



**CALIFORNIA STATE SCIENCE FAIR  
2005 PROJECT SUMMARY**

<b>Name(s)</b> Anna M. Nelson	<b>Project Number</b> <b>J0626</b>
<b>Project Title</b> <b>Building the Beach: Sediment Transport to Goleta Beach</b>	
<b>Abstract</b> <b>Objectives/Goals</b> To find out if the natural creeks can support the beach without manmade help. Recently the County Parks Department put a large amount of sand on the beach to try and save it. <b>Methods/Materials</b> I studied Maria Ygnacio Creek, Atascadero Creek, and San Jose Creek (local creeks that empty to Goleta Beach). I studied the time period of March 2004 to March 2005. I measured the sediment in the creek water by filtering a known amount of water through a coffee filter and weighing the dried filters. I compared the amount of sediment to the amount of water that went through the creeks each day and computed the amount of sediment for the whole year, using the discharge data from the USGS web sites. <b>Results</b> During the time period I studied, the creeks produced the most sediment during three large storms. I eventually found out that the creeks produced almost twice as much sediment as was put on the beach artificially. <b>Conclusions/Discussion</b> I concluded that if there were two or more large storms in a year (estimate), then the creeks will need artificial help. If there are less than two effective storms, the creeks should be able to support the beach.	
<b>Summary Statement</b> Will the three creeks of Goleta be able to support Goleta Beach without the County Parks Department's help?	
<b>Help Received</b> Father helped acquire USGS data and helped do calculations on a spreadsheet.	