

# CALIFORNIA STATE SCIENCE FAIR 2008 PROJECT SUMMARY

Name(s)

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**Project Number** 

J1404

**Project Title** 

Toilet or Ice Water: Which Contains More Bacteria?

#### Abstract

### **Objectives/Goals**

The purpose of this experiment is to compare the amount of bacteria in the ice machines and the toilet water in hotels. Do we know if the ice served from the ice machines are safe to drink and free from bacteria? The hypothesis of this project was the hotels toilet water will contain more bacteria then the water from the hotels ice machine.

#### Methods/Materials

The procedures done for this experiment was to first meet with the San Diego City Water Laboratory, to find out how they test for safe drinking water. Then you collect eighteen ice samples and toilet samples from 18 different hotels. After setting up the samples in the Petri dishes and pouring the agar in the dishes, the bacteria were allowed to grow.

#### **Results**

The results of the projects did not support the hypothesis. The results showed that the ice machine ice water contained more bacteria than the toilet water 72% of the samples.

#### **Conclusions/Discussion**

The conclusion was that the ice machine ice contains a significant amount of bacteria. In many of the samples the ice water was not safe to drink and the toilet water was less contaminated. The results show that the source (ice machines) perception of clean water is different from reality.

### **Summary Statement**

The bacteria count in Hotel ice machien ice vs. the lobby toilet water

## **Help Received**

The San Diedo Water Quality provided thier lab for me to conduct the testing. Mom drove me to all the hotels that I took samples at