



**CALIFORNIA SCIENCE & ENGINEERING FAIR
2018 PROJECT SUMMARY**

Name(s) Talisa A. Martinez	Project Number 38270
Project Title Keep It Clean! Testing Water Quality through Daphnia magna Survival Rate	
Abstract Objectives/Goals The purpose of my project is to test the survival rate of Daphnia magna in specific waters that came from the Imperial Valley county in California. Specifically, by using the survival rate of Daphnia magna, the quality of the collected water can be determined and shown to the public eye in hopes of promoting for the reduction of pollution in the Imperial County. Methods/Materials Each trial of the experiment featured 6 946-milliliter jars (without lid) filled with 800 milliliters of a collected water (Salton Sea, the New River, Alamo Canal, All-American Canal, tap water, and bottled water) and 12 Daphnia magna, all of which were inserted into a jar with a pipette. The amount of Daphnia magna was recorded in each jar every 24 hours for 7 days. Results Many notable observations were observed in the trials: the appearance of Daphnia magna changed, the jar containing a sample of tap water plunged in Daphnia magna survival rate, and the survival rate of Daphnia magna was best in the jar containing tap water. Conclusions/Discussion The trials showed a direct correlation between polluted waters and survival rate of Daphnia magna. As the survival rate of Daphnia magna was recorded when placed in collected waters from the Imperial County, California, it was concluded that one will see that the bigger the decrease in survival rate relates to a more toxic water.	
Summary Statement I showcased that many bodies of waters in Imperial County were toxic on earth by using the survival rate of Daphnia magna to exemplify the detrimental effects it could have on life.	
Help Received I design and conducted the experiment myself. My advisor, Ms. Lindsay Claverie aided me in the process of gathering materials.	