

1.0 Introduction

1.1 Project Background

The United States Fish and Wildlife Service (USFWS) proposes to restore tidal influence to approximately 1,525 acres of land formerly known as the Cullinan Ranch Site (Proposed Action). The Cullinan Ranch Site (Site or Restoration Site) was most recently used for agricultural purposes, primarily hay farming. The Cullinan Ranch Site is located within an area of the Napa River Delta historically defined by a network of meandering sloughs and tidal marsh wetlands (Figure 1-1). Specifically, the Cullinan Ranch Site is located near the northern shore of San Pablo Bay in Solano and Napa Counties, and is bordered by South and Dutchman Sloughs to the north and Highway 37 to the south (Figure 1-2). The western edge of the Cullinan Ranch Site is bordered by wildlife habitat, which is owned and managed by the California Department of Fish and Game (CDFG) and is known as CDFG Pond 1. Guadalcanal Village Wetlands (Guadalcanal), currently owned by the California Department of Transportation (Caltrans), borders the Cullinan Ranch Site to the east and is in the process of being restored to tidal marsh. An existing perimeter levee along Dutchman and South Sloughs delineates the northern edge of the site. The greater Project Area includes the surrounding areas adjacent to the Site that may either be directly affected by project activities or impacted over time through the return of tidal influence to the Site (an additional 380 acres).

Prior to the 1900s, and again in the 1940s, sloughs in the vicinity of the Cullinan Ranch Site were diked or eliminated to prevent flooding and to convert the previously existing tidal wetlands and slough channels into upland habitat for agricultural uses. The Cullinan Ranch Site was one of the first portions of the Napa/Sonoma marsh complex to be diked and reclaimed for agriculture. In the ensuing years, without the continuous deposition of sediments associated with tidal influence and soil compaction, which occurred due to farming on the site, portions of the Cullinan Ranch Site have subsided or lost up to six feet of elevation from the site's original condition.

The Cullinan Ranch Site was farmed primarily for oats and hay into the 1980s. In 1987, a private proposal supported by the City of Vallejo to develop the Cullinan Ranch Site into a residential/marina community was defeated by several conservation groups. The City of Vallejo had planned to annex the area. The USFWS rendered a biological opinion indicating that development of the Site could jeopardize the continued existence of two endangered species: the salt marsh harvest mouse and the California clapper rail. In 1991, the USFWS, under the authority of the Endangered Species Act (ESA), acquired the Cullinan Ranch Site and incorporated it into the San Pablo Bay National Wildlife Refuge (Refuge) for the purpose of restoring tidal influence to the Site and thereby increasing the total amount of tidal habitat available for recovery of the two endangered species referenced above.

Farming of the Cullinan Ranch Site persisted under a Special Use Permit until 1994, at which time a determination was made to cease pumping the low-lying site. Pumping rainwater from the Site was necessary because the Site had lost so much elevation that seasonal rainfall would inundate the area making farming impossible. When pumping of the Site was stopped, seasonal wetlands formed as anticipated. The Cullinan Ranch Site currently supports seasonal wetland habitat with the dominant cover type consisting of cattails. The Proposed Action will restore tidal influence to the Cullinan Ranch Site resulting in the establishment of salt-marsh wetland habitat and fulfilling the mandate of the Refuge. The Proposed Action is also consistent with the USFWS Recovery Plan for the salt marsh harvest mouse and the California clapper rail (USFWS 1989).

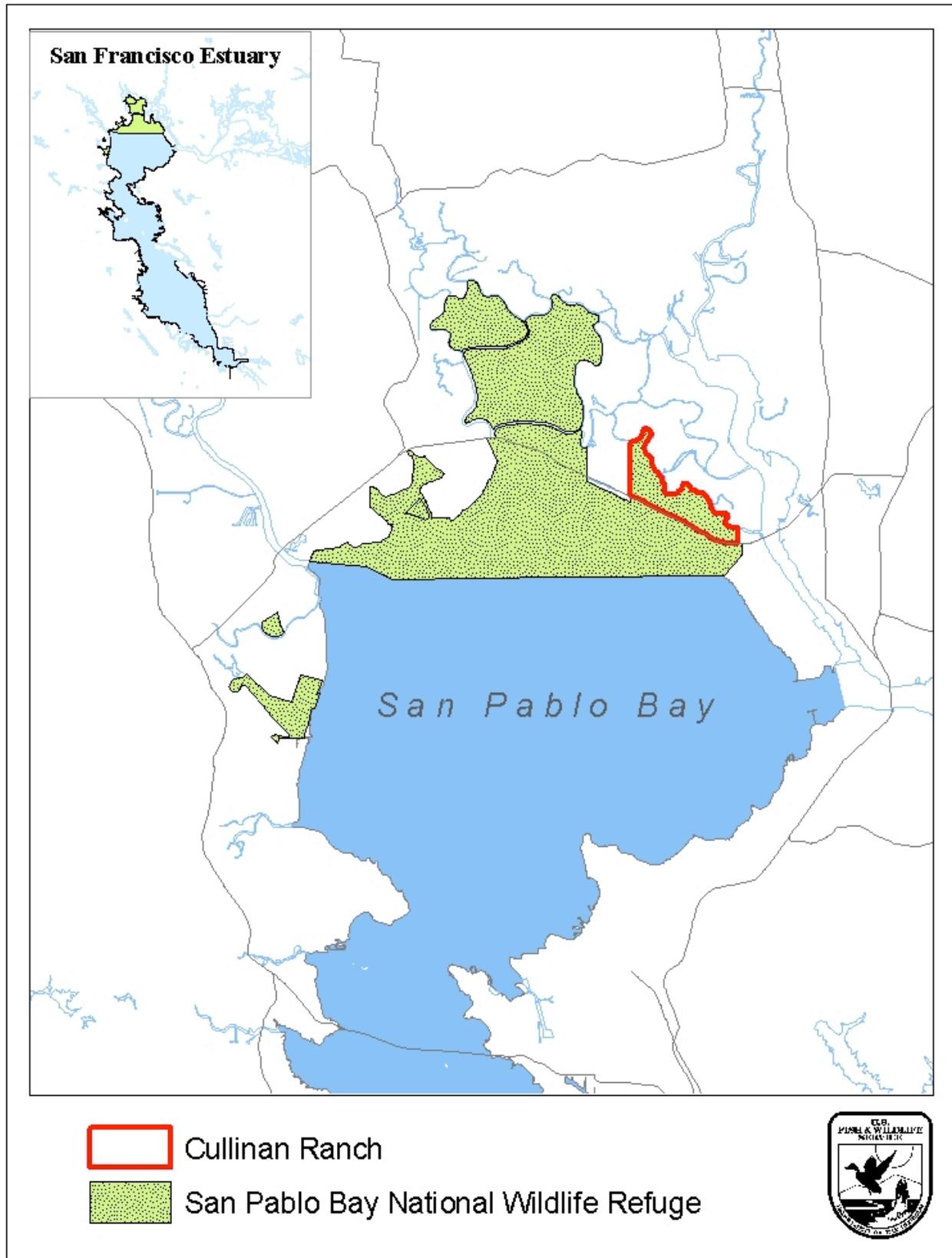


Figure 1-1: Regional Location



Figure 1-2: Cullinan Ranch Site and Adjacent Areas

1.2 Regulatory Overview

The National Environmental Policy Act (NEPA) (42 United States Code [USC] 4321; 40 Code of Federal Regulations [CFR] 1500.1) and the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 et seq.) are the federal and state laws that govern the disclosure and analysis of the environmental effects of agency actions. These regulations are described briefly below.

National Environmental Policy Act

NEPA is the nation's broadest environmental law, applying to all federal agencies and most of the activities they manage, regulate, or fund that affect the environment. It requires federal agencies to disclose and consider the environmental implications of their proposed actions. The President's Council on Environmental Quality (CEQ) has adopted regulations and other guidance that provide detailed procedures that federal agencies must follow to implement NEPA. Each federal agency also prepares an internal NEPA guidance manual for use in preparation of NEPA documentation. The USFWS is the federal lead agency and would use this Environmental Impact Statement (EIS) to comply with the CEQ's regulations and document NEPA compliance.

California Environmental Quality Act

CEQA is regarded as the foundation of environmental law and policy in California. CEQA's primary objectives are to:

- Disclose to decision makers and the public the significant environmental effects of proposed activities;
- Identify ways to avoid or reduce environmental damage;
- Prevent environmental damage by requiring implementation of feasible alternatives or mitigation measures;
- Disclose to the public reasons for agency approval or projects with significant environmental effects;
- Foster interagency coordination in the review of projects; and
- Enhance public participation in the planning process.

CEQA applies to all discretionary activities proposed to be carried out or approved by California public agencies. Under the direction of CEQA, the California Resources Agency has adopted regulations, known as the State CEQA Guidelines, which provide detailed procedures that agencies must follow to implement the law. The California Department of Fish and Game (CDFG), the state lead agency, would use this Environmental Impact Report (EIR) to comply with the State CEQA Guidelines and to document CEQA compliance.

Combined NEPA and CEQA Document

Both NEPA and CEQA encourage the preparation of combined environmental planning documents. Therefore, this joint EIS/EIR will serve to fulfill the statutory obligations of both NEPA and CEQA. The term "lead agencies" will be used throughout this document to signify both the USFWS and CDFG as the federal and state lead agencies, respectively, undertaking the Proposed Action.

1.3 Intent and Scope of this Environmental Document

The intent of this document is to disclose the environmental impacts associated with implementing the proposed restoration project. The Proposed Action would have significant benefits to habitat by restoring the Cullinan Ranch Site to its near-historical state by establishing tidal marsh and other wetland habitats. However, the Proposed Action may result in significant hydrology, water quality and biological impacts. This document addresses the potential for significant effects to occur for hydrology and water quality, hazardous materials, air quality, noise, biological resources, land use, planning and growth, recreation, social environment and environmental justice, utilities, transportation and traffic, aesthetics, and cultural resources.

1.4 Public Involvement and Scoping

The intent of both NEPA and CEQA is to establish opportunities for the public to review and comment on projects that may affect the environment. Both NEPA and CEQA provide for public participation through project scoping, public review of environmental documents, and public hearings.

Scoping refers to the process under both NEPA and CEQA that is used to determine the focus and content of an environmental document. The first public scoping meeting, which initiated the public involvement process, was held on August 7, 2002 from 7 to 9 p.m. at the Mare Island Elementary School. Following minor revisions to the project description a second scoping meeting was held on March 10, 2007 from 10 am to 12 pm at the Mare Island Conference Center. Both meetings provided the public with an opportunity to meet the project sponsors, review and discuss the project goals and objectives, and provide input on the proposed restoration plan for the Cullinan Ranch Site. Public comments received at the meetings were considered in the environmental analysis.

1.5 Issues of Known Controversy

The public and resource agencies are primarily supportive of the Proposed Action. Issues that were brought up during the public scoping meetings included concerns over provisions for public access to the Cullinan Ranch Site; ensuring the safety of the levee separating the Cullinan Ranch Site from Highway 37; and restoration designs other than the Proposed Action. A summary of the comments received during the public scoping meetings is provided in Appendix C.

1.6 Other Pertinent Studies and Documents

Several plans and programs address ecosystem restoration and the future health of the San Francisco Bay ecosystem. These plans and programs, and a brief description of their purposes, are listed below. An evaluation of the Proposed Action's consistency with these plans and programs is discussed in *Chapter 3.4 Land Use, Recreation and Public Health*.

San Francisco Bay Plan

The San Francisco Bay Plan was completed and adopted by the San Francisco Bay Conservation and Development Commission (BCDC) in 1968. The BCDC developed the Bay Plan to use as a guide in

governing development activities, including tidal restoration, in and around the San Francisco Bay (Bay) and its shorelines. The objectives of the Bay Plan are to:

- Protect the Bay as a great natural resource for the benefit of present and future generations.
- Develop the Bay and its shoreline to their highest potential with a minimum of Bay filling.

San Francisco Estuary Project Comprehensive Conservation and Management Plan

The San Francisco Estuary Project (estuary project) was established by the U.S. Environmental Protection Agency in 1987 as a result of growing public concern for the health of the San Francisco Bay and Delta. The estuary project is part of the EPA's National Estuary Program and is jointly sponsored by the EPA and the State of California. After five years of study, the estuary's cooperative public-private partnership developed the Comprehensive Conservation and Management Plan (CCMP) for the estuary. The CCMP was formally adopted by the State on November 17, 1993 and by the EPA on December 9, 1993. The primary goals of the CCMP include:

- Develop a comprehensive understanding of environmental and public health values attributable to the Bay and Delta and how these values interact with social and economic factors.
- Achieve effective, united, and ongoing management of the Bay and Delta.
- Develop a Comprehensive Conservation and Management Plan to restore and maintain the chemical, physical, and biological integrity of the Bay and Delta, including restoration and maintenance of water quality; a balanced indigenous population of shellfish, fish, and wildlife; and recreation activities in the Bay and Delta; and assure that the beneficial uses of the Bay and Delta are protected.
- Recommend priority corrective actions and compliance schedules addressing point and nonpoint sources of pollution. These recommendations will include short- and long-term components based on the scientific information available.

San Francisco Bay Area Wetlands Ecosystem Goals Project

The San Francisco Bay Area Wetlands Ecosystem Goals Project (EGP), completed in 1998, was a 5-year collaborative effort sponsored by a group of agencies that included EPA, the California Department of Fish and Game (CDFG), and the Regional Water Quality Control Board (RWQCB), in addition to numerous other public and private entities. The EGP was developed as a way to implement the provisions of the CCMP.

The purpose of the EGP is to provide guidance to public and private stakeholders interested in restoring and enhancing the wetlands and related habitats of the San Francisco Bay estuary system. It is an informational document that recommends the types, areal extent, and distribution of habitats needed to sustain diverse and healthy ecosystems in the San Francisco Bay estuary system. Recommendations are presented by region, subregion, and segment. Regionwide goals include restoration of large patches of tidal marsh connected by corridors to enable the movement of small mammals and marsh-dependent birds; restoration of large complexes of salt ponds for the management of shorebirds; and expansion of large areas of managed marsh. The Action Area is located within the North Bay subregion as identified in the EGP.

Ecosystem Restoration Program Plan

The state and federal interagency CALFED Bay–Delta Program (CALFED) was created to address various problems in the San Francisco Bay/Sacramento–San Joaquin River Delta (Bay–Delta) region. The creation of CALFED provided a combination of state and federal funding to be used with three specific purposes: the development of water quality standards (Category I), water projects (Category II), and habitat restoration (Category III). Category III funding is distributed for projects that benefit targeted species, particularly endangered fish and marsh species.

In order to effectively administer Category III funding, CALFED produced a draft Ecosystem Restoration Program Plan (ERPP) that describes the important ecological processes, habitats, species, and stressors of the San Francisco Bay ecosystem. The specific goals of the ERPP are to:

- Recover 19 at-risk native species and contribute to the recovery of 25 additional species.
- Rehabilitate natural processes related to hydrology, stream channels, sediment, floodplains and ecosystem water quality.
- Maintain and enhance fish populations critical to commercial, sport and recreational fisheries.
- Protect and restore functional habitats, including aquatic, upland and riparian, to allow species to thrive.
- Reduce the negative impacts of invasive species and prevent additional introductions that compete with and destroy native species.
- Improve and maintain water and sediment quality to better support ecosystem health and allow species to flourish.

Long-Term Management Strategy for Disposal of Dredged Sediments in San Francisco Bay

For many years, dredged material taken from federal and port channels and berthing areas was removed from the bottom of San Francisco Bay, placed in barges, transported to one of the federally designated areas in the bay or ocean, and dumped. As a result of the controversy over the environmental impacts of this practice, new practices were adopted in the late 1980s by the agencies with authority over dredging and disposal operations for large, new work projects. The LTMS was established in 1991 to resolve disposal issues. The goals of the LTMS include disposing dredged material in the most environmentally sound manner and maximizing the use of dredged material as a resource. The LTMS agencies have agreed on a strategy of decreasing in-Bay disposal over time, with a goal of only 20% of Bay-dredged material being disposed in the Bay. The other 80% of the dredged material is proposed to be used as a resource or disposed of at an EPA-designated deep-ocean disposal site. This approach is intended to reduce the risk of adverse impacts from in-Bay disposal while maximizing environmental benefits through reuse and providing greater certainty regarding disposal options to dredging project sponsors.

1.7 Report Organization

This environmental document is organized into the following sections:

- 1.0 Introduction
- 2.0 Purpose and Need and Proposed Alternatives
- 3.0 Existing Conditions and Environmental Consequences
- 4.0 Other Required Analyses
- 5.0 List of Preparers
- 6.0 References

Appendix A – Hydrology Report

Appendix B – Common and Special Status Species Tables

Appendix C – Scoping Comments

Appendix D – Cullinan Ranch Contaminant Sampling Report and Contaminant Clean-up Report

