

# CUYAMA VALLEY GROUNDWATER BASIN WESTERN BOUNDARY

## **STUDY OBJECTIVE:**

Determine if Russell Fault located about 8.5 miles northwest of New Cuyama, is a hydrogeologic barrier impeding the movement of groundwater flow.

## **RUSSELL FAULT OVERVIEW:**

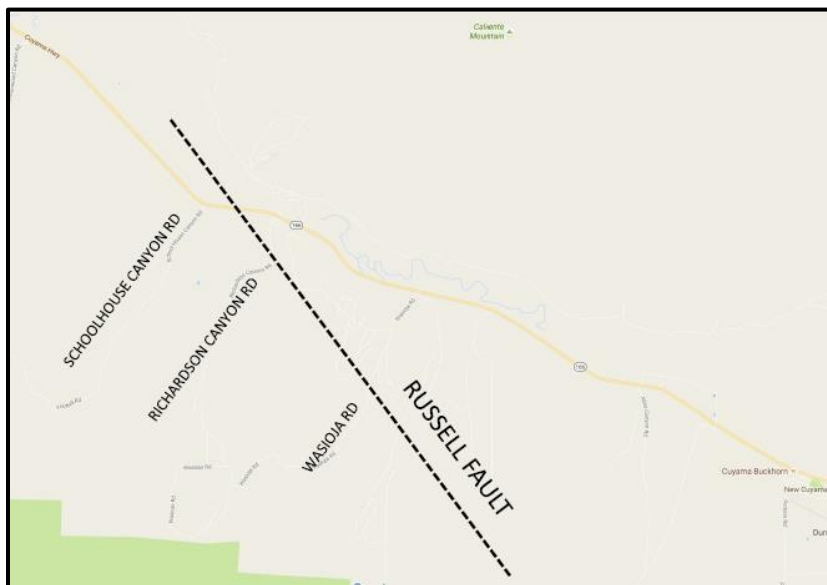
Russell Fault is a sub-surface, right-lateral strike-slip fault, and a controlling structure for the Russell Ranch Oil Field. Studies have been completed which focused primarily on the fault's relationship to oil location and production. No studies however, have fully explored the fault's involvement, if any, to groundwater movement. Recent U.S. Geological Survey investigations and models have used the Russell Fault as a western basin boundary assuming it acts as a barrier to groundwater movement. To further



explore this theory, the Santa Barbara County Water Agency plans to collect groundwater data along the fault to determine the effect, if any, the fault has on groundwater movement.

## **MONITORING IN WEST CUYAMA:**

To accomplish the study objective, groundwater monitoring will be conducted along the east and west sides of Russell Fault, both north and south of Highway 166 (refer to map below). Monitoring will consist of frequent discrete water level measurements, and the collection of continuous water level data in select monitoring wells. The study may further develop into the need for water quality samples and an aquifer test.



## **CONTACT INFORMATION:**

If you or someone you know is interested in participating in this study, or would like to discuss the study in more detail, please contact:

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