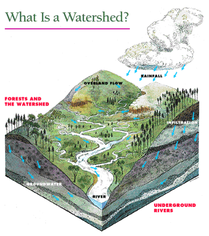
San Diego Coastkeeper Summer Internship: Keeping the Coast Clear

San Diego City College MESA/NSF Grant# DUE065329

Alberto "Beto" Vasquez ○ Biology Major ○ avasquez@sdccd.edu

Introduction

During rainstorms, water flowing from households, farms, and businesses flushes pesticides, fertilizers, animal waste, litter, automobile fluids, oil and other pollutants into storm drains. Not only is urban and agricultural runoff detrimental to the environment, but also to the quality of our drinking water. As a result, the degradation of our surface water makes our city more dependent on imported water. That is why San Diego Coastkeeper (SDCK) has dedicated its profession to protecting and conserving our local water resources and optimizing the lifespan of our most precious resource: water



Water pollution in its many forms continues to plague the region's eleven watersheds monitored by SDCK.

Aim/Purpose of Goal

Citizen involvement in pollution abatement and source tracking is an essential component of the Watershed Monitoring Program. San Diego Coastkeeper's Watershed Monitoring Program works with a wide variety of regulatory agencies, academic institutions, businesses and non-profit organizations along with dedicated volunteers to supplement the limited data resources available, protect sensitive ecosystems, identify and abate pollution sources, track the effectiveness of pollution prevention plans, and prevent further degradation of our precious water resources.

Method

San Diego Coastkeeper protects the region's bays, beaches, watersheds and ocean for the people and wildlife that depend on them. By balancing community outreach, education, and advocacy, SDCK promotes stewardship of clean water and a healthy coastal ecosystem.

Left. SDCK in conjunction with Nautilus Environmental assess the biological state of monitoring sites like these.

Intern Beto Vasquez helps conduct a bioassesment by measuring the dimensions and conditions of transects within a collection site.

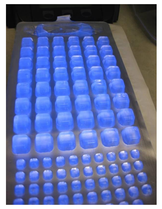
Left. Intern Beto Vasquez prepares water samples for toxicity testing by adding dinoflagellates.

Results

Being afforded the opportunity of joining the team at San Diego Coastkeeper was a great experience. The staff was extremely knowledgeable and allowed me multiple opportunities to engage in water monitoring lab and field protocols & data calculations.

Left. Alberto Vasquez at San Diego Coastkeeper counting E.Coli positive water samples (red wells).

Right. Dinoflagelates emitting a bioluminiscent light in the presence of coliform positive water samples.



Map above. Lab results help in identifying any impaired waterbodies and beaches such as those illustrated above (in pink).

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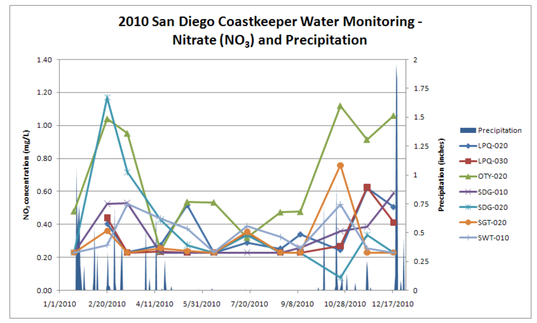
Duties

- Collected and processed field samples
- Conducted nutrient & bacteria testing
- Analyzed data for interpretation
- Calibrated equipment and instrumentation
- Graphed data for annual reports
- Compiled instructions and maps to water monitoring sites
- Performed general lab procedures as necessary

Conclusion



Graph above. Quantification of data is important for generating graphs illustrating the presence of bacteria, nutrients and minerals within our local watersheds. Reports such as these are then utilized to provide the necessary data to educate the public, garner public support and motivate legislators to champion for environmental policy.

Acknowledgements

Special thanks to San Diego Coastkeeper , Travis Pritchard, Angeline Yang , Rafael Alvarez and the National Science Foundation for making this learning opportunity available. The basic lab skills, experiential learning, and networking components introduced by this internship have been extremely helpful and highly appreciated . Thank you!