



**CALIFORNIA STATE SCIENCE FAIR  
2004 PROJECT SUMMARY**

<b>Name(s)</b> <b>Liberty D. Williams</b>	<b>Project Number</b> <b>J0928</b>
<b>Project Title</b> <b>What Is in the Water?</b>	
<b>Abstract</b> <b>Objectives/Goals</b> My objective is to compare the quality of different water samples-- treated municipal water, and untreated well, river, and mountain spring water. <b>Methods/Materials</b> Using water testing kits, I tested my samples for Nitrates, Nitrites, Alkalinity, pH, Hardness, Copper, Iron, Chlorine, Arsenic, Pesticide, Lead, and E.coli bacteria. <b>Results</b> My project shows that the Piercy mountain spring water is the most desirable; Downey's municipal-treated water has the highest amount of hardness at 250ppm; Redway School water has a high pH, alkalinity, and copper traces; and most unexpected are the positive E.coli bacteria results from Phillipsville-Miranda and Redcrest Eel River samples. <b>Conclusions/Discussion</b> Eventhough Miranda and Phillipsville treat their water with chlorine the E.coli bacteria is present. Upon contacting Humboldt County Environmental Health and Regional Water Quality Control Board, both agencies state a lack of funding and staff to monitor this area.	
<b>Summary Statement</b> My project compares water quality from varying sources both treated municipal and untreated well, river, and spring water.	
<b>Help Received</b> Harry Vaughn: hatchery manager, inspired and guided; Mother gave feedback; Teacher kept me on time line	