CALIFORNIA STATE SCIENCE FAIR
2006 PROJECT SUMMARY

Name(s)
Ingri Lopez; Karen Lopez

Project Number
J0916

Project Title
Do Pollution Levels Increase in Los Angeles River Water as the River Moves through Los Angeles County?

Abstract

Objectives/Goals
The purpose of our project was to see if pollution indicator levels increase in Los Angeles River water as the river moves through Los Angeles County to its mouth, from Encino to Long Beach.

Methods/Materials
We chose 10 sites along the Los Angeles River, from Encino to Long Beach, to sample and test water. We performed some of our water quality tests at the sampling sites, and brought additional water samples back to school to complete other tests. We measured turbidity, temperature, pH, dissolved oxygen, conductivity and Chromium VI content.

Results
Our results showed spikes in pH, conductivity, and turbidity at site 8 (The Dominguez Gap) on both of our sampling dates, as well as dissolved oxygen concentrations that cause stress in aquatic organisms. Site 8 is near Long Beach about 7 miles from the mouth of the Los Angeles River, and the river channel is completely encased in concrete. Since this site has no natural river bottom (it is all concrete), our data probably revealed an accumulation of pollution from further up the river.

Conclusions/Discussion
Our results partially confirmed our hypothesis because pH, conductivity, and turbidity are indicators of possible pollution, and these indicators had their highest levels close to the mouth of the river. However, we learned that the chemical and physical conditions of Los Angeles River water depend somewhat on whether or not the river bottom is natural or man-made with concrete, since the natural river bottom can help clean the water as it flows down the river.

Summary Statement
We measured pollution indicator levels in Los Angeles River water as the river flows through Los Angeles County, from Encino to Long Beach.

Help Received
Mr. Simonsen took pictures and edited our work, and my dad took us to the sites for the second round of sampling.