



PUBLIC WORKS DEPARTMENT

123 E. Anapamu St. • Santa Barbara, CA 93101
(805) 568-3000 • FAX (805) 568-3019
www.countyofsb.org/PWD

**PRESS RELEASE
NOV 2, 2020**

Contact: Matt Young
Water Resources Program Manager
(805) 568-3546; mcyoung@cosbpw.net

COUNTY TO CONDUCT GROUNDWATER SURVEY FLIGHTS

(Santa Barbara, California) – Residents of the Santa Ynez and Lompoc Valleys may see an unusual sight in the skies this November: a low-flying helicopter carrying a large hexagonal frame. This unique equipment is part of a project to map aquifers and improve our understanding of groundwater in the area. The project is being conducted by Santa Barbara County and the Santa Ynez River Water Conservation District in cooperation with the local water agencies that comprise the three Groundwater Sustainability Agencies in the Santa Ynez River Valley Groundwater Basin.

During the Aerial Electromagnetic Method survey (AEM), instruments suspended approximately 100 feet above the ground use an electromagnetic signal to measure the subsurface. The signal interacts with the geologic materials below the ground, stimulates a response from those materials, and generates another signal that is picked up by receivers. The technology allows for fast data acquisition from the air. Data are continually acquired while the helicopter makes its 600-mile flight between 50 to 75 miles per hour. This process produces images that reveal the detailed variation in the earth's electrical properties, down to 1,000 feet below the land surface. When combined with well data and knowledge of the geology, these data will refine understanding—in three dimensions—of the geographic extent of sands, gravels, and clays that make up the aquifers of the regional groundwater system.

Many protocols are in place to ensure the safety of the mission. The airborne geophysical survey will be conducted by pilots who are specially trained for low-level flying. The helicopter will not fly over businesses, homes, other inhabitable structures, or confined animal feeding operations. The intensity of the magnetic field generated by the AEM transmitter is below 1% of the accepted general public exposure level. At 60 hertz, the magnetic field experienced by standing next to the transmitter is the same as standing 1 foot away from a toaster. Similar AEM surveys have been conducted throughout California with no reported ill effects to humans or animals. Flights are scheduled to occur for five to seven days beginning November 15. However, the flight period may be extended. Please visit www.santaynezwater.org/aem-survey-ema for up-to-date information.