1 INTRODUCTION

This document is a Draft Environmental Impact Report (Draft EIR) on the Sacramento River—Chico Landing Subreach Habitat Restoration Project (proposed project). It has been prepared under the direction of the California Bay-Delta Authority (CBDA) in accordance with the requirements of the California Environmental Quality Act (CEQA) (Public Resources Code Sections 21000 et seq.) and the State CEQA Guidelines (California Code of Regulations Sections 15000 et seq.). CBDA is the lead agency under CEQA.

1.1 PROJECT PURPOSE, NEED, AND OBJECTIVES

The Nature Conservancy (TNC) is proposing to restore and enhance native riparian habitat on three project sites within the Sacramento River National Wildlife Refuge (SRNWR) owned by the U.S. Fish and Wildlife Service (USFWS). The three project sites are located within the Sacramento River Conservation Area (SRCA) along the middle Sacramento River, on lands identified by the USFWS as having high potential for restoration of native riparian habitat that would benefit fish, wildlife and plant species dependent on a naturally functioning ecosystem. The project would be funded by a CALFED Bay-Delta Program (CALFED Program) Ecosystem Restoration Program (ERP) grant (CBDA grant number ERP-02D-P65).

The Record of Decision (ROD) for the approval of the CALFED Program documents the final selection of the Preferred Program Alternative that includes broad programmatic actions to restore ecosystem function to the San Francisco Bay/Sacramento-San Joaquin Delta (Bay-Delta). The ERP is among the set of linked programmatic actions comprising the Preferred Program Alternative to be implemented over a 30-year period. The goal of the ERP is to improve and increase aquatic and terrestrial habitats and improve ecological functions in the Bay-Delta system to support sustainable populations of diverse and valuable plant and animal species (CALFED 2000a). The ROD includes a summary list of programmatic actions designed to achieve the objectives of the ERP. The most applicable of these actions to the proposed project specifies protection and restoration of the Sacramento River meander corridor consistent with SRCA river corridor management plans and processes. As a CALFED Program ERP project, this riparian habitat restoration project would be accomplished within a science-based adaptive management framework, as described in the ROD for the approval of the CALFED Program and detailed in the *Strategic Plan for Ecosystem Restoration* (see below) (CALFED 2000a and 2000b).

USFWS and TNC design objectives for this proposed habitat restoration project are consistent with goals and objectives of the CALFED Program ERP. The ERP goals include recovering endangered and other at-risk species, maintaining ecological processes, restoring expanses of habitat to support species, limiting nonnative invasive species, and improving water and sediment quality. The following list of USFWS and TNC objectives for the proposed project are duplicated in Chapter 3, "Description of the Proposed Project," alongside a list of applicable ERP goals and objectives to show the relationship between the CALFED Program ERP and the proposed project.

The objectives of this proposed project are to:

- ► Establish early-successional stage and late-successional stage native riparian habitat communities that have been severely reduced in extent along the Sacramento River since 1850.
- ► Provide habitat for neo-tropical migrant land birds.
- ▶ Provide potential habitat for the valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*), a species listed as threatened under the federal Endangered Species Act (ESA).
- ▶ Improve water quality by decreasing sediment and pesticide runoff into the Sacramento River.
- ▶ Provide shaded riverine aquatic (SRA) habitat for federally listed endangered winter-run Chinook salmon.

1.2 PURPOSE, TYPE, AND INTENDED USE OF THIS ENVIRONMENTAL IMPACT REPORT

1.2.1 Purpose of the Environmental Impact Report

A state or local public agency must comply with CEQA when it undertakes an activity that may cause a direct physical change in the environment or a reasonably foreseeable indirect change in the environment. As the lead agency for CEQA compliance, CBDA has directed the preparation of this EIR to meet the requirements of CEQA. An EIR is an informational document used to inform the public agency decision-makers and the general public of any significant environmental effects of a project, identify feasible ways to minimize the significant effects, and describe reasonable alternatives to the project that can reduce environmental impacts. CBDA will consider the information presented in the EIR, as required by CEQA, when determining whether to approve the proposed project.

1.2.2 RELATIONSHIP OF THIS DRAFT ENVIRONMENTAL IMPACT REPORT TO THE CALFED FINAL PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT AND ENVIRONMENTAL IMPACT REPORT

The CALFED Final Programmatic Environmental Impact Statement and Environmental Impact Report (CALFED Final PEIS/EIR) provides a very broad, programmatic analysis of the general effect of implementing the multiple components of the CALFED Program over a 30-year period (2000-2030) across two-thirds of the State of California. The analysis of impacts in the CALFED Final PEIS/EIR is not intended to address any site-specific environmental effects of individual projects; therefore, the analyses of direct, indirect, and cumulative impacts contained in the CALFED Programmatic document are not sufficiently detailed for purposes of this Draft EIR, which focuses on a specific project and a specific affected geographic area over a discreet time frame. Preparation of this Draft EIR for the proposed project has included reviews of applicable chapters and sections contained in the CALFED Final PEIS/EIR and the ROD to develop background information, assess consistency of the proposed project with the CALFED Program Preferred Program Alternative, and provide mitigation guidance. This Draft EIR stands alone and includes an independently developed analysis of the impacts of the proposed project, including direct, indirect, and cumulative impacts, and an analysis of alternatives to the proposed project. This riparian habitat restoration project is consistent with the programmatic guidance contained in the CALFED Final PEIS/EIR. As a CALFED Program ERP project, it is also consistent with the ROD for the approval of the CALFED Program. Furthermore, it is consistent with the Multi-Species Conservation Strategy (MSCS), which is part of the comprehensive regulatory compliance strategy that is integrated with the CALFED Final PEIS/EIR.

The biological resources analysis prepared for this Draft EIR identified potential significant impacts to active bird nests. Review of the biological resources section of the CALFED Final PEIS/EIR (as listed below) included identification of Mitigation Strategy 9 that addresses potential significant impacts to special-status wildlife species and/or important wildlife use areas. Mitigation Strategy 9 served as the basis to develop strategic project design elements that are incorporated into the project description, thereby avoiding potential impacts to active nests. (Refer to Chapter 3, "Description of the Proposed Project," for further discussion.) Preparation of this Draft EIR included reviews of the following chapters, sections, and plans that are parts of the CALFED Final PEIS/EIR, as well as the ROD documenting the final selection of the Preferred Program Alternative:

- ► Chapter 1, "Program Description," was reviewed for background information.
- ► Section 5.1, "Water Supply and Water Management," was reviewed for background information, and to determine consistency of the proposed project with the CALFED Program Preferred Program Alternative.
- ► Section 5.2, "Bay-Delta Hydrodynamics and Riverine Hydraulics," was reviewed for background information, and to determine consistency of the proposed project with the Preferred Program Alternative.

- ► Section 5.3, "Water Quality," was reviewed for background information, and to determine consistency of the proposed project with the Preferred Program Alternative.
- ► Section 6.1, "Fisheries and Aquatic Ecosystems," was reviewed for background information, and to determine consistency of the proposed project with the Preferred Program Alternative.
- ▶ Section 6.2, "Vegetation and Wildlife," was reviewed to determine consistency of the proposed project with the Preferred Program Alternative, and to identify Mitigation Strategy 9 as the basis for development of project design elements to avoid potential impacts to active nests.
- ▶ Section 7.1, "Agricultural Land and Water Use," was reviewed for background information and to determine consistency of the proposed project with applicable programmatic actions under the ERP as part of the Preferred Program Alternative. Mitigation Strategies 4, 10, 11, 18 and 19 were incorporated into the development of the proposed project in order to avoid potential impacts to agricultural lands and water use.
- ► Section 7.11, "Cultural Resources," was reviewed to determine consistency of the proposed project with the Preferred Program Alternative.
- ► Ecosystem Restoration Program Plan, Volume II: Ecological Management Zone Visions, was used as a source of information for the project description and to assess consistency of the proposed project with specified restoration targets for the Sacramento River Ecological Management Zone.
- ► Ecosystem Restoration Program Plan, Strategic Plan for Ecosystem Restoration, Appendix D: Draft Stage 1 Actions, was used to assess consistency of the proposed project with Stage 1 programmatic actions for the mainstem Sacramento River.
- ▶ Multi-Species Conservation Strategy, Technical Appendix, was used to determine consistency of the proposed project with conservation goals for particular species and community types.
- ▶ ROD for the CALFED Program was used as a source of information for the project description and to assess consistency of the proposed project with applicable programmatic actions under the Ecosystem Restoration Program as part of the Preferred Program Alternative.

For more information about the CALFED Program or CBDA, readers may review the following documents or visit the specified Web site:

- ► CALFED Final PEIS/EIR, including technical appendices, published July 2000
- ▶ Programmatic ROD in three volumes, published August 28, 2000
- http://calwater.ca.gov
- ► The CALFED Final PEIS/EIR and the ROD are available for review at CBDA, the lead agency, at the following address:

California Bay-Delta Authority, 650 Capitol Mall, 5th Floor, Sacramento, CA 95814. Telephone (916) 445-5511.

1.2.3 INTENDED USE OF THIS ENVIRONMENTAL IMPACT REPORT

This EIR will be used by CBDA and other agencies to fulfill the requirements of CEQA. It will be used as an informational document for agencies that do not have a specific permitting role for the project but that may have an interest in the project. CBDA has the principal responsibility for approving and carrying out the project, and for ensuring that the requirements of CEQA have been met; therefore, it is the lead agency under CEQA.

Responsible agencies are defined under CEQA as those (other than the lead agency) that have some discretionary approval over the project (State CEQA Guidelines Section 15381). CEQA defines certain trustee agencies as those that have state-mandated responsibilities for natural resources that are held in trust for the people of the State of California (State CEQA Guidelines Section 15386).

1.3 AGENCY ROLES AND AUTHORITIES

The agency roles and authorizations potentially required for the Sacramento River—Chico Landing Subreach Habitat Restoration Project are listed below. This list includes state agencies that may have roles as responsible or trustee agencies, and/or that may have interests in aspects of the proposed project. The three project sites are federally owned by USFWS, which has final approval for the restoration program on these lands.

LEAD AGENCY

► CBDA (approval of project funding)

POTENTIAL RESPONSIBLE AGENCY

► State of California Reclamation Board (has jurisdiction over and exercises authority for activities that would occur within a regulated stream or designated floodway) (Refer to Chapter 3, "Description of the Proposed Project," for a discussion of USFWS coordination with The Reclamation Board.)

TRUSTEE AGENCIES

- ► California Department of Fish and Game (DFG), Region 2
- ► California State Lands Commission

OTHER AGENCIES WITH POTENTIAL INTERESTS IN THE PROPOSED PROJECT

- California Air Resources Board
- ► Department of Boating and Waterways
- ► California Department of Conservation, Division of Land Resource Protection
- ► California Department of Food and Agriculture
- ► California Department of Forestry and Fire Protection (CDF)
- ► California Department of Parks and Recreation (DPR)
- ► California Department of Water Resources (DWR)
- ► California Department of Health Services (DHS)
- ► Native American Heritage Commission (NAHC)
- ► State Office of Historic Preservation (OHP)
- ► California Department of Transportation (Caltrans), District 3
- State Water Board (formerly known as State Water Resources Control Board), Division of Water Quality
- ► Regional Water Quality Control Board, Region 5 (Redding)

1.4 SCOPE AND ORGANIZATION OF THE ENVIRONMENTAL IMPACT REPORT

Pursuant to CEQA and the State CEQA Guidelines, a lead agency shall focus an EIR's discussion on significant environmental effects and may limit discussion on other effects to brief explanations about why they are not significant (Pub. Res. Code Section 21002.1, State CEQA Guidelines Section 15143). Furthermore, indication of the manner in which significant impacts can be mitigated or avoided is included among the purposes of an EIR. A determination of which impacts would be potentially significant for this project was made based on review of the analysis presented in the initial study (IS), review of the preliminary project proposal, and comments received on

the notice of preparation (NOP) issued for the project EIR. As described above, certain potential impacts of the project can be avoided by incorporating specific design elements into the project description.

1.4.1 COMMENTS ON THE NOTICE OF PREPARATION

CBDA issued an NOP on November 5, 2004, to inform agencies and the public of the preparation of an EIR on a proposed project to restore and enhance native riparian habitat on three project sites within the SRNWR. The NOP provided a general project description of the project concept and solicited the views of agencies and the public on the project and the scope of this environmental analysis. CBDA also held a scoping meeting for the public and agencies on November 16, 2004. Written comment letters were received, and comments were presented by individuals at the public scoping meeting. Appendix A of this Draft EIR contains a copy of the NOP, scoping meeting notes, and copies of comment letters received.

Comments were presented on the following issues (including references to the sections or chapters in this Draft EIR where relevant discussions are included):

- ▶ possible increases in riverbank erosion and deposition of silt downstream (Section 4.3),
- ▶ possible effects on river meander and geomorphology (Section 4.3),
- ▶ possible effect of vegetation overgrowth in downstream flood bypass areas (Section 4.3 [maintenance of flood relief structures]),
- ▶ possible effect on gravel recruitment for salmon (Section 4.4),
- ▶ possible effect on the 3Bs flood relief structure (Section 4.3),
- ▶ identification of process and funding source to ensure long-term success (Chapter 3),
- ▶ possible effects to bank swallow habitat (Section 4.4),
- possible effects following removal of the almond trees from the Dead Man's Reach project site (Section 4.3),
- ▶ possible effects on farming communities (Section 4.2 and Chapter 8), and
- ▶ possible effects on agricultural resources (Section 4.2 and Chapter 8).

1.4.3 Scope of This Environmental Impact Report

Responses to checklist questions from Appendix G of the State CEQA Guidelines are provided in the IS prepared for the proposed project (see Appendix B of this Draft EIR); as described above, these responses were key to providing the basis for determining which resource areas would not involve any potentially significant effects on the environment as a result of implementation of the proposed project. Therefore, the following resource topics are not evaluated further in this Draft EIR:

- ► aesthetics/visual resources,
- ▶ air quality,
- geology and soils,
- hazards and hazardous materials,
- mineral resources,
- noise,
- population and housing,
- ▶ public services,
- recreation,

- ▶ transportation/traffic and circulation, and
- ▶ utilities and service systems.

Refer to Section 4.1 for additional discussion of effects found not to be significant.

This Draft EIR evaluates potential environmental impacts for the following resource areas:

- agricultural resources and land uses;
- ▶ hydrology, water quality, and river geomorphology;
- ▶ terrestrial biological resources and fisheries; and
- cultural resources.

1.4.3 ORGANIZATION OF THIS DOCUMENT

This Draft EIR is organized as follows:

Chapter 1, "Introduction," summarizes the purpose, need, objectives, and scope of the proposed project; explains the scope and uses of this document; and describes the relationship of this Draft EIR to the CALFED Final PEIS/EIR.

Chapter 2, "Summary," summarizes the conclusions of the environmental analysis.

Chapter 3, "Description of the Proposed Project," describes the proposed action and project purpose, the relationship of the proposed project objectives to the goals and objectives of the CALFED Program ERP, the related planning and management efforts for the middle Sacramento River, and the proposed project characteristics.

Chapter 4, "Environmental Analysis of the Proposed Project," describes the local and regional environmental setting, the regulatory background, and the effects of the proposed project for each of the topics listed above under "Scope of This EIR."

Chapter 5, "Cumulative Impacts," describes the cumulative impacts of the proposed project.

Chapter 6, "Other CEQA-Required Sections," discusses growth-inducing effects, significant unavoidable effects on the environment, and irreversible or irretrievable commitments of resources.

Chapter 7, "Alternatives," describes the alternatives to the proposed project considered in this analysis and the evaluation of the environmental effects of those alternatives.

Chapter 8, "Socioeconomic Issues," summarizes regional data on agricultural resources.

Chapter 9, "Consultation and Coordination," describes the public scoping process and the agencies and persons consulted in preparation of this Draft EIR.

Chapter 10, "Agency Roles and Report Preparers," lists the individuals who prepared this Draft EIR.

Chapter 11, "References and Personal Communications," lists the sources of information cited throughout this Draft EIR.

Appendix A, "Project Scoping," includes the NOP issued for the project, scoping meeting notes, and copies of comment letters received.

Appendix B, "Initial Study," contains the initial study prepared for the proposed project.

1.5 DOCUMENTS INCORPORATED BY REFERENCE

In accordance with State CEQA Guidelines Section 15150, the following documents are incorporated by reference into this Draft EIR, and they are available for review at the office of the lead agency, California Bay-Delta Authority, 650 Capitol Mall, 5th Floor, Sacramento, CA 95814. Telephone (916) 445-5511. The CALFED final PEIS/EIR is incorporated by reference solely for the purpose of providing background information, to demonstrate consistency of this habitat restoration project with the overall CALFED Program, and to provide mitigation guidance. This Draft EIR contains all necessary analysis of the impacts of the proposed project, including direct, indirect, and cumulative impacts, and an analysis of alternatives to the proposed project. Relevant portions of these documents are summarized in this Draft EIR:

- CALFED Bay-Delta Program. 2000 (July). Final Programmatic Environmental Impact Statement and Environmental Impact Report and portions of the Ecosystem Restoration Program Plan. Sacramento, CA.
- CALFED Bay-Delta Program. 2000 (August 28). Final Programmatic Environmental Impact Statement and Environmental Impact Report. Programmatic Record of Decision. Sacramento, CA.
- Sacramento River Advisory Council. 2003 (September). *Sacramento River Conservation Area Forum Handbook*. Authored by Senator Jim Nielsen under Senate Bill 1086. Revised and updated by the Sacramento River Conservation Area Forum. Red Bluff, CA.
- U.S. Fish and Wildlife Service. 2002. (February). Final Environmental Assessment for Proposed Restoration Activities on the Sacramento River National Wildlife Refuge (Ryan, Ohm, Haleakala, Pine Creek, Kaiser, Phelan Island, Koehnen, Hartley Island, and Stone Units). Prepared by Jones & Stokes Associates. Sacramento, CA.
- U.S. Fish and Wildlife Service. 2005 (July). Sacramento River National Wildlife Refuge Final Comprehensive Conservation Plan and Environmental Assessment. Sacramento, CA. (This document was finalized and the Finding of No Significant Impact [FONSI] was signed on March 5, 2005. It will be available to the public in July 2005.)

1.6 STANDARD TERMINOLOGY/ACRONYMS AND ABBREVIATIONS

1.6.1 STANDARD TERMINOLOGY

The Draft EIR uses several standard terms as follows:

Sacramento River—Chico Landing Subreach Habitat Restoration Project is the proposed project, which would involve restoration and enhancement of native riparian habitat on three project sites within the Sacramento River National Wildlife Refuge (SRNWR) owned by USFWS.

Project sites refers to the three areas proposed for habitat restoration under this proposed project; the project sites are known by the names Pine Creek, Capay, and Dead Man's Reach.

Project area refers collectively to the three project sites.

Study area refers to a geographic area along the Sacramento River that extends between river mile (RM) 174 and RM 202 and generally corresponds to the study area for the hydrological analysis in this Draft EIR. This study area closely corresponds to the beginning and end points of the Chico Landing Subreach that is between RM 178 and RM 206.

Units are federal properties within the SRNWR.

Thresholds of significance means criteria that are established by the lead agency to define the level at which an impact would be considered significant. Criteria are defined by a lead agency based on examples found in CEQA or the State CEQA Guidelines, scientific and factual data relative to the lead agency jurisdiction, views of the public in the affected area, the policy/regulatory environment of affected jurisdictions, or other factors.

No impact means no change from existing conditions.

Beneficial impact means an effect that may enhance or improve an existing environmental condition.

Less-than-significant impact means no substantial adverse change in the physical environment (no mitigation needed).

Potentially significant effect on the environment (or potentially significant impact) means a potential effect that may cause a substantial adverse change in the environment (mitigation is recommended, because potentially significant impacts are treated the same as significant impacts in the CEQA process).

1.6.2 ACRONYMS AND ABBREVIATIONS

ACHP Advisory Council on Historic Preservation

Bay-Delta San Francisco Bay/Sacramento-San Joaquin Delta

BP before present

BMPs Best Management Practices

CBDA California Bay-Delta Authority
CALFED Program CALFED Bay-Delta Program

CALFED Final PEIS/EIR CALFED Final Programmatic Environmental Impact Statement and

Environmental Impact Report

CCP Comprehensive Conservation Plan
CEQA California Environmental Quality Act
CESA California Endangered Species Act

cfs cubic feet per second

CNPS California Native Plant Society

CNRFC California-Nevada River Forecast Center
CRHR California Register of Historic Resources

CTS California Toxics Rule
CVP Central Valley Project
CWA federal Clean Water Act

Draft EIR Draft Environmental Impact Report
DFG California Department of Fish and Game

DO dissolved oxygen

DOC California Department of Conservation

DPR California Department of Parks and Recreation
DWR California Department of Water Resources

EA/FONSI Environmental Assessment and Finding of No Significant Impact

EC conductivity and electrical conductivity

EFH Essential Fish Habitat

EIS Environmental Impact Statement

EPA U.S. Environmental Protection Agency

ERP Ecosystem Restoration Program
ESA federal Endangered Species Act
ESU evolutionarily significant unit

FMMP Farmland Mapping and Monitoring Program

FRS flood relief structure
FSZ Farmland Security Zone

HCP Habitat Conservation Plan

IS Initial Study

LWD large woody debris

MAF million acre-feet

MBTA Migratory Bird Treaty Act
MLD Most Likely Descendent
MOA Memorandum of Agreement

MSCS Multi-Species Conservation Strategy

MSDS Material Safety Data Sheets

ng/L nanograms per liter

NAGPRA Native American Graves Protection and Repatriation Act of 1990

NAHC Native American Heritage Commission

NCCP program Natural Community Conservation Planning program

NEPA National Environmental Policy Act
NHPA National Historic Preservation Act
NIS nonnative invasive species (weeds)

NOAA Fisheries National Oceanic and Atmospheric Administration Fisheries

NOI Notice of Intent
NOP notice of preparation

NPDES National Pollutant Discharge Elimination System

NRHP National Register of Historic Places

NWS National Weather Service

OES State Office of Emergency Services

PFMC Pacific Fisheries Management Council

PRBO Point Reyes Bird Observatory

Reclamation U.S. Bureau of Reclamation

Regional Board(s) regional water boards of the State Water Board (see below) (formerly referred

to as RWQCB[s])

RM river mile

ROD Record of Decision

SB Senate Bill

SHPO State Historic Preservation Officer

SRA shaded riverine aquatic

SRCA Forum Sacramento River Conservation Area Forum

SRCA Sacramento River Conservation Area
SRFCP Sacramento River Flood Control Project
SRNWR Sacramento River National Wildlife Refuge

SRWA Sacramento River Wildlife Area

SRWP Sacramento River Watershed Program

State State of California

State Water Board State Water Resources Control Board
SWPPP Storm Water Pollution Prevention Plan

TDS total dissolved solids

The Reclamation Board State of California Reclamation Board

TMDL total maximum daily load TNC The Nature Conservancy

USACE U.S. Army Corps of Engineers USFWS U.S. Fish and Wildlife Service

USGS U.S. Geological Survey

WCB Wildlife Conservation Board WDRs Waste Discharge Requirements

1.6.3 Public and Agency Review of the Environmental Impact Report

This Draft EIR is being distributed to agencies and individuals to ensure that interested parties have an opportunity to express their concerns about the potential environmental effects of the proposed project, and to ensure that information pertinent to project approval is provided to agency decision makers. The Draft EIR is being distributed for a 45-day review period through August 3, 2005. Comments on the Draft EIR should be sent directly to the attention of Ms. Rebecca Fris at CBDA, the lead agency, at 650 Capitol Mall, 5th Floor, Sacramento, CA 95814.

Once all comments have been assembled and reviewed, CBDA will prepare written responses to comments that raise significant environmental issues.

This document is available for review by the public at California Bay-Delta Authority (650 Capitol Mall, 5th Floor, Sacramento), the Chico Branch of the Butte County Library (1108 Sherman Avenue, Chico), the Colusa County Free Library (738 Market Street, Colusa), Princeton Branch Library (232 Prince Street, Princeton), the Tehama County Library (645 Madison Street, Red Bluff), and Scotty's Landing (12609 River Road, Chico).

