

## **Alameda County Fish and Wildlife Propagation Fund Report**

**Earth Team**

**Final Report – February 28, 2025**

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### **Summary**

This project was presented and approved for funding on 2/16/2024 to conduct monarch butterfly habitat restoration and community outreach activities in the Oyster Bay Regional Park, Ardenwood Historic Farms, San Leandro Marina golf course, and other watershed habitats in Alameda County. Restoration activities focus on the three sites that are home to overwintering monarchs but will also benefit the water quality and wetland habitats at Oyster Bay Regional Shoreline, San Lorenzo and San Leandro watersheds.

Activities started in July 2024 with the curriculum planning and early-recruitment stage for the high school interns. After the early-recruitment phase, we began on-campus recruitment presentations to Arroyo, Castro Valley, San Leandro, and San Lorenzo high schools. This process continued throughout the end of September. In-class curriculum and field restoration events started on September 2024 coinciding with the beginning of the 2024-25 school year.

We employed 68 paid high school interns that worked as planned to conduct monarch habitat restoration and improvement activities at Oyster Bay Regional Shoreline, Hayward Shoreline, De Anza Park, and Don Castro Regional Park. 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 68 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 water quality, invasive species identification and removal, native plant identification, mulching, and other maintenance activities. In addition, the teams were trained to use our OVTA protocol 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.

During this project, interns participated in five restoration workdays and four outdoor nature trips during weekend field days. They spent a cumulative 46 hours of after school meeting time learning about monarch butterflies, native and invasive species, habitat restoration, wetland functions, and local watershed habitats.



*Figure 1: Earth Team Interns at Work at Ardenwood Historic Farms Pollinator Garden.*

### Workplan and Deliverables

| School             | Visit Start Date/Time | Project Site              | Activity               | Description of Visit Expected Outcomes   |
|--------------------|-----------------------|---------------------------|------------------------|--|
| Arroyo High School | 9/16/2024<br>5:30 PM  | Zoom                      | Personal Growth        | Introductory meeting focusing on introducing students to the program and to students from other schools. This lesson focused on developing climate literacy by allowing students to talk with each other and mind map what is climate change.  |
|                    | 9/28/2024<br>9:00 AM  | Hayward Shoreline         | Trash Reduction        | Students participate in habitat restoration and species conservation by monitoring the environment and water quality at Hayward Shoreline, and connecting with and improving their local environments.<br>Students are educated on the importance of watershed health while actively cleaning a watershed habitat. Finally, students utilized the OVTA protocol to map litter and understand local environmental issues and restoration needs.   |
|                    | 10/10/2024<br>4:30 PM | Zoom                      | Personal Growth        | Interns will gain hands-on leadership and career skill development through student leadership and creativity based learning and hands-on, student-driven projects. Students gain leadership and career experience through experience and job training in the environmental field. This meeting set to allow students to get to know their new team and the projects they'll be working on, understand their own environmental impact, and educate their coordinator on the environmental issues on their campus.   |
|                    | 10/17/2024<br>4:00 PM | Arroyo High School Campus | Environmental Literacy | Students will participate in habitat restoration and species conservation by:<br>-Understanding local environmental issues and restoration needs.<br>-Understanding native, non-native, and invasive species.<br>Interns will gain hands-on leadership and career skill development through:<br>•Student leadership and creativity-based learning<br>•Community engagement<br>•Professional experience in the environmental field<br>This meeting, interns learned about native and invasive species. I modeled a case study for them based off of Monarch Butterflies. Then, interns spent the remainder of the meeting working in pairs on their own case study of a California native species and an invasive species that is impacting the native. By the end of the case study, interns completed a digital flyer detailing their chosen species, and |

|                    |                           |                 |   |
|--------------------|---------------------------|-----------------|---|
|                    |                           |                 | a short write-up. The flyers will be published on the EarthTeam social media and the write-ups are being compiled into a larger blog.   |
| 10/20/2024 9:00 AM | Ardenwood Historic Park   | Restoration     | <p>Students will participate in habitat restoration and species conservation at Ardenwood Farms by:</p> <ol style="list-style-type: none"> <li>Hands-on invasive species removal and restoration</li> <li>Monitoring the environment at Ardenwood</li> <li>Understanding local environmental issues and restoration needs</li> <li>Students encouraged to connect with and improve their local environments</li> </ol> <p>2. Students gain leadership and career experience through:</p> <ol style="list-style-type: none"> <li>Community outreach and engagement with other schools, environmental professionals, and the public</li> <li>Experience in the environmental field</li> </ol> <p>Interns will visit Ardenwood Historic Farms to do habitat restoration activities. Ardenwood is considered a key overwintering site for monarch butterflies, meaning all restoration performed on site is beneficial to the wellbeing of endangered species. Students will meet with Diana Ramirez, the head gardener at Ardenwood, and understand the significance of this area.</p>   |
| 10/24/2024 4:00 PM | Arroyo High School Campus | Trash Reduction | <p>Students will participate in habitat restoration and species conservation by:</p> <ul style="list-style-type: none"> <li>-Understanding local environmental issues and restoration needs.</li> <li>-Understanding native, non-native, and invasive species.</li> </ul> <p>2. Students will develop professional leadership skills by:</p> <ul style="list-style-type: none"> <li>- presenting their work and research to a group of their peers</li> <li>-Student leadership and creativity based learning</li> </ul> <p>3. Interns will participate in environmental stewardship and sustainability by:</p> <ul style="list-style-type: none"> <li>- Understanding the connection between waste production and climate change</li> <li>-Connecting plastics production and GHG emissions</li> </ul> <p>3. Students will know how to conduct waste audits and analyze data. This includes understanding:</p> <ul style="list-style-type: none"> <li>-The impact of over-consumption and reliance on 'disposability'</li> <li>-How to design and implement school-wide projects and campaigns to address waste reduction</li> <li>-The use of new technologies for trash assessments and mapping</li> </ul> |

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|--|--------------------------|---------------------------|---------------------------------|--|
|  | 10/24/2024<br>4 6:00 PM  | Arroyo High School Campus | Outreach: Campaigns & Materials | <p>Interns practice social media outreach:</p> <ul style="list-style-type: none"> <li>c. Participating in International Day of Climate Action</li> <li>d. Social media content</li> </ul> <p>Students use their voices to reach out to their personal friends, family, and other followers about International Day of Climate Action. Students encouraged others to act and speak up when it comes to climate change.</p>  |
|  | 11/7/2024<br>4:00 PM     | Arroyo High School Campus | Careers Exploration             | <ul style="list-style-type: none"> <li>1. Interns will participate in environmental stewardship and sustainability by:               <ul style="list-style-type: none"> <li>a. Understanding the connection between waste production and climate change</li> <li>b. Addressing environmental justice and climate change through hands-on projects</li> <li>c. Curriculum connecting plastics production and GHG emissions to support climate literacy</li> </ul> </li> <li>2. Interns will gain hands-on leadership and career skill development:               <ul style="list-style-type: none"> <li>a. Student leadership and creativity-based learning</li> <li>b. Hands-on, student-driven projects</li> <li>c. Exposure to environmental careers and professionals</li> </ul> </li> <li>3. Students will know how to conduct waste audits and analyze data. This includes understanding:               <ul style="list-style-type: none"> <li>a. The impact of over-consumption and reliance on 'disposability'</li> <li>b. How to design and implement school-wide projects and campaigns to address waste reduction</li> </ul> </li> </ul> |
|  | 11/11/2024<br>4 11:00 AM | Oyster Bay Regional Park  | Nature Trips                    | <p>Interns are encouraged to connect with and improve their local environments. Due to a rainy forecast for a planned hike, interns were encouraged to go for a hike over the long weekend with their friends or family. Students were given the following prompt: If it is dry enough for you to venture out on your own (not completely alone but with your own friends or family), take some pictures of you and your people spending time in nature this holiday weekend. Visit one of your favorite trails or a local park and look at it from a different perspective. Record the date, time, weather, and location. Keep track of how many hikers you pass, wildlife sightings, and note the condition of the trail. Is it well maintained or could it use some help? Think about how many people travel along a section of trail in</p>  |

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|-----------------------|--------------------------|-----------------|--|
|                       |                          |                 | just one weekend, especially a 3-day weekend. Send me this trail report and a few pictures of your time outside to me before our meeting next week. Have a fun weekend! Don't forget to spend some time outside!   |
| 11/17/2024<br>9:00 AM | Oyster Bay Regional Park | Restoration     | <p>-Increased Knowledge of Landfill Remediation: Interns should gain a clear understanding of landfill remediation processes, including the covering of landfills with soil as a method for mitigating environmental degradation, and its role in both preventing contamination and rehabilitating the land.</p> <p>-Skills in Habitat Restoration: Participants were expected to acquire hands-on skills related to monarch butterfly habitat restoration, learning key techniques such as mulching, deadheading, and weeding, which are critical for maintaining healthy ecosystems for pollinators.</p> <p>-Understanding of Ecological Interconnectedness: Interns were anticipated to develop an understanding of the interconnectedness of human actions, wildlife conservation, and ecological restoration, especially as it pertains to land management and endangered species protection.</p> <p>Empowerment for Local Environmental Action: By the end of the trip, interns should feel empowered to contribute to local environmental efforts, having gained both knowledge and practical experience that can inform their ongoing work in environmental stewardship. Interns will meet with 3 professional ecologists from EBRPD and gain professional restoration experience.</p> |
| 12/7/2024<br>9:00 AM  | De Anza Park             | Trash Reduction | <p>Interns will visit De Anza Park to complete OVTA surveys, litter counts, water quality assessments, and invasive species removal during a public creek cleanup event. During this event students learned about local salmon species from Bruce King of Friends of San Lorenzo Creek and how to test water quality from Jennifer Trevis of the Alameda County Resource Conservation District. Students also visited tables run by FSLZC, ACRCDD, and the flood control and water conservation district. Students were exposed to over 10 different environmental professionals. Overall, students gained experience in litter reduction, creek restoration, water quality testing, and waste management.</p>   |

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|  | 1/1/2025<br>12:00 PM | Arroyo High School Campus  | Outreach: Campaigns & Materials | <p>Intern are running a student social media account @slzusdearthteam Nguyen is the social media manager for Arroyo High. The social media team creates content based on the projects they are working on or other relevant environmental topics. This meets project outcomes in the following ways:</p> <p>TASK 5: Community Education</p> <p>5.1: Monthly blog postings</p> <p>5.2: Social media posts about local parks, recreation opportunities, and engagement volunteer opportunities</p>  |
|  | 1/4/2025<br>9:00 AM  | Coyote Hills Regional Park | Nature Trips                    | <p>During winter break, interns gained hands-on experience in environmental stewardship and deepened their environmental literacy through a Holiday Hike at Coyote Hills Regional Park. After the hike, interns toured the nectar garden and nature center to learn more about the Oholone Tribe and habitat restoration of the area. This meets project outcomes and objectives in the following ways:</p> <p>Task 1: Train and Engage New Youth Leadership in Stormwater Pollution</p> <p>1.0: This objective aims at educating high school youth on the importance of watershed health</p> <p>Task 3: Internship Leadership Team Education</p> <p>3.1: Introduction to watersheds etc.</p> <p>3.3: Invasive species and native species identification training.</p>        |
|  | 1/9/2025<br>4:00 PM  | Arroyo High School Campus  | Environmental Literacy          | <p>Welcome back from winter break! Interns jumped back into EarthTeam by learning about watershed functions, water pollution, and harmful algal blooms. Interns used the alameda county flood control and water conservation district's website to learn about the specific watersheds where they go to school and live. Interns used the remainder of the meeting to continue working on their group projects, each group has been given a deadline. This meets project outcomes and objectives in the following ways:</p> <p>TASK 3: Internship Leadership Team Education</p> <p>3.1: Introduction to watersheds and restoration work/ecology, applicable GLOBE wildlife biology protocols</p> <p>Task 1: Train and Engage New Youth Leadership in Stormwater Pollution</p> |

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|----------------------|--|-------------|--|
|                      |  |             | <p>This objective aims at educating high school youth on the importance of watershed health via direct participation in an immersive afterschool program and on-campus outreach campaigns.</p> <p>1.1: Prevent and reduce littering behaviors on and off-campus to reduce nonpoint stormwater pollution.</p> <p>1.2: Prevent and reduce pet waste pollution in public areas.</p> <p>1.3: Prevent and reduce use of garden pesticides in residential neighborhoods.</p>   |
| 1/20/2025<br>9:00 AM | Don Castro<br>Regional<br>Recreation<br>Site | Restoration | <p>This field event took place on MLK Day of Service. A day for people to come together and collectively better their communities. The EarthTeam Interns made up about half of the total attendance of this public service event. Students met with 3 park rangers from Don Castro park to assist with invasive french broom removal, maintenance in the manzanita garden, and litter removal in the creek. At the end of the event, interns listened to a presentation from Jennifer Trevis of the ACRCO on clean and healthy watersheds. They also completed pH, turbidity, phosphate, and nitrate testing . This meets project outcomes and objectives in the following ways:</p> <p>Task 1: Train and Engage New Youth Leadership in Stormwater Pollution</p> <p>1.1: Prevent and reduce littering behaviors on and off-campus to reduce nonpoint stormwater pollution.</p> <p>1.2: Prevent and reduce pet waste pollution in public areas.</p> <p>1.3: Prevent and reduce use of garden pesticides in residential neighborhoods.</p> <p>1.4: Restore degraded watershed habitats and improve ecosystem functions</p> <p>Task 3: Public Outreach</p> <p>3.3: Attendance and participation in community events, such as Coastal Cleanup Day and Martin Luther King Day of Service.</p> <p>TASK 4: Restoration Field Work</p> <p>4.1: OVTA litter mapping and removal</p> <p>4.2: Invasive plant identification and removal</p> <p>4.4: Mulching and/or ongoing habitat maintenance</p> <p>4.6: Water and soil quality testing</p> |



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|                          | 1/23/2025<br>4:30 PM | Zoom                                      | Personal<br>Growth           | <p>This meeting, interns focused on professional development. They learned about career resources and how to build a resume. This meets project outcomes in the following ways:</p> <p>2. Students gain leadership and career experience through:</p> <p>b. experience and job training in the environmental field</p>  |
|                          | 2/13/2025<br>4:00 PM | Arroyo High<br>School<br>Campus           | Water Quality<br>Assessments | <p>This week, interns were tasked with bringing a water sample to the meeting. Interns began the meeting with a lesson on types of wetlands and their functions. Next, we had a brief discussion on water quality parameters. Interns were then given a water quality packet and rotated to different stations around the room to test their water sample for: dissolved oxygen, nitrates, phosphates, turbidity, alkalinity, temperature, and pH. Students were asked to replicate some of the tests to practice checking accuracy. This meets project outcomes and objectives in the following ways:</p> <p>Task 1: Train and Engage New Youth Leadership in Stormwater Pollution<br/>This objective aims at educating high school youth on the importance of watershed health via direct participation in an immersive afterschool program and on-campus outreach campaigns.</p> <p>TASK 3: Internship Leadership Team Education<br/>3.1: Introduction to watersheds and restoration work/ecology, applicable GLOBE wildlife biology protocols<br/>3.4: OVTA litter tracking, litter removal, and water testing training</p> <p>TASK 4: Restoration Field Work<br/>4.6: Water and soil quality testing</p> |
| <b>Subtotal</b>          | Count                | 17  |                              |   |
| Castro<br>Valley<br>High | 9/11/2024<br>4:00 PM | Castro<br>Valley High<br>School<br>Campus | Personal<br>Growth           | First Meeting of the year. Students will be introduced to program policies and expectations. Students will create a bio and take photos for the website. Students will take part in team building activities.   |
|                          | 9/18/2024<br>3:45 PM | Castro<br>Valley High                     | Environmental<br>Literacy    | <p>Interns will participate in environmental stewardship and sustainability by:</p> <p>-Addressing environmental justice and climate change through hands-on projects</p>   |



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|  |                       | School Campus             |                 |   |
|  | 9/21/2024<br>9:00 AM  | Castro Valley Creek Trail | Trash Reduction | Students will participate in a Coastal Clean Up Partnering with the Alameda County Resource Conservation District- Clean Water Program.<br>-The use of new technologies for trash assessments and mapping   |
|  | 9/28/2024<br>9:00 AM  | Hayward Shoreline         | Trash Reduction | Students are educated on the importance of watershed health<br>Reduced littering behaviors on and off-campus to reduce nonpoint stormwater pollution<br>Habitat restoration (watershed)   |
|  | 10/20/2024<br>9:00 AM | Ardenwood Historic Park   | Restoration     | -Hands-on invasive species removal and restoration projects<br>-Understanding local environmental issues and restoration needs  |
|  | 11/17/2024<br>9:00 AM | Oyster Bay Regional Park  | Restoration     | -Increased Knowledge of Landfill Remediation: Interns should gain a clear understanding of landfill remediation processes, including the covering of landfills with soil as a method for mitigating environmental degradation, and its role in both preventing contamination and rehabilitating the land.<br>-Skills in Habitat Restoration: Participants were expected to acquire hands-on skills related to monarch butterfly habitat restoration, learning key techniques such as mulching, deadheading, and weeding, which are critical for maintaining healthy ecosystems for pollinators.<br>-Understanding of Ecological Interconnectedness: Interns were anticipated to develop an understanding of the interconnectedness of human actions, wildlife conservation, and ecological restoration, especially as it pertains to land management and endangered species protection.<br>Empowerment for Local Environmental Action: By the end of the trip, interns should feel empowered to contribute to local environmental efforts, having gained both knowledge and practical experience that can inform their ongoing work in environmental stewardship. |
|  | 12/7/2024<br>9:00 AM  | De Anza Park              | Trash Reduction | Interns will visit De Anza Park to complete OVTA surveys, litter counts, water quality assessments, and invasive species removal during a public creek cleanup event. During this event students learned about local salmon species from Bruce King of Friends of San Lorenzo Creek and how to test water quality from Jennifer   |

|                      |  |  |   |
|----------------------|--|--|---|
|                      |  |  | Trevis of the Alameda County Resource Conservation District. Students also visited tables run by FSLZC, ACRCD, and the flood control and water conservation district. Students were exposed to over 10 different environmental professionals. Overall, students gained experience in litter reduction, creek restoration, water quality testing, and waste management.  |
| 1/20/2025<br>9:00 AM | Don Castro<br>Regional<br>Recreation<br>Site | Restoration                            | <p>This field event took place on MLK Day of Service. A day for people to come together and collectively better their communities. The EarthTeam Interns made up about half of the total attendance of this public service event. Students met with 3 park rangers from Don Castro park to assist with invasive French broom removal, maintenance in the manzanita garden, and litter removal in the creek. At the end of the event, interns listened to a presentation from Jennifer Trevis of the ACRCD on clean and healthy watersheds. They also completed pH, turbidity, phosphate, and nitrate testing. This meets project outcomes and objectives in the following ways:</p> <p>Task 1: Train and Engage New Youth Leadership in Stormwater Pollution</p> <p>1.1: Prevent and reduce littering behaviors on and off-campus to reduce nonpoint stormwater pollution.</p> <p>1.2: Prevent and reduce pet waste pollution in public areas.</p> <p>1.3: Prevent and reduce use of garden pesticides in residential neighborhoods.</p> <p>1.4: Restore degraded watershed habitats and improve ecosystem functions</p> <p>Task 3: Public Outreach</p> <p>3.3: Attendance and participation in community events, such as Coastal Cleanup Day and Martin Luther King Day of Service.</p> <p>TASK 4: Restoration Field Work</p> <p>4.1: OVTA litter mapping and removal</p> <p>4.2: Invasive plant identification and removal</p> <p>4.4: Mulching and/or ongoing habitat maintenance</p> <p>4.6: Water and soil quality testing</p> |
| 1/29/2025<br>4:00 PM | Castro<br>Valley High<br>School<br>Campus    | Research<br>Projects/Clima<br>te Plans | <p>Students will participate in habitat restoration and species conservation by:</p> <ul style="list-style-type: none"> <li>-Understanding local environmental issues and restoration needs.</li> <li>-Understanding native, non-native, and invasive species.</li> </ul> <p>Interns will gain hands-on leadership and career skill development through:</p>  |

|                  |                       |                          |                 |   |
|------------------|-----------------------|--------------------------|-----------------|---|
|                  |                       |                          |                 | <ul style="list-style-type: none"> <li>•Student leadership and creativity-based learning</li> <li>•Community engagement</li> <li>•Professional experience in the environmental field</li> </ul> <p>This meeting, interns learned about native and invasive species. Modeled a case study for them based off Monarch Butterflies. Then, interns spent the remainder of the meeting working in pairs on their own case study of a California native species and an invasive species that is impacting the native. By the end of the case study, interns completed a digital flyer detailing their chosen species, and a short write-up.</p>                 |
| <b>Subtotal</b>  | Count                 | 9                        |                 |   |
| Skyline High     | 10/5/2024<br>8:45 AM  | Sausal Creek             | Restoration     | Students will complete a restoration event and distribute surveys at Sausal Creek in Dimond Park. This meets the project outcomes and objectives in the following ways: 4.5: Removal of invasive plants at creek locations.   |
| <b>Subtotal</b>  | Count                 | 1                        |                 |   |
| San Leandro High | 9/28/2024<br>9:00 AM  | Hayward Shoreline        | Trash Reduction | <p>Students are educated on the importance of air quality for watershed habitats optimal health</p> <p>Reducing littering behaviors on and off-campus to reduce nonpoint stormwater pollution</p> <p>Habitat restoration (watershed)</p>  |
|                  | 10/20/2024<br>9:00 AM | Ardenwood Historic Park  | Restoration     | <p>Students will participate in habitat restoration and species conservation by:</p> <ol style="list-style-type: none"> <li>Hands-on invasive species removal and restoration projects</li> <li>Monitoring the environment and water quality at selected sites</li> <li>Understanding local environmental issues and restoration needs</li> <li>Students encouraged to connect with and improve their local environments</li> </ol> <p>2. Students gain leadership and career experience through:</p> <ol style="list-style-type: none"> <li>Community outreach and engagement</li> <li>experience and job training in the environmental field</li> </ol> |
|                  | 11/17/2024<br>9:00 AM | Oyster Bay Regional Park | Restoration     | -Increased Knowledge of Landfill Remediation: Interns should gain a clear understanding of landfill remediation processes, including the covering of landfills with soil as a method for mitigating environmental degradation, and its role in both preventing contamination and rehabilitating the land.   |

|                  |                      |                          |                 |   |
|------------------|----------------------|--------------------------|-----------------|---|
|                  |                      |                          |                 | <p>-Skills in Habitat Restoration: Participants were expected to acquire hands-on skills related to monarch butterfly habitat restoration, learning key techniques such as mulching, deadheading, and weeding, which are critical for maintaining healthy ecosystems for pollinators.</p> <p>-Understanding of Ecological Interconnectedness: Interns were anticipated to develop an understanding of the interconnectedness of human actions, wildlife conservation, and ecological restoration, especially as it pertains to land management and endangered species protection.</p> <p>Empowerment for Local Environmental Action: By the end of the trip, interns should feel empowered to contribute to local environmental efforts, having gained both knowledge and practical experience that can inform their ongoing work in environmental stewardship.</p> |
|                  | 12/7/2024<br>9:00 AM | De Anza Park             | Trash Reduction | <p>Interns will visit De Anza Park to complete OVTA surveys, litter counts, water quality assessments, and invasive species removal during a public creek cleanup event. During this event students learned about local salmon species from Bruce King of Friends of San Lorenzo Creek and how to test water quality from Jennifer Trevis of the Alameda County Resource Conservation District. Students also visited tables run by FSLZC, ACRCDC, and the flood control and water conservation district. Students were exposed to over 10 different environmental professionals. Overall, students gained experience in litter reduction, creek restoration, water quality testing, and waste management.</p>  |
|                  | 2/15/2025<br>9:00 AM | Oyster Bay Regional Park | Nature Trips    | <p>Interns spent the morning hiking around their local park at Oyster Bay Regional Shoreline. During this event, interns also learned how to nature journal and used the app, inaturalist for students to explore their environment.</p>  |
| <b>Subtotal</b>  | Count                | 5                        |                 |   |
| San Lorenzo High | 9/16/2024<br>5:30 PM | Zoom                     | Personal Growth | <p>Introductory meeting focusing on introducing students to the program and to students from other schools. This lesson focused on developing climate literacy by allowing students to talk with each other and mind map what is climate change.</p>  |
|                  | 9/28/2024<br>9:00 AM | Hayward Shoreline        | Trash Reduction | <p>Students participate in habitat restoration and species conservation by monitoring the environment and water quality at Hayward Shoreline and connecting with and improving their local environments.</p>  |

|                         |                                      |                           |  |  |
|-------------------------|--------------------------------------|---------------------------|--|--|
|                         |                                      |                           |  | Students are educated on the importance of watershed health while actively cleaning a watershed habitat. Finally, students utilized the OVTA protocol to map litter and understand local environmental issues and restoration needs.   |
| 10/1/2024<br>3:45 PM    | San Lorenzo<br>High School<br>Campus | Personal<br>Growth        |  | Interns will gain hands-on leadership and career skill development through student leadership and creativity based learning and hands-on, student-driven projects. Students gain leadership and career experience through experience and job training in the environmental field. This meeting set to allow students to get to know their new team and the projects they'll be working on, create a professional bio, and educate their coordinator on the environmental issues on their campus.   |
| 10/15/2024<br>4 4:00 PM | San Lorenzo<br>High School<br>Campus | Environmental<br>Literacy |  | <p>Students will participate in habitat restoration and species conservation by:</p> <ul style="list-style-type: none"> <li>-Understanding local environmental issues and restoration needs.</li> <li>-Understanding native, non-native, and invasive species.</li> </ul> <p>Interns will gain hands-on leadership and career skill development through:</p> <ul style="list-style-type: none"> <li>•Student leadership and creativity-based learning</li> <li>•Community engagement</li> <li>•Professional experience in the environmental field</li> </ul> <p>This meeting, interns learned about native and invasive species. I modeled a case study for them based off Monarch Butterflies. Then, interns spent the remainder of the meeting working in pairs on their own case study of a California native species and an invasive species that is impacting the native. By the end of the case study, interns completed a digital flyer detailing their chosen species, and a short write-up. The flyers will be published on the EarthTeam social media and the write-ups are being compiled into a larger blog.</p> |
| 10/20/2024<br>4 9:00 AM | Ardenwood<br>Historic<br>Park        | Restoration               |  | <p>Students will participate in habitat restoration and species conservation at Ardenwood Farms by:</p> <ol style="list-style-type: none"> <li>Hands-on invasive species removal and restoration</li> <li>Monitoring the environment at Ardenwood</li> <li>Understanding local environmental issues and restoration needs</li> <li>Students encouraged to connect with and improve their local environments</li> </ol> <p>2. Students gain leadership and career experience through:</p>   |

|  |                    |                                |  |
|--|--------------------|--------------------------------|--|
|  |                    |                                | <p>a. Community outreach and engagement with other schools, environmental professionals, and the public</p> <p>b. Experience in the environmental field</p> <p>Interns will visit Ardenwood Historic Farms to do habitat restoration activities. Ardenwood is considered a key overwintering site for monarch butterflies, meaning all restoration performed on site is beneficial to the wellbeing of endangered species. Students will meet with Diana Ramirez, the head gardener at Ardenwood, and understand the significance of this area.</p>  |
|  | 10/22/2024 4:00 PM | San Lorenzo High School Campus | <p>Trash Reduction</p> <p>Students will participate in habitat restoration and species conservation by:</p> <ul style="list-style-type: none"> <li>-Understanding local environmental issues and restoration needs.</li> <li>-Understanding native, non-native, and invasive species.</li> </ul> <p>2. Students will develop professional leadership skills by:</p> <ul style="list-style-type: none"> <li>- presenting their work and research to a group of their peers</li> <li>-Student leadership and creativity-based learning</li> </ul> <p>3. Interns will participate in environmental stewardship and sustainability by:</p> <ul style="list-style-type: none"> <li>- Understanding the connection between waste production and climate change</li> <li>-Connecting plastics production and GHG emissions</li> </ul> <p>3. Students will know how to conduct waste audits and analyze data. This includes understanding:</p> <ul style="list-style-type: none"> <li>-The impact of over-consumption and reliance on 'disposability'</li> <li>-How to design and implement school-wide projects and campaigns to address waste reduction</li> <li>-The use of new technologies for trash assessments and mapping</li> </ul> |
|  | 10/24/2024 6:00 PM | San Lorenzo High School Campus | <p>Outreach: Campaigns &amp; Materials</p> <p>Interns practice social media outreach:</p> <ul style="list-style-type: none"> <li>c. Participating in International day of climate action</li> <li>d. Social media content</li> </ul> <p>Students use their voices to reach out to their personal friends, family, and other followers about International Day of Climate Action. Students encouraged others to take action and speak up when it comes to climate change.</p>   |

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|  | 11/17/2024<br>9:00 AM | Oyster Bay Regional Park | Restoration     | <p>-Increased Knowledge of Landfill Remediation: Interns should gain a clear understanding of landfill remediation processes, including the covering of landfills with soil as a method for mitigating environmental degradation, and its role in both preventing contamination and rehabilitating the land.</p> <p>-Skills in Habitat Restoration: Participants were expected to acquire hands-on skills related to monarch butterfly habitat restoration, learning key techniques such as mulching, deadheading, and weeding, which are critical for maintaining healthy ecosystems for pollinators.</p> <p>-Understanding of Ecological Interconnectedness: Interns were anticipated to develop an understanding of the interconnectedness of human actions, wildlife conservation, and ecological restoration, especially as it pertains to land management and endangered species protection.</p> <p>Empowerment for Local Environmental Action: By the end of the trip, interns should feel empowered to contribute to local environmental efforts, having gained both knowledge and practical experience that can inform their ongoing work in environmental stewardship.</p> |
|  | 12/7/2024<br>9:00 AM  | De Anza Park             | Trash Reduction | <p>Interns will visit De Anza Park to complete OVTA surveys, litter counts, water quality assessments, and invasive species removal during a public creek cleanup event. During this event students learned about local salmon species from Bruce King of Friends of San Lorenzo Creek and how to test water quality from Jennifer Trevis of the Alameda County Resource Conservation District. Students also visited tables run by FSLZC, ACRC, and the flood control and water conservation district. Students were exposed to over 10 different environmental professionals. Overall, students gained experience in litter reduction, creek restoration, water quality testing, and waste management.</p> <p>Task 1: Train and Engage New Youth Leadership in Stormwater Pollution</p> <p>1.4: Restore degraded watershed habitats and improve ecosystem functions</p> <p>TASK 3: Internship Leadership Team Education</p> <p>3.3: Invasive species and native species identification training</p> <p>3.4: OVTA litter tracking, litter removal, and water testing training</p> <p>ASK 4: Restoration Field Work</p> <p>4.1: OVTA litter mapping and removal</p>                  |



|                       |                                |                                 |  |
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|                       |                                |                                 | 4.2: Invasive plant identification and removal<br>4.6: Water quality testing   |
| 12/30/2024<br>9:00 AM | Coyote Hills Regional Park     | Nature Trips                    | <p>During winter break, interns and families gained hands-on experience in environmental stewardship and deepened their environmental literacy through a Holiday Hike at Coyote Hills Regional Park. The team, accompanied by a few parents, younger sibling, and guest speaker Rilynn Misa, walked the Marsh and Bayview trails, learned about the ecological importance of wetlands, and engaged in nature journaling. Students journaled observations of birds and animals, the historical impact of the Ohlone tribes on the area, the importance of wetlands, and overall reflections on the hike. Students were encouraged to connect with and improve their local environments. Interns also had more opportunities to build relationships with local sustainability coordinator, Rilynn Misa, for both personal and professional development. This meets project outcomes and objectives in the following ways:</p> <p>Task 1: Train and Engage New Youth Leadership in Stormwater Pollution</p> <p>1.0: This objective aims at educating high school youth on the importance of watershed health</p> <p>Task 3: Internship Leadership Team Education</p> <p>3.1: Introduction to watersheds etc.</p> <p>3.3: Invasive species and native species identification training.</p> |
| 1/1/2025<br>12:00 PM  | San Lorenzo High School Campus | Outreach: Campaigns & Materials | <p>Intern are running a student social media account @slzusdearthteam Kat is the social media manager for San Lorenzo High. The social media team creates content based on the projects they are working on or other relevant environmental topics. This meets project outcomes in the following ways:</p> <p>TASK 5: Community Education</p> <p>5.1: Monthly blog postings</p> <p>5.2: Social media posts about local parks, recreation opportunities, and engagement volunteer opportunities</p>   |
| 1/7/2025<br>4:00 PM   | San Lorenzo High School Campus | Environmental Literacy          | <p>Welcome back from winter break! Interns jumped back into EarthTeam by learning about watershed functions, water pollution, and harmful algal blooms. Interns used the alameda county flood control and water conservation district's website to learn about the specific watersheds where they go to school and live.</p>   |

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|                      |  |             | <p>Interns used the remainder of the meeting to continue working on their group projects, each group has been given a deadline. This meets project outcomes and objectives in the following ways:</p> <p>TASK 3: Internship Leadership Team Education</p> <p>3.1: Introduction to watersheds and restoration work/ecology, applicable GLOBE wildlife biology protocols</p> <p>Task 1: Train and Engage New Youth Leadership in Stormwater Pollution</p> <p>This objective aims at educating high school youth on the importance of watershed health via direct participation in an immersive afterschool program and on-campus outreach campaigns.</p> <p>1.1: Prevent and reduce littering behaviors on and off-campus to reduce nonpoint stormwater pollution.</p> <p>1.2: Prevent and reduce pet waste pollution in public areas.</p> <p>1.3: Prevent and reduce use of garden pesticides in residential neighborhoods.</p>  |
| 1/20/2025<br>9:00 AM | Don Castro<br>Regional<br>Recreation<br>Site | Restoration | <p>This field event took place on MLK Day of Service. A day for people to come together and collectively better their communities. The EarthTeam Interns made up about half of the total attendance of this public service event. Students met with 3 park rangers from Don Castro park to assist with invasive french broom removal, maintenance in the manzanita garden, and litter removal in the creek. At the end of the event, interns listened to a presentation from Jennifer Trevis of the ACRCO on clean and healthy watersheds. They also completed pH, turbidity, phosphate, and nitrate testing . This meets project outcomes and objectives in the following ways:</p> <p>Task 1: Train and Engage New Youth Leadership in Stormwater Pollution</p> <p>1.1: Prevent and reduce littering behaviors on and off-campus to reduce nonpoint stormwater pollution.</p> <p>1.2: Prevent and reduce pet waste pollution in public areas.</p> <p>1.3: Prevent and reduce use of garden pesticides in residential neighborhoods.</p> <p>1.4: Restore degraded watershed habitats and improve ecosystem functions</p> <p>Task 3: Public Outreach</p> <p>3.3: Attendance and participation in community events, such as Coastal Cleanup Day and Martin Luther King Day of Service.</p> |

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|                 |                      |                                |                           | TASK 4: Restoration Field Work<br>4.1: OVTA litter mapping and removal<br>4.2: Invasive plant identification and removal<br>4.4: Mulching and/or ongoing habitat maintenance<br>4.6: Water and soil quality testing   |
|                 | 1/21/2025<br>4:30 PM | Zoom                           | Personal Growth           | This meeting, interns focused on professional development. They learned about career resources and how to build a resume. This meets project outcomes in the following ways:<br>2. Students gain leadership and career experience through:<br>b. experience and job training in the environmental field   |
|                 | 2/4/2025<br>4:00 PM  | San Lorenzo High School Campus | Water Quality Assessments | This week, interns were tasked with bringing a water sample to the meeting. Interns began the meeting with a lesson on types of wetlands and their functions. Next we had a brief discussion on water quality parameters. Interns were then given a water quality packet and rotated to different stations around the room to test their water sample for: dissolved oxygen, nitrates, phosphates, turbidity, alkalinity, temperature, and pH. Students were asked to replicate some of the tests to practice checking accuracy. This meets project outcomes and objectives in the following ways:<br>Task 1: Train and Engage New Youth Leadership in Stormwater Pollution<br>This objective aims at educating high school youth on the importance of watershed health via direct participation in an immersive afterschool program and on-campus outreach campaigns.<br>TASK 3: Internship Leadership Team Education<br>3.1: Introduction to watersheds and restoration work/ecology, applicable GLOBE wildlife biology protocols<br>3.4: OVTA litter tracking, litter removal, and water testing training<br>TASK 4: Restoration Field Work<br>4.6: Water and soil quality testing |
| <b>Subtotal</b> | Count                | 15                             |                           |   |
| <b>Total</b>    | Count                | 47                             |                           |   |









### ***Blog Posts: Meet the Interns***

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 ACFCW is free to use these pictures published in this report and on our webpage.

[Arroyo High School](#)  
[Castro Valley High School](#)  
[San Leandro High School](#)  
[San Lorenzo High School](#)

***Blog Posts: Work We've Done***

Please access these links to see project activities supported by ACFCW funding thus far. 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.

[A Day of Action: Cleaning Up De Anza Park](#)  
[Rooted in Nature: San Leandro Earth Team Hike Around Oyster Bay](#)  
[The Meaning of Service: MLK Day of Service](#)  
[Happy New Year From Earth Team!](#)  
[Earth Team Takes on De Anza Park](#)  
[Earth Team Interns Restore Monarch Butterfly Habitat at Oyster Bay Shoreline](#)  
[Earth Team Interns Take Action: Litter Clean-Ups at the Hayward Shoreline and Castro Valley Creek Trail during Coastal Clean Up Month](#)  
[Invasive Species Week 2025](#)  
[Earth Team at Ardenwood Historic Farm](#)

***Social Media: Instagram***

You can also see what Earth Team is up to on out [Instagram](#). You can see weekend field workday events, student projects, and other team updates.

On behalf of all our interns, thank you!