

CALIFORNIA STATE SCIENCE FAIR 2002 PROJECT SUMMARY

Name(s)	Project Number
Regina M. Dettmer	
	22029
Project Title	\mathcal{O}
The Saturation and Flow of Rainfall through the Soil of the Owl	
Canyon Watershed	
Abstract	
Objectives/Goals	
hold once saturated with autumn and winter rains. Also to observe ipcreases ar	d decreases in canyon
water flow after periods of rainfall.	
I calculaterd the approximate amount of rain needed to saturate canyon soil and	begin flow by multiplyin
the average soil depth by the ratio of saturation water to have to soil colume. If to soil depth by driving a rod into the soil in many places in the canyou I determined at the soil in many places in the canyou I determined at the soil in the soil depth by driving a rod into the soil in many places in the canyou I determined at the soil depth by driving a rod into the soil in many places in the canyou I determined at the soil depth by driving a rod into the soil in many places in the canyou I determined at the soil depth by driving a rod into the soil depth by drinedepth by drinedepth by drinedep	determined the average
by pouring measured amounts of water through soil core saupples and collecting	g the drainage. I measured
rainfall and canyon water flow.	
I calculated that it would take 11.25 cm of rainfall to saturate the soil. I observed that it actually took 13	
cm. My flow observations show that within a day after a rain flow reaches its peak(as great as 23.6 liters/sec)	
It then decreases by 1 to 2 liters/sec each day, untre it drops to 2 liters/sec. After that it decreases by only	
.3liters/sec each day.	
I was able to predict within 10% how much water the Owl anyon soil can hold.	
I was able to compare flows with periods of rainfall, and observe trends.	
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Summary Statement	
The measurements and observations of soil saturation and water flow in a watershed	
Help Received	
Famer suggested topic, accompanied me to the canyon, and gave editing suggestions.	