

Sustainable Operations and Grant Writing at the UCSB Natural Reserve System

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Introduction

The UC Natural Reserve System consists of 41 nature preserves throughout California that facilitate educational purposes, such as research and outreach. 7 of these reserves fall under UC Santa Barbara: Carpinteria Salt Marsh, Coal Oil Point, Kenneth S. Norris Rancho Marino Reserve, Santa Cruz Island Reserve, Sedgwick Reserve, Valentine Camp, and the Sierra Nevada Aquatic Research Lab. All of these reserves serve the vital purpose of land protection as well as education; the reserves host thousands of visitors annually.

The UCSB Natural Reserve System works with the UCSB Department of Sustainability in order to identify areas of sustainable improvement within the reserves and apply for grants to fund those improvements. This CNI Project consists of aiding the UCSB Department of Sustainability in this goal by helping to generate a prioritized list of projects, search for grants, and secure funding for sustainable projects on the reserves.

Project Goals

In line with the Carbon Neutrality Initiative's mission statement and pledge to become carbon neutral by 2025, this project aims to reduce the carbon impact of the UCSB Natural Reserves. This is achieved primarily through a decrease in reliance on fossil fuels on the reserves. Examples of this include...

- funding the electrification of equipment
- troubleshooting the electrification of vehicles on more remote reserves, such as Santa Cruz Island
- searching for appropriate Green Building Certification opportunities for simple buildings on remote reserves
- replacing conventional natural gas heaters with solar power

Results and Outcomes

This year, the UCSB Sustainability Department was able to provide valuable insights to UCSB Natural Reserves, particularly on the topics of reducing reliance on fossil fuels. An overarching report on Green Building Certifications and their feasibility for the Natural Reserves was created and distributed, which concluded that WELL Building, RESET Standard, and TRUE Zero Waste are all feasible for most reserves.

Recommendations were also made to help reserves, particularly Santa Cruz Island Reserve, decrease reliance on fossil fuels through replacement of the conventional propane water heater with a solar alternative. This work was supplemented with visits to Natural Reserves in order to gain a better understanding of the requirements of each reserve, as well as to conduct metering for future grant cycles.

In addition, the team was able to help Coal Oil Point Reserve write their The Green Initiative Fund (TGIF) grant application in order to electrify landscaping equipment. If accepted, this TGIF grant will fund the electrification of new landscaping equipment, the replacement of non-energy star and inefficient equipment, the expansion of ecological restoration efforts, and a poster detailing these improvements on the Reserve.

Future Goals

The UCSB Sustainability team focusing on the NRS is looking to future grant cycles and identifying more areas of carbon-neutral and sustainable improvement on the reserves. This includes further monitoring of energy, water, and/or light on the reserves to help with CO₂ Calculations sheets in future TGIF Grant applications. The team is also searching for appropriate funding for future NRS projects, such as electrification of vehicles on Santa Cruz Island Reserve and a transition to solar powered water heaters.

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