

Bruce Gibson
Supervisor, 2nd District, San Luis Obispo County
bgibson@co.slo.ca.us
July 6, 2021

RE: Letter in support of engaging state representatives and/or agencies regarding the need for airborne electromagnetic surveying to support resource management of the Los Osos groundwater basin

Dear Supervisor Gibson,

The Los Osos Community Advisory Council (LOCAC) has learned that you intend to request that the California Department of Water Resources (DWR) conduct Aerial Electromagnetic (AEM) surveying of the Los Osos groundwater basin as part of the effort that is currently underway to survey many of the groundwater basins in the state. Although the LOCAC has not historically been involved in water resources planning within the Los Osos groundwater basin, we are aware of the critical importance of appropriately managing the basin as it is the sole source of water to our community; and we understand that the basin is under substantial resource pressure due to decades-long over-extraction and contamination. Data acquired from AEM surveying could provide a wealth of information to help better inform management of the basin, and LOCAC is in full support of any efforts you may undertake to encourage the DWR to conduct this surveying in Los Osos. We sincerely appreciate your willingness to engage with relevant state agencies and representatives that may help facilitate this surveying.

The LOCAC also understands that DWR is actively soliciting comments from stakeholders statewide regarding additional basins that should be considered for AEM surveying in outside of those classified as medium or high priority under the Sustainable Groundwater Management Act (SGMA). As such, your involvement in this matter is paramount. We also understand that some of the first basins in the state to receive this surveying are located in San Luis Obispo County, which also makes the timing critically important.

The LOCAC has identified a few specific components of basin management that could substantially benefit from data acquired by AEM surveying. (**Please see page 3 SPECIFIC BENEFITS OF AEM SURVEYING IN LOS OSOS.**) Since you are a member of the Basin Management Committee (BMC), we recognize you are likely aware of the potential benefits outlined below and we merely offer a description of the benefits as talking points for you to use when participating in discussions with state agencies and/or representatives.

The LOCAC understands that you intend to engage in discussions regarding this matter with Senator Laird and we appreciate your willingness to engage the senator. In addition to Senator Laird, we suggest you might also contact the staff person in charge of AEM surveying at DWR, Katherine Dlubac (Katherine.Dlubac@water.ca.gov).

The LOCAC plans to send letters similar to this one to Senator Laird and to Ms. Dlubac of the DWR.

Again, the LOCAC thanks you for your continued stewardship of water resources in the Los Osos groundwater basin and appreciates your willingness to engage state representatives and/or agencies to request AEM surveying in the basin. We are willing to support you in any way we can.

Please don't hesitate to contact us if there's anything we can do or to discuss this matter further, please contact LOCAC Council members Deborah Howe at (559) 960-0607 or at dancinhorse@gmail.com or James Bishop at (808) 351-2559 or at jbishop4@gmail.com.

Sincerely,

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

Specific Benefits of AEM Surveying in Los Osos

The 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. With respect to Broderon Leachfield, 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 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

AEM surveying has proven valuable in mapping subsurface stratigraphy and in particular, the spatial extent of hydraulically confining clay units. This information can help to resolve uncertainty regarding hydraulic connectivity leading to nitrate contamination of water supply wells owned by S & T Mutual Water Company. At issue is whether the nitrate contamination is caused by the unsewered portions of Los Osos. It is unclear whether the regional aquitards are sufficiently transmissive/leaky to allow sources of nitrate located at the ground surface in proximity to the S&T Mutual Water Company wells to migrate to the lower aquifers where the wells are screened