

1. INTRODUCTION

1.1 OVERVIEW OF THE PROJECT

This project-level Draft Environmental Impact Report (EIR) addresses the potential environmental impacts of a Department of Water Resources tidal wetlands restoration project in the Dutch Slough area at the mouth of Marsh Creek in Eastern Contra Costa County, and two related projects under the jurisdiction of other agencies.

The Dutch Slough Tidal Marsh Restoration Project (Dutch Slough Restoration Project) entails wetland and upland restoration and public access to the 1,166-acre Dutch Slough property owned by the California Department of Water Resources (DWR). The Dutch Slough Restoration Project seeks to restore habitat for native fishes and other aquatic and wetland species, improve our understanding of restoration science in tidal marsh wetland ecosystems in the region, and provide public access to the restored area. The two neighboring projects (proposed by other agencies) that are closely related to the Dutch Slough Restoration Project are: the City of Oakley's Community Park and Public Access Conceptual Master Plan (City Community Park Project) for 55 acres adjacent to the wetland restoration project and four miles of levee trails on the perimeter of the DWR lands; and the Ironhouse Project, a restoration of a portion of the Marsh Creek delta on an adjacent 100-acre parcel, owned by the Ironhouse Sanitary District (ISD). Subsequent CEQA review may be required for these two projects by their respective Lead Agencies.

The Dutch Slough Tidal Marsh Restoration Project (also referred to herein as the Dutch Slough Restoration Project) is being planned by the Dutch Slough Management Team, which includes DWR, the California State Coastal Conservancy (SCC), the City of Oakley, and the California Bay-Delta Authority (CBDA). DWR is the landowner, having purchased the site in 2003 with funds from CBDA and the SCC, and is the CEQA Lead Agency for the Dutch Slough Restoration Project. The SCC is assisting in the restoration planning with the Natural Heritage Institute (NHI).

1.2 PROJECT BACKGROUND AND HISTORY

1.2.1 Dutch Slough Restoration Project

For over a hundred years, the Dutch Slough property was used for grazing and dairy operations. During the past twenty years, eastern Contra Costa County has undergone a rapid urbanization. Beginning in the 1990s, the former landowners began securing approvals for the eventual development of the property. In 1997, Contra Costa County approved a development agreement for this property that would have allowed for the construction of 4,500-6,100 housing units on the site. When the City of Oakley incorporated in 1999, this property was within the city limits, and the City was required to accept the County's development agreement.

In the fall of 2001 the NHI and DWR identified this site as an important restoration opportunity and began working cooperatively with the landowners to obtain grant funding to acquire and restore the property. During 2002, the project partners worked to build local support for the project. In

the fall of 2002, the California Bay Delta Authority's (CBDA) Ecosystem Restoration Program and the SCC's San Francisco Bay Area Program awarded grants to fund the acquisition. In the fall of 2003, DWR completed the purchase of the 1,166-acre restoration site.

In 2003-4, the DWR, SCC, and CBDA began working with other project partners to develop a restoration plan that achieves the goals and objectives of the project. A Restoration Committee was established to obtain input from and provide information to stakeholders and the public. The Restoration Committee included representatives from key public agencies and stakeholders, and the meetings were open to the public. At the same time, the Dutch Slough Adaptive Management Working Group (AMWG), comprised of nine scientists, was convened to identify key scientific questions, provide technical review, and help develop the project's adaptive management plan (see Appendix D)¹. The CALFED Ecosystem Restoration Program Science Board also provided input into the plan concepts.

In February 2004, NHI released the "*Dutch Slough Tidal Marsh Restoration Project Preliminary Opportunities and Constraints Report*", which described the restoration potential for the site as well as infrastructure, land use conflict, and ecological constraints.

In 2004, a consultant team, led by Philip Williams & Associates (PWA) began development of restoration alternatives and conducted a feasibility analysis of those alternatives. The PWA team coordinated closely with the project management team and AMWG to develop a restoration plan to accomplish the project's goals. The AMWG and PWA consultant team developed a conceptual model of wetland restoration as the basis for recommending high priority experiments to test in the Dutch Slough Restoration Project. The recommended experiments span various marsh scales. Marsh scale (i.e., size of the marsh drainage area) is considered important to test to guide the selection of future restoration sites. Small sites are generally more available for restoration than large sites, but may not offer the same benefits on a per-acre basis (e.g., tidal channel complexity). The small-scale experiments require only small areas (one or two acres) and can be readily accommodated within any given restoration alternative. The large-scale experiments require areas on the order of hundreds of acres. The project identified tidal marshplain elevation and marsh scale for large-scale testing. Marshplain elevation is considered important to test because lower vegetated marshes require less fill, but the habitat value is less well understood than for higher, natural marshes.

In May 2006, the PWA team completed the Dutch Slough Tidal Marsh Restoration Conceptual Plan and Feasibility Report that identified a range of restoration alternatives to meet the habitat restoration and adaptive management goals, with consideration of economic feasibility. The restoration alternatives were developed to meet the goals of the project. The project goals are described in Section 2.4 of this Draft EIR.

The alternatives are:

- **Alternative 1:** Low marsh and open water emphasis with minimal grading (Minimum Fill - see Figure 2-7)

¹ The goal of the Dutch Slough Adaptive Management Plan (DSAMP) is to generate scientific information that can be used to guide future tidal marsh restoration projects elsewhere in the delta. The DSAMP will guide one of the project's primary goals. It is not part of, nor should it be confused with, the project's mitigation monitoring and reporting plan (MMRP).

- **Alternative 2:** Mix of mid marsh, low marsh, and open water with moderate fill (Moderate Fill/Alternative [Preferred Alternative] - see Figures 2-8 and 2-9)
- **Alternative 3:** Mid marsh and low marsh emphasis with imported fill (Maximum Fill Alternative see Figure 2-8)
- **Alternative 4:** No Project Alternative: This alternative addresses leaving the site in current uses, consistent with existing City of Oakley (Open Space) general plan and zoning designations.

In Alternatives 1-3, there are two potential options: restore tidal action to all three parcels, or restore tidal action to only the Emerson and Gilbert parcels and retain existing terrestrial and wetland habitats on the Burroughs parcel (“No Burroughs” option).

In Alternatives 2 and 3, Marsh Creek may be diverted onto the project site at one of three locations to restore a natural delta at the mouth of the creek. In addition, a number of possible management options are considered for the open water areas under Alternatives 1, 2 and 3. All three restoration alternatives are consistent with providing high-quality public access and restoration opportunities and provide for protection of existing infrastructure. The three alternatives identified in the Feasibility Report represent different mixes of habitat, with different amounts of grading and imported fill to create these habitats. Additional restoration approaches and preliminary alternatives were considered and not recommended because they do not meet the project goals (see Section 2.4, in Project Description).

This Draft EIR addresses each of the “build” alternatives for the Dutch Slough Restoration Project in conjunction with the City Community Park Project and the Ironhouse Project, as well as a “No-Project” alternative. This Draft EIR also addresses several options with respect to open water management and the possible diversion of Marsh Creek onto the DWR and/or ISD properties. These are described in detail in Chapter 2, Project Description.

1.2.2 Related Projects

This Draft EIR discusses two related projects, the ISD’s proposed Ironhouse Project, and the first phase of the City Community Park Project (Interim Improvements). Later phases of the City’s park are not fully funded and are only generally addressed in this document. The Ironhouse Project is related in that it is adjacent to Marsh Creek and could be integrated with the Dutch Slough Restoration Project depending on whether, and where, Marsh Creek is relocated, and could be a source of fill for the Dutch Slough Restoration Project. The City Community Park Project is related to the Dutch Slough Restoration Project in that it provides the parking, staging facilities, and trailheads for the public access component of the Dutch Slough Restoration Project. These facilities are required for the Dutch Slough Restoration Project to meet its recreational and public access goals. These related projects are summarized below.

City of Oakley’s Community Park and Public Access Conceptual Master Plan (City Community Park Project)

Concurrent with the development of the restoration alternatives, the Conservancy and CBDA awarded funds to the City of Oakley to develop a public access master plan for the Dutch Slough Restoration Site and the adjacent community park site that is consistent with the restoration alternatives. The City worked with DWR and SCC to develop the Dutch Slough Community Park

and Public Access Conceptual Master Plan. The purpose of the master plan is to present an overall vision for public access to the site and park use on the City's 55-acre parcel. 2M Associates was contracted by the City in March 2005 to develop the conceptual park and public access plan. Several public meetings were held by the City in which possible park plans were presented for public input. In February 2006, 2M Associates completed the draft Dutch Slough Community Park and Public Access Conceptual Master Plan for the City. An addendum to that Plan that refined and developed some facilities siting options and identified interim development plans for the park was submitted to the City in September 2006. The City Community Park Project is discussed at a conceptual level in this Draft EIR.

Ironhouse Restoration Project

In 2005, the project management team became aware of an opportunity to work with the Ironhouse Sanitary District (ISD) to restore a 100-acre parcel immediately west of the Dutch Slough Restoration Project site, on land owned by ISD. The PWA Feasibility Report was expanded to include a conceptual restoration plan option for that site. That conceptual restoration plan is shown in Figure 2-14 in Chapter 2, and is discussed at a conceptual level in this Draft EIR.

1.3 EIR APPROACH AND ASSUMPTIONS

The Draft EIR evaluates the potential impacts of the Dutch Slough Restoration Project in detail, and describes, at a conceptual level suitable for identifying cumulative effects, the impacts of the two related projects proposed by the City of Oakley and ISD. The Dutch Slough Restoration Project includes three "build" alternatives (i.e., restoration) and a "no project" alternative as well as a number of management options for the open-water portion of that project, four possible options for relocating the mouth of Marsh Creek on the Dutch Slough Restoration Project and/or Ironhouse Project sites, and a "no Burroughs" option to restore tidal action to only the Emerson and Gilbert parcels.

In order to facilitate the CEQA analysis and provide a framework for comparing project alternatives and options, this Draft EIR makes a number of assumptions regarding which options are considered a part of the project and which are possible options to that project. The impact assessments of each of the three restoration alternatives assessed in this Draft EIR assume the following scenarios:

- No relocation of Marsh Creek
- Shallow subtidal management of the Dutch Slough Restoration Project's open water areas

Brief discussions of the potential environmental impacts of each of the other open water management options and Marsh Creek outfall relocation options are included following the analysis of the primary scenario for each alternative. Tables are used to summarize and facilitate identification of the different impacts of each alternative and option. This approach allows the lead agencies to combine the basic alternatives with these different open-water management and Marsh Creek outfall relocation options in their ultimate project approval actions.

Further, because many of the impacts of the two "related projects" are similar to those of the Dutch Slough Restoration Project, the impact assessments of each of the Dutch Slough restoration Project Alternatives also consider the following:

- Implementation of the Ironhouse Project by the ISD
- Implementation of City Community Park Project by the City of Oakley.

Tables are provided to call out which specific impacts and mitigation measures would apply to the Dutch Slough Restoration Project, options to that project, and the two “related projects” addressed in this EIR. This is intended to facilitate the lead and responsible agencies in making their requisite CEQA findings for projects within their respective jurisdictions.

This Draft EIR also addresses the cumulative effects of other reasonably foreseeable planned development, including the adjacent Dutch Slough Properties residential project, the East Cypress Corridor residential projects, and the nearby eight-acre Dutch Slough Access Park proposed by the City of Oakley, among other projects.

1.4 PURPOSE AND USE OF THIS EIR

This Draft EIR has been prepared in compliance with the California Environmental Quality Act (CEQA) and the CEQA Guidelines, as amended. Because the document may be adapted or otherwise used by the US Army Corps of Engineers, Natural Resources Conservation Service, US Fish and Wildlife Service, or other federal agencies, in support of their documentation in compliance with the National Environmental Policy Act (NEPA), it will be formatted to address all alternatives at an equal level, as required under NEPA. The California Department of Water Resources (DWR) is the lead agency under CEQA. In accordance with CEQA, the lead agency has the responsibility for the scope, content, and legal adequacy of the document. Approval and permitting requirements for the various project components are described in detail in each technical section, and summarized at the end of the Project description chapter.

This document is a project-level Draft EIR for the Dutch Slough Restoration Project, and also addresses, at a conceptual level, the associated and overlapping effects of the related City Community Park Project and the Ironhouse Project. For example, some or all of the fill required to construct Alternatives 2 and 3 may come from the Ironhouse Parcel. Similarly, the City Park site would provide staging facilities and public access to the Dutch Slough parcels. The City also would maintain the levee trails on the Dutch Slough Restoration Project. To the extent that these components of the related projects would be developed as part of the Dutch Slough Restoration Project, they are considered at a project level in this EIR. Other effects of the related projects are considered at a conceptual level suitable for analysis of their contribution to cumulative impacts. As discussed below, the City and ISD may adopt the Final EIR for their projects and/or require additional CEQA review, at their discretion as CEQA Lead Agencies for those projects.

Provided the environmental impacts of future activities are adequately addressed in this document, additional CEQA documentation would not be required for the Dutch Slough Restoration Project. If additional environmental analysis is required for future activities and newly identified impacts, or to introduce new mitigation measures, subsequent environmental documents would be addressed in an Addendum or Supplement to the Final EIR for this project.

Under CEQA, a responsible agency is an agency other than the lead agency that has a legal responsibility for carrying out or approving a project or elements of a project (Public Resource Code [PRC] Section 21069). Responsible agencies are encouraged to actively participate in the CEQA process of the lead agency, review the CEQA documents of the lead agencies, and use the

documents when making decisions on the project. Possible CEQA responsible agencies for components of this project include:

- California Air Resources Board
- California Department of Fish and Game, Bay-Delta Region
- Central Valley Regional Water Quality Control Board (Region 5)
- California Department of Toxic Substances Control
- CALFED Bay Delta Program
- State Water Resources Control Board
- State Historic Preservation Officer (SHPO)
- Bay Area Air Quality Management District
- City of Oakley
- Contra Costa County Flood Control District
- East Bay Regional Park District
- Reclamation Districts 799 and 2137
- State Lands Commission
- Delta Protection Commission

Specifically, the following State permits would be required:

- California Department of Fish and Game: Potential California Endangered Species Act consultation and issuance of Streambed Alteration Agreement (Fish and Game Code Section 1600).
- Central Valley Regional Water Quality Control Board (Region 5): National Pollutant Discharge Elimination System (NPDES) construction stormwater permit (Notice of Intent to proceed under General Construction Permit), and Section 401 Clean Water Act certification for waste discharge requirements.

In addition, local permits would be required for grading and levee encroachment/construction.

This EIR has been formatted to facilitate its incorporation into any NEPA documentation that may be required for the Project. Federal lead agencies and their permits for the project that may trigger NEPA review include:

- U.S. Army Corps of Engineers: Department of the Army Section 404 Clean Water Act permit would be required for discharge or fill of waters of the United States.
- National Marine Fisheries Service: Federal Endangered Species Act compliance would be required for anadromous fish species federally listed as threatened or endangered.
- U.S. Fish and Wildlife Service: Federal Endangered Species Act compliance would be required for resident fish and terrestrial species federally listed as threatened or endangered.
- California State Historic Preservation Office: Section 106 of the National Historic Preservation Act, as codified in 36 Code of Federal Regulations 800.4, requires federal

agencies to consult with the California State Historic Preservation Officer for resources that are eligible for listing as a historic resource.

- US Environmental Protection Agency: Oversight responsibility for federal Clean Water Act permits.

Other local, state and federal agencies that may have a non-permitting interest in the project include:

- National Resources Conservation Service
- Contra Costa Water District
- California Department of Conservation, Office of Agricultural Land Preservation

1.5 PUBLIC INVOLVEMENT PROCESS

The Dutch Slough Restoration Committee has held four public meetings from 2003 through 2006 to solicit input from concerned agencies, individuals, and interested partners, and provide/exchange information with these various parties in the development of the restoration project. Similarly, during the fall and summer of 2005, the City of Oakley held a series of workshops and meetings to solicit public input on the City Community Park design. A Notice of Preparation for this Draft EIR, accompanied by a Scoping Document summarizing issues to be assessed in the document, was distributed to the public and interested agencies on March 24, 2006 (See Appendix A). The Dutch Slough Management Team held a CEQA Scoping Meeting on April 5, 2006 to solicit input on the Draft EIR scope of work. That meeting was preceded by distribution of a CEQA Notice of Preparation (of the EIR), on March 24, 2006.

Comments presented at the Scoping Hearing included the following:

- Concerns over the possible effects of the project on Jersey Island levees. (Addressed in Section 3.1 of this EIR.)
- Issues associated with dogs and horses at the City Community Park. (Generally addressed in Section 3.11 of this EIR; to be addressed in detail in the City's subsequent project-level CEQA review of the park.)
- Issues associated with lighted ballfields at the City Community Park. (Generally addressed in this EIR; to be addressed in detail in the City's subsequent project-level CEQA review of the Community Park.)
- Issues associated with City's proposed boat ramp at Dutch Slough and Jersey Island Road bridge. (This separate 8-acre park is not part of the project; its impacts are generally addressed in Section 5.3, Cumulative Impacts, in this EIR.)
- Changes in flows/levels in Little Dutch Slough. (Addressed in this Section 3.1 of this EIR.)
- Changes in the potential for groundwater to enter the Contra Costa Canal. (Addressed in Section 3.1 of this EIR.)
- Request for integration of canal/restoration project interface. (Generally addressed in this Sections 3.1 and 3.4 of this EIR.)

- What will happen in Bureau of Reclamation's 300-foot right of way after Contra Costa Canal is encased? (This right of way is not part of this project – impacts are addressed in CCWD's April 2006 CEQA Initial Study on that project.)
- What shorebirds/waterfowl will benefit from this project? (Addressed in Section 3.4 of this EIR.)
- Concerns over project impacts to black rail and other sensitive bird species. (Addressed in Section 3.4 of this EIR.)
- What are the impacts of storm drains entering Dutch Slough? (Generally addressed in Section 3.2 in this EIR; see also EIRs on adjacent residential developments, which will be contributing most of the stormwater/contaminants to the Slough.)
- Phasing of the project. (Addressed in Chapter 2, Project Description.)
- Effects of flooding the Gilbert Parcel first on the Burroughs levee. (Not proposed in project assessed in the EIR.)
- Can open water areas be drained? (Only if the project has water control structures – see Project Description.)
- Concerns over loss of seasonal wetlands. Can seasonal wetlands be integrated into the project? (See Project Description and Section 3.4.)
- RD 799 requested that its levee at the northeast corner of the site be improved. (See Section 3.3.)
- Ironhouse Sanitary District requested analysis of project impacts to its recycled water line. (The line will be relocated as part of the project.)
- RD 830 concerned with potential for seepage to affect levees surrounding Jersey Island. (See Section 3.1.)

In addition to the above comments, comment letters in response to the Notice of Preparation were received from the following agencies, and are included in Appendix B of this EIR:

- US Bureau of Reclamation: Concerned with project impacts on Contra Costa Canal. (See Sections 3.1 and 3.2.)
- California Urban Water Agencies: Concerned with project's water quality impacts and consistency with ecosystem goals. (See Sections 3.2, 3.4, and 3.5)
- Contra Costa County Flood Control and Water Conservation District: Notes that the District owns Marsh Creek and that the project will require an encroachment permit from the District. Requests hydraulic assessment of project impacts on Marsh Creek Flood Control Channel upstream of project, as well as other flood control studies. Requests maintenance funding agreements for flood control channel. (See Section 3.1.)
- California Department of Transportation: Requests assessment of project impacts on State Highway system. (See Section 3.13.)

- Delta Protection Commission: Requests assessment of project compliance with Delta Protection Act policies. (See Section 3.9.)
- Department of Toxic Substances Control: Requests assessment of air, health, noise, and dust impacts. (See Sections 3.6, 3.7, and 3.15.)
- Reclamation District 799: Concerns with Jersey Island levees. (See Section 3.1.)
- Contra Costa Water District: Requests assumption of unlined CCWD canal (see Hydrology section); requests interim alternative with no assumption of full restoration until new pipeline is complete (See Hydrology section); requests avoidance of project impacts on canal or project funding of pipeline (see Hydrology section); states that Ironhouse Project assumes construction of wetlands on Bureau of Reclamation property and requests better integration of project and Contra Costa Canal piping project and assurance of continued maintenance access to the Canal. Since this comment was received CCWD has prepared an Initial Study, and the Bureau of Reclamation has prepared a Phase I Environmental Assessment (EA) for the District's proposal to encase the last 3.97 miles of the Contra Costa Canal from Rock Slough to Pumping Plant 1. Construction of the first Phase, consisting of approximately 2000 feet from Pumping Plant 1 to Marsh Creek, is anticipated to begin in 2008. (Information concerning the EA and Finding of No Significant Impact can be found at the Bureau of Reclamation, Department of Interior website :
<http://www.usbr.gov/newsroom/newsrelease/detail.cfm?RecordID=16721>).
- Department of Fish and Game: Requests analyses of project impacts on watercourses and certain sensitive species. (See Sections 3.4 and 3.5.)
- Department of Conservation, Division of Land Resources Protection: Requests analysis of conversion of prime farmland. (See Section 3.10.)

Informal comments from the Contra Costa Water District, City of Oakley, Ironhouse Sanitary District, and the Department of Fish and Game were received on the Administrative Draft EIR, and incorporated where appropriate.

1.6 DOCUMENT ORGANIZATION

Chapter 1, Introduction. Describes the project background, and project purpose/need, EIR approach, and organization.

Chapter 2, Project Description and Alternatives. Describes the goals of the project and the process used to develop alternatives to the Dutch Slough Restoration Project, as well as descriptions of each alternative and option, and the alternatives and options that were not carried forward for further analysis in this document. It also describes the other projects assessed conceptually in the document: the City Community Park Project and the Ironhouse Project.

Chapter 3, Environmental Setting, Impacts, and Mitigation Measures. Includes descriptions of the environmental setting, and the impacts that may occur on each resource as a result of implementation of the projects. Mitigation measures for potentially significant impacts are identified, and residual impacts (following application of mitigation measures) are discussed.

Chapter 4, Evaluation of Project Alternatives. Provides a comparison of the impacts or effects of each alternative analyzed in the document, and identifies the CEQA “environmentally superior” alternative.

Chapter 5, CEQA Topical Analyses. Summarizes the project’s growth inducement, unavoidable significant adverse impacts, cumulative impacts/mitigation, and irreversible/ irremediable impacts.

Chapter 6, List of Preparers and Contributors. Identifies the preparers of this document.

Chapter 7, Definitions. Defines words used in the document.

Chapter 8, References. Lists references cited in the document.

Appendices. The appendices provide additional information on the environmental review process and technical information that was used in the EIR analyses. Pursuant to CEQA requirements, materials and literature referenced in the EIR, but not included in Appendices, are maintained at the DWR offices in Sacramento, California.

Appendix A Notice of Preparation

Appendix B Responses to NOP

Appendix C Distribution List

Appendix D Dutch Slough Adaptive Management Plan

Appendix E Construction Carbon Footprint Calculations