



**CALIFORNIA STATE SCIENCE FAIR  
2011 PROJECT SUMMARY**

<b>Name(s)</b> <b>Daniel Waizman; Amanda Zhang</b>	<b>Project Number</b>  31266
<b>Project Title</b> <b>Effects of Soil Salinity on Native Vegetation in the San Dieguito Lagoon</b>	
<b>Abstract</b> <b>Objectives/Goals</b> There have been several problems with restoring native vegetation to the San Dieguito Lagoon. We believed that the salinity of the soil had an effect on the type of growth within Disposal Site 32 (an area of attempted re-vegetation). The first plot we observed contained mostly the species Suaeda Taxifolia, while the second plot contained a mixture of Atriplex Lentiformis. <b>Methods/Materials</b> To find out if salinity was the culprit we took samples from the two different plots of and compared the salinity of the topsoil as well as soil six inches down. We used a conductivity probe to determine the salinity. <b>Results</b> The salinity of the topsoil was less than that of the salinity six inches down in both respective plots, which is expected. Our analysis indicated that the topsoil salinities are equal in both plots, while the salinity at six inches is different. Moreover, the salinity is greater in plot one with the Suaeda Taxifolia than the second plot with Atriplex. <b>Conclusions/Discussion</b> We can affirm that salinity varies within one disposal site, and that this variability affects the type plant growth by creating different environments in which the seeds must germinate.	
<b>Summary Statement</b> Our project suggests that even slight changes in salinity in soil affects the growth of plants in lagoons.	
<b>Help Received</b> Dr. Hany Elwany from Coastal Environments assisted us with background information.	