



**CALIFORNIA STATE SCIENCE FAIR
2009 PROJECT SUMMARY**

Name(s) Alexis L. Pace	Project Number J2027
Project Title Grow Grass Grow: An Investigation of Grass Growth Using Different Types of Water	
Objectives/Goals The objective is to determine how effective various types of bottled water is for grass growth and does it hold an advantage over different types of water? I predict the grass watered with Suburban water will have the best growth rate because Suburban water contains minerals including added fluoride which are essential and play an important role in water uptake and grass growth.	
Abstract	
Methods/Materials 8 Jiffy transplant pots, 2 1/2 cups dirt, Premium Planting Mix & Mulch, 3/4 teaspoon grass seed, 1/4 inch seed cover, Distilled water, Suburban water, Filtered water, Arrowhead water, Measuring cups, Camera, Ruler, Labels, Scissors, Tape 1. Collect dirt from backyard 2. Add Premium Planting Mix & Mulch to dirt for a ratio of 70% dirt, 30% mulch 3. Place 2 1/2 cups of mixture in each of the 8 Jiffy transplant pots 4. Sprinkle 3/4 teaspoon of grass seed over mixture 5. Add 1/4 inch of seed cover on top of grass seed 6. Separate the 8 cups evenly into four sets of 2. Two plants will be grown in each type of water and results will be averaged for the two plants. 7. Label plants as follows: Arrowhead A & B, Distilled A & B, Filtered A & B, Suburban A & B, 8. Fill each plant with 1/2 cup water that is written on each of labels 9. Observe daily and keep seed cover wet under seed germinates. Then water plants according to dryness. 10. After seed germination, set plants in sunlight 11. Measure and record plant height & number of sprouts daily	
Results After 4 weeks, the average number of germinated Distilled grass seeds was 276 sprouts and of the growing sprouts, the average height was 13cm. The Filtered average was 279 sprouts and the average height was 11 1/2cm. The Arrowhead average was 300 sprouts and the average height was 12cm. The Suburban average was 324 sprouts and the average height was 14cm.	
Conclusions/Discussion The results proved my prediction that the Suburban water grass grew the quickest and tallest. The Suburban water grass also had the most germinated seeds. The grass watered with distilled water grew the least, and overall had the least number of seed germination. It appears that amongst the waters I tested, Suburban water is the most effective water to use for watering plants. This supports my hypothesis that the minerals and Suburban water are important in the uptake of water. With the population trend toward #going green#, here is a great opportunity to capture our used Suburban water for recycling.	
Summary Statement My project is about the affect various types of water has on grass growth.	
Help Received Grandfather helped with dirt collection, Mother took photographs while I preformed the procedure.	