

California Department of Water Resources  
Katherine Dlubac  
[Katherine.dlubac@water.ca.gov](mailto:Katherine.dlubac@water.ca.gov)  
July 6, 2021

**Re: Letter requesting that the Department of Water Resources consider conducting airborne electromagnetic surveying of the Los Osos groundwater basin in San Luis Obispo County**

Dear Ms. Dlubac,

We the members of the Los Osos Community Advisory Council<sup>1</sup> are writing to request that the Department of Water Resources (DWR) please consider including the Los Osos Groundwater Basin in the upcoming airborne electromagnetic (AEM) surveying scheduled for San Luis Obispo County. Prior to 2019, DWR had identified the Los Osos Valley groundwater basin as a High Priority basin subject to critical conditions of overdraft, seawater intrusion, and nitrate impairment. However, due to the fact that our Basin is under a 2015 Interlocutory Stipulated Judgement (i.e., adjudicated), we are no longer classified as “High Priority” according to DWR’s basin prioritization. As a result, we are not automatically included in the AEM surveys for the San Luis Obispo area.

The critical conditions of overdraft, seawater intrusion, and nitrate contamination that originally caused DWR to classify the Los Osos groundwater basin as High Priority have not changed. According to the 2020 annual report of the Los Osos Groundwater Basin Management Committee (BMC), the condition of the basin continues to deteriorate and has yet to meet the target values set out by the management committee in 2015.

Our community is comprised of residents from a diverse range of financial standings. The Los Osos groundwater basin is the sole source of drinking water for the 16,500 people who live here. Some portions of Los Osos would most certainly qualify as Disadvantaged Communities and these populations would bear a disproportionate expense if water had to be secured from outside the basin.

It is critical that decisions by the BMC regarding management of the basin be based on the best available information. Geophysical data acquired by AEM surveying would vastly improve the BMC’s understanding of basin hydrogeology. This would allow the BMC to better understand precisely how to implement management strategies for mitigating both seawater intrusion and nitrate contamination. Specific examples of how AEM surveying would provide benefit to management of the basin are described in Attachment 1.

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<sup>1</sup> The Los Osos Community Advisory Council is the voice of the community for all land use issues affecting Los Osos. We are an 11-member volunteer group that advises the San Luis Obispo County Board of Supervisors, the County Planning Commission, and County staff on land use planning, trees & landscaping, traffic and circulation and other important issues that affect Los Osos. The LOCAC webpage can be accessed via the following link: <http://locac.info/>

The LOCAC understands that DWR is actively soliciting comments from stakeholders statewide regarding additional basins that should be considered for AEM surveying outside of those classified as medium or high priority under the Sustainable Groundwater Management Act (SGMA). We also understand that some of the first basins in the state to receive this surveying are located in San Luis Obispo County, which adds some urgency to our request for the Los Osos Basin be included in the AEM surveys of nearby basins. We appreciate your willingness to consider our request and thank DWR for its efforts to manage water resources statewide.

If you have questions about this request or wish to discuss further with members of LOCAC please contact Deborah Howe at (559) 960-0607 or at [dancinhorse@gmail.com](mailto:dancinhorse@gmail.com) or James Bishop at (808) 351-2559 or at [jbishop4@gmail.com](mailto:jbishop4@gmail.com).

Respectfully,

The Los Osos Community Advisory Council:

Chair Trish Bartel, Vice Chair Sandra Sarrouf, Secretary Sue Morgenthaler, Communications Officer Lynette Tornatzky, Larry Bender, Yael Korin, Jan Harper, Deborah Howe, James Bishop, Jim Stanfill, Tim Carstairs.

The Ad-hoc Water Committee:

Deborah Howe, James Bishop

# Attachment 1

## Specific Benefits of AEM Surveying in Los Osos

AEM surveying could provide information that would help resolve uncertainty surrounding three critically important components of basin management

### **EXTENT OF SEAWATER INTRUSION**

AEM surveying is widely known to be very sensitive to differences in salinity and is an excellent tool for mapping the spatial extent of seawater intrusion. Although it is commonly known that the Los Osos groundwater basin is experiencing seawater intrusion, the discrete salinity data collected from individual wells makes it difficult to understand how laterally and vertically extensive seawater intrusion is. AEM surveying could provide spatially continuous information to complement the discrete data collected from wells and aid the Basin Management Committee in better understanding the severity of the seawater intrusion problem.

### **THE EFFECTIVENESS OF RECHARGE AT BRODERSON LEACHFIELD**

AEM surveying has proven valuable in mapping subsurface stratigraphy and in particular, the spatial extent of hydraulically confining clay units. One strategy currently implemented as an attempt to mitigate and/or reverse seawater intrusion is the use of the Broderon Leachfield to percolate recycled water into the lower aquifers where seawater intrusion is occurring. It is unclear whether the regional aquitards that separate the upper and lower aquifers in many parts of the basin are sufficiently transmissive/leaky beneath Broderon Leachfield to allow recycled water to recharge the lower aquifers and thus mitigate seawater intrusion. AEM surveying may prove useful in understanding the degree to which hydraulic connectivity exists between the ground surface and the lower aquifers at Broderon Leachfield.

### **NITRATE CONTAMINATION OF WATER SUPPLY WELLS**

The S&T Mutual Water Company is experiencing increasing amounts of nitrate contamination in its water supply wells and if the trajectory continues, the wells will exceed drinking water standards within the next 10 to 30 years. It is possible that unsewered portions of Los Osos in close proximity to the S&T Mutual Water Company wells are the source of nitrate observed in these wells. However, it is unclear whether the regional aquifer confining units are sufficiently transmissive/leaky to allow sources of nitrate located at the ground surface to migrate to the lower aquifers where the wells are screened. AEM surveying may help inform the extent to which hydraulic connectivity exists between the ground surface and the lower aquifer at the S&T Mutual Water Company wells.