



**CALIFORNIA STATE SCIENCE FAIR
2002 PROJECT SUMMARY**

Name(s) Michael D. Malecek	Project Number 22016
Project Title The Pollution Waterslide: The Degradation of Storm Drain Water Quality As It Flows Down a Pipeline	
Objectives/Goals The purpose of my project is to explore whether or not pollution accumulates in storm drain water as it flows down a storm drain pipeline system. Abstract Methods/Materials I conducted this experiment by taking water quality samples at different places in two separate pipelines. I tested these samples for their water quality by using test kits that indicated the pH level, the chlorine content, the copper content, the dissolved oxygen content, the iron content, and the nitrogen content. I also used another test kit to discover if the samples contained coliform bacteria in them. Results All of the water samples had a copper content of 0ppm and a dissolved oxygen content of 8ppm. Most of the samples had a pH level of seven and a chlorine content of 0ppm. The majority of the water samples also had a nitrogen content of 0ppm and an iron content of 0.5ppm. All of the samples tested positive for coliform bacteria except for the control. Conclusions/Discussion There are a few anomalies present in the data, but the over all experiment ended up refuting my hypothesis. After conducting an ANOVA test on my data, which showed it was statistically significant, I had no other choice, but to accept that my hypothesis was not proven in this experiment. However, I feel that my hypothesis was not proven because of some flaws in the experimental design. The problem was that all of my water samples were good, quality water and there was no pollution present in any of them. This factor threw off my data and fouled up this experiment. However, if this experiment was modified and done in a highly polluted area, I believe that my hypothesis would be supported by that data. At least I know that the area where I collected my samples does not have a storm drain water pollution problem.	
Summary Statement My project investigates whether or not pollution accumulates in storm drain water as it flows down a storm drain pipeline system.	
Help Received My sister helped me sterilize some of the sample containers and collect some of the samples.	