The Final Report Outline

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Internship period:June 2019 - December 2019

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Organization: Orange County Coastkeeper

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I. Acknowledgements

I would like to acknowledge and thank the individuals and organizations that assisted me through my internship. I would like to cordially thank my advisor at Orange County Coastkeeper, Ray Hiemstra, for supporting and showing me the profound effects water related issues poses to nearby communities and ecosystems. I would like to acknowledge the the Santa Ana Watershed Project Authority(SWAPA) staff for assisting me in the process of completing the internship and making this opportunity possible. The Community Water Internship is supported through SAWPA's Disadvantaged Communities Involvement (DCI) Program and Proposition 1 funding from the California Department of Water Resources (DWR).

II. Executive Summary

Orange County Coastkeepers is a non profit organization that focuses on protecting the region's water resources by working with diverse groups to achieve sustainable water resources for the region. Orange County Coastkeeper(Coastkeepers) focuses on restoration, advocacy, education, research, sustainability, and enforcement.

Throughout the internship I was able to work on several projects exposed me to an array of issues and programs in the environmental sector. An important component during my time in Coastkeeper was Advocacy. Advocacy was a big theme because the board meetings for the issue of a permit to Huntington Beach Poseidon Desalination Plant was occurring. I attended the board meetings for the desalination plant and researched advocacy efforts for the Lake Elsinore Advance Pump Storage Nevada Hydro projects. I advocated against the Pump Storage by writing comment letters to the Federal Energy Regulatory Commision.

I was able to obtain field experience in the area of restoration through the Cleveland National Forest Water Monitoring Project. Research was a large component of my internship as I read and researched environmental impact reports regarding certain water related projects, and performed Marine Protected Area watch.

Project Objectives

The objective of the internship was to obtain exposure to environmental issues by participating in field work, attending public meetings, and writing comment letters. I was able to work on a variety of projects that allowed to me accomplish the internship goals. Two of the projects I worked on at Coastkeepers were the Cleveland National Forest Water Monitoring Project and the Huntington Beach Poseidon Desalination Plant. The projects at Coastkeepers were centered around water quality issues.

The Cleveland National Forest Project provided me the opportunity to perform field work with a hydrologist in the National Cleveland Forest. The objective of the Cleveland National Forest Water Monitoring project was to determine the damage caused by the 2018 Holy Fire to the upper watershed. Our goal was to document water quality conditions at trabuco creek. The Huntington Beach Desalination Plant project allowed me the opportunity to attend public meetings and write a comment letter. The objective of my participation in the Desalination Plant project was to learn about advocacy efforts and to increase environmental awareness.

Project Approach

Throughout the internship at Orange County Coastkeepers I was able to work on various specific projects that were occuring during my internship period. For example, when I first started the internship, the National Cleveland Project had just started. I was able to see the progression of the project from the start. I was able to acquire a volunteer list for field work and learned about the water monitoring protocols. Ontherhand, the Poseidon Desalination Plant project has been on ongoing project and is in the stage of seeking a permit for Poseidon's water intake and discharge from the Regional Water Board.

For the Huntington Beach Poseidon Desalination Plant project I assisted several water board meetings and a Santa Ana Regional Water Quality Control Board meeting. I conducted research and wrote a letter opposing the desalination plant to the Regional Water Board based on the implications the desalination plant would have to the environment and the community.

The National Cleveland Project was achieved by working alongside a hydrologist who trained us on the water monitoring protocols needed to obtain quality data. The monitoring protocols consisted of stream profiles, cross sections, and pebble counts. For the project, I went with a group of volunteers and a hydrologist from the Cleveland National Forest to Trabuco Creek. During the field work, we collected data on the stream.

Project Outcomes:

The projects I was able to work on during my internship at Orange County Coastkeepers improved my research skills and showed me the importance of advocacy and public policy. I was able to learn how to conduct research, perform field work, work with the public, and write comment letters regarding environmental problems.

The National Cleveland Forest Project still has not been completed. There are some locations in the trabuco creek that data has not been collected for. The Forest project allowed me to obtain field work experience with a professional hydrologist. I learned about the importance of water quality in our watersheds.

The Huntington Beach Desalination Plant project is awaiting the permit vote from the Regional Water Board. The vote for the permit will occur on April 3, 2020. The desalination project showed me the importance of public hearings and environmental policy.

Conclusions:

Interning at Orange County Coastkeepers was an amazing learning opportunity. I was able to learn about the importance of water policy, the Federal Clean Water act, and about various environmental programs. I was able to learn about environmental problems and environmental programs in my watershed that affect the residents.

I really appreciate the experience I obtained from this internship and the individuals I was able to meet. I am grateful for the knowledge and advice I gained throughout the internship. I was able to contribute to research and participate in educational projects that have taught me valuable skills. I was able to meet the goals set by my advisor in researching and understanding the Clean Water Act, Porter-Cologne Water Act, Marine Life Protection Act, MPA watch, and Ocean Desalination. This internship has allowed me to obtain a better understanding of the opportunities in the environmental sector.

Appendices:

Figure 1. Volunteers measuring the Trabuco creek longitudinal profile in the Cleveland National Forest.

Figure 2. A presentation I created that provided an explanation and update on the Ascon Landfill located in Huntington Beach, CA.