

A. PROJECT SUMMARY

This project scope, developed by Luhdorff & Scalmanini Consulting Engineers (LSCE), and administered by the Lake County Watershed Protection District, includes an evaluation of the local aquifer conditions and storage potential in Scotts Valley.

SCOPE OF WORK

This scope of work described below includes five tasks developed to meet the needs of the Project:

- Task 1. Background Information Review: Review Scotts Valley specific information. The BVIHM was calibrated and assessed for Big Valley. Additional data from Scotts Valley will minimize uncertainty of storage estimates. Information requested for this task to any local agencies or stakeholders include:
 - Locally obtained groundwater elevation data
 - Aquifer test, step-drawdown test, or any other pumping information within Scotts Valley
 - Location and volumes of future extractions
- Task 2. Incorporation of Scotts Valley Specific Data: Incorporate additional information from Task 1 into the BVIHM. Updates to the model will allow for better estimates of aquifer characteristics.
- Task 3. Evaluate Aquifer Inflows, Outflows, and Storage: Water budgets specific to Scotts Valley will be developed. Recharge in natural vegetation, stream flows into the valley, and groundwater interactions with Clear Lake will be included within the water budget. The total aquifer storage will be calculated and compared against published values from DWR Bulletin 118.
- Task 4. Pumping Scenario Evaluation: With input from local agencies, a scenario will be developed that explores the impact of additional pumping for municipal demand (i.e., increase pumping in the City of Lakeport).
- Task 5. Develop Technical Memorandum and Presentation: A technical memorandum (TM) will be prepared to summarize key points relating to:
 - Outlining updates to the BVIHM
 - Detailing the water budget terms and interactions based on the BVIHM
 - Estimating the amount of water available in storage in Scotts Valley
 - Assess the impacts of additional municipal pumping
 - Cumulative impact of water uses to surrounding areas due to project operations
 - Prepare for and present at two public meetings
- Task 6. Monitoring Well Installation: If needed based on preliminary assessment research, LSCE will retain a licensed C-57 well drilling contractor to drill and construct up to 3 monitoring wells. The monitoring wells will be located in close proximity to Clear Lake. All work performed by the contractor will be overseen by LSCE to ensure that it is performed in accordance with project specifications. LSCE will provide onsite drilling and sampling inspection and general project oversight. LSCE will provide documentation and sampling services during the test hole drilling process, including preparation of a drilling log, collection of lithologic samples at a

minimum of 10-foot intervals at each of the monitoring sites. All work will be performed by a California Professional Geologist or by experienced personnel under the direct supervision of a California Professional Geologist. LSCE will develop final monitoring well designs based on data gathered during test hole evaluation. The principal design elements will include screen, casing, and seal depths. The piezometers will be constructed of 2-inch diameter, Schedule 40 PVC blank casing. The screen sections will be of the same material and will have machine cut 0.040-inch slots. A No. 8 gradation gravel will be placed in the annulus between the casings and the borehole wall. A sand/cement grout sanitary seal will be placed from a minimum depth of 20 feet to ground surface, pending any modifications needed due to the actual conditions encountered.

LSCE will verify that the monitoring wells are constructed as designed and according to accepted industry standards and regulatory requirements. Measures will be taken to ensure monitoring well security and public safety. LSCE will witness well development and verify completeness.

LSCE will ensure that the contractor complies with all discharge, permit, and site cleanup and restoration requirements.

- Task 7. Monitoring Well Letter Summary Report: LSCE will prepare a well construction summary letter report for each monitoring well which will include an as built well profile, lithologic descriptions of the formations encountered, a California Well Drillers Completion Report.