



**CALIFORNIA STATE SCIENCE FAIR  
2007 PROJECT SUMMARY**

<b>Name(s)</b> <b>Sebastian J. Revels</b>	<b>Project Number</b> <b>J1031</b>
<b>Project Title</b> <b>An Evaluation of Water In Rose Canyon Creek</b>	
<p style="text-align: center;"><b>Abstract</b></p> <p><b>Objectives/Goals</b> Rose Canyon Creek is a watershed in San Diego County, California. Knowing that Rose Canyon Creek is contaminated is valid information because eventually, the water will empty into other rivers, lakes, and the Pacific Ocean, thereby contaminating additional water sources. The goals of this research on the pollution levels of Rose Canyon Watershed are to become informed of the serious need to monitor and improve the water quality of this watershed and to educate others in the importance of improving all watersheds in our region. This is done through awareness, education, and daily conscientious choices.</p> <p><b>Methods/Materials</b> In order to analyze the problem, two different locations along Rose Canyon Creek were examined and tested for foreign elements. Water was collected in sterilized bottles and transported home. A test kit was used that contained test strips, plastic droppers, plastic test vials and color charts. 144 test strips were used. Testing was done to examine the following elements: free and total chlorine, total hardness, PH and total alkalinity, nitrate/nitrogen, nitrite/nitrogen, iron and copper. Tap water was tested also.</p> <p><b>Results</b> There are elevated levels of copper in Rose Canyon Creek. The PH and alkalinity decreased over 2 years. Alkalinity in Otay Water tap water decreased. Total chlorine in Otay tap water increased and remained the same in Rose Canyon Creek. Nitrate levels increased in both water sources. Tap water met the requirements for drinking water both years. Normal results for nitrites, total hardness, iron and copper for 2006/07. This was a 2 year study. (A water sample was also taken in the Manu River of Peru in 2005 due to a trip)</p> <p><b>Conclusions/Discussion</b> The conclusion is that Rose Canyon Creek is receiving point and non-point elements. The data shows that contaminants are entering Rose Canyon Creek despite the laws governing against the polluting of our water ways. The test strip results show that a certain amount of copper was present in the Regents Rd. region of Rose Canyon Creek that does not exceed the MCL. The results state that watersheds are being polluted worldwide by the innocent and guilty actions of people worldwide. People everywhere should take into account how they handle their water because even watering your lawn can play a good or bad role in the cleanliness of watersheds everywhere.</p>	
<b>Summary Statement</b> Water in Rose Canyon Creek was tested to spread awareness of how our actions affect all bodies of water	
<b>Help Received</b> Father helped collect water samples; mother helped assemble the board display,.	