

El Rio Groundwater Contamination Elimination Project (SC-1)
Project Assessment and Evaluation Plan

The Project Assessment and Evaluation Plan for this project shall consist of a baseline calculation of the annual 219,268 (109.63 tons) pounds of nitrates being introduced by a population of 5840 persons into the groundwater under current conditions. Progress in respect to this baseline shall be by pounds of nitrate known to be removed by decreasing the septic tank effluent. The quantitative approach is necessary because the Oxnard Plain Forebay Basin consists of highly permeable materials that allow water levels to rise and fall rapidly with consequent dilution of the impacts associated with contaminants from septic tanks. This Forebay Basin is also subject to frequent, although normal, changes of groundwater gradient due to routine pumping. Unless the quantitative method is used the qualitative measurement of concentration will be frustrated by residual nitrates in the soil, by varying concentrations due to increases and decreases in groundwater levels and by varying groundwater gradients that change the source of contaminant concentrations.

1. The baseline of water quality will be established by a calculation of the total pounds (tons) of nitrates being introduced into groundwater from all septic tanks in the project area.
2. Progress will be measured by calculating the reduction in the quantity of nitrates (164 lbs/house/year) being introduced into groundwater as each septic tank is replaced by a connection to a central septic system.
3. Septic tanks will be replaced by sewer mains, laterals to each home or business followed by the destruction of each individual septic tank.
4. This project will have a vector effect on the subsurface flow of groundwater flow due to a decrease in the introduction of groundwater recharge from septic tank effluent. Also, the project will reduce the groundwater gradient, however, these combined effects will not alter the relative groundwater flow to a measurable extent.
5. The project will protect the groundwater being used by the residents of El Rio and the greater 200,000 person using this water in the City of Oxnard as well as the farming interests on the Oxnard Plain. The value of this groundwater is in the billions of dollars. Additionally, the project will free up many undeveloped lots that cannot now be developed and will allow second dwelling units to be constructed on an estimated 325 parcels. the collective economic benefit is estimated to be \$6,500,000 in property values alone.
6. The quantifiable effectiveness of the project will be measured by the total tons of nitrates that will be prevented from impacts to groundwater. 100% effectiveness will be achieved when all septic tanks have been removed.
7. Each progress report will include the quantity of nitrates removed and a percentage of project completion as opposed to the baseline of 109.63 tons annually.