CALIFORNIA STATE SCIENCE FAIR
2002 PROJECT SUMMARY

Name(s)
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Project Number
J0902

Project Title
How Do We Affect Water Quality?

Abstract

Objectives/Goals
My hypothesis was: if it rains, the polluted runoff will affect the quality of the water in an area where the storm drain empties into the ocean.

Methods/Materials
The materials I used are pH activity strips, a conductivity meter, a transparency tube, and a digital thermometer. I also used a cup, gloves, and a datasheet to keep track of my results. I monitored at Asilomar, Still Water Cove, and Pacific Grove Park storm drains every 3-4 days.

Results
Based on my results, the water quality was more affected by changes in local population than by rainstorms. The transparency reading, in particular dropped dramatically after the AT&T Golf Tournament in Pebble Beach, which was evident in Still Water Cove's stormdrain. At the Pacific Grove storm drain the transparency level decreased, most likely because of the rainstorm which took place about 24 hours before I monitored. Throughout the test period the conductivity level remained at an average of 2.00 and the pH level averaged 7.0 or neutral.

Conclusions/Discussion
The variations in results by location indicated that the negative qualities of urban runoff were directly related to specific local conditions. It showed me that it is possible to control the damaging affects on the environment through our actions and awareness as well as maintenance and improvements to the sewer systems.

Summary Statement
My project examined, through a series of measurements, the effect of urban runoff on marine ecology.

Help Received
Bridget Hoover of the Monterey Bay National Marine Sanctuary supplied me with the necessary materials and equipment.