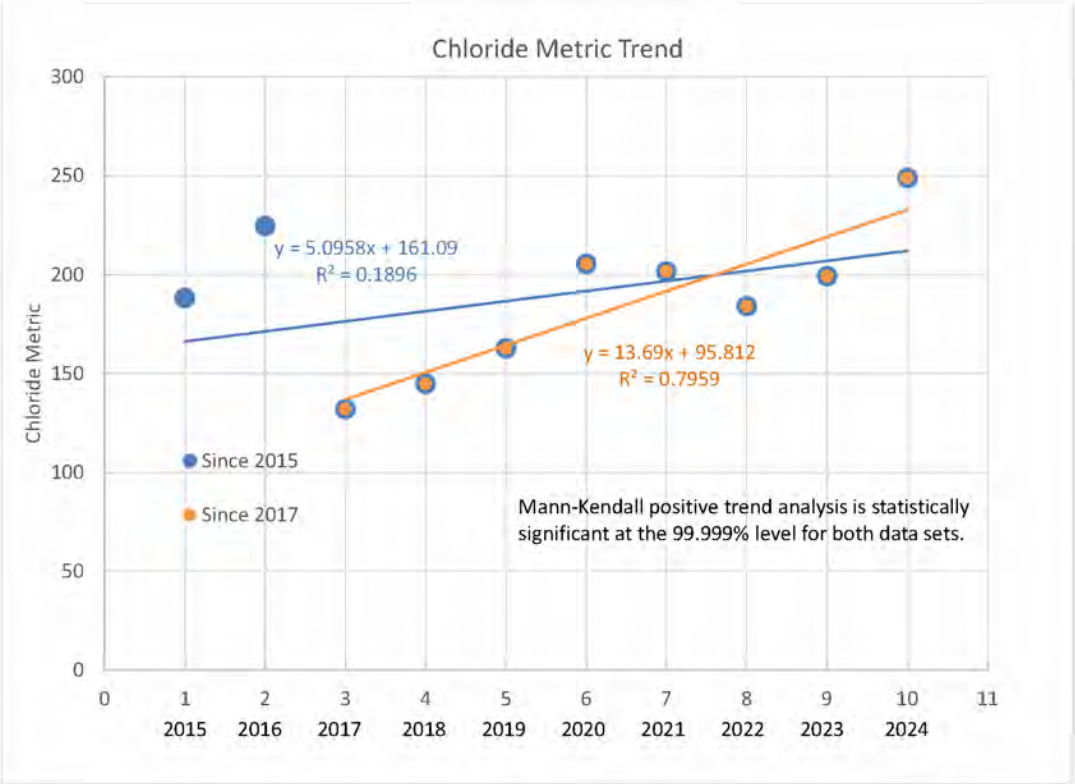
Chloride Metric Trend
Chloride Metric
300
250
200
150
100
50
0
0
1
2
3
4
5
6
7
8
9
10
11
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
y = 5.0958x + 161.09
R² = 0.1896
y = 13.69x + 95.812
R² = 0.7959
Since 2015
Since 2017
Mann-Kendall positive trend analysis is statistically significant at the 99.999% level for both data sets.