

### CALIFORNIA STATE SCIENCE FAIR 2006 PROJECT SUMMARY

Name(s)

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# Project Number **S0602**

#### **Project Title**

## The Effects of Turbidity on Dissolved Oxygen Levels in Various Water Samples

#### Abstract

**Objectives/Goals** The objective of this experiment was to find the effects of turbidity on dissolved oxygen levels in various water samples.

#### Methods/Materials

Seven water samples were collected from various locations. The dissolved oxygen levels in the water samples were measured by using a dissolved oxygen test; first by fixing the samples, then by measuring the dissolved oxygen concentration by titration. The turbidity was measured using a turbidimeter. The results of the dissolved oxygen tests and turbidity measurements were noted and compared.

#### Results

The water samples with high turbidity levels had lesser amounts of dissolved oxygen, where as lower turbidity resulted in more dissolved oxygen concentration in the water sample.

#### Conclusions/Discussion

Turbidity and dissolved oxygen are inversely related. The more turbidity, the less dissolved oxygen there is for living organisms to breath, negatively affecting animal populations. Human impact has played an extensive role in keeping the turbidity levels high in these water samples.

#### **Summary Statement**

This project was about finding the effects of turbidity on dissolved oxygen.

#### **Help Received**

Father helped drive to the various water sources; Used lab equipment at University of California Riverside under the supervision of Professor Amrhein; Ms. Valero supervised during dissolved oxygen tests