

BRADFORD ISLAND TRACT 19 MITIGATION SITE REHABILITATION

Project Background

Bradford Reclamation District 2059 (RD2059 or District) is the sole custodian of Bradford Island, one of eight Delta islands considered critical to the region's water quality by the California Department of Water Resources (DWR). The mere presence and physical integrity of Bradford Island is crucial to controlling saltwater intrusion into the State's freshwater supplies that provide potable water in the Delta and, ultimately, all of California. A portion of Bradford Island (Tract 19), an estimated 47-acre site, is being conserved in perpetuity with the primary purpose of providing essential Delta-based habitat for native species, including the protected Swainson's hawk. Mitigation was successfully established in the mid-2000's but a significant portion of Tract 19 was destroyed by a wildfire in 2021, necessitating rehabilitation of the site by RD2059 with stakeholder involvement from DWR and the California Department of Fish and Wildlife (CDFW). RD2059 proposes rehabilitation of Tract 19 to pre-wildfire conditions using the previously approved landscape plans, plant palette, and monitoring/reporting requirements in combination with adaptive management principles to improve micro conditions, habitat functionality, and long-term site sustainability.

Project Location

Bradford Island is an estimated 2,172-acre island of the Sacramento–San Joaquin River Delta, in Contra Costa County, California. Bradford Island is inaccessible by roads, and is served by a ferry across the False River from nearby Jersey Island. Land uses outside of the restoration site include rural residential, wheat farming, cattle grazing, and natural gas extraction. Bradford Island and Tract 19 are depicted in the attached figure.

Project Rehabilitation Description

Project site rehabilitation will use a similar design and success criteria as defined in the original Final Mitigation Plan, updated to reflect current site conditions and principles of adaptive management as identified. A lower plant per acre density may be used with trees spaced approximately 20 feet on center or greater, shrubs at 10 feet on center or greater, and any herbaceous understory plugs at three feet on center or greater. The District endeavors to maintain the intent of the original design. The mitigation site goal is to provide approximately 22 acres of "scrub shrub" habitat (riparian trees and shrubs under 20' tall including upland shrub habitat), and 24 acres of riparian forest (over 20' tall trees). A five-acre low dune scrub, 3.77-acre high dune scrub, 2.95-acre freshwater marsh, and approximately five acres of surviving native vegetation are not expected to need replanting, however weed control will be conducted to enhance native areas. In total, approximately 30 acres of Tract 19 may require revegetation.

Site Preparation

The initial site preparation will include mowing and herbicide application to control target invasive species within the restoration areas. Site preparation will involve a site survey to assess the weed populations and identify target species, specifically identifying Cal-IPC "High" rated invasive weeds. Following the survey, a report will be generated with a weed calendar which will define the

timing, methods, and follow-up treatments for each species. A second round of mowing and herbicide application will be conducted in spring in addition to clearing and removing dead trees and brush resulting from the fire. Equipment to be used includes low ground pressure mulching equipment to efficiently cut and masticate dead trees and brush material from burned areas. Dead trees larger than 4 inches diameter at breast height (DBH), but smaller than 12-inches DBH, will be cut within 4 inches of grade, chipped, and utilized for weed suppression within the rehabilitation area. Dead trees larger than 12-inches DBH will either be left in place in stands or strategically placed in habitat piles throughout the restoration areas to remain as natural habitat features.

Access Roads and Fencing

Construction of an access road will occur around the perimeter of the mitigation project site. The access road will be approximately 8-10 feet wide and be created by lightly grading the topsoil with equipment and spraying herbicide to reduce vegetation. The exact location of the road will be adjusted to avoid aquatic resources so that regulatory permits/authorizations are unwarranted. There will not be permanent access roads within the mitigation habitat zones. In addition, the existing barbed-wire fencing bordering the project area will be repaired in some locations that were damaged or where needs replacing. Replacement fencing will consist of a five strand four-point barbed 12.5-gauge (minimum) wire fence system. The constructed fence will be installed using six-foot tall t-posts and three-inch steel line posts, spaced approximately 100 feet with angle points.

Irrigation

The District will utilize the existing well and pump system outside of the rehabilitation site to provide the temporary irrigation system. The irrigation mainline will feed on-grade PVC-lateral lines ranging in size from three-quarter inch to one-and-a-half inch and connect to a bubbler at a planting location. The irrigation zones will be programmed and controlled by one-inch battery-operated remote-control valves and will be adjusted seasonally for water conservation purposes.

Revegetation

Plant pallets and quantities will be like those provided in the original Mitigation Plan and will include a combination of container stock, cuttings, and native seed. Modifications to the plant and seed pallets will be based on existing site survey data and updated spacing recommendations from the District. Container plants will be sourced from local nursery material and cuttings will be collected from sources on-site, or within project vicinity. Seed material will be sourced from locations nearest to the project site as much as possible. Plant and seed installation will be timed with the rainy season or typically with plant dormancy to promote woody vegetation establishment and minimize irrigation needs.

Maintenance, Monitoring, and Reporting

Following site rehabilitation, the District will begin the one-and-a-half-year maintenance and monitoring period. The maintenance and monitoring period will prioritize control of Cal-IPC high and moderate rated species and increasing native plant establishment. The rehabilitation effort will aim to put the site on a long-term trajectory to meet original performance goals of 80 percent survival of native woody species and 50 percent survival of planted oak trees by the end of a three-year period. The District will manage and monitor the site to meet the outlined criteria in future years.

Monitoring activities will include an assessment and as-built report including establishment of photo points mirroring the pre-fire photo points on the site in 2025 after rehabilitation. Data will be recorded on survival and vigor of native woody species and survival of planted oaks. Biologists will also record data on the percent cover of invasive weeds and take photos from the established photo points described in the as-built report. In 2026 and 2027, the biologist will prepare an annual monitoring report summarizing the vegetation data recorded and how it compares to performance criteria for the site and will provide recommended management activities for the site to meet its performance criteria.

Environmental Compliance

The District, as CEQA Lead Agency, envisions processing the rehabilitation of Tract 19 as categorically exempt from CEQA. Accordingly, the District will process a Notice of Exemption (NOE) identifying under one or more of the following categorical exemption classifications:

- CEQA Guidelines Section 15301, Class 1 (Existing Facilities)
- CEQA Guidelines Section 15302, Class (Replacement or Reconstruction)
- CEQA Guidelines Section 15304, Class 4 (Minor Alterations to Land)

The NOE will include a project description as well as supporting qualitative information and geospatial data. The NOE shall be supported by biological and cultural resource technical studies establishing baseline conditions and providing substantial evidence in support of the identified categorical exemption(s). The NOE will be processed by the District per the CEQA Guidelines and posted with the State Clearinghouse as required along with appropriate regulatory agency filing fees.