



July 26, 2019

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Via email: [howard.kolb@waterboards.ca.gov](mailto:howard.kolb@waterboards.ca.gov)

**Re Santa Barbara County Groundwater Characterization Project: Santa Ynez River Valley Groundwater Basin, June 18, 2019**

Dear Mr. Kolb:

The Los Olivos Community Services District (District) appreciates the opportunity to provide comments on the Central Coast Regional Water Quality Control Board's, Santa Ynez River Valley Groundwater Basin Characterization Project data summary (Summary) and aggregation of existing data.

However, the document provides no new data nor policy guidance for our District.

The summary does serve to further underscore the need for additional groundwater characterization to establish a targeted and strategic solution to wastewater management and groundwater protection within the District and the broader community. Further groundwater characterization is included in the Project Description the District is currently preparing and finalizing no later than September 2019.

**No Drinking Water Impacts Are Identified from Los Olivos Onsite Wastewater Treatment Systems (OWTS)**

While it is known that Los Olivos has areas of high OWTS density and an historic record of system failures (4.3% of the total systems), the Summary confirms that:

- **No statistically valid characterization of the upgradient sources contributing to nitrate migration is presented, nor does the Summary provide confirmation that drinking water beneath and downgradient of Los Olivos is negatively impacted.**
- **Because of their location and depth, the water quality issues with ID#1 wells are influenced more by upgradient sources than by water quality issues in the immediate vicinity of Los Olivos**
- **No formal indication that drinking water has been directly impacted by Los Olivos OWTS's can be made** based on ID#1, County and Board sampling The Summary's high-density finding has been well recorded in numerous previous documents pertaining to historic conditions in Los Olivos. The 2003 Septic System Sanitary Survey for Santa Barbara County Summary established that there are a large number of small to very small lots in Los Olivos and that perched water zones

5-15 feet below ground surface (bgs) may be impacted by nitrates. Zones of perched water are not used for domestic drinking water wells.

### **No Basis for a Groundwater Impairment Determination is Presented**

This District, along with other County entities, had been informed that a Summary was forthcoming and would include a formal determination that the groundwater basin or sub-basin in the County and specifically underlying Los Olivos, where the use of OWTS is or is not causing or contributing to exceedances of nitrate or pathogen maximum contaminant levels (MCLs).

This Summary is not the expected formal regulatory determination of impairment or degradation nor does it form the basis to allow a determination of this magnitude to occur.

As a determination that the basin, particularly in Los Olivos, was or was not impacted has not occurred, status and mitigation requirements remain undetermined and the County or local agency, will not be required by the Board to proceed with development of an Advanced Protection Management Program (APMP) AGPMP in accordance with the Santa Barbara County Public Health Department Local Agency Management Program (LAMP).

### **Validates Need for Further Groundwater Characterization Which the District is Currently Pursuing**

Our District was formed in 2018 to develop an economically acceptable, technically feasible, environmentally preferred and timely solution to the potential impacts of OWTS density. We have developed a proposed programmatic approach that has already met with regulatory endorsement and community support and will have a formal project description by September 1 2019.

One of the fundamental tenants of our project approach is reinforced by this Summary - as well as by previous assessments, plans and feasibility studies developed specifically for Los Olivos – that further statistically valid characterization of the current groundwater conditions is necessary to determine the location and extent of potential groundwater impacts associated with OWTS in and around Los Olivos.

The Summary validates the need for:

- Additional targeted upgradient source investigations,
- Data gap analysis to include infiltration rates, permeability and other geotechnical parameters not used by the HTO intern for valid modeling performed to support this Summary, and
- Significant groundwater characterization efforts conducted and funded by the State of California, Board and County.

Following are excerpts from the Report substantiating this requisite.

- *“That OWTS density or other potential sources of nitrate appear to have little impact on groundwater nitrate concentrations.”*
- *In areas where the OWTS density is greater than 100 units/mi<sup>2</sup>, such as near the town of Los Olivos, there are more wells whose median concentration is less than 4*

*mg/L relative to wells whose concentration is greater than 6 mg/L - Below regulatory limits.*

- *Agricultural production occurs near or upgradient from many of the highest density OWTS areas (in Los Olivos) and can't be excluded as a possible source of groundwater nitrate.*
- *The Summary confirms upgradient sources and subsurface conditions (Figure 3) are impacting groundwater in and downgradient of Los Olivos.*
- *This analysis should be regarded as a first-order assessment which will guide more targeted future investigations and additional subsequent targeted sampling and/or modeling, because nitrate is a nonunique indicator of OWTS pollution.*
- *In the five wells located upgradient (north) of the town (Los Olivos), the nitrate concentration was found to range from 4.0 to 28.0 mg/L.*
- *One observation from this map (Figure 9) is that there are a substantial number of wells with nitrate concentrations less than 4 mg/L, which suggests that groundwater quality is fairly good in most parts of the basin.*
- *Results of this work indicate the highest OWTS density and highest OWTS risk occur near the towns of Los Olivos, Santa Ynez, and Janin Acres. In addition, the risk model provides new information that indicates that the Lompoc Plain and the foothills northeast of Los Olivos may also be at risk from OWTS pollution.*

Additionally, purpose-built groundwater monitoring wells with a discrete vertical sampling horizon and low pumping rates would allow for the collection of samples that can provide information on a narrower spatial and temporal range and allow for better characterization of potential pollutant sources such as OWTS.

### **Non-Standard Groundwater Vulnerability Model invalidates findings for Los Olivos**

The Summary states:

*"In order to identify areas that may be especially vulnerable to pollution from OWTS and to prioritize subbasins for further investigation, the location and density of OWTS in the SYRV groundwater basin were mapped and a model was created that could provide a risk rating of potential OWTS groundwater pollution."*

The DRASTIC model is commonly used to evaluate the potential (not actual) of groundwater vulnerability. Any results are meant to be a regional hydrogeological screening-level tool that help prioritize areas for more detailed analysis of site-specific conditions. It is not intended for formal identification of local area contaminant identification such as summarized for Los Olivos, without being calibrated with complete site-specific geo and hydrological data, including hydraulic conductivity of the aquifer (the "C" in DRASTIC).

As stated in the Summary, three important changes were made to the industry standard DRASTIC approach that preclude any valid findings specific to Los Olivos.

1. Aquifer hydraulic conductivity was not incorporated in this assessment due to the lack of data for all of the aquifer locations within the SYRV basin.

2. OWTS density was added as an additional risk factor to this model so that pollution potential maps could be created specific to risks posed by OWTS.
3. The weight of some of the parameters was reduced from that described in the original DRASTIC publication in order to account for data scarcity for a particular parameter. Reducing the weight is an approach for accounting for the uncertainty associated with a data-poor parameter and results in the parameter having a lower impact on the final risk model

In order to allow for a valid modeling effort specific to local areas such as Los Olivos, or any other discrete areas of the basin using a standard model such as DRASTIC, site specific information is critical. The District does not pass judgement on the professionalism of these errors or why they were allowed to become the basis for the modeling in a cooperative Summary with the Board. However, conclusions presented in the Summary, can and should only be used as opinions from a third-party based on skewed interpretation of limited existing data.

### **Creditability of Summary Information**

Finally, the District considers the Santa Ynez River Valley Groundwater Basin Summary only a basic, desktop review of existing historical groundwater data available for the Santa Ynez River Valley groundwater basin. The Summary itself states:

*“This analysis should be regarded as a first-order assessment which will guide more targeted future investigations and additional subsequent targeted sampling and/or modeling, because nitrate is a nonunique indicator of OWTS pollution”.*

Furthermore:

- The Summary was prepared by a student intern funded by the non-governmental organization Heal the Ocean (HTO) and the technical analysis was only overseen by technical staff from the Central Coast Regional Water Quality Control Board (Board).
- The technical interpretations of the data were based on judgment of a third-party intern, presuming that the intern-collected data was accurate.

This Summary is an aggregate of existing data and cannot be considered a regulatory guidance document or form the basis of any regulatory driven decision by the Board or the Santa Barbara County Public Health Department (County).

### **Conclusion**

The District is proactively moving forward with a near-term solution to address the OWTS impacts in the dense town core as well as developing a long-term strategy to minimize and potentially mitigate nitrate levels in the groundwater and vadose zone. We are not attempting to refute or confirm the source of nitrate impacts only to state that:

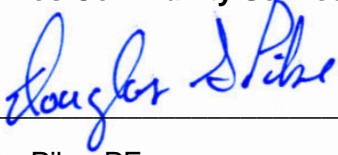
- This Summary does not make the determination that drinking water has been directly impacted by OWTS in Los Olivos,
- Additional targeted upgradient source investigations are required in Los Olivos and to be done in collaboration with the State of California, Board and County, and

- Significant groundwater characterization efforts are necessary by the State of California, Board and County in the Community of Los Olivos.

If you have any questions, please contact me at [dpike@mnsengineers.com](mailto:dpike@mnsengineers.com) or (805) 331-3553.

Sincerely,

**Los Olivos Community Services District**



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Douglas Pike, PE  
Interim General Manager  
Los Olivos Community Services District

cc:

Fay, Larry - Santa Barbara County EHS  
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