



Quarterly Report to Environmental Enhancement Committee: 1st Quarter, 2020 (January-March)

Active Projects:

1. Morro Dunes Natural Preserve Restoration, Los Osos, CA
2. Restoration of Priority Freshwater Wetlands for Endangered Species, Consumnes River Preserve
3. Año Nuevo Island Seabird Habitat Enhancement Project
4. Baker Creek Streamflow and Habitat Enhancement Project, Inyo County
5. Restoration of ecosystem functions to benefit threatened and endangered amphibians at Elkhorn Slough, Elkhorn Slough Preserve.
6. Restoring Coastal Dune Ecosystem Health and Resilience at Salinas River State Beach, Monterey, CA

Completed Projects

1. Point Arena II Resource Lands Conservation, by The Trust for Public Land (September 2013)
2. McDaniel Slough, Arcata (June 2014)
3. Pioneering and Innovative Oyster Restoration at Elkhorn Slough (August 2014)
4. Sears Point Tidal Restoration Project (October 2015)
5. Sonoma Creek Tidal Marsh Enhancement Project (June 2016)
6. Dune Restoration at Morro Strand State Beach (June 2016)
7. Community Based Restoration on the Fort Ord Dunes State Park (September 2016)
8. Complete Restoration of Point Reyes North Great Beach Critical Dune Habitat (January 2017)
9. Restoration of Salt Marsh-Upland Transition, Tijuana Slough National Wildlife Refuge (January 2017)
10. Restoration of Coastal Native Plant Communities & Seabird Habitat, Santa Cruz CA (2018)
11. Habitat Restoration of Coastal Strand, Dune, and Lagoon Ecosystems; Manchester SP (February 2020)

Active Projects

The following grants are currently being funded from the EEF, with a brief update for each:

1. Morro Dunes Natural Preserve Restoration, Los Osos, CA.

- **Grantee:** California Department of Parks and Restoration
- **Term:** 07/21/2017 – 06/30/2020
- **Dollar amount authorized by EEC:** \$180,000.00
- **Invoiced to date:** \$172,513.97
- **Work completed:** Determination of monitoring plots, mapping of treatment areas, dune stabilization, contracting, initial and follow up herbicide treatments, final reporting.
- **More information available at:** Request final project report from Daniel Orr

1st Quarter Update: The final project report was received and the Grantee invoiced for all project work. While this project had initial delays due to contract challenges and Fi\$Cal setbacks the Grantee was able to contract with the Coastal San Luis Resource Conservation District (RCD) to complete the project on schedule. Three phases of herbicide treatments were able to remove ice-plant from more than 200 acres of the preserve. This exceeded the originally planned 140 acres.



Photo above show dead and re-treated patches in Phase 2 (left) and Phase 3 (right) treatment area.

2. Restoration of Priority Freshwater Wetlands for Endangered Species, Cosumnes River Preserve

- **Grantee:** California Department of Parks and Restoration
- **Term:** 09/20/2017 – 06/30/2020
- **Dollar amount authorized by EEC:** \$89,900.00
- **Invoiced to date:** \$87,622.81
- **Work completed:** Project design, baseline monitoring, permit applications, contracting, tree planting, construction, and invasive species control.
- **More information available at:** No further information available at this time

1st Quarter Update: The construction phase is complete, invasive species treatments are ongoing, and the project is on schedule. During this quarter post-restoration surveys were partially completed. Approximately six acres of weed treatments for thistles and poison hemlock occurred under rookery trees. Galt Joint Union School District helped preserve staff plant more oak trees in January. Due to the COVID-19 outbreak, all volunteer and staff monitoring activities were suspended starting March 13, 2020. Final monitoring may not occur due to “stay-at-home” orders.



Photo above: Image of great egret rookery on March 8, 2020 taken during drone survey. This is around the time when great egrets begin accumulating more in the rookery.

3. Baker Creek Streamflow and Habitat Enhancement Project

- **Grantee:** Sanctuary Forest Inc.
- **Term:** 09/01/2019-06/30/2022
- **Dollar amount authorized by EEC:** \$203,683.10
- **Invoiced to date:** \$0.00
- **Work Completed:** Hydrological studies and final plan modifications.
- **Further Information:** None available at this time.

1st Quarter Update: This quarter project managers provided final plan modifications and requested a minor budget change. With the approved changes implementation will begin in July 2020. Because native clay was not present in some anticipated pond locations project deliverables were modified to include installation of an underground restrictive layer down stream of installed ponds. This will reduce the number of created ponds by one, but expand the amount of seasonal wetland and native plants.

4. Año Nuevo Island Seabird Habitat Enhancement Project, Santa Cruz

- **Grantee:** Oikonos Ecosystem Knowledge
- **Term:** 09/01/2019-06/30/2022
- **Dollar amount authorized by EEC:** \$69,796.00
- **Invoiced to date:** \$29,484.00
- **Work Completed:** Project planning, transportation of materials to island, construction, native plantings.
- **Further information:** Visit Oikonos website for illustrated stories and updates on past Año Nuevo Island work <http://oikonos.org/ano-nuevo-island/>

1st Quarter Update: Project crews managed three island visits this quarter prior to shelter in place restriction. The rainwater system installed in fall reached full capacity which allowed for planting of native Salt Grass starts. Over three island visits staff and volunteers placed 1,100 plants underneath the Habitat Enhancement Protection Platforms (HEAPs).

Photo to right: UCSC and community volunteers planting under HEAPs



Planting efforts and monitoring planned for May are currently delayed. Project managers hope to pursue a modified schedule, perhaps with essential staff only, in the future. In the interim, analysis of game camera images to monitor Brown Pelicans will be prioritized.

Photo to right: Game camera image demonstrating Brown Pelicans on HEAPs



5. Restoration of Ecosystem Functions to Benefit Threatened and Endangered Amphibians at Elkhorn Slough, Moss Landing

- **Grantee:** Elkhorn Slough Foundation
- **Term:** 09/01/2019-06/30/2022
- **Dollar amount authorized by EEC:** \$166,524.05
- **Invoiced to date:** \$20,760.75
- **Work Completed:** Contract for tide gate repair executed with Wetland Construction. EEF staff visited the project site on October 3rd, 2019 to discuss modification of project timeline and budget to allow for tide gate repair to proceed.
- **Further information:** None available at this time

1st Quarter Update: Tide gate repairs were completed in December 2019 allowing gradual restoration of freshwater salinities to lower cattail pond to begin. Salinity monitoring this quarter shows that levels continue to gradually improve but not yet to the point that amphibians are using the pond. Active work on the project is expected to resume August 2020 when Eucalyptus and other invasive plants adjacent to the pond will be removed.

Picture to right: Lower Cattail water control structure after successful repairs.



6. Restoring Coastal Dune Ecosystem Health and Resilience at Salinas River State Beach, Moss Landing

- **Grantee:** Coastal Conservation and Research, Inc. (CCR)
- **Term:** 09/27/2019-06/30/2022
- **Dollar amount authorized by EEC:** \$104,892.85+
- **Invoiced to date:** \$38,947.60
- **Work Completed:** Subcontracting, pre-project monitoring, native plant propagation, and invasive species treatments
- **Further information:** Request full report from Daniel Orr

1st Quarter Update: Work is underway, several subcontracts have been setup and project coordination meetings have occurred. This quarter a second round of iceplant eradication occurred within the restoration area including herbicide treatments and hand-pulling by CCR and the California Conservation Corp. Collection of native dune plant seeds at the state beach property continued. CCR is currently cultivating 2,000-4,000 native plants. Unfortunately, revamping of the State Parks greenhouse, which is planned to be used to propagate 5,000 additional plants for the dune restoration, is on hold during the COVID-19 pandemic. Monitoring occurred at 6 of the 8 established locations before field work was also put on hold. The figure below summarizes data for those sites, generally a large reduction of non-native cover and modest increase of native cover has been observed. Abiotic cover, which includes dead iceplant, has greatly increased but is expected to be reduced in favor of native cover once native plantings can occur.

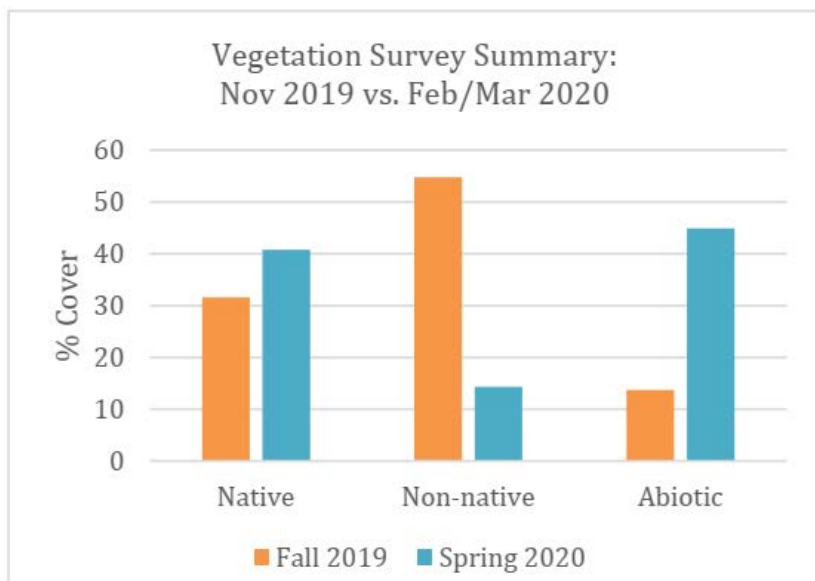


Photo above left: Summary of results of pre-restoration (Fall 2019) and first year restoration (Spring 2020) vegetation surveys. **Photo above right:** Native Chorizanthe coming up between dying iceplant