

Alameda County Fish and Wildlife Propagation Fund Report

Earth Team

Final Report - December 31, 2023

Summary

This project was presented and approved for funding on 2/25/2023 to conduct monarch butterfly habitat restoration and community outreach activities in the Oyster Point, Coyote Hills and San Leandro Marina watersheds in Alameda County. Activities planned would focus on three sites that are home to overwintering monarchs and restoration activities will also benefit water quality in their several local creeks, including San Lorenzo and San Leandro Creeks.

Activities started on July 1, 2023 with the planning and recruitment of the high school paid interns. In-class curriculum and field restoration events started on September 2023 coinciding with the beginning of the 2023-24 school year. They ended on June 30, 2024. The project successfully met all planned objectives. It is to be noted that monarch butterfly restoration work will continue in 2024-25 thanks to renewed financial support from the 2024 Fish and Wildlife Propagation Fund during the school year 2024-25, approved on 2/24/2024

We employed 61 paid high school interns that worked as planned to conduct monarch habitat restoration and improvement activities at Oyster Bay Regional Shoreline and three associated creeks in Alameda County's San Oyster Point and San Leandro Marina watersheds. All activities field activities focused on supporting native plant and monarch habitats and on engaging community members in ongoing maintenance and education efforts about Alameda County's wildlife.

Working with several local partners, these 61 Earth Team public high school interns developed hands-on restoration skills and applied them to various field sites thus far. Training and field activities focused on plant identification, invasive species removal, native plant installation, mulching, and other maintenance activities. In addition, the teams were trained to use our Zerolitter.org platform to map, classify and remove litter that was disturbing the sites, or nearby creek. Throughout the school year students have been trained to use the La Motte Water Quality Monitoring Kit to conduct tests along the respective Alameda creeks: San Lorenzo, Castro Valley and Sausal Creek.



Figure 1: Earth Team Interns at Work in Oyster Bay

Workplan and Deliverables

| School Site: | Visit End Date/Time | Project Site: Project Site | Activity | Description of Visit Expected Outcomes |
|--------------------|---------------------|-------------------------------------|---------------------------|---|
| Arroyo High School | 9/21/2023 6:00 PM | Arroyo High School Campus | Team Building | Students will attend their first meeting and learn about the structure of the program. Students will understand and agree to the policies and the code of conduct of the program. Students will begin with team building activities with their intern cohort. S |
| | 9/23/2023 1:00 PM | Castro Valley Creek Trail | Restoration | Student will participate in the first restoration and litter clean up in their community. Activities will include identifying native plants and invasive species, and removing them from site. |
| | 9/28/2023 6:00 PM | Arroyo High School Campus | Environmental Literacy | <p>Interns will be able to:</p> <ul style="list-style-type: none"> -Find out your baseline knowledge of Climate Change -Define Climate Change -Outline the process of climate change -Analyze the global impact of climate change |
| | 10/14/2023 1:00 PM | Hayward Shoreline | Litter Assessments | Students will participate in a litter clean up at Hayward Shoreline and also have a water quality demonstration by the Clean water program. |
| | 10/19/2023 6:00 PM | Oyster Bay Regional Park | Restoration | Students will learn the history and significance of Oyster Bay and the restoration efforts it has done over the years. Students will install native plants for the Monarch Overwintering Garden in Oyster Bay. |
| | 11/4/2023 1:00 PM | Don Castro Regional Recreation Site | Litter Assessments | Students will walk down the trail to the most impacted area of trash at Don Castro. Students will pick up litter along the San Lorenzo creek underneath a freeway. Students will also learn about the creek health through water quality testing. |
| | 12/7/2023 6:00 PM | Arroyo High School Campus | Water Quality Assessments | Students will learn and be trained on using the LaMotte Water Quality Testing Kits |
| | 12/9/2023 1:00 PM | Lake Chabot Regional Park | Litter Assessments | Students will participate in a litter assessment and water quality assessment of Lake Chabot. |
| | 1/15/2024 1:00 PM | Don Castro Regional Recreation Site | Litter Assessments | Students will attend a MLK Day of service at Don Castro and conduct a litter clean up. |
| | 2/15/2024 6:00 PM | Oyster Bay Regional Park | Restoration | Students will work on the monarch garden at Oyster Bay Regional Shoreline. The main focus of this meeting is planting oak trees in the monarch grove. |
| | 2/24/2024 1:00 PM | Don Castro Regional | Restoration | Students will participate in restoration work along the San Lorenzo Creek at Don Castro Regional Park. Students will |

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| | | Recreation Site | | work with other Earth Team schools to tackle the overgrown French broom along the trail and creek. |
| | 3/30/2024 1:00 PM | Hayward Shoreline | Litter Assessments | Students will be led by Berkeley High Students to be introduced to the arcgis tool to survey the land for marine debris. Students will participate in a water quality led by Jennifer Trevis. |
| | 4/13/2024 12:30 PM | Alameda Naval Base National Wildlife Refuge | Restoration | Students will arrive at the Alameda Naval Base. Students will learn about the least terns and will begin walking to the site for tern habitats. |
| | 4/20/2024 12:30 PM | Oyster Bay Regional Park | Restoration | Students will attend an Oyster Bay Restoration in the Monarch Garden. Students will be weeding invasives from the garden. |
| | 4/27/2024 1:00 PM | Castro Valley Creek Trail | Restoration | Students will attend an Earth Day Event at the Castro valley creek trail. Restoration activities that involved spreading mulch, weeding, and planting natives along the trail. |
| | 5/2/2024 6:00 PM | Hayward Shoreline | Water Quality Assessments | Students will conduct a Water Quality Assessment at the Hayward Shoreline which is adjacent to the San Lorenzo Creek. |
| | 5/11/2024 1:00 PM | Oyster Bay Regional Park | Restoration | Students will participate in an Oyster Bay Restoration and a disk golf clinic. |
| Berkeley High School | 3/30/2024 12:00 PM | Hayward Shoreline | Litter Assessments | Interns attend a clean-up and water quality testing event at the Hayward shoreline. BHS interns will use the ArcGIS survey 123 to do OVTAs and trash data collection, training fellow interns from other schools on how to use the app. |
| Castro Valley High School | 9/20/2023 5:30 PM | Castro Valley High School Campus | Team Building | Students will attend their first meeting and learn about the structure of the program. Students will understand and agree to the policies and the code of conduct of the program. Students will begin with team building activities with their intern cohort. S |
| | 9/23/2023 1:00 PM | Castro Valley Creek Trail | Restoration | Student will participate in the first restoration and litter clean up in their community. Activities will include identifying native plants and invasive species, and removing them from site. |
| | 9/27/2023 5:30 PM | Castro Valley High School Campus | Environmental Literacy | <p>Interns will be able to:</p> <ul style="list-style-type: none"> -Find out your baseline knowledge of Climate Change -Define Climate Change -Outline the process of climate change -Analyze the global impact of climate change |
| | 10/14/2023 3:00 PM | Hayward Shoreline | Litter Assessments | Students will conduct a water quality test with the aid of Jennifer Trevis from the RCD. Students will track the litter they have picked up along the Hayward shoreline. |
| | 11/4/2023 1:00 PM | Don Castro Regional Recreation Site | Litter Assessments | Students will walk down the trail to the most impacted area of trash at Don Castro. Students will pick up litter along the San Lorenzo creek underneath a freeway. Students will also learn about the creek health through water quality testing. |

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| | 12/6/2023 5:30 PM | Castro Valley High School Campus | Water Quality Assessments | Students will participate in a water quality assessment training using the LaMotte Water Quality Testing Kit. |
| | 12/9/2023 1:00 PM | Lake Chabot Regional Park | Litter Assessments | Students will participate in a litter assessment and water quality assessment of Lake Chabot. |
| | 1/15/2024 1:00 PM | Don Castro Regional Recreation Site | Litter Assessments | Students will attend a MLK Day of service at Don Castro and conduct a litter clean up. |
| | 2/24/2024 1:00 PM | Don Castro Regional Recreation Site | Research Projects | Students will participate in restoration work along the San Lorenzo Creek at Don Castro Regional Park. Students will work with other Earth Team schools to tackle the overgrown French broom along the trail and creek. |
| | 3/30/2024 1:00 PM | Hayward Shoreline | Litter Assessments | Students will be led by Berkeley High Students to be introduced to the arcgis tool to survey the land for marine debris. Students will participate in a water quality led by Jennifer Trevis. |
| | 4/13/2024 12:30 PM | Alameda Naval Base National Wildlife Refuge | Restoration | Students will arrive at the Alameda Naval Base. Students will learn about the least terns and will begin walking to the site for tern habitats. |
| | 4/20/2024 12:30 PM | Oyster Bay Regional Park | Restoration | Students will attend an Oyster Bay Restoration in the Monarch Garden. Students will be weeding invasives from the garden. |
| | 4/27/2024 1:00 PM | Castro Valley Creek Trail | Restoration | Students will attend an Earth Day Event at the Castro valley creek trail. Restoration activities that involved spreading mulch, weeding, and planting natives along the trail. |
| | 5/1/2024 5:30 PM | Castro Valley High School Campus | Outreach Materials / Design Preparation | Students will spend time on creating informational content on monarch butterflies to share on social media! |
| | 5/11/2024 1:00 PM | Oyster Bay Regional Park | Restoration | Students will participate in an Oyster Bay Restoration and a disk golf clinic. |
| Skyline High School | 9/19/2023 5:15 PM | Skyline High School Campus | Personal Development | This meeting will serve to introduce the Sustainable Youth Internship, discuss policies, and form a set of agreements among students about team culture and attitudes. |
| | 9/23/2023 12:00 PM | Arrowhead Marsh | Litter Assessments | Students will participate in East Bay Regional Parks Districts' Coastal Cleanup Day event at Arrowhead Marsh. Students will learn to use the Marine Debris Tracker and discuss the primary sources of marine pollution. |
| | 9/26/2023 5:45 PM | Skyline High School Campus | Environmental Literacy | Students will complete an introduction to climate change lesson and discussion activity |

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| | 10/3/2023 5:45 PM | Skyline High School Campus | Environmental Literacy | Students will complete an introductory lesson and discussion about Watersheds and complete flash presentations to get to know each other. |
| | 10/10/2023 3:45 PM | Skyline High School Campus | Water Quality Assessments | Students will practice using water quality testing equipment by testing a set of samples collected from fish tanks in their classroom. Students will learn about marine debris degradation and PFAS through a presentation and discussion. |
| | 10/17/2023 3:45 PM | Skyline High School Campus | Litter Assessments | Students will complete a discussion about climate policy in the Arctic and complete a litter cleanup on campus. |
| | 10/24/2023 3:45 PM | Skyline High School Campus | Environmental Literacy | Students will complete a lesson on invasive and native plants and ecology and experiment with the iNaturalist app. |
| | 10/28/2023 3:12:00 PM | Oyster Bay Regional Park | Restoration | Students will complete a restoration activity in Oyster Bay. |
| | 11/4/2023 12:00 PM | Oyster Bay Regional Park | Restoration | Students will complete a cleanup and restoration activity at Oyster Bay Regional Park's Monarch Butterfly Garden. |
| | 1/15/2024 1:00 PM | Don Castro Regional Recreation Site | Restoration | Students will complete a cleanup at Don Castro Regional Park |
| | 3/30/2024 1:00 PM | Hayward Shoreline | Litter Assessments | Students will be led by Berkeley High Students to be introduced to the arcgis tool to survey the land for marine debris. Students will participate in a water quality led by Jennifer Trevis. |
| | 4/13/2024 12:30 PM | Alameda Naval Base National Wildlife Refuge | Restoration | Students will arrive at the Alameda Naval Base. Students will learn about the least terns and will begin walking to the site for tern habitats. |
| | 4/27/2024 1:00 PM | Castro Valley Creek Trail | Restoration | Makeup event attended by Skyline students. Students will attend an Earth Day Event at the Castro valley creek trail. Restoration activities that involved spreading mulch, weeding, and planting natives along the trail. |
| San Lorenzo High School | 5/11/2024 12:00 PM | Oyster Bay Regional Park | Restoration | Students will complete a cleanup and disc golf clinic at Oyster Bay. |
| | 2/24/2024 1:00 PM | Don Castro Regional Recreation Site | Restoration | Students will participate in restoration work along the San Lorenzo Creek at Don Castro Regional Park. Students will work with other Earth Team schools to tackle the overgrown French broom along the trail and creek. |
| | 3/30/2024 1:00 PM | Hayward Shoreline | Litter Assessments | Students will be led by Berkeley High Students to be introduced to the arcgis tool to survey the land for marine debris. Students will participate in a water quality led by Jennifer Trevis. |
| | 4/13/2024 12:30 PM | Alameda Naval Base National | Restoration | Students will arrive at the Alameda Naval Base. Students will learn about the least terns and will begin walking to the site for tern habitats. |

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| | | Wildlife Refuge | | |
| 4/20/2024 12:30 PM | Oyster Bay Regional Park | Restoration | Students will attend an Oyster Bay Restoration in the Monarch Garden. Students will be weeding invasives from the garden. | |
| 4/27/2024 1:00 PM | Castro Valley Creek Trail | Restoration | Students will attend an Earth Day Event at the Castro valley creek trail. Restoration activities that involved spreading mulch, weeding, and planting natives along the trail. | |
| 5/11/2024 1:00 PM | Oyster Bay Regional Park | Restoration | Students will participate in an Oyster Bay Restoration and a disk golf clinic. | |



***Meet the Interns Blog Posts***

Please access these links to see project participants and their bios/quotes supported by ACFCW funding. Earth Team has a photo release waiver on file from all interns, so ACFWC is free to use these pictures published in this report and on our webpage.

On their behalf, thank you!

<https://www.earthteam.net/introducing-the-2023-2024-castro-valley-sustainable-youth-interns/>

<https://www.earthteam.net/introducing-the-2023-2024-earth-team-arroyo-sustainable-youth-interns/>

<https://www.earthteam.net/meet-the-2023-2024-skyline-high-school-interns/>

