

EXHIBIT 6: PROJECT PHOTOGRAPHS

Figures 1-4: *Spartina* Treatment

Figures 5-8: Marsh Revegetation

Figures 9-12: Constructed Earthen Islands

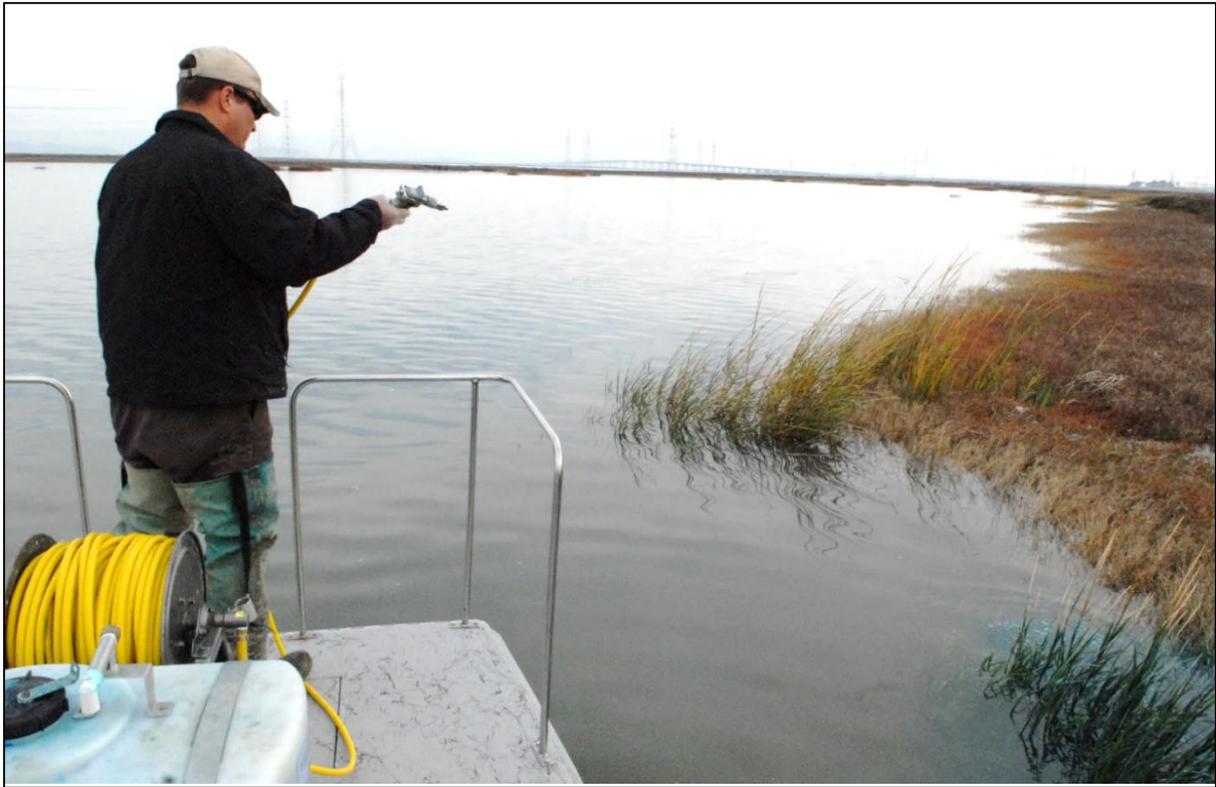


Figure 1. Invasive *Spartina* treatment often requires locating isolated plants along previously infested shorelines to assure complete elimination of potential new seed or plant starts. The herbicide used to treat *Spartina* is a very low-toxicity product, approved by the U.S. Environmental Protection Agency, the State Water Quality Control Board, and the Department of Pesticide Regulation for used in the extremely sensitive estuarine environment. The blue color is a non-toxic dye added to the herbicide to help applicators see what has already been treated.

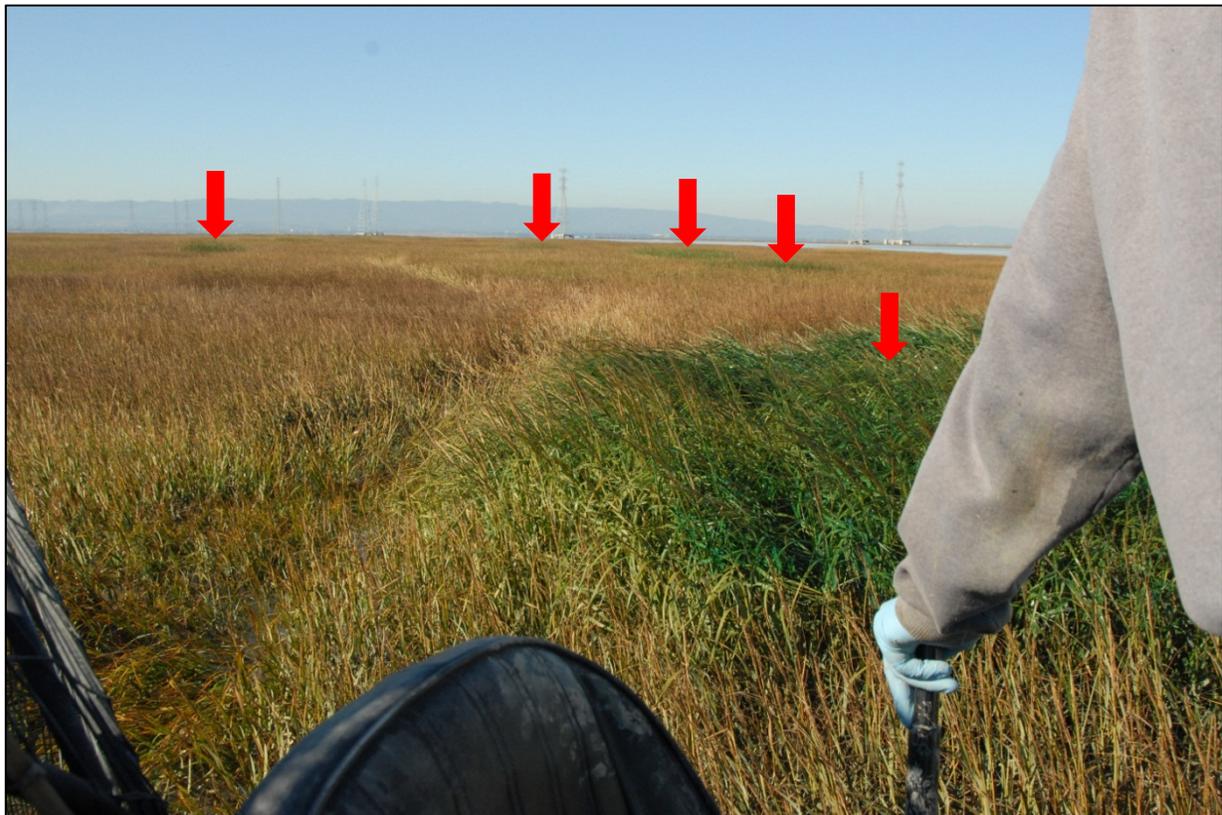


Figure 2. Sometimes dozens of invasive *Spartina* hybrid plants (clones) may be disbursed throughout acres of otherwise native *Spartina foliosa* marsh. In this marsh, the invasive hybrid plants are visible as brighter green spots in the marsh plain (indicated by red arrows), so they are relatively easy to see although difficult to reach. In many marshes, the invasive is not nearly so discernible. The pollen from the invasive plants "swamp" the nearby natives, and produce more highly invasive hybrid offspring.



Figure 3. A treatment crew “drags hose” to apply aquatic herbicide to tall invasive *Spartina* plants in an area where much of an infestation has been eradicated. The stubble in the foreground is what is remaining of plants successfully killed the previous season. The plant in the center of the photo illustrates how new green growth radiates out from the center of an established clone, sometimes spreading at a rate of two meters or more per year. The blue color along visible the base of the plant is non-toxic dye added to the herbicide to help applicators see what has been treated.



Figure 4. Geotextile fabric secured over a plant can be effective for killing isolated clones in some situations, such as in this otherwise native marsh on the Point Reyes seashore. Protecting the native California coastal habitats by preventing spread of invasive *Spartina* out of the San Francisco Estuary is a major accomplishment of the Invasive *Spartina* Project.

Exhibit 6: Pictures of Treatment, Revegetation, and Enhancement Islands



Figure 6. The ISP Restoration Program planted 70,000 native plants last season, with an equal number going in this year. Here, native Marsh Gumplant is planted in dense clumps along small channels to provide nesting habitat and refuge for endangered California Clapper Rails. The large 1-gallon size plants installed this year (shown) are more costly and difficult to install than the smaller “D40” size used last season, but we expect them to provide valuable cover sooner for the rails.



Figure 5. In some situations, cages are installed around the new seedlings to protect them from being eaten – by geese, rabbits, rats, and in some cases, crabs! Once the plants are established, the cages will be removed and reused for other plantings.



Figure 8. Large scale planting in the tidal marsh environment has required considerable ingenuity on the part of project participants. Here a contracted installation crew experiments with different transport methods to efficiently move large number of plants across the marsh plain. The winner was the sturdier black “Jet Sled”, which is designed to carry supplies for waterfowl hunters.



Figure 7. A unique challenge and opportunity for the project is the reintroduction of native *Spartina* into areas where it had been completely pushed out by the invasive hybrids. On the channel edge shown, 40 young native *Spartina foliosa* plants have been installed within each rope “goose exclosure” cage. Within two years, the plants are expected to grow to look like the native patch in insert A, and within five years, there should be a robust band of *Spartina foliosa* established along the channel edge (insert B), providing cover and nesting habitat for California clapper rails.

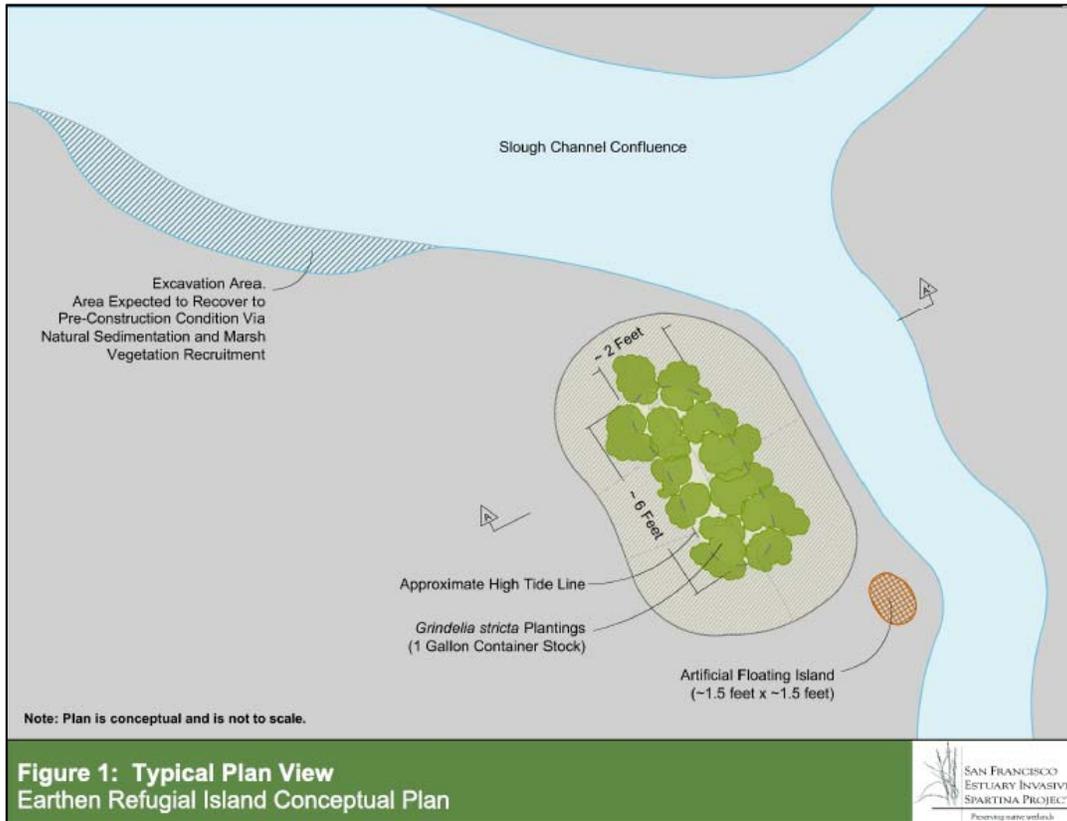


Figure 1: Typical Plan View Earthen Refugial Island Conceptual Plan

Figure 10. Another innovation of the project has been the design and testing of small, constructed earthen mounds to create “islands” and provide high tide refuge for California Clapper Rails and Salt Marsh Harvest Mice. The islands are designed to have a vegetated area of about 24 square feet still above water during high tide.



Figure 9. Contractor crews transport sediment by wheelbarrow, on pathways lined with plywood to prevent damage to the marsh surface during construction. Here the work is done by hand, using shovels. At other locations, the project tested using amphibious tracked vehicles with backhoe attachments.



Figure 12. Once the earthen mound is constructed, the "islands" are densely planted with native Marsh Gumplant, Saltgrass, and Pickleweed – favorite cover for Clapper Rails and Harvest Mice.



Figure 11. A completed island with newly-planted vegetation. Within a few months, this vegetation will provide the highest protective cover in the marsh.