



**CALIFORNIA STATE SCIENCE FAIR
2017 PROJECT SUMMARY**

Name(s) Lu C. Patterson	Project Number J1212
Project Title Are Nitrate and Nitrite Levels Reduced in the Natural vs. Concretized Sections of the Los Angeles River?	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals The objective of this study is to determine if there is a difference in nitrate and nitrite pollution levels in the natural bottom versus concretized sections of the Los Angeles River.</p> <p>Methods/Materials I used collection vials, Los Angeles river water samples, and chemical test strips. I collected, measured and compared nitrate and nitrite concentrations in two water samples taken weekly from the natural bottom and concretized sections of the river.</p> <p>Results My results indicate that the Burbank concretized section of the LA River has about 12 mg / L more nitrates than the natural bottomed portion of the river. However, nitrite concentrations were greater by 0.15mg/L in the natural bottom Glendale Narrows section.</p> <p>Conclusions/Discussion My results indicate that while returning the Los Angeles river to a permeable natural bottom might reduce nitrate pollution, the increased vegetation and wildlife in the restored river ecosystem may increase nitrite levels.</p>	
Summary Statement I determined that there is a difference in average nitrate and nitrite pollution levels in the natural versus concretized sections of the Los Angeles River.	
Help Received I designed, collected, tested, and averaged the water samples by myself.	