CALIFORNIA STATE SCIENCE FAIR
2002 PROJECT SUMMARY

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Project Number
22047

Project Title
Water: What Lies Beneath?

Abstract

Objectives/Goals
The purpose of this science experiment is to see the amount of impure chemical substances that lie in our daily drinking water. We would like to test the different reservoirs, and see what the cleanest and filthiest one is, according to EPA standards.

Methods/Materials
We used many different complex pieces of equipment to perform our experiment. To collect the water, x used four 50 mL Corning# plastic centrifuge tubes at each reservoir. To physically test the water, we spent about $300.00 and purchased nitrate, ammonia, dissolved oxygen, total hardness, PH test kits as well as tablets to double check the work and achieve maximum accuracy. We went around the city collecting samples from various reservoirs. After we went into the water, we attained the samples, making sure that the lid of the tubes were closed so that dissolved oxygen does not enter and mix with the water. Thex methods that we used in the lab are basically those that were indicated in the test kits themselves, and the graphs were created based on the data that we had attained from all of the eight reservoirs.

Results
Our hypothesis was correct, however only to a certain extent. The fact that different reservoirs havx varying levels of impure substances was correct, but the hypothesis that Bay lands Lake and Reservoix was incorrect. Lexington Reservoir has, in fact, the highest concentration of impure substances, despite its clean looks.

Conclusions/Discussion
A few years ago an anonymous friend of ours got sick. It turned out that he had meningitis. The doctors said that he was showing symptoms related to water contamination within his body. It turned out to bx quite a serious condition and we wanted to do our part to help him. We decided that community awareness of contaminated water must be increased.
We learned a lot of things by doing this project. We learned what hard work really meant because we had to travel to numerous locations to collect water samples and we had to test the water again and again to achieve maximum results. Simply testing it once wasn#t enough. To attain precise results, numerous tests had to be performed. It was a good experience and helped to let the community around us realize how important the things that we take for granted are.
By the way, our friend is doing much better now, and we just might have helped.

Summary Statement
Our project is designed to dicover the different contamination levels of reservoir water throughout California, and increase awareness about the water.

Help Received
Our parents drove us to all eight reservoirs, two days per each reservoir.