



**CALIFORNIA STATE SCIENCE FAIR
2003 PROJECT SUMMARY**

Name(s) Michael A. Gushansky	Project Number J0912
Project Title The Effect of Pollution on Bacteria Levels Along the Los Angeles River	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals The objective of my project was to determine how pollution affects the water quality along the Los Angeles River. I believe that the overall bacteria level will increase as we move along the river from its source toward the ocean.</p> <p>Methods/Materials Petri dishes containing specialized bacteria growing media were inoculated with water samples taken from various locations along the Los Angeles River (Encino, Burbank, Los Feliz, Los Angeles, Compton, and Long Beach). They were placed in an incubator at 37 degrees Celsius for 24 hours. The number of colonies of fecal coliform, non-fecal coliform and other types of bacteria were counted and averaged.</p> <p>Results The total bacteria count generally increased along the Los Angeles River (71 colonies in Encino, 202 in Compton, 186 in Long Beach). The non-fecal coliform bacteria level also increased (6 colonies in Encino, 27 in Compton, 40 in Long Beach).</p> <p>Conclusions/Discussion The results confirm my hypothesis that pollutants accumulate along the Los Angeles River. The higher level of bacteria in Compton, in comparison with the last sampling location in Long Beach, is probably due to the higher number of industrial outlets in the city of Compton.</p>	
Summary Statement This project shows the importance of preventing excessive water pollution	
Help Received My uncle, Gene Gushansky, helped me build the incubator and advised me on the testing materials	