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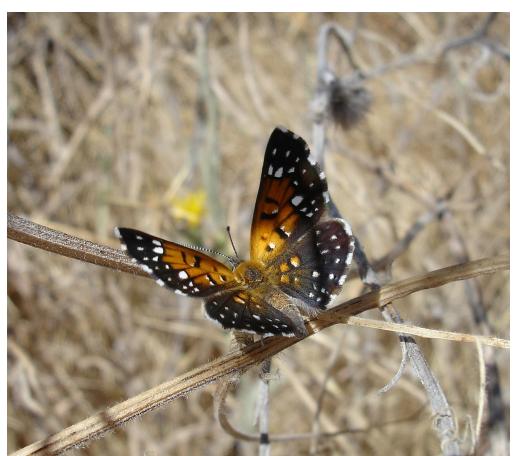
Outstanding Environmental Project Awards

Presented





Antioch Dunes Restoration Project



The Antioch Dunes National Wildlife Refuge, located on the shoreline of the San Joaquin River in the Western Delta, is home to the last remaining populations of three endangered species: Antioch dunes evening primrose, Contra Costa wallflower, and Lange's metalmark butterfly. The Antioch Dunes Restoration Project involved the beneficial reuse of maintenance dredging material to restore the sensitive dune ecosystem at the Refuge.

To date, approximately 50,000 cubic yards of sandy dredged material has been placed at the Refuge, and this replenishment is expected to continue until at least 2022. The Refuge is already showing signs of success: the butterfly population, which was as low as 40 at

one time, has recently grown to 78. Other ecosystem benefits are expected in the coming years.

Breuner Marsh Restoration and Public Access Project



Breuner Marsh, a 238-acre area on the eastern edge of San Pablo Bay in the City of Richmond, located between the Bay and Parchester Village, is one of the few places on the shoreline that hasn't undergone irreparable habitat degradation. After a prolonged community-driven effort to save the site from development, the East Bay Regional Park District purchased it in 2009 and added it to the Point Pinole Regional Shoreline.

The District's goals for the new coastal shoreline park in-

clude the restoration and enhancement of 40 acres of historic wetlands, closing a key gap in the San Francisco Bay Trail, and developing public access facilities for local community and visitors. Breuner Marsh is one of the first restoration projects in the San Francisco Bay Area that anticipates and accommodates rising sea levels due to climate change.

Cullinan Ranch Restoration Project



The Cullinan Ranch Restoration Project restored tidal salt marsh habitat at a unit of the San Pablo Bay National Wildlife Refuge. Restoration project actions included excavation of historic channels, levee lowering, breach construction, the protection of highway infrastructure, revegetation of transition habitat and high-tide refugia habitat, and improving public education and access.

Living Shorelines Project



This project has constructed native oyster and eelgrass beds at two sites in San Francisco Bay as part of an innovative habitat restoration and climate change adaptation pilot project. Preliminary results are providing critical information about the potential benefits of using natural reefs along the shoreline to protect habitat in the face of sea level rise and climate change.

In January 2015, the project restored tidal waters to some 1,200 acres of vital estuarine tidal marsh, benefiting a myriad of listed and other wetland-dependent fish and wildlife species. An additional 290 acres were isolated from the tidal marsh area to allow for the

importation of dredge material for beneficial re-use. Approximately 2.8 million cubic yards of dredge material will be imported to that area to create near-term marsh plain habitat for salt marsh harvest mouse and Ridgway's rail. Once the dredge import operations are completed, a total of 1,500 acres of historic tidal marsh will be restored.

Invasive Spartina Treatment and Revegetation Project



In 2000, the State Coastal Conservancy and U.S. Fish and Wildlife Service initiated the Invasive Spartina Project. The overall goal of the project is to administer a regionally coordinated effort, involving dozens of partners, to address the rapid spread of four introduced and highly invasive Spartina (cordgrass) species in the San Francisco Estuary. The Project seeks to eradicate invasive Spartina in order to protect the long-term health of the Bay's native marsh ecosystem and to restore affected habitats. The ISP is comprised of a number of components including outreach, research, permitting, mapping, monitoring, and the allocation of funds for efforts to eliminate populations of nonindigenous Spartina.

Between 2005 and 2014, the project successfully eliminated more than 775 net acres (96%) of invasive Spartina from more than 25,000 acres of infested tidal marsh and 25,000 acres of mudflats Bay-wide. More than two million native oysters have settled at the San Rafael site, along with juvenile Dungeness crabs, bay

shrimp, white sturgeon, American black oystercatchers, and a wide diversity of other fish, birds, and wildlife that are using the reefs for habitat structure and food resources. More than 25% of the settled oysters are reproducing, along with bay shrimp, bay gobies, nudibranchs and shore crabs. Initial data shows that the reefs are accreting sediment, and reduce wave energy by 30-50% at certain water levels.

South Bay Creeks Collaborative



Over the past five years, a collection of San Jose community groups has joined with agencies to clean up major creeks in the South Bay, especially Coyote Creek and Los Gatos Creek. The partnering organizations are Clean Creeks-Healthy Communities, CommUniverCity, Keep Coyote Creek Beautiful, Friends of Los Gatos Creek, Friends of Guadalupe River, Downtown Streets Team, San Jose Conservation Corps, City of San José, and San José State University. Major funding for the work has come from the City of San José, Santa Clara Valley Water District, and US EPA.

These groups have engaged thousands of volunteers from neighborhoods, corporations, community groups, and schools to clean up and begin the creek restoration process. Together, they have progressively removed more trash each year, culminating in more than 100 tons of trash this past year.