



# CALIFORNIA SCIENCE & ENGINEERING FAIR 2019 PROJECT SUMMARY

<b>Name(s)</b> <b>Charlotte Brands; Stella Pepper</b>	<b>Project Number</b> <b>J1106</b>
<b>Project Title</b> <b>It All Flows to the Ocean</b>	
<p style="text-align: center;"><b>Abstract</b></p> <p><b>Objectives</b> Our goal was to see if the change of slope effects how well a bioswale filters water.</p> <p><b>Methods</b> We built a bioswale that we could change to different slopes, and poured polluted water down the bioswale. Then we tested the water with a turbidity meter.</p> <p><b>Results</b> We filtered polluted water through a bioswale, setting the bioswale at three different slopes: 3%, 6%, and 10%. then we tested it with a turbidity meter. The water was filtered the best when the bioswale was set at 6%.</p> <p><b>Conclusions</b> Multiple trials revealed that when bioswales are set to a 6% slope they filter water the best. This means that a 6% slope can give the best results when filtering pollution out of water.</p>	
<b>Summary Statement</b> Our project is about filtering polluted road runoff with bioswales before the water reaches a storm drain and flows to the ocean to enter the water cycle.	
<b>Help Received</b> We got help from a Hydraulic Engineer, as well as from books supplied by Cal. Trans.	