

## We Only Get One Shot with the Los Osos Groundwater Basin

By Gianna Patchen

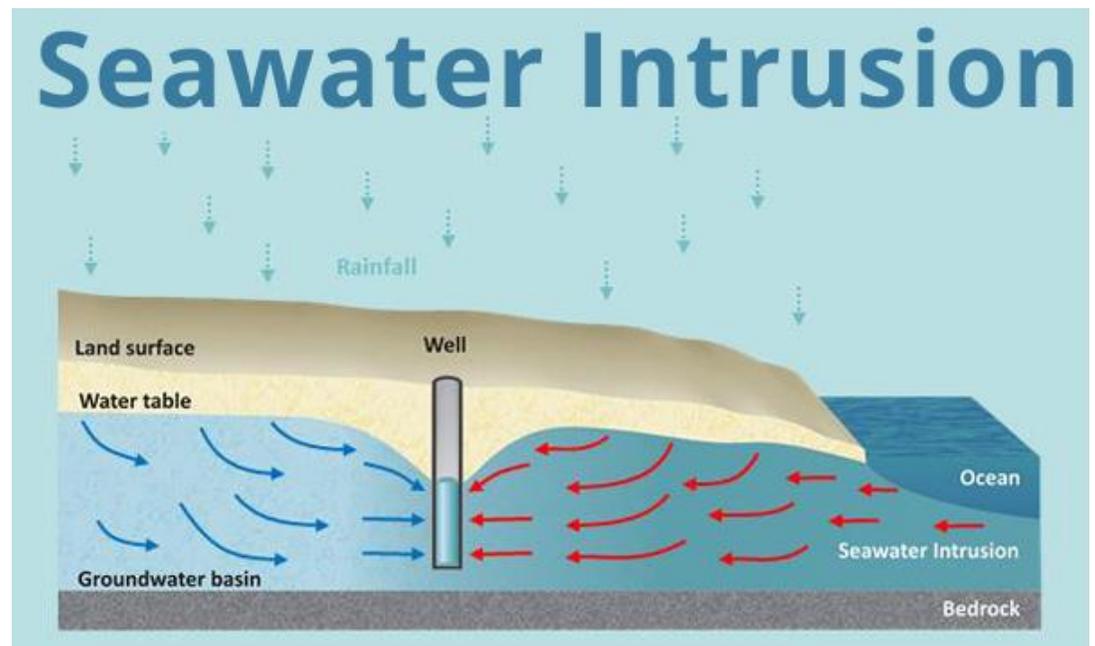
Residents of Los Osos are no strangers to the impacts of a threatened water supply. Water conservation and drought-tolerant landscaping are common and necessary practices in the community. Their decades-long struggle continues, as they try to protect their only

water source, the Los Osos Valley Groundwater Basin. As written, the proposed Los Osos Community Plan (LOCP) would only exacerbate the various stressors on the basin and contribute to its instability.

Decades of nitrate pollution did not instantly disappear when Los Osos opened its wastewater treatment plant in 2015. Water quality tests on the basin continue to show up positive for nitrates, a lingering repercussion of Los Osos' history. While water quality in the basin is seeing some improvements, recovery requires time and continuous monitoring.

The greatest ongoing threat to the Los Osos Valley Groundwater Basin is seawater intrusion. This occurs when ocean water leaks into the basin and contaminates the freshwater. Overdrawing water from the basin is one of the main causes of this. The level of water in parts of the basin is now below sea level, which contributes to increased rates of seawater intrusion. After a certain level of seawater intrusion, the impacts become irreversible. For this reason, proper management and caution are essential to the livelihood of the Los Osos Community.

The proposed Los Osos Community Plan (LOCP) would lead to a 30% population increase over 20 years. There are potential benefits of this growth, especially the promise of more



affordable housing. However, this plan heavily assumes that the water basin is reliable, which has not been confirmed, and that if the development turns out to be unsustainable it can be scaled back before triggering unrecoverable seawater intrusion. This misplaced confidence leaves the entire Los Osos community at risk, from current residents to anyone who would move there as a result of the LOCP.

Advocates for the LOCP claim that development can happen without threatening the basin. These claims hold little weight or evidence. All three of Los Osos' water purveyors expressed their concern for the stability of the basin. The Vice President of S&T Mutual Water Company, Chris Gardner, said, "We do not believe these supplies to be sustainable now. Progress is materializing, but we are fearful that 'turning on the tap' of development, without greater margins of safety, will lead to unnecessary harm and expense." The concern of local water purveyors should be a glaring indicator that the basin cannot handle more pressure. The aquifer has not even proven stable for the current population of Los Osos, let alone growth of 30%.

On December 15, the County Board of Supervisors approved the plan, which must now be reviewed and approved by the Coastal Commission. Delaying the LOCP is an option. The plan can be readdressed when the stability of the basin can be confirmed. Careful and deliberate growth is the only sustainable way to move forward. Waiting 5 years would allow time to properly monitor the aquifer and determine how the water quality is fluctuating. If recovery has been successful, then the Los Osos Community Plan can be revisited.

In the end, no one will benefit from the Los Osos Community Plan if we cannot guarantee access to clean water. The Los Osos Valley Groundwater Basin has been subjected to many threats for over 40 years. Now is the time for patience and recovery in order to ensure the stability of the community.

Let the Coastal Commission know: Ignoring the reality of the Los Osos water basin puts the entire community and its wealth of environmentally sensitive habitat at risk.

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## **Los Osos and Sea Water Intrusion**

*By The Los Osos Sustainability Group*

A November 2019 technical memorandum (TM) prepared for the Basin Management Committee (BMC) found seawater intrusion in Zone E to be moving inland at a northern location where it was not previously detected, indicating it could be moving into the Basin across a wider front. The 2019 TM, entitled "Lower Aquifer nitrate concentrations trends review and LA11 seawater intrusion evaluation," warns that Zone E seawater intrusion can "upcone" into Zone D, contaminating Zone D wells, and the Los Osos Groundwater Basin Plan (Basin Plan) states that the clay layer separating Zone D from Zone E may be "discontinuous" (See TM, p. 8; Basin

Plan, p. 64). Thus, Zone E intrusion is not only threatening the largest aquifer (Zone E) but also Zone D, which currently supplies most of the community's water supply.

[The 2019 Annual Monitoring Report](#) prepared for the BMC provides “a generalized plan view interpretation” of the Zone E seawater intrusion front because the current Basin monitoring program has an insufficient number of monitoring sites to accurately map the intrusion front. The “generalized...interpretation” shows the Zone E front extending under several Zone D community supply wells to a point just west of the commercial area where several major purveyor supply wells have formed a very large pumping depression in the lower aquifers. (See the 2019 Annual Monitoring Report, e.g., pp. 49, 54-55, Figures 11 and 14, and Appendix D, Figure D6.)

The most recent chloride monitoring results and a graph of Water Level and Chloride Metric trends from spring 2020 show that seawater intrusion is advancing in lower aquifer Zones D and E. After showing signs of improvement in 2017 and 2018, the Chloride Metric, which the BMC uses as an indicator of seawater intrusion, has risen from 145 mg/l in fall of 2018, to 163 mg/l in fall of 2019, to about 180 mg/l in spring of 2020, indicating worsening conditions: [WL and CL Metrics, Spring 2020 Draft](#)

*The Annual Monitoring Reports, November 2019 TM, and Basin Plan can be found at [https://www.slocounty.ca.gov/Departments/Public-Works/Committees-Programs/Los-Osos-Basin-Management-Committee-\(BMC\).aspx](https://www.slocounty.ca.gov/Departments/Public-Works/Committees-Programs/Los-Osos-Basin-Management-Committee-(BMC).aspx)*