



**CALIFORNIA STATE SCIENCE FAIR  
2013 PROJECT SUMMARY**

<b>Name(s)</b> <b>Kaitlyn A. Russo</b>	<b>Project Number</b> <b>J1018</b>
<b>Project Title</b> <b>The Effect of Elodea on Polluted Water</b>	
<b>Abstract</b> <b>Objectives/Goals</b> If elodea is placed in polluted water, will it counteract the effects of the pollution in the water by increasing the amount of dissolved oxygen and maintaining a healthy level. <b>Methods/Materials</b> My experiment will have two parts. First, I have to collect all the water needed for my experiment. In order to collect rainwater, I must wait for it to rain. When it starts to rain, I will put out 6 containers to catch rainwater. Then, I will gather a gallon or more of the water. Next, I will have my mom drive me to different locations all over town and collect a gallon or more of stormwater. Finally, I will buy 2 gallons of distilled water that can be found in my local grocery store. For the second part of my experiment, I will test all the waters for dissolved oxygen with a dissolved oxygen testing kit. Next, I will fill 4 jars with rainwater. Then do the same for all the waters. I will allow them to sit for a week to allow for any changes. I will then test them for dissolved oxygen again. Then, I will put two elodea plants in each jar. I will seal them all tightly and label them. I will wait and watch for another week. Finally, I will test the dissolved oxygen level of each type of water and record. <b>Materials</b> 16 quart-sized mason jars, Collection trays, 2 gallons distilled water, Recording sheets, A dissolved oxygen kit, 32 elodea plants <b>Results</b> Rainwater went from 9ppm to 6ppm a 33% change and ponding basin water (the most toxic) went from 6ppm to 3ppm a 50% change and stormwater went from 8ppm to 4ppm also a 50% change. Now my control distilled water went from a 9ppm to an 8ppm that is an 11% change. <b>Conclusions/Discussion</b> After completing my investigation I found my hypothesis was incorrect. Distilled water showed that the level of dissolved oxygen was less harmful than all the other water types. This shows that if there aren't any contaminants, then the elodea is better able to maintain a healthy level of oxygen in water. Rainwater showed that the level of dissolved oxygen was the 2nd highest. Ponding basin water showed that the level of dissolved oxygen was the lowest in the experiment. The pollution caused a visible algae bloom and the elodea was unable to counteract the effects to a healthy level. stormwater showed that the level of dissolved oxygen was one of the lowest in the experiment. The oxygen produced by the elodea was not enough to counteract the pollution.	
<b>Summary Statement</b> Determining if elodea, placed in polluted water, will help keep oxygen in the water and maintain a health level.	
<b>Help Received</b> Mother helped me type and drove me to gather water.	