

CALIFORNIA STATE SCIENCE FAIR 2002 PROJECT SUMMARY

Name(s) **Project Number Michelle Marjares; Bryan Wheeler** S0611 **Project Title** Got Water? What Is the State of the Santa Ana River? Abstract **Objectives/Goals** Our project's purpose was to determine if the water quality of the Santa Ana River was being affected by the presence of dairy farms and if Prado Dam was effective in reversing some of its affects, therefore providing suitable water for Orange County. Methods/Materials We tested 10 sites along the Santa Ana River in the Norco area (two times) for nitrate, phosphate, ph, and sulfide, as well as coliform. **Results** Our results show increased levels of nitrate, phosphate and sulfide in areas passed the dairy farms in sites 3 through 6. Coliform levels were also present in these sites. Sites 1 and 2 were taken after the Prado Dam wetlands and showed a decrease in nitrates, phosphates, sulfide, and no traces of coliform. **Conclusions/Discussion** We concluded that although dairy farms may not be the only contributors in the Norco area, it cannot be ignored that they are a major contributor to water contamination as shown by our data, in which nitrate levels reach 15ppm and are considered a hazard by the EPA. **Summary Statement** We attempted to analyze the water quality of the Santa Ana River as affected by dairy farms. **Help Received**