



**CALIFORNIA STATE SCIENCE FAIR
2014 PROJECT SUMMARY**

Name(s) Antonio N. Gutierrez	Project Number J1109
Project Title Contamination in Urbanized Water Sources: Lakes, Rivers, and Streams	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals The objective of the project was to determine which water source, between L.A River, Eaton Canyon, or Peanut Lake, was the least contaminated with bacteria, nitrate, and nitrite.</p> <p>Methods/Materials I visited 3 different water sources, on 3 different days. The water sources were L.A River, Peanut Lake, and Eaton Canyon. After collecting from each water source I used a water test kit to test the nitrate, nitrite, and pH levels of each water sample. I also tested for bacterial contamination by swabbing the water and rubbing it on a petri dish. Once I had done that three times for each water source, I then placed the petri dishes in the incubator. After 3 days in the incubator, the bacteria was counted.</p> <p>Results Results showed that Eaton Canyon and Peanut Lake had no levels of nitrite or nitrate found in them, while L.A River had a 0.5 mg/L level of nitrite and a 106.67 mg/L level of nitrate. L.A River had the highest pH level with 8.4, Peanut Lake had pH 8, and Eaton Canyon measured 7.8 on the pH scale. The percentage of bacteria found in L.A River was 82.67% of the petri dish covered, Peanut Lake had 90%, and Eaton Canyon had 66.25%.</p> <p>Conclusions/Discussion My hypothesis was that Peanut Lake would have a lower pH level, and higher levels of everything else. My results don't support my hypothesis. It turned out that water in Eaton Canyon has the highest overall quality when considering pH, nitrate, nitrite, and bacterial contamination. In the future, it might be useful to test water from different lakes, rivers, and streams.</p>	
Summary Statement The project is about contamination in water sources surrounding the L.A area, that come in contact with humans	
Help Received Mother and sister helped collect water; Teacher helped write report; Teacher provided water testing kit.	