

## Alameda County Fish and Wildlife Propagation Fund Final Report

Earth Team 2016

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### Summary

The project so far has successfully addressed the objectives of creating new green infrastructures and restoring local natural habitats as well as the broader engagement of low-income youth and citizens in the project implementation. The restoration internships with 28 Alameda and San Lorenzo high school students have met all student training outcomes for career and college preparation plus the development of green skills in environmental monitoring and restoration. As proposed, EBRPD/IPM will be offering trained interns summer employment opportunities in 2017, to continue addressing the job creation outcomes after the completion of the *project*. The project has successfully implemented the planned activities to meet its 13103 a) public education, 13103 e) vegetation management and 1303 i) scientific research objectives.

### Research and Restoration Activities

**OBJECTIVE 1:** *Apply restoration curriculum and environmental monitoring skills to rehabilitate a 3 acre area inside Oyster Bay working with IPM/EBRPD staff and local community volunteers*

The Alameda High Earth Team worked with EBRPD Resource Analyst IPM & Industrial Fire Fighter Pamela Beitz to introduce 46 native Californian plants to the designated restoration site at Oyster Bay Regional Shoreline. Plants consisted of endangered Torrey Pines, Catalina Ironwoods, Coast Live Oaks, Catalina Cherry Trees, and Toyons. The most notable plant that interested and challenged interns the most was the Torrey Pine, an endangered California pine tree. Torrey Pines only exist in two habitats in San Diego and Santa Rosa Island of the Channel Islands. Planting Torrey Pines at Oyster Bay Regional Shoreline allows the species to thrive in other areas of the California Coast, and boost its population numbers. Interns learned the balance between recreation and habitat restoration in East Bay Park's, and what is implemented to make parks both natural habitats for flora and fauna, and recreational areas for the public to enjoy. Oyster Bay Regional Shoreline is expected to become a major migration stop for endangered Monarch Butterflies, in the coming years. Monarch's already are visiting to nest in the established Torrey Pine grove at the Shoreline but numbers are expected to increase substantially over the years with the planting of more Torrey Pines. Oyster Bay Regional Shoreline will also be home to a massive frisbee golf course along the shore, and an outdoor bicycling skills course. Interns will be assisting Pamela and the EBRPD in planting and watering native plants, as well as removing invasive plants in order to implement these recreation areas.

**November 12, 2016 Field Event:** Eleven Alameda Earth Team interns worked on November 12, 2016 under the supervision of Pamela Beitz, EBRPD Ranger Gabriel, and Earth Team Program Associate Julia Dorosh. Interns were taught the importance of installing native plants for restoration and recreation, the plants with proper care will thrive in shoreline habitat as well as provide refuge for many native species.

**December 3, 2016 Field Event:** Interns worked with Pamela Beitz and another EBRPD ranger, as well 9 San Leandro High Earth Team interns to plant 29 native plants again on December 3rd. Interns were taught how to properly handle restoration tools such as a digging bar, and shovel, as well install mulch around the natives to protect them and help store water. Working alongside EBRPD staff has provided interns with professional development skills, an opportunity to restore a degraded habitat, and learn about native plants and their importance. Interns will continue their work with EBRPD staff to remove invasive species and begin planting more natives in other areas in Oyster Bay Regional Shoreline.

### Public Education and Outreach Activities

**OBJECTIVE 2:** *Educate and train students at one nearby Title 1 public high school with environmental restoration concepts and skills as well as the leadership and communication skills required to educate peers and community on the environmental values that Oyster Bay Regional Shoreline provides to wildlife and the community.*

14 students were recruited as paid interns from Alameda High School and they met weekly afterschool and weekends with Julia Dorosh, lead project staff and other restoration experts (Pam Bietz, EBRPD) to implement restoration field days at Oyster Bay designated areas.

Interns were trained in vegetation surveying/ techniques, using smartphones, tablets and paper forms. Field visit were logged into Earth Team's database as "project visits", including GPS coordinates, invasives removed (types and locations), native plants introduced, evaluating also student learning and restoration skills learned.

- Manual vegetation management techniques



- Erosion Control techniques
- Restoration/Rehabilitation techniques
- Environmental sampling (vegetation, water quality): vegetation surveys and water quality monitoring
- Plant ID & Plant Community descriptions

## Deliverables Update (01/31/17)

Restoration Activity	Conservation Metric	Units	Activity Amount	Total Project Amount	Status of Deliverable	Dates
Native plant installation workday	Native plants installed	# Plants	75	1,000	40 trees planted	11/12, 12/3, 1/28
Native plant nursery workday	Native Plants Propagated	# Plants	200	2,000	n/a	02/17
Invasive plant removal workday	Invasive Species Removed	Square feet	10	300	Crown Memorial Beach Invasive Species removal 15 sq. ft.	1/26 2/2
Trellising sloped areas workdays	Trellising sloped restoration areas	Linear feet	25	500	n/a	n/a
Point-line intercept vegetation monitoring workday	Vegetation Monitoring	Points	150	800	Vegetation monitoring work day coming in March	03/17
BioBlitz	Species observations entered into iNaturalist phone app	# observations	150	450	Using CalFlora and BioBlitz currently at Crown Memorial Beach with EBRPD.	02/17
Planting Palette Research	# Plant species researched for installation or removal at restoration site	# species	25	25	Crown Memorial Beach native plant walk students researched 28 native plants to install at Crown Memorial Beach.	09/27

Pictures with project activities available at:

<http://www.earthteam.net/news/alameda-high>

<http://bit.ly/2kkupKP>

<http://bit.ly/2kAsPD2>

<http://bit.ly/2kG7Ir1>



Alameda Earth Team Interns alongside EBRPD Staff, Pamela Beitz and Gabriel.



Aerial view of native vegetation introduced at Oyster Bay Regional Shoreline field site.

More pictures with project activities available at:  
<http://www.earthteam.net/news/alameda-high>